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Moyo, Cynthia

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THE ROLE OF INSTITUTIONAL ARRANGEMENT IN THE DEVELOPMENT OF THE AGRO-PROCESSING SECTOR (2011-2015)

CYNTHIA MOYO

A research report submitted to the Faculty of Commerce, Law and Management of the University of the Witwatersrand, Johannesburg in part fulfilment of the requirements for the degree of Masters of Management in Public Policy (MM-PP).

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LIST OF ACRONYMS

ANC	African National Congress
ATA	Agricultural Transformation Agenda
DAFF	Department of Agriculture, Forestry and Fisheries
DRT	Department of Roads and Transport
DTI	Department of Trade and Industry
ETDZ	Economic and Technological Development Zones
EU	European Union
FABCOS	Foundation for African Business and Consumer Services
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GDARD	Gauteng Department of Agriculture and Rural Development
GEAR	Growth, Employment and Redistribution
HDI	Human Development Index
IDC	Industrial Development Corporation
IDMS	Infrastructure Development Management System
IGR	Intergovernmental Relations
IPAP	Industrial Policy Action Plan
MOU	Memorandum of Understanding
NAMC	National Agricultural Marketing Council
NDP	National Development Plan
NEF	National Employment Fund
NGP	National Growth Path
NIPF	National Industrial Policy Framework
NPC	National Planning Commission
OECD	Organisation for Economic Co-operation and Development
POSCO	Pohang Steel Company
PSC	Project Steering Committee
R&D	Research and Development
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Finance Agency
SEZ	Special Economic Zones
SIP	Strategic Integrated Project
SMME	Small, Medium and Micro Enterprise
SOE	State-Owned Enterprises

ABSTRACT

The study unpacks institutional arrangements which were available when developing the agro-processing manufacturing sector with the milling industry as a case study in the period 2011-2015. In-depth interviews were conducted with the respondents from five institutions (DTI, DAFF, IDC, NAMC and GDARD), FABCOS and Old Mutual Masisizane Fund respondents did not owner the interview invitation which led to the study relying more on secondary data.

The key findings revealed that there are common factors that have been contributing to the inefficiencies in policy implementation which includes territorial disputes and policy inconsistency. The study also learnt that there were no concrete institutional arrangements on the ground, thus the network was weak or non-existent. Issues of coordination, information sharing, business practices and moral hazard among the few factors contributed to little or no current visible successes to date which led to policy and network failure.

Therefore, industrial policy durations must be introduced to the project at planning phase to avoid lack of participation at implementation phase. Involved institutions need to understand and play their roles rather than focus on how well institutional arrangement is integrated to avoid weak network systems (Provan & Milward, 1995). The institutional arrangements between government and private sector need to be strengthened to avoid or minimize poor business practices on entrepreneurs once they have received funding. Thus, within network systems, mentoring institution need to be included to ensure that businesses are run effectively.

Moreover, government need to work together with DFIs for funding purposes as this will ensure that their priority areas are also considered by DFIs when identifying their strategic areas. Agricultural policies must be drafted together with industrial policies because both policies strive to contribute to the national long-term vision such as job creation, poverty alleviation and reduction in inequality (Briones & Felipe, 2013).

DECLARATION

I, Cynthia Moyo, declare that this research report is my unaided work. It is submitted in partial fulfilment of the requirements for the degree of Masters of Management in Public Policy (MM-PP) in the University of Witwatersrand, Johannesburg. It has not been submitted before for any degree in this or any other academic institution.

_____

Cynthia Moyo

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CHAPTER ONE

1. INTRODUCTION

1.1.Introduction

Agro-processing sector is a critical strategy for several government policies due to its potential to drive growth, create jobs and reduce poverty (The Department of Trade and Industry, 2018). The sector encompasses highly diverse group of sub-sectors and industries (The Department of Trade and Industry, 2018). The main sub-sectors include but not limited to food processing, beverages, aquaculture, horticulture, and medicinal, aromatics and flavourants (The Department of Trade and Industry, 2011 and The Department of Trade and Industry, 2013). According to The Department of Trade and Industry (2013), the food processing sector is currently the largest manufacturing sector with regards to job development. This leaves the food processing and manufacturing sub-sectors being the only sub-sectors defining the agro-processing in terms of data continuity (The Department of Trade and Industry, 2013).

Furthermore, the agro-processing's strong linkage to consumer preferences has led to the domestic market representing an attractive prospect for the sector (The Department of Trade and Industry, 2011). However, most of the agro-processing sub-sectors have an anti-competitive behaviour which negatively impacts their pricing mechanism (The Department of Trade and Industry, 2011). Thus, the development of the milling sector could be viable with moderate government intervention (The Department of Trade and Industry, 2011). This may not guarantee an increase in job creation but play a crucial part in basic food product pricing hence reducing hunger, poverty and creating competitive priced sub-sectors (The Department of Trade and Industry, 2011).

In continuation, Gauteng Department of Agriculture and Rural Development (GDARD) identified that participation in agro-processing by small and medium business was still limited and the dominance of big business created enormous barriers to entrance (GDARD, 2020). The small and medium business were faced with challenges for example, shortage of finance, markets, technical entrepreneurial skills as well as lack of infrastructure (GDARD, 2020).

Subsequently, the DTI developed the Industrial Policy Action Plan (IPAP) which was adopted by the South African parliament in August 2007 to accelerate industrialisation through the expansion of the manufacturing sector (The Department of Trade and Industry, 2007). The

IPAP was a formal network approach for a collaborative strategy for policy implementation, with the DTI as the lead department in the execution (The Department of Trade and Industry, 2007). It has gone through multiple reviews as new projects are developed every financial year (The Department of Trade and Industry, 2011). In 2011, the agro-processing sector was incorporated into the IPAP to promote manufacturing in the agricultural sector and facilitate increased competition, growth, formation of jobs and easing poverty (The Department of Trade and Industry, 2011). In the past 15 years, agro-processing has shown a rapid growth in sales and employment (The Department of Trade and Industry, 2018). Meanwhile in the past 10years, the South African agro-processing sector has contributed meaningfully to GDP, with approximately R14,5 billion in 2016 of total investment (The Department of Trade and Industry, 2018). The sector contributed ZAR 80 billion (21%) to the overall GDP manufacturing in 2016 (The Department of Trade and Industry, 2018). In employment, sector contributed 21% and new markets such as fruits and wine were represented in Middle East and China (The Department of Trade and Industry, 2013 and The Department of Trade and Industry, 2018).

Therefore, to ensure effective development of the agro-processing sector, a range of empirical evidence has shown that collaboration between various government, non-governmental institutions, media and communities is critical (Barrett & Lee, 2005). Policy implementation supported by effective and well-coordinated institutions is most likely to yield expected policy outputs (Mabena, 2011).

Thus, the study aims at understanding the structure, functions, challenges and effectives of the institutional approach of the IPAP, which was used in the implementation of the industrial policy with specific focus on the agro-processing manufacturing sector and milling industry as a case study in the period 2011-2015. The theoretical framework guiding the study in the scrutiny and understanding the findings was network theory because institutional arrangement(s) are a system of formal network(s) of institution.

Therefore, this report will firstly highlight the problem statement, objectives and research questions for the proposed study. Thereafter, the report will discuss the literature which entails institutional arrangements, policy implementation, industrial policy, agro-processing in South Africa and looking at best practices in other countries such as European, Egypt, Kenya, Nigeria and East Asian. These case studies will assist the study to draw lessons for South Africa to consider. Moreover, the report will further discuss the theoretical framework with special focus

on the network theory which helped the study understand the functioning of the institutions involved in the development of the agro-processing spectrum. And lastly, the research methodology will be reviewed which includes conceptual framework, study unit and limitations of the study. Subsequently, present the data emanating from interviews together with literature through table (Table 1) and discuss the data in detail. After presenting the data, the study will provide the analysis of findings which aims at responding the research questions and objectives rather than the interview questionnaire. In conclusion, recommendations considering interview findings and readily available secondary data will be provided.

1.2. Problem Statement

Collaboration between government departments and institutions is imperative for the development and implementation of a public policy document (Hajer, 2003). One of the South African public policy document (Industrial Policy Action Plan known as IPAP) was introduced as a tool to address challenges faced by the different manufacturing sectors (The Department of Trade and Industry, 2007). IPAP came into effect in August 2007 and the agro-processing sector was incorporated into the IPAP in 2011 due to its huge potential for job creation among the few (The Department of Trade and Industry, 2011). In 2011/12-2013/14 IPAP, small-scale milling sector was prioritised for intervention under the agro-processing spectrum to address challenges in the sector such as lack of funding, compatible technology and anti-competitive behaviour (The Department of Trade and Industry, 2011).

The Department of Trade and Industry coordinated directly or indirectly with various institutions to address the challenges in the milling sub-sector to enable development and diversification with regards to participation of small and medium enterprises. The various institutions included, public sector departments, private sector, financial institutions and institutions in research and development. However, the government has failed in realising the objectives of this policy, in line with the industrialisation of the sector, employment creation and poverty alleviation. This failure is against the backdrop of government's collaboration with capable institutions and the country's good infrastructural network, which have been significant in the achievement of East Asian industrial policy (Chang, 1997 and Stiglitz, 2016).

Therefore, an understanding of the arrangements and co-operation between the DTI and other public as well as private institutions is critical to assess the progress of policy implementation for agro-processing sector development. The institutional arrangements during policy

implementation can be understood through the network theory. The theory is relevant because institutional arrangements are a system of formal relationships of institution (Hazlehurst, 2001 and Börzel, 1998). Furthermore, institutional arrangements are non-hierarchical relationships that strive to realise the common goals and have administrative strategy and control dispersed among the different agents (Blair, 2002; Börzel, 1998 and Hazlehurst, 2001).

The network theory also recognise that networks are not only constrained by internal limiting mechanisms such as culture, policy and procedure but are also vulnerable to external limiting factors such as policy mandates, economic conditions and political climate (Mischem & Jackson, 2008). Thereby, a proper comprehension of these interconnections, their consequent effects on the structure and the function of each network is important for effective understanding of the functioning of a network system in the real world (Borgatti et al., 2009). The network theory was, therefore, critical in understating the structure and interrelationships of the institutional arrangement in place for the development of the agro-processing sector.

1.3.Objectives

The main objective of the report is to unpack the institutional arrangements involved when developing the Agro-processing in the period 2011-2015 through applying the network theory principles. Secondary objectives were;

I. To identify the institutions involved when developing the Agro-processing sector and roles thereof

II. To understand the constraints to the functioning of network theory systems for the expansion of the agro-processing sector

III. To apply principles of the network theory in understanding the linkages between the involved institutions

1.4.Research Questions

1.4.1. Primary research question

The main question seeks to assess the institutional arrangements and challenges faced within the Agro-processing sector.

1.4.2. Secondary research questions

a. Which institutions were involved and roles thereof?

b. What are the types of constraints faced by institutional arrangements?

c. How does the network theory help unpack the involvement of more than one institution?

1.5.Chapter Outline

Chapter 1: This chapter introduces the topic, purpose thereof and the structure of the report. It discusses the problem statement (the reason why this specific study), objectives (what the study aims to achieve) and research questions (the questions to be responded by the study to achieve the objectives.

Chapter 2: This chapter discusses the literature which entails institutional arrangements, policy implementation, industrial policy, agro-processing in South Africa. It further looks at the best practices from various countries such as European, Egypt, Kenya, Nigeria and East Asian because they are among other countries successful in the implementation of their industrial policy and development of the agro-processing sector. The chapter further discusses the various theories in public policy implementation with special focus on the network theory for analysing the study and how IGR influences policy implementation.

Chapter 3: The following chapter deliberates the research methodology which includes but not limited to conceptual framework, study unit, research philosophy, instruments of data collection and target population.

Chapter 4: The chapter presents how the institutional analysis and network theory using five themes (institutional arrangements, roles and responsibilities, funding, enterprise development and stakeholder engagement) in analysing the survey and secondary data help to understand policy implementation with special focus on small-scale milling sector development project.

Chapter 5: The chapter analysis the findings presented in chapter 4 taking into account the objectives and research questions of the study.

Chapter 6: The section concludes all the chapters and provide recommendations to consider when dealing with public policy implementation using institutional analysis, IGR and network theory.

1.6.Conclusion

Institutional arrangements are important and formal mechanisms to ensure optimal policy development and implementation by the government, through collaboration with various stakeholders. However, arrangements can be constrained by several factors and this subsequently impact policy implementation resulting in policy failure or sub-optimal results. Thereby, the network theory was used to analyse and understand the relationships among, capabilities and strategic roles of institutions, as well as challenges in institutional arrangements in the development of the agro-processing sector under IPAP.

CHAPTER TWO

2. LITERATURE REVIEW

2.1.Introduction

Badenhorst (2007), states that literature review is definite to academic research. The study can locate the research using the existing body of knowledge, discuss previous research and theoretical frameworks due to literature review (Badenhorst, 2007). Lastly the study is able to benchmark the research, indicating how the findings are related to other academic findings using literature review (Badenhorst, 2007).

This section will discuss the literature which entails institutional arrangements, policy implementation, industrial policy, agro-processing in South Africa and also looking at best practices from other countries such as European, Egypt, Kenya, Nigeria and East Asian because they are among other countries successful in the implementation of their industrial policy and development of the agro-processing sector. This is important to understand the various lessons for South Africa to consider for enhancing its industrial policy successes and development of the agro-processing sector.

In addition, the section highlights the successful models from the various countries around the globe to establish the strategies, challenges thereof, and co-operation by government with other institutions. Upon establishing the nature and strategic functioning of the networks in policy implementations, recommendations were provided for South Africa to consider. Finally, the literature review gave an overview of some theories applied in public policy implementation and an in-depth review of the network theory, which was the theory used in this study to understand the structure and functioning of institutional arrangements for developing the agro-processing sector.

2.2.Institutional arrangements and policy implementation

Institutional arrangements enable policy implementation through collaboration between government and other various institutions, to effectively achieve policy objectives (van Meter & van Horn, 1975 and Brynard, 2005). Government's ineffectiveness in achieving on policy deliverables when acting on its own consequently necessitated collaboration with other institutions to achieve socially and economically optimal growth (Bryson et al., 2006). Thus, institutional arrangements enable non-governmental stakeholders to perform a critical role in formulation and implementation of policy through well-co-ordinated engagement with

government (Hajer, 2003). Therefore, the analysis in this study was based on theories that support public policy implementation as these emphasise the different contributions from different institutions required for the implementation process.

According to De Groff & Cargo (2009), policy implementation is when programs and procedures from transformed government decisions are aimed at social betterment. The above is in line with the study which is based on policy (IPAP) implementation adopted by the government (The Department of Trade and Industry, 2007). It is noteworthy to mention that there is no universal definition for institution. Therefore, for this study, the definition of Jepperson (2001), that defines an institution as any social pattern that is characterised by standard sequences of interaction, was adopted.

Institutions enable the implementation of every form of collective behaviour, collective action and allow a collective agenda or policy issue to be addressed in one platform through institutional arrangements (Klijn & Koppenjan, 2006). Therefore, organisations will be motivated to participate in institutional arrangements if the benefits of the arrangement outweigh the cost of maintaining the relationships, such as any potential loss of operating and decision-making capacity (Provan & Milward, 1995). In other words, institutional arrangements facilitate a formal collaboration between relevant stakeholders such as, private sector, educational institutions and government to enable development and implementation of effective policy actions since the approach takes into consideration the fiscal and local capacity constraints (Naidoo, 2003 and Bryson et al, 2006). The arrangements enable active solicitation of non-government resources, experience and expertise to supplement government thereby enabling effective policy implementation (Naidoo, 2003).

Therefore, the policy and legislative framework is a critical tool to inform and guide policy formulation and implementation. Institutional arrangements are effective when guided by a policy and legislative framework that take into account socio-economic dynamics and encourage active participation of non-governmental agents such as private business, civil groups, labour and non-profit organisations (Hoon Lim et al., 2013). Furthermore, policies that promote economic growth and development are extensively supported by collaboration amongst institutions that bring diversity into the institutional arrangement (Cox & McCubbins, 1997 and Williamson, 2009).

2.3.Policy implementation and challenges in South Africa

According to van Meter & van Horn (1975), policy implementation is argued as a set of well-structured and programmed operations and projects to achieve targeted outcomes and desired impacts. This section will discuss some of the key challenges in South Africa of policy implementation with the collaboration between public and private institutions.

Deviations from policy goals during implementation is a result of impracticable policies, shortage of managerial know-how, insufficient coordination amongst different stakeholders, insufficient human capital and capacity in the three spheres of government and linkages thereof (Brynard, 2005). Although a cluster system involving several national and provincial departments with related functions has had some success in South Africa in policy planning and implementation (Brynard, 2005). However, technical committees responsible have to a larger extent failed to achieve interdepartmental cooperation at broader level (Brynard, 2005).

According to Naidoo (2003), the separation of powers with several agents and diverse preferences leads to policy indecisiveness and ultimately hampers policy implementation. Moreover, factions within the ruling party results in high turnover of cabinet, ministers and bureaucrats and this consequently leads to institutional memory loss and deficiencies in policy implementation (Naidoo, 2003 and Witbooi ,2006). Inter-party relationships also impact policy implementation significantly (Naidoo, 2003).

Witbooi (2006), reported that policy implementation was hampered by court challenges to contend certain allocation decision. A deficiency of mutual understanding on key conversion objectives in fisheries has been a core problem with the Marine Living Resource Act of 1998 (Witbooi, 2006). This gave effect to the new national fisheries policy publication of 1997 with the goals of equity, sustainable and equity in the fishing sector (Witbooi, 2006). Bato Star Fishing Pty (Ltd) successfully challenged the quota allocation in the lake season in 2002 (Witbooi, 2006). Foodcorp Pty (Ltd) also successfully appealed a review of the allocation of commercial rights to pelagic fish for the 2000-2005 season against the Department of Environmental Affairs and Tourism (Witbooi, 2006). In 2001 Golden arrows bus services, a local bus operator in the Western Cape, took the Department of Transport to court after the department failed to meet the requirement of the National Land Transport Transition Act which has been repealed and replaced by the National Land Transport Act stipulating that services had to be put out to tender based on public transport plans (Witbooi, 2006).

Walters (2014), also identified several shortcomings in public transport policy implementation. The lack of sustainable funding model for funding the contractor system for subsidized bus operators through a tendering and a competitive system was a major constraint (Walters, 2014). Organised labour also had concerns about the impact of the subsidized tendering system on job security and wage levels (Walters, 2014). Furthermore, intricated relationships between national, provincial, local government and the incorporated public transport agencies severely hampered the integration of the public transport services for an optimal mix of transport at a sustainable cost and socio-economic benefits (Walters, 2014). Shortage of human capital, technical resources, imperfect management processes and ineffective oversight by the central government over the functions of the relevant institutional structures was also identified as significant impediments to policy implementation (Walters, 2014).

Moreover, Intergovernmental Relations (IGR) as a platform to ensure full coordination of various government spheres, who share common interest, also assist in guiding the development and implementation of public policy (DRT, 2020). For example, the transport IGR consist of local municipalities, transport agencies, provincial department, national Department of Transport and local communities (DRT, 2020). The Department of Roads and Transport seek to integrate a transport system which is accessible, reliable and affordable for residents of Gauteng (DRT, 2020). Therefore, the IGR is mandated to discuss joint planning, coordinating all spheres of government and transport agencies towards the objective of the Department of Roads and Transport (DRT, 2020).

The IGR systems are very important in policy making, planning and implementation (Malan, 2005). The success and establishment of various institutional arrangements for IGR structures assumes that all spheres of government collaborate with one another in good faith, mutual trust and fully execute their expected roles (Malan, 2005). Ineffective operation of IGR in South Africa always result in project failure (Malan, 2005). Thus, IGR coordinating structures between national and provincial levels, face numerous challenges that affect effective and efficient policy implementation and service delivery (Olivier, 2002 and Malan, 2005).

For instance, the Committees of Ministers and Members of Executive Councils (MINMEC) for various structures as Local Government and Social Development created for promoting executive IGR in South Africa experienced numerous challenges (Malan, 2005). These includes but not limited to committees being informal, thus, leading to them not having tangible decision -making powers hence low-ranking officials attending the meetings (Mentzel & Fick,

1996 and Malan, 2005). There was always a variety of processes and structures which existed but the roles and interrelationships remained uncertain (Malan, 2005). The management of programmes was mainly based on issues of jurisdiction between departments whilst policy priorities cut across ministerial mandates (Malan, 2005). Thus, poor incorporation of services at community level, replication and inability to forge collaborative partnerships (Layman, 2003 and Malan, 2005).

IGRs in South Africa are plagued by lack of leadership capacity, poor work ethics and systematic challenges (Kuye & Ile, 2007). Moreover, the competitive nature, rather than complementary of the relationships between politicians and bureaucrats has resulted in severe weakening of IGR (Ile, 2010). The decentralized or disintegrated policy planning is also a major obstacle to coordinate collaborations during policy implementation and service delivery (Ile, 2010). The lack of technical capacity within the government spheres or ministries significantly impact coordination and consequently effectiveness of the IGRs (Ile, 2010). The lack of clear functional roles for the different actors also significantly affect coordination (Visser, 2009).

Therefore, the establishment of institutional arrangements with sustainable funding, effective, skilled and experienced leadership, active constituting groups from private sector has a huge potential to ensure effective policy implementation (Naidoo, 2003 and Walters, 2014). Moreover, centralised control of institutional arrangements is important to effectively coordinate and manage complex network linkages involved in the arrangements (Provan & Milward, 1995). Institutional arrangements with decentralised control thus general have deficiency in organisation and effectively operating as a complete system to effectively deliver on their policy mandates (Provan & Milward, 1995).

2.4.Industrial Policy

2.4.1. South Africa's Industrial Policy Overview

According to Azarhoushang (2013), industrial policy is a "strategic plan for improving growth and development in manufacturing sector" (p.118). During the apartheid regime, the South African's industrial policy had too many objectives such as building up of Afrikaaner capital, job creation of Afrikaaner workers and military objectives (Chang, 1997). This led to ultimately undermining its viability in the long run (Chang, 1997). Hence, the end of apartheid resulted in such policy being argued to be politically unacceptable and economically unsustainable

(Chang, 1997). Thus, the new South African government had to find an alternative industrial policy framework (Chang, 1997).

Based on the above shift, the first policy to be approved by the democratic state was the Reconstruction and Development Programme (RDP) in 1994 (Trade & Industrial Policy Strategies, 2016). However, the policy had no prominence on industrial structure but focused on remedying the inequalities of the apartheid regime (Trade & Industrial Policy Strategies, 2016). One of its key programmes was building the economy over savings and the state having to lure investors to increase investment (Trade & Industrial Policy Strategies, 2016). The assumption was that an equal wealth and income distribution can be achieved through higher investments (Trade & Industrial Policy Strategies, 2016).

Notwithstanding the above, in 1996, the Growth Employment and Redistribution Strategy (GEAR) was approved by African National Congress (ANC)-led government (Trade & Industrial Policy Strategies, 2016). The GEAR included the following economic policies (fiscal, monetary and exchange rate, trade, industrial and small enterprise) (Trade & Industrial Policy Strategies, 2016). Promoting and supporting domestic markets to increase productivity capacity and competitiveness in the global market was the main objective of GEAR (Trade & Industrial Policy Strategies, 2016). Furthermore, the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) was implemented in 2006 (Trade & Industrial Policy Strategies, 2016). The policy focused on investment in infrastructure, skills and education initiatives with the aim of closing the breach between the "first" and "second" economy and promoting the development of the black capitalist through Broad Based Black Economic Empowerment (BBBEE) (Trade & Industrial Policy Strategies, 2016). During the AsgiSA phase, performance of trade was not viewed as one of the most important restriction (Trade & Industrial Policy Strategies, 2016).

The above three mentioned policies failed to trickle down the designed outcomes. This led to the government taking a more antagonistic approach to development aiming at diversifying the economy, reducing unemployment and poverty by introducing the South African National Industrial Policy Framework (NIPF) in 2007 (Trade & Industrial Policy Strategies, 2016).

The NIPF solid emphasis was on the manufacturing sector as a key driver of balanced development (Trade & Industrial Policy Strategies, 2016). Through IPAP addressing cross-cutting and sector-specific constraints, this set a framework and an implementation mechanism of NIPF (Trade & Industrial Policy Strategies, 2016). In other words, IPAP gave teeth to NIPF

thus “NIPF encapsulates the framework and rationale for supporting industrial growth in South Africa, and IPAP concretises this through strategic interventions to priority industries, with special focus on manufacturing” (Trade & Industrial Policy Strategies, 2016, p.19).

The IPAP came into effect in August 2007, but the focus of the proposed Masters study will be dated from 2011-2015, because the agro-processing manufacturing sector gained momentum on IPAP during IPAP2 (2011/12 – 2013/14) financial year after the adoption of the NDP (The Department of Trade and Industry, 2007 and The Department of Trade and Industry, 2011).

In 2011, agro-processing sector was incorporated into the IPAP due to its huge potential for job creation among the few (The Department of Trade and Industry, 2011). In 2011/12-2013/14 IPAP, small-scale milling sector was prioritised for intervention under the agro-processing spectrum due to the challenges faced by the sector such as lack of funding and compatible technology (The Department of Trade and Industry, 2011). The policy imperative was clear, the DTI needed to introduce competition into the milling sector not only for competition reasons but also to spur innovation in the sector and to encourage industry incumbents to re-think their business models (The Department of Trade and Industry, 2011).

2.4.2. Agro-processing

The agro-processing sector was incorporated into the IPAP in 2007, due to its huge potential for job creation and growth in the market for convenience food (The Department of Trade and Industry, 2011). The sector was worthy ZAR 80 billion (21%) to the total GDP contribution in manufacturing sector in 2016. In employment, sector contributed 21% and new markets such as fruits and wine were represented in Middle East and China (The Department of Trade and Industry, 2013 and The Department of Trade and Industry, 2018).

The economic potential of agro-processing lies in the strong upstream and downstream linkages which are the primary agriculture sector and whole retail sector, respectively (The Department of Trade and Industry, 2015). According to Gauteng Department of Agriculture and Rural Development (2015), the term agro-processing manufacturing is simply the transformation of products originating from agriculture, forestry and fisheries to consumable commodities. In other words, primary agriculture needs to take place for agro-processing manufacturing to exist. Therefore, through the IPAP, NDP and the State of the Nation Address 2017-2019, agro-processing manufacturing has been identified as a potential sector for solving

the country's macro-economic challenges (unemployment, poverty and inequality to mention a few) (The Department of Trade and Industry, 2015 and NPC, 2013).

The NDP identified a deficiency in broad partnerships as the major reason for the slow progress or failure in policy implementation (NPC, 2013). Moreover, one of the key action plan was to boast private investments in labour intensive industries/sector (NPC, 2013). Thus, collaboration between government, the private sector as well as research and development institutions was crucial for the implementation of the IPAP and development of the agro-processing sector.

The Department of Agriculture, Forestry and Fisheries (DAFF) developed and adopted the Agricultural Policy Action Plan (APAP) in 2014 to address the aims of the NGP, 2011; NDP, 2011 frameworks and complement the IPAP, 2011 which identified agriculture and agro-processing as key economic development and employment drivers (Department of Agriculture, Forestry and Fisheries, 2012). The APAP key policy levers were to promote equality, transformation, growth, competitiveness and environmental sustainability and these were in line with the IPAP, 2011; NGP, 2011 and NDP, 2011 goals (Department of Agriculture, Forestry and Fisheries, 2012). The APAP aimed at effectively alleviating unemployment through inclusive rural development, securing food security and environmental sustainability as set out in IPAP, 2011; NGP, 2011 and NDP, 2011(Department of Agriculture, Forestry and Fisheries, 2012). The APAP was set to address productivity enhancement programs focusing on the relationship between agriculture and agro-processing (Department of Agriculture, Forestry and Fisheries, 2012).

Furthermore, GDARD identified that participation in agro-processing by small and medium business was still limited and the dominance of big business created enormous barriers to entrance (GDARD, 2020). The small and medium business were faced with challenges for example, limited financial access, markets, technical entrepreneurial skills as well as lack of infrastructure (GDARD, 2020). Therefore, DAFF undertook the task to engage industrial and academic partners to facilitate avenues to solve entrepreneurial support, enterprise development, infrastructure development as well as research and development to fast track the participation of small and medium business in agro-processing and consequently enable the economy to realise its full potential (GDARD, 2020).

The DAFF consequently signed an MOU with the innovation hub and SEDA, and in 2015 there were currently 12 entrepreneurs undergoing an entrepreneurial skills development at the Coach Lab hosted by the innovation hub. The MOU was also signed with Tiger Brands and Massmart for supplier development of start-ups (GDARD, 2020). Moreover, DAFF collaborated with Council for Scientific and Industrial Research and Agricultural Research Council for the research and development of Moringa commercializing (GDARD, 2020).

Finance and development institutions perform a noteworthy function in the policy implementation to provide finance and expertise for both knowledge and business development (Industrial Development Corporation, 2019). The Industrial Development Corporation also has an Agro-Processing Competitiveness Fund for research in agro-processing field (Industrial Development Corporation, 2019). The fund was used for a two-year research study to investigate the feasibility of commercialising Moringa (Industrial Development Corporation, 2019). Moreover, the IDC provides funds to new business in the agro-processing sector for beverage, horticultures, forestry, fishing and aquaculture as well as livestock (Industrial Development Corporation, 2019). For instance, in 2018, the IDC provide a ZAR 39 million capital injection to Makhamisa Foods for operational cost in their newly acquired factory which was critical for their expansion (Industrial Development Corporation, 2019). In addition, the IDC offered funding to Saucy secrets to enable the company to obtain the necessary accreditations, expand its product lines to squashes and cooldrinks as well as print packaging in-house (Industrial Development Corporation, 2019). Interestingly, the IDC works with government departments such as the DTI and other government agencies such as SEDA, SEFA and NEF (Industrial Development Corporation, 2019).

In an effort to address food security and empower small business, the DTI identified and funded, through their manufacturing investment program, small-scaling milling as a strategy for the IPAP implementation and agro-processing development (The Department of Trade and Industry, 2019). The DTI in collaboration with the African Micro mills launched the first Kuvusa mill in 2012, which the DTI's respondent during the interview argue that the mill failed due to business practises (The Department of Trade and Industry, 2019). This first of many mills, was aimed at poverty alleviation and rural development (The Department of Trade and Industry, 2015). The DTI played a crucial role in providing funding while African Micro mills was central in technology development feasible for small scale milling. At the time of the Kuvusa mill launch, the DTI was in negotiation with Old mutual, IDC and NEF to fund other

milling projects such as the Soweto mill and IL MOLINO Speciality Grains (The Department of Trade and Industry, 2015 and The Department of Trade and Industry, 2019).

Despite significant investments into research and business development in the agro-processing sector, South Africa remains a net importer of agro-processed products (The Department of Trade and Industry, 2018). Lack of investment in infrastructure processing facilities in rural economies is still a major impediment (The Department of Trade and Industry, 2018). In order to close the technology gap and consequently improve production efficiency as well as product quality and competitiveness in export markets, research and development is key (The Department of Trade and Industry, 2018). Moreover, barriers of entrance to formal markets by new producers is still a major issue in the development of the agro-processing sector (The Department of Trade and Industry, 2018). The lack of capacity of rural municipality to provide water and electricity and input constraints also needs urgent intervention to ensure successful development of the agro-processing sector (The Department of Trade and Industry, 2018).

Therefore, a wide range of issues have hampered the development of a competitive and self-sustainable agro-processing subsector that can advance the needs of the country (The Department of Trade and Industry, 2018). Consequently, it is imperative to have formal or informal collaborations between stakeholders in the public, private sector and civil groups to effectively use the policy tool (IPAP) in the development of the sector (The Department of Trade and Industry, 2018). The sections below will assess policy implementation cases in Asia, Europe and Africa to establish success factors and potential risks to be avoided during policy implementation. Moreover, the network theory will be reviewed as a tool that is appropriate in describing and explaining the collaboration between public and private sector as well as civil organisation during policy development and implementation.

2.4.3. Industrial Policy in East Asia Case

The East Asian big counties' industrial policy was highly characterised by pursuit of policies that targeted a set of specified key sectors and activities to promote economic growth (Azarhoushang, 2013). The policy approach in East Asia, similar to South Africa, includes intervention by the public sector to redress a number of existing and identified market failures.

During 1978, China designed and implemented sound industrial policies with the primary aim to attract Foreign Direct Investment (FDI) in industrial sectors to improve capital industrial sector, increase productivity and job creation (Azarhoushang, 2013). The government designed and implemented polices to target, nurture and protecting a few key industrial sectors

(Azarhoushang, 2013). The targeted industries were supported financially and nurtured through developing other policies such a domestic cartels and mergers to protect them and enable the industries to compete internationally (Azarhoushang, 2013). Moreover, China increased import barrier and controlled foreign capital to protect industries against foreign companies (Azarhoushang, 2013).

Despite the Chinese government using FDI, its openness was limited and gradual, for example foreign export-oriented companies would be allowed in China without access to local markets to protect domestic markets and restrict them from sending profit back to their country of origin (Azarhoushang, 2013). With such principle, China's attraction to foreign firms became so limited and could not meet the designed outcomes (Azarhoushang, 2013).

Consequently, China changed the implementation mechanisms post-1980s and began to invest on infrastructure, changed regulations and laws in favour of foreign investors, opened Special Economic Zones (SEZs) and moved towards a more liberalised market system (Azarhoushang, 2013). Foreign firms would invest in three different ways (wholly owned companies, equity ventures and contractual joint ventures) (Azarhoushang, 2013). High tech wholly owned foreign companies worked in SEZs and Economic and Technological Development Zones (ETDZs) in 1986 and foreign companies could do business in the form of contractual joint ventures in 1988 (Azarhoushang, 2013).

During the 1990s, FDIs in China started increasing and gaining momentum (Azarhoushang (2013). The State-Owned Enterprises (SOEs) were forced to upsurge their efficiency and the unproductive ones were sold to private sectors (Azarhoushang, 2013). In 1995, the *Interim Provisions on Guiding Foreign Investment and Catalogue for the Guidance of Foreign Investment Industries* was issued in accordance with the expansion policies and countrywide economic plan (Azarhoushang, 2013). The new rules stated that the foreign companies need to focus on projects which are in line with the national plan as identified by the Chinese government (Azarhoushang, 2013). In 2002, the *Provisions of Guiding the Orientation of Foreign Investment* was passed with the intentions of dividing savings into four categories (encouraged, permitted, restricted and prohibited) (Azarhoushang, 2013). Foreign investors were encouraged through other packages to invest in areas favourable to China's development plan (Azarhoushang, 2013).

Despite all the existing laws, China modified the *Catalogue for the Guidance of Foreign Investment Industries* in 2002, 2004 and 2007 (Azarhoushang, 2013). The amendments

increased the number of industries under stimulated category, however, traditional manufacturing sectors and export-oriented firms were discouraged meanwhile environmentally high end services and investment were encouraged (Azarhoushang, 2013). Subsequently, the Chinese government then issued the *Anti-Monopoly Law* in 2007 for protecting fair competition and giving the government powers to control the market against monopolistic approach (Azarhoushang, 2013). Finally, the *Catalogue for the Guidance of Foreign Investment Industries* was edited for the last time in 2011 to exempt manufacturing of the entire automobile from encouraged category and only have high-tech industries such as aerospace, manufacturing internet equipment, software and chips with various incentives packages (Azarhoushang, 2013).

Based on the Chinese approach, the design and implementation mechanism was finally successful at the end in attracting the foreign companies and achieving the required or expected outcomes (increased skilled workers due to high demand of foreign firms through higher employment growth compared to domestic companies) (Azarhoushang, 2013). China also chose industrial policy over mainstream economists and managed to increase its economic growth, employment and improve its industrial sector (Azarhoushang, 2013). Thus, China learnt from its failures and became more strategic in its implementation and planned ahead (Azarhoushang (2013). Therefore, it is not a matter of having too many actors in policy implementation, but government can use laws which are in favour with their development plan to ensure effective industrial policy implementation and use lessons as an opportunity to do better (Azarhoushang, 2013).

Secondly, Japan on the other hand began the process of industrialisation in the 19th century, prior to the existence of private sector, through the creation of public-owned model factories in the mining, shipbuilding and textile industry, and these were later traded to the private sector and continued to be subsidised by government (Khan, 2009). Moreover, the government implemented advanced technology transfer policies through hiring foreign technical advisors (Khan, 2009). Japan also used policy measures applied by developed nations (Khan, 2009). For instance, Japan used trade protection measures such as tariffs, qoutas, export, infrastructure and R & D subsidies similar to the Germany and the United States of America (Khan, 2009). Furthermore, indicative planning, foreign exchange rationing and developmental banks approaches, similar to most European countries, were used (Khan, 2009).

Japan also had unique policy mechanisms such as the establishment of the deliberations council of policy development in important industries, encompassing officials of government, representatives of industry and academics (European Investment Bank, 2006). The council were massively credited for making industrial policy efficiency through increasing data exchange between government and the private sector (European Investment Bank, 2006). Moreover, Japan also had a different approach to treating cartels compared to the US approach where all cartels were as negative (European Investment Bank, 2006). On the contrary, Japan recognised cartels with a potential to manage development of industries through minimising inefficient competition that erodes profit, challenges the capacity to invest and transform in the long run (European Investment Bank, 2006).

Lastly, Korea's industrial policy was similar to Japan with some fundamental differences. Industrial policy development and implementation in Korea was more centralised, with the Korean planning ministry and the Economic Planning Board more powerful and controlling the budget (Ramsden, 1992). Korea made use of SOEs in the manufacturing sector to achieve its industrial development goals (Ramsden, 1992). The Korean government started a monopolistic state-owned steel manufacturing company Pohang Steel Company (POSCO) which was successful despite the World Bank having declined the country's application for financial assistance in 1960 claiming the project was not viable (Ramsden, 1992).

The Korean government embarked on a series of corporate restructuring initiatives following the 1980 economic crisis. The government merged four companies in the power generating equipment industry into Korea Heavy Industries and Construction Co. (KHIC), which was subsequently nationalised since it was not economically viable for the state to profitably support a single private firm (European Investment Bank, 2006). In the passenger car industry, one of the three producers (Kia) was compelled to exit and specialise in trucks and buses with a promise that it would re-enter the passenger cars manufacturing when demand conditions improved (European Investment Bank, 2006). Kia was subsequently admitted when market conditions returned to normal (European Investment Bank, 2006).

Although the Chinese industrial development policy initially failed to gain momentum due to lack of investments in the targeted industries, the government was quick to learn from its mistakes and the policy strategy (Azarhoushang, 2013). The Chinese government shifted from being both a policy maker or regulator and active economic participant to the role of the policy

maker and regulator thereby significantly attracting FDIs and significant economic returns (Azarhoushang, 2013).

The Chinese government, through collaboration by various government departments, invested in infrastructure, implemented reforms in regulations and laws in favour of foreign investors, opened (SEZs) and moved towards a more liberalised market system (Azarhoushang, 2013). Moreover, the Chinese government implemented laws that discouraged monopolies and consequently SOEs to improve productivity (Azarhoushang, 2013). These measures resulted in huge investments in the aerospace, manufacturing internet equipment, software and chips and subsequently significant economic growth, skills development and employment creation (Azarhoushang, 2013).

The Japanese government, like China, adopted an industrialisation policy that was mainly based on policy reforms that strengthened the government as a regulator to attract private investments in key manufacturing sector (Khan, 2009). Moreover, the government used policy reforms and regulatory laws that protected the local economy from imports and promoted exports (Khan, 2009).

Therefore, the success factors of the Asian industrial policy were characterised by the government adopting a largely regulatory role, involvement in infrastructural development and investments in R & D (Azarhoushang, 2013). Furthermore, the government promoted and supported private investments through financial incentives and subsidies if private investments met requirements aligned with policy objectives and had significant socio-economic benefits (Azarhoushang, 2013). Interestingly, collaboration amongst government, academics and the private sector were hugely credited for the effective development and execution of the industrial policy strategy due to enhanced information which resulted in the formulation of socio-economically optimal strategies (Azarhoushang, 2013). However, exposure to international market dynamic still is a major challenge to development of local industries.

2.4.4. Agro-processing lessons from East Asia

In sum, various lessons could be drawn from the East Asian experiences in terms of how best an industrial policy can be designed and implemented. The strategic policy is argued to be effective when it fits with the basic situation of the country and be implemented with national resources and existing national capacity (Briones & Felipe, 2013). The policies do not need to reflect both the local government interest and international organisations because the effective

implementation of the strategy may be hindered by insufficient funds and weak implementation capabilities (Briones & Felipe, 2013).

Agriculture is not only aimed at creating jobs, reduce poverty and nourish the continent but a foundation for economic transformation (Briones & Felipe, 2013). According to East Asia, the following lessons could be considered to develop the agro-processing spectrum and strengthening the linkages between agriculture and manufacturing (Briones & Felipe, 2013). Agricultural policies must be drafted together with industrial policies because both policies strive to contribute to the national long-term vision such as joy creation, poverty alleviation and reduction inequality (Briones & Felipe, 2013). The policies geared to promote agro-processing must take into consideration the realities of the agricultural sector (Briones & Felipe, 2013). Simply put, government need to rethink industrial policies to ensure that they aligned with agricultural policies (Briones & Felipe, 2013).

Notwithstanding the above, South Africa is currently a net importer of processed agriculture, forest and fisheries products and an exporter of raw materials (MBI &P, 2018). With such evidence, South Africa need to develop policy framework to motivate value addition to agriculture for the raw materials to be processed locally and decrease importation of processed goods (MBI &P, 2018).

It is also worth noting that it may be impossible for South African agro-processing to replicate the East Asian model due to the huge variances in natural conditions, socioeconomic privileges and cultural context (Xiaoyun, 2019). For example, China's agricultural development was contributed through the country putting food production as a top priority of agricultural development strategy agenda and embedded in every policy changes and reforms (Xiaoyun, 2019). This may not guarantee success within the South African context due to natural conditions and political instability, but it is worth considering.

The East Asian countries successfully drove their industrialisation policy through a combination of strategies. The government provided financial support, developed complimentary policies to improve the economies of scale and make the local industries internationally competitive (Briones & Felipe, 2013). China also created policies that promoted FDI without compromising the goals of developing an industrialised economy that is international competitive and resulted in optimal socio-economic domestic benefits (Xiaoyun, 2019). The government allowed FDI through equity ventures or contract joint ventures (Xiaoyun,2019).

Moreover, government provided incentives to promote foreign investment in areas favourable to their country's developmental objectives (Xiaoyun,2019). East Asia's approach also included savings in effective Research and Development, transfer of technology, human resource development, transport infrastructure and contract enforcement to mention a few (Briones & Felipe, 2013). Although China's industrialisation benefited from FDI, the country had low foreign investment to support the industrialisation policy during the 1970's, mainly due to policy strategies that restricted the access of foreign firms to local markets and repatriation of profits to their home countries (Xiaoyun,2019). Thus, a competitive environmental and equal opportunity to access infrastructure, for both local and foreign firms is important to attract FDI (Xiaoyun, 2019). Moreover, China's approach was not only based on collaboration between government and other relevant stakeholders but was strengthened by a strong legal framework that support policy implementation (Xiaoyun,2019).

Japan's industrialisation greatly benefitted from institutional arrangements involving government officials, academics and industry representative which coordinated deliberated policy formation and implementation (Khan, 2009). The institutional arrangements where highly effective due to the high-level information sharing amongst the different stakeholders.

2.4.5. European Case

The agricultural sector is a significant economic sector and employer in Europe, with 4.2% of the economically active population employed in the sector (European Commission Directorate for Agriculture, 1998). The privatisation of the food industries was a significant step towards the development and growth of the agro-processing sector. In Hungary, state monopolies were privatised through selling shares to the general public and this subsequently resulted in foreign direct investment into the sector (European Commission Directorate for Agriculture, 1998). Moreover, employee and management buyouts were used for the privatisation of the agro-processing sector in Slovenia (European Commission Directorate for Agriculture, 1998). Governments in Europe provided loan guarantees, grants and interest rates subsidies, to enable the financial sector to extend loans to alleviate the lack of access and credit as a result of the perception that agriculture is a low profit sector (European Commission Directorate for Agriculture, 1998).

The European union common agricultural policy enabled food processing companies in the dairy and sugar industries to internationalise their business through direct aids, market support

and rural development subsidies (Fritz, 2011). These financial assistances enabled increase productivity by small holder farmers and supply of primary inputs to the food processors to enable them to meet economies of scale and be competitive in exports markets in Africa, South America and Asia (Fritz, 2011). Countries in the European Union have developed policies for the bio-economy and integrated this with the agricultural sector to simultaneously address environmental issues and agro-industry development (OECD, 2019). The EU together with the Commissioners for Research and Innovation, Agriculture, Enterprise & Industry, Environment, and Maritime Affairs & Fisheries were involved in R & Ds to support the transition into the bio-economy, education and skills development, creation and promotion of new value chains and markets (OECD, 2019). The strategy was aimed at addressing rural development, food and energy security, mitigation of global warming and addressing unemployment (OECD, 2019).

Therefore, the development and growth of the agro-processing sector in Europe was highly characterised by the participation of private and foreign sector (OECD, 2019). The privatisation of the sector improved the market sentiment towards the sector and significantly increase foreign investment in the sector (OECD, 2019). Moreover, government guarantees, and interest rate subsidies enable the participation of the financial sector through loan extensions in the agricultural sector (OECD, 2019). Financial support to the farmers was important in integrating primary agriculture into agro-processing value chain and to ensure adequate and affordable raw input supply (OECD, 2019). The European union's common agricultural policy was championed by the EU in collaboration with research institutions and industries representative who strategically provided skills development and marketing to enable industrialisation of the sector (OECD, 2019).

The collaboration for the European industrial policy implementation was centralised and championed by the EU in collaboration with research institutions and industry role players who participated skills growth and advancement of the sector (OECD, 2019). Moreover, the private financial sector was involved in the financial support for farmers to enable the integration of primary agriculture into the agro-processing value chain as input suppliers (OECD, 2019). The government played an important role of providing government guarantees and interest rate subsidies to incentivise the private financial sector participation (OECD, 2019).

The development of the European agro-processing sector significantly benefited from the collaboration of stakeholders from the public and private sector (OECD, 2019). The governments' role, through collaboration among various government agencies, was the

creation and promotion of new value chains and markets to enable the successful privatisation of the agro-processing sector (OECD, 2019). In addition, the government played a critical role in education and skills development to prepare for this transition.

2.4.6. Agro-processing in Africa

Agriculture is a major contributor to the gross domestic product and employment in Africa (Worldbank, 2013). Agriculture contributed 15% to the GDP in 2018 and is estimated to be worthy US$ 1 trillion by 2030 (Worldbank, 2013 and Worldbank, 2019). Moreover, 62% of the African employed population was in the agricultural sector (FAO, 2019). The disparity between the percentage contribution of agriculture in the GDP and employment was a huge concern due to the resulting low incomes and earnings in the sector (FAO, 2019). Therefore, the development of and investment in processing would significantly increase the influence of agriculture in economic progress and development (FAO, 2019).

The Nigerian government introduced the Agricultural Transformation Agenda (ATA) in 2011 to improve agricultural productivity and grow the economy while reducing the high unemployment rate and reducing the exorbitant food import bill (ATA, 2011). The policy strategy involved expanding the agriculture value chain to improve the sectors employment potential and quality as well as its contribution to the GDP and foreign currency earnings (ATA, 2011). ATA aimed at the development of integrated linkages between primary agriculture and processing/manufacturing with a specific target on crops and sectors such as soybeans, palm oil, sorghum, fisheries and livestock (ATA, 2011). Moreover, the policy opened doors for private investments into the agricultural sectors and involvement of a wider range of stakeholders such as the marketing corporation that replaced the marketing boards, civil society and the Staple Crops Processing Zones (ATA, 2011).

ATA set out to develop staple crops processing zone to attract private sector investments in agro-processing in regions of high food production (ATA, 2011). The Nigerian government introduced the rice transformation plan to replace imported parboiled rice with local varieties through the private sector incentives for investment in parboiling facilities in regions producing high rice volumes (ATA, 2011). The development of local production facilities was to be funded through the high levy from imported finished and brown rice (ATA, 2011). The plan was estimated to create a million jobs, from primary production to processing, by 2015 (ATA, 2011). The plan however, failed in being self-sustainable and in the job creation (ATA, 2011).

The failure of the Nigerian Customs Service and the Federal Ministry of Agriculture and Rural Development to control import quotas led to further deficiency in local production and development of small-scale millers and farmers and consequently policy failure (Ayinde et al., 2016). Moreover, the lack of technical competency of bureaucratic and synergy amongst the different ministries and other stakeholders was a major drawback in the policy implementation (Ayinde et al., 2016).

In addition, agriculture is also one of the major economic sector in Kenya, contributing 26% to the GDP and over 40% to the total employment (FAO in Kenya, 2019). Moreover, Kenya's agro-processing sector potential lies in the milling, dairy fruits, livestock and poultry subsectors (FAO in Kenya, 2019). The diary sector is well established with Kenya producing surplus milk and exporting to North African and Asian markets (FAO in Kenya, 2019). Moreover, Kenya's fruit sector recorded an annual growth of 12% between 2005 and 2015, and this was partly due to an increase in the demand for healthy drinks (FAO in Kenya, 2019). Currently 8% of fruit production yields are processed while a 40% go to waste (FAO in Kenya, 2019). Therefore, the surplus yields in the dairy and fruit sector creates opportunities for milk and fruit processing into powder milk and juices, respectively (FAO in Kenya, 2019).

Notwithstanding the above, the Egyptian agro-processing is also a vital sector of the economy and contributes the third most export income from the country's manufacturing sector (Loewe, 2013). Further development of this sector has the potential to eradicate inefficiencies and contribute significantly into employment (Loewe, 2013). The sector benefits from Egypt's advantages such as cheaper and abundant energy resources, unlimited water supply, economies of scales due to large local markets, trade agreements enabling access to export markets and access to the Mediterranean Sea and the Indian Ocean (Loewe, 2013). The industrial development of Egypt was implemented by the Ministry of Trade and the Social Fund for Development in collaboration with agencies responsible for the infrastructural development, research and development as well as technical support, export promotion, financial support for enterprise development, skills and entrepreneurship development (Loewe, 2013). Egypt was also making use of agro-industrial parks to mitigate the country's fragmented, underdeveloped and inefficient agro-processing sector (Loewe, 2013). This integrated approach enabled the participation of small farmers in the value chain and consequently facilitate rural development (Loewe, 2013).

In sum, the Nigerian ATA attracted significant private investment and involved the participation of several major stakeholders (ATA, 2011). Nonetheless, the strategy failed to create jobs and be self-sustainable as a result of the inefficiencies in the customs service and agricultural ministry to control import quotas (ATA, 2011). Furthermore, a lack of bureaucratic technical incompetence and synergy amongst ministries and other stakeholders significantly impacted policy implementation in Nigeria (ATA, 2011). The success of Egypt in developing its agro-processing sector was largely due to the collaboration between government ministries and agencies which provided infrastructure, R&D, technical support, enterprise development, financial support and export promotion (Loewe, 2013).

2.5.Summation

Although the tools and mechanisms of implementation for the different countries, the industrial policy in East Asia primarily intended at promoting industrial structures by long-term investments in infrastructural and human capital. Moreover, despite instances of government intervention's failure, there is also enough empirical data showing that there is the presence of market failures such as high cost of market entry, complementarity between investments across industries, externalities present in R&D efforts, infant industry considerations arising from the cost of learning and the capital market failure that makes long-term financing more expensive than what is socially desirable (Chang, 1997 and Stiglitz, 2016).

Several lessons can be drawn from various countries experiences in terms of how best an industrial policy can be designed and implemented or how best agro-processing sector may be developed. Firstly, it is important to target industries in alignment with the country's technological capabilities and global market conditions (Briones & Felipe, 2013). It is also critical to closely integrate the industrial policy with an export strategy, particularly for small economies. Moreover, the success of an industrial policy is also largely dependent on willingness and capabilities of government to monitor and discipline the recipient of the rent created through various measures (Briones & Felipe, 2013. The competence and political biasness of the implementing bureaucracy and how closely the government interacts with the private sector while not becoming captured is also vital for the success of the industrial policy (The Department of Trade and Industry, 2019).

The conceptual framework proposes that institutional arrangements allows formal relationship between government and the private sector for efficient policy implementation (van Meter & van Horn, 1974 and Brynard, 2005). It further proposes that institutional arrangements for

policy implementation are efficient when guided by a legal framework that consider socio-economic changes and the participation of the private sector, organised labour and civil groups (Borgatti et al., 2009). The legal framework gives effects to a policy, offers regulatory and fiscal instruments necessary to accomplish the policy mandates while institutions provide the human capital, technical capacities, resources and information required for the policy implementation (Hoon Lim et al., 2013). The structure and functioning of the institutions were studied through the network theory which characterises the collaboration of government and other institutions, in policy implementation, motivated by the common goal they share (Blair, 2002; Börzel, 1998 and Hazlehurst, 2001). The theory was important in understanding the composition of the institutional arrangements, capabilities and their roles, the challenges and strategies to navigate through challenges in fulfilment of their mandate (Borgatti et al., 2009).

Furthermore, the study learnt that the expansion of an agro-processing sector is very complex, has no standard formula and varies from one country to the other. The study also extracted a few lessons for South Africa to adopt which has been articulated in Chapter 6. These won't guarantee a success for South Africa but worth noting.

2.6.Theoretical Framework

This section will discuss the theoretical framework which was used to guide this study. It will start with an overview of some theories applied in public policy implementation such as the elite model which uses the top down approach, the pluralist model, institutional theory and lastly network theory. The elite, pluralist and institutional theories will be discussed to pave way to the network theory, which will be the preferred theory for this study. Policy implementation through institutional arrangements results in complex organisation networks Blair (2002), hence the network theory will be applied to empirically study the structure of institutional arrangements in the development of the agro-processing sector of the IPAP. The network theory is thus useful in highlighting complex interactions between the public and private stakeholders involved in institutional arrangements.

2.6.1. The Elite Model

The Elite model assumes or based on the notion that decisions are taken by the state officials rather that the elected representatives. It assumes that a small elite group (government) is solely responsible for policy decisions and governs all ill-informed public or masses (Cloete & Wissink, 2000). In other words, the policy Elite have the power and authority to make decisions

or decide on a policy issue (Cloete & Wissink, 2000). In South Africa, parliament has the authority to make decisions on a policy issue and the ruling party supports the decision. The decision made by government is then escalated down to the Ministers who then scale it down to their administrators for implementation (Cloete & Wissink, 2000). This encourages the red tap system, a lot of delegation and delays in executing projects. Thus, policy decisions made by the Elite flow downward to the population and are executed through bureaucracy and not legislative (Cloete & Wissink, 2000). The model views the society as divided into two, those who do have power and those who do not. Therefore, this model assumes that Elites are firmly in power and know best and their values are of primary importance, (Cloete & Wissink, 2000). Therefore, during the policy implementation process by the administrators, consultations with the masses or interest group are conducted to receive inputs but they do not make the final decision.

2.6.2. Pluralist Model

According to Grindle & Thomas (1989), "public policy results from conflict, bargaining and coalition formation among a potentially large number of societal groups, organised to protect or advance particular interests common to their members" (p.218). The political society is composed of large numbers of such groups that compete around the promotion of common policy goals (Grindle &Thomas, 1989. The public interest is thought as best served when the public policy emerges out of competition among large numbers of organised interests. Thus, the state acts as the ruler or decision maker among competing interest groups (Grindle &Thomas, 1989). In the case of South Africa, parliament is the decision maker among all the national departments.

The two approaches illustrate that the power and authority to decide on policy issues or make decisions reside with the parliament. In practice this has not proven to be successful because most of the government officials at higher offices who make decisions are not on the ground affected by the issues hence they lack understanding in terms of mitigating the issues. For example, the parliament mandates the DTI to mitigate the industrialisation decline and fund the growth and broadening of the agro-processing manufacturing industry in South Africa. The mandate is ultimate but the process followed or measures put in place do not achieve the expected goal. With this understanding, it has proven that good governance does not guarantee

good public policies. The decision makers do not always make good decisions and governance is a theory which in practice is not as feasible as expected within the current government systems.

2.6.3. Institutional Theory

The study of government institutions (legislature, executive and judiciary) has been the oldest concerns of political science and public administration because political life revolves around them (Anyebe, 2018). The institutional approach understands that processes such as norms, rules and routines are authoritative guidelines for social behaviour (Anyebe, 2018). Thus, the theory focuses more on describing the more formal and legal aspects of government institutions, and is more static and formalistic as the focus is more on how institutions operates as opposed to how they are supposed to operate (Anyebe, 2018).

In sum, the institutional theory does not discover how relationships between the institutional structures and public policy development operates (Anyebe, 2018). The theory shows little concern on how institutional structures, arrangements and procedures connects with public policy development (Anyebe, 2018). The available literature on the theory supports the study for identifying institutional theory as one of the theories paving way for network theory. The institutional theory does not assist the study to understand the relationship or interlinkages between various institutions perusing the same objective.

2.6.4. Network Theory

Policy implementation encompasses actions through the public sector alone or in collaboration with the private sector, that are aimed at realizing objectives drawn in a policy decision (van Meter & van Horn, 1975 and Brynard, 2005). Government's ineffectiveness in achieving on policy deliverables when acting on its own consequently prompted in governments to collaborate with other institutions (Bryson et al., 2006). These collaboration results in institutional arrangements characterised by standard sequences of interaction Jepperson (2001),

and perform a significant function in policy development and implementation through well-co-ordinated engagements (Hajer, 2003). Therefore, the analysis in this study will be based on network theory since it offers a tool to understand how different institutions collaborate and contribute to an effective policy implementation process.

Network refers to the link between two or more actors that share the common goal. For instance, the link between public and private sector or linking diverse actors who share policy interest and exchange resources to pursue policy through cooperation (Börzel, 1998). Therefore, network theory is the prominent theoretical frameworks used in the analysis, description and comprehension of multi-level complex systems (Halvin et al., 2012). The theory provides an important guideline on how policy implementation can be effectively managed through public and private partnerships to enable optimum outcomes. It defines how public-private partnerships can be formed and managed amongst interest groups with common goals (Hazelhurst, 2001).

The network theory defines an institutional network as a broader system of formal relationships of institutions to realise the common goals (Börzel, 1998 and Hazlehurst, 2001) and have administrative strategy and control dispersed among the different agents (Blair, 2002). The approach states that arrangements between multiple institutions are crucial during public policy making process which leads to team work and sharing of ideas (Börzel, 1998). Therefore, outcomes of policy implementation are ultimately dependant on the relative degree of influence Hill (2005), priorities over the policy and sensitivity of the different stakeholders to failure (Farrell & Heritier, 2003). Furthermore, the effectiveness of institutional arrangements depends on how well each organisation understands and play its role rather than how well the institutional arrangement is integrated (Provan & Milward, 1995).

In addition, organisations will be motivated to participate in institutional arrangements if the benefits of the arrangement outweigh the cost of maintaining the relationships, such as any potential loss of operating and decision-making capacity (Provan & Milward, 1995). Moreover, institutional arrangements will effectively facilitate collaboration between relevant stakeholders such as, private sector and educational institutions and government to enable development and effective policy implementation, by taking into consideration the fiscal and local capacity constraints (Naidoo, 2003 and Bryson et al. 2006). Thus, by taking into account

these factors, institutional arrangements will enable active solicitation of non-government resources, experience and expertise to supplement government and enable effective policy implementation (Naidoo, 2003).

Therefore, lack of human capital, technological resources, defective management processes, ineffective omission by the central government over the functions of the relevant institutional structures was also identified as significant impediments to policy implementation (Walters, 2014). Thus, the establishment of institutional arrangements with sustainable funding, effective, skilled and experienced leadership, active constituting groups from private and private sector has a huge potential to ensure effective policy implementation (Naidoo, 2003 & Walters, 2014). Moreover, centralised control of institutional arrangements is important to effectively coordinate and manage complex network linkages involved in the arrangements (Walters, 2014). Institutional arrangements with decentralised control thus general have deficiency in organisation and effectively operating as a complete system to effectively deliver on their policy mandates (Provan & Milward, 1995).

Although institutional arrangements are designed for the different stakeholders to complement each other, antagonist policy interplay amongst the stakeholders threaten and undermine the policy goals achievement (Urwin & Jordan, 2008). In addition, the effectiveness of policy implementation may be hampered by differences in the motives of the different agents. The motive for policy makers and non-profit organisations is often to achieve outcomes that enhance the overall benefits and well-being of the citizens with little regard on whether the goals of the individual institutions are met (Provan & Milward, 1995). On the other hand, the private sector is profit driven and will be less motivated to participate in institutional arrangements if the financial incentive to integrate and cooperate is weak (Provan & Milward, 1995).

Therefore, the network theory also acknowledges that the policy territory is a difficult and chaotic process which needs resources from various stakeholders who are targeting for a common goal (Innes and Booher, 2003).

The study is of the view that network theory was relevant in analysing the public policy processes because it is convincing in its description on how public policy can be effectively

implemented. The theory provided the study with the relevant tools to understand the principles underlying the effectiveness or efficiency of institutional arrangements.

2.6.5. Conclusion

The DTI introduced a policy document (Industrial Policy Action Plan known as IPAP) as a tool to address challenges faced by the different manufacturing sectors in South Africa. The IPAP came into effect in August 2007 and the agro-processing sector was incorporated into the IPAP in 2011 due to its huge potential for job creation because of the high foreign direct investment and growth in the market for convenience food (The Department of Trade and Industry, 2011). In 2011/12-2013/14 IPAP, small-scale milling sector was prioritised for intervention under the agro-processing spectrum due to the challenges faced by the sector such as lack of funding and compatible technology to mention a few, and thus hampering the development of the sector (The Department of Trade and Industry, 2011). Academic research has proven that there is minimum literature available and the study solicited information through interviewing representatives from the DTI, IDC, NAMC, DAFF and GDARD. The Old Mutual Masisizane Fund and FABCOS could not owner the interview request despite numerous requests. Practices from European, African and East Asian countries were drawn to obtain lessons which South Africa may consider adopting in enhancing the industrial policy and agro-processing development sector.

With regards to theories under public policy implementation, the study noted that theories of public policy implementation emerge from way back and are not aligned with the realities on this world in terms of policy implementation. Government's ineffectiveness in achieving on policy deliverables when acting on its own consequently prompted in governments to collaborate with other institutions (Hajer, 2003). These collaboration results in institutional arrangements characterised by standard sequences of interaction and perform a significant function in policy development and execution through well-co-ordinated engagement (Hajer, 2003 and Jepperson, 2001).

The network theory was used for the analysis of the study and understanding the nature of the institutional arrangements in the development and policy implementation. Institutional arrangements as collaboration by government with the private sector and civil society are formal arrangements and non-hierarchical. The composition of institutional arrangements is primarily due to the institutions sharing a similar goal with regards to policy implementation. Thus, according to the network theory, antagonist views will hamper the policy

implementation. Moreover, the net benefit for participation is an important determinant for involvement in institutional arrangements for policy implementation. Factors such as effective information sharing, human capital capacity, technological resources availability, management and organisational culture are critical for the success of the institutional arrangements in carrying out their mandate.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Introduction

The approach adopted in this report was document analysis (desktop review) and surveys (interviews) with respondents from the different agencies involved in the network. This section will discuss the research methodology used in this study. It will discuss study unit, research philosophy, research design, instruments of data collection, target population and sampling, data presentation and analysis; and the validity and reliability of the data will be preserved. The study shows how data collection and analysis will be undertaken and verified through use of both primary and secondary data.

3.2.Study unit, target population and sample

The units of analysis for the study included institutions involved in the implementation of the IPAP 2011-2015 as identified from the relevant policy documents and also the guidance from the DTI. This population includes government departments, finance and development institutions, research and development institutions. The population included institutions that contributed technical and financial support during policy implementation. Moreover, the sample included the institutions specifically involved previous and on-going projects in the agro-processing sector with regards to the development of small-scale milling industry. According to The Department of Trade and Industry (2011) and The Department of Trade and Industry (2013), the institutions identified included but not limited to the DTI, IDC, DAFF, GDARD and FABCOS. Furthermore, the study through exploration study also learnt that the FABCOS which is a private organisation was earmarked to perform a vital function in the implementation of projects in the agro-processing sector with regards to the development of small-scale milling industry (The Department of Trade and Industry, 2013). The DTI in collaboration with FABCOS aimed at developing the SMMEs through the exchange of data and services in various sectors especially the historical disadvantaged individuals (HDIs) (The Department of Trade and Industry, 2013). Therefore, the above institutions formed part of the institutions to be interviewed for soliciting information for this study because they are the main institutions for solving the challenges within the agro-processing spectrum. This does not mean the other institutions are not important but their roles can also be executed through the resources from the above-mentioned institutions.

The purposive sampling was used because the sampling approach echoes with the qualitative research in the sense that the conclusion provided shall be generalised to theory and not population (Creswell, 1994). Creswell (1994), also submits that purposive sampling allows the study to select participants and sites for the study to intentionally inform the research problem. Thus, participants were nominated for in-depth interviews based on the study's knowledge and guidance after interviewing the lead department (DTI) concerning the institutions available in the implementation of the IPAP, with specific focus on the agro-processing manufacturing sector and milling industry as a case study in the period 2011-2015.

The purposive sampling for this study included the identification of institutions that participated in developing the agro-processing manufacturing sector in the period 2011-2015 and identifying specific institutions as interviewees. The institutions interviewed included;

3.2.1. A representative from the DTI- as it is the custodian of the IPAP
3.2.2. A representative from IDC- as it has been identified on IPAP as the supporting department.
3.2.3. A representative from DAFF- as it has been identified on IPAP as the supporting department.
3.2.4. A representative from FABCOS- for its role of exchanging information and services in various sectors especially the historical disadvantaged individuals (HDIs) which will assist the DTI in developing the SMMEs.
3.2.5. A representative from GDARD- as it has been identified through interviewing DAFF and DTI as the supporting department. The study focused on the Gauteng Province only because the project was only implemented in Gauteng as a pilot.

3.3. Research philosophy

This qualitative study used the interpretivism paradigm since this enables the analysis and contextualisation of events that have occurred through the use of qualitative data (Larkin et al., 2008). Therefore, this report applied the narrative analysis when exploring the relationship and processes in the institutional arrangement (Wagner, Kawulich, & Garner, 2012). The study's goal was to underwrite knowledge generation and create a groundwork where further research on the subject matter could be developed and contribute to the knowledge generation to attend the current knowledge gap. The current study was based on gaining knowledge on the structure and interrelationships of the institutional arrangement in the development of the agro-processing sector. The study was based on the analysis of the existing experience of policy

implementation process through interview and secondary sources research. The institutional and network theory were the basis of understanding the structure and functions of the institutional arrangements. The literature review guided by the above theories enabled the formulation of the objectives and research questions of the study. An interview questionnaire was subsequently formulated with open ended questions to enable uncovering the perspective of the respondents with regards to the structure, function and challenges of the institutional networks.

3.4.Research design and data collection

The study was a non-experimental research and applied an exploratory approach based on qualitative interviews to gain insight into the institutional arrangements involved. Primary and secondary data was utilised to ease the process on answering the research questions. The primary research used included unstructured questionnaires to ensure that in-depth responses are obtained from the respondents. The said respondents from the DTI, NAMC and DAFF were interviewed on an individual basis to minimize the risk of incorrect information and respondents from GDARD and IDC requested to submit a written response. The data was protected through anonymity, thus details of respondents remained anonymous, although sources through which additional data was collected, such as annual reports, online journals was referenced.

The desk-top review (using policy documents such as the NDP, iteration of IPAP, Agricultural Policy Action Plan and Operation Phakisa for Agriculture), prior to interviews was conducted to facilitate a proactive interview process and enable reconciling the context of the interview with official policy documents, reviews and reports and consequently strengthen the validity of the interview process.

3.5. Data Presentation and Analysis

Data analysis was used to explain the mass of information collected. After information was collected through interviews and documentary analysis, the study analysed the data. The study made use of the interpretative approach when analysing and presenting the data collected from the interviews and secondary sources. The approach involved a thematic synthesis of qualitative data (secondary and interview data) to establish the structure and interrelationships of the institutional arrangements used in the execution of IPAP strategies for the expansion of the agro-processing sector. Thematic analysis was used to allow the study to identify themes

or common issues or any institutional domains from the data collected (Wagner, Kawulich, & Garner, 2012). Firstly, the analysis involved transcribing recorded responses and subsequently reading through all the written responses to obtain a general impression of the content, without deducing or attaching any formal meaning to any single unit (Wagner, Kawulich, &Garner, 2012). The second step involved reading to obtain a general meaning while scrapping off repetitions and unnecessary information (Wagner, Kawulich, &Garner, 2012). In this step, the texts from the transcripts that were not of value in answering the research questioned were removed and subsequently ignored in further data coding or theme identification. The information removed for example pertained to issues beyond the scope of the project or irrelevant information. The issues discussed for the different codes were identified and written down. It is important to note that an issue could be discussed under different codes (Wagner, Kawulich, &Garner, 2012). Moreover, codes that represented the same were fused into one code without making the meaning ambiguous or redundant. The next, which was the first step in open coding, involved marking and labelling the meanings of units and subsequently categorising and naming related codes inductively (Wagner, Kawulich, &Garner, 2012). In this step, codes were identified by re-reading the transcripts and identifying texts or phrases in the transcripts that recurred frequently or captured the theoretical constructs that were important to conceptualise the research questions specifically with regards to the structure, function, challenges and effectiveness of institutional approach in the implementation of the IPAP for the development of the milling sector. Subsequently the codes were categorised into three main groups based on identified similarities related by conceptual content. Moreover, the themes (funding, enterprise development, institutional arrangements, roles and responsibilities and stakeholder engagement) were refined as independently identified by each participant. The themes were identified from the 3 main categories based on the common themes from the transcripts and how they linked to the research questions. Finally, patterns relations and trends were identified from the themes. The themes and sub-themes were identified and defined to describe the strategic resources and roles of the institutions, constraints and challenges of the institutional arrangements in carrying out their mandates. Moreover, the themes were important in identifying the nature of the relationships and motives for participation. This allowed the study to understand the implementation of IPAP with specific focus on the agro-processing manufacturing sector and milling industry as a case study in the period 2011-2015 using interviews and documentary analysis. The themes in this part of the analysis were organising and global themes based on the conceptual similarity and important to identify the underlying issues and concepts identified from the transcripts.

3.6.Ethical Consideration

According to Creswell (2004), social researchers should approach research ethically and morally. The study explained in detail the background, objectives and purpose of the research to all potential respondents before interviewing them. The study sake ethical approval from the University of Witwatersrand committee before the study commenced. The e-mails inviting the respondents included a detailed explanation of the purpose and duration of the interview and relevant instructions on completing the questionnaires. Moreover, the respondents were informed that participation was voluntary, their identity would be kept anonymous (the study will not use their real names) and that their responses and views would be treated with strict confidentiality. The respondents were also informed that non-participation will not carry no repercussions or consequences. Therefore, since the participation was voluntary, respondents learnt that they had the right to stop the interview at any time if they felt uncomfortable. Despite the researcher being an employee of government but former employee of the DTI (custodian of the IPAP) and has no project currently conducting with the DTI, this study was conducted for academic interest and not as an employee of the government. Therefore, to avoid any biases the study observed, conformed to the code of conduct to ensure ethical professionalism, and ensured that the findings of the research were not shared at work but with the supervisor. This further allowed accountability to the research processes and studies.

Finally, throughout the write-up and dissemination of the report, ethical consideration was taken into consideration and not be limited on data collection and analysis (Creswell, 2004). Thus, the study was conducted for academic purposes and not disseminate the report to the public. With that said, the respondents were informed that the research report would be uploaded in the University Library online research portal, for accessibility by academic and non-academic researchers such an Jstor, Libguide, Google Scholar, etc as the research report seeks to contribute knowledge production on industrial policy. The research report shall remain the product of the University.

3.7.Limitations of the study

Every research has its own restrictions. Empirical evidence has proven that academic research is built from other research meaning academic uses existing research. Thus, for this research, the study acknowledges that there was limited available academic literature on institutional arrangements involved in the implementation of the IPAP and in particular agro-processing,

thus various case studies on industrial policy and development of agro-processing sector was used as a benchmark. Moreover, the number of institutions and documents considered in the research was limited to the readily available information, accessible in the public domain and guidance from the DTI. Therefore, the use of interviews with several stakeholders, involved in the expansion of the agro-processing sector, was used to supplement the data extrapolated from reports solicited through web searches. However due to institutions such as, Old Mutual Masisizane Fund and FABCOS not availing for the interviews, the study relied more on secondary data (policy documents) to solicit information which could not be found through interviews. It was important for the study to thoroughly analyse the secondary resources and construct interview questions that would meaningfully add value to the overall objectives of the research instead of duplicating information previously in the public sphere.

The respondents which were also deemed to be important in soliciting the required data such as FABCOS and Old Mutual Masisizane Fund were not available for the interviews. The respondents were contacted by emails and numerous follow ups were done by email and telephonically to no avail. In order to address this limitation, the study used secondary data such as online reports and policies to source the data related to the roles and expectations from the above institutions with regards to policy implementation. Another challenge was the unavailability of the respondents from IDC and GDARD to avail for face to face interview. The study requested the respondents to submit written responses in order to address the limitation.

3.8. Validity and Reliability

According to Mouton (1996) and Mabena (2011), validity and reliability is very compound under qualitative research due to the role of the study during the process. The value of a qualitative research is greatly dependant on the reliability, validity and trustworthiness of the qualitative data (Mabena, 2011). Moreover, the data is reliable and valid when the purposes and aims of the evaluation matches the tools and pedagogues used (Ramsden, 1992). Thus, validity is based on whether the proposition of the study is consistent with empirical evidence available (Ramsden, 1992).

Therefore, with this study, the information consolidated from interviews was verified using literature review, research articles and other relevant documents from reputable institutions used in this study. Different articles, academic reports from trustworthy institutions and data from the available respondents was used to validate the information.

3.9.Conclusion

The section outlined the research method that was followed in this study. The study also indicated the use of primary and secondary, notwithstanding the principles of reliability and validity. The study also faced various limitations such as other respondents not owning up to the interview request and others not accepting to be interviewed but submit written responses. Notwithstanding the fact that the respondents were also informed that non-participation will not carry no repercussions or consequences. It is for this reason that the study relied more on secondary data (policy documents) to solicit information which could not be found through interviews. It was important for the study to thoroughly analyse the secondary resources and construct interview questions that would meaningfully add value to the overall objectives of the research instead of duplicating information previously in the public sphere.

CHAPTER FOUR

4. PRESENTATION OF FINDINGS

The development of the small scale milling sub-sector was a strategy of the IPAP specifically under the agro-processing sector development strategy (The Department of Trade and Industry, 2014). The strategy was in response to the anti-competitive nature of the milling industry which prevented entry of small-scale millers into the sector. The DTI, as the lead department, aimed at facilitating and supporting the market entry of small-scale millers, through a range of strategies, collaborated with other ministries, public and private agencies (The Department of Trade and Industry, 2014).

Institutional analysis and network theory through the use of five themes (institutional arrangements, roles and responsibilities, funding, enterprise development and stakeholder engagement) were used to analyse the survey, secondary data and understand the composition, structure, functioning and interrelationships of the institutional arrangements in the execution of the policy with special focus on small-scale milling sector development project. These themes emanated from the interview findings as the crucial matters which required to be considered to ensure the development of the small-scale milling sector. The researcher also used thematic analysis to code the interview transcripts and subsequently identify and organise as well as analyse themes However, secondary data also referred to these themes as crucial areas. For example, the issue of roles and responsibilities was a critical factor as the findings around the theme helped understand the reasons why the project failed. The study investigated whether the involved institutions knew their roles and performed as expected.

4.1. Thematic Analysis

Thematic analysis was used to code the interview transcripts and subsequently identify and organise as well as analyse themes to understand the structure of the networks involved in the IPAP implementation, how the stakeholders within the network engaged and consequently their challenges as well as effectiveness.

4.1.1. Coding and theme identification

The first of thematic analysis involved coding through identification of recurring texts i.e. words or phrases or theoretical constructs that were important in answering the research questions related to the structure, function and challenges of the network in the institutional arrangement. Eighteen codes (Table 1) were derived and based on recurrent issues and theoretical constructs related to the structure, function, challenges and effectiveness of

institutional network and policy implementation. The coded data was classified and organised into themes to bring meaning into the research questions. The issues discussed under the code 'market' were 'access to market' and 'alternative markets'. Moreover, an issue could also be discussed or quoted under different codes or themes. The identified themes were crucial to bring meaning and conceptualise the fragmented units (codes) of the data.

The themes were identified by initially grouping the codes into three clusters (Table 1) by reading through the codes' text and identify similarities related by conceptual content. The codes' texts were re-read to identify the common themes from the transcripts and themes linked to the research questions. A total of thirteen themes (Table 1 column 2) were identified from the eighteen codes.

Table 1:Coding of the interview responses and identification of themes from the codes.

Codes	Issues discussed	Basic Themes
• Execute • Industrial finance • Rolling out • Market • Capital • Infrastructure • Economic growth • Industrialisation diversification	• Role • Mandate • Access • Alternate • Objective • High risk • Investment • Challenge	• Market Access • Industrial Finance • Economic Growth • New Start-ups • Oligopoly • Milling sector
• Implement • White elephant • Accountability • Tax • Progress • Encroachment	• Agent • Wasteful expenditure • Moral hazard • Failure • Lack of technical expertise • Mandates • Hindrances • Competitive • Coordination • Resources sharing • Challenge • Inadequate • Steady	• Policy failure • Business practices • Moral hazard • Coordination

	• Poor business expertise	
• Align • Policy • Stakeholder management • Information sharing	• Policy • Resource sharing • Inconsistence • Failure • Disconnect • Inefficient • Implementation • Obstacle • Challenge • Regular basis • Minimal • Work together • Responsibilities • Mandatory	• Coordination • Territorial disputes • Inconsistency

4.1.2. Organising themes

The eighteen themes, organised by content similarity, were further narrowed to organising and global themes (Table 2) based on the conceptual similarity. The three global themes (Table 2 Column 3) were clearly outlined to identify the underlying issues and concepts identified from the transcripts.

Table 2:Summary of organising themes and global themes identified from interview responses.

Basic Themes	Organising Themes	Global Themes
• Market Access • Industrial Finance • Economic Growth • New Start-ups • Oligopoly • Milling sector	• Roles and Mandates	• Institutional roles and mandates
• Policy failure • Business practices • Moral hazard • Coordination	• Progress • Risk • Challenges	• Network challenges

• Coordination • Territorial disputes • Inconsistency	• Deliverables • Linkages	• The structure and interrelationships of the networks

4.1.3. Interpreting the thematic patterns

The themes and patterns emerging from the interview responses were analysed and grouped into three categories based on the research questions of the study as reflected by the tables above. The three global themes identified were important in answering the questions of the nature, structure, functions, interrelationships, and challenges of the institutional approach to policy implementation.

Themes such as market access and industrial finance were more prominent in the discussion of the roles of the institutions that participated in the institutional networks for the development of the agro-processing sector. According to the respondent of the DTI, the DTI was responsible for market access. The dismantling of the oligopoly in the milling sector and economic growth were key themes in describing the mandates and goals of the institutions for their participation. The IDC however, did not participate in the institutional arrangements despite being listed as one of the industrial finance providers. The institution did not fund any project for the past 10 years and milling was not part of their strategic area. These themes correspond to the theoretical assumptions that the institutions will only participate in institutional networks if their strategic goals or mandates are satisfied through their participation.

The risk of policy failure was a main theme in the challenges stated by the respondents from the institutions that participated in the interview. The potential of the success of the policy was a key element which institutions consider before committing to participate in the institutional arrangement. A point in case is the IDC not willing to participate due to their view that investing in the agro-processing sector was not financially feasible. Furthermore, themes such as moral hazards, poor coordination and business practice were some of the themes that emerged in describing the challenges that the institutional arrangements faced in the development of the agro-processing sector.

Coordination, territorial disputes and inconsistency were the major themes in describing the structure and interrelationships of the networks. The interview response showed that the coordination of the institutional relationship was formalised and centralised from the lead department which was the DTI. Moreover, the stakeholder engagement was characterised by

territorial disputes which consequently resulted in some department like DAFF not participating in the institutional arrangements. The inconsistency in some of the institutions not attending meetings was a characteristic of the stakeholder engagements and this severely impacted the accountability and success of the implementation.

4.2.Institutional Arrangements

The institutional arrangements established by the DTI was crucial in complementing the technical capacity of the department in implementing the micro milling project (The Department of Trade and Industry, 2014). The scope of the institutional arrangements was aimed at pulling together resources to aid capital financing, enterprise development and skills training and development (The Department of Trade and Industry, 2014). The project had a broad-level value-chain approach for the development of micro milling subsector through the integration and coordination of public and private stakeholders (The Department of Trade and Industry, 2014).

The DTI was the executing agent in collaboration with other government departments at local government level, government agencies and private stakeholders (The Department of Trade and Industry, 2014). According to the respondent from the DTI, the executing agent role was practised but it did not materialise as various institutions could not avail for meetings due to territorial disputes and projects in question not forming part of their strategic areas. Moreover, provincial PSC oversaw the project implementation at local level and met on a quarterly basis and more regularly when necessary. GDARD also stressed that, at the milling project, there was a time where the PSC was meeting every two weeks after the project fell behind schedule. This sums the importance of institutions understanding their role and expectations. Co-ordination challenges for the PSC in this instances were minimal and stakeholders were pushing a common interest.

The forums were responsible for the project coordination and enabled information sharing to enhance the outcomes of the project implementation. The project management units included the representatives from the different departments and agencies such as department directors or head of departments. The implementation of the project was through public-private partnerships. These project management partnerships (units) were responsible for contracting service providers for enterprise development, branding and market access.

For instance, the DTI together with FABCOS and Old Mutual Masisizane Fund earmarked to work together and other institutions such as IDC and DAFF as supporting departments (The

Department of Trade and Industry, 2014). The partnership was aimed at assisting the HDI controlled or owned businesses to become sustainable and secure funding for the establishment of Agro-processing Enterprises which included small-scale milling (The Department of Trade and Industry, 2014). Moreover, the respondent from NAMC argued that, NAMC focused on SIP11 projects which dealt with infrastructure development of Agro-logistics and reported to the Presidency. Over and above, FABCOS and Old Mutual Masisizane Fund were also contacted but there was no avail which led to the study relying on secondary data.

4.3.Roles and Responsibilities

The DTI after identifying the development of a small-scale milling industry as an area of strategic focus, identified public and private institutions to assist with addressing the anti-competitive practices within the milling industry. The institutions were responsible for industrial finance, project management, bulk infrastructure development, market access, skills development and training as well as enterprise development (The Department of Trade and Industry, 2014). The DTI being the lead department, identified the IDC, FABCOS, NAMC, Old Mutual Masisizane Fund and DAFF as supporting departments or agents (The Department of Trade and Industry, 2014). Table 3 is a summary of the survey data representing the stakeholders involved in the milling project, their roles and an analysis of the challenges in the institutional arrangement.

Table 3: A summary of the lead and support department/agencies, roles, mandates and challenges from the survey.

Stakeholder	Type of player	Roles	Mandates	Challenges
DTI	Lead	• Industrial finance • Market access	• Creation of a competitive industry • Employment creation	• Policy failure • Moral hazards
IDC	Support department	• Industrial finance	• Enhancing the industrial capability through funding.	• Lack of prior consultation by lead departments during policy development stage
GDARD	Support department	• Supporting the DTI	• Economically transformed agricultural sector • Sustainable environmental management	• Lack of technical capacity
DAFF	Support department	• Supporting the DTI	• Employment creation • Food security	• Territorial disputes
FABCOS	Support department	• Rolling out of small-scale mills	• Promoting the development of township and rural small business.	• Could not be identified since the institution was

				not available for the interview
NAMC	Support department	• Agro-logistics infrastructure development	• Providing agricultural marketing advisory services	• Quality of data supplied • Insufficient stakeholder buy-in
FoodBev Seta	Support department	• Training and skills development	• Promoting, facilitating and incentivising skills development	• Could not be identified since the institution was not available for the interview
DRDLR	Support department	• Supporting the DTI	• Initiating, facilitating, coordinating, catalysing and implementing integrated rural development programmes.	• Could not be identified since the institution was not available for the interview
Old Mutual Masisizane Fund	Support department	• Development of small- scale millers • Entrepreneur finance	• Offering entrepreneur finance and business support	• Could not be identified since the institution was not available for the interview

According to the DTI respondent, the lead department (DTI) was responsible for the project execution and market access of the final products (maize meal) from the new miller. The execution role was done through the department ensuring that projects identified in IPAP are reflected in their business execution plan. The DTI provided industrial finance for the procurement of capital milling equipment. In addition, the market access role was made possible through offtake agreements which the DTI undertook with supermarkets such as Pick 'n' Pay and Boxer to ensure that the entrepreneurs has access to markets after milling their maize.

The DTI in collaboration with FABCOS and NAMC were responsible for rolling out the small-scale mills (The Department of Trade and Industry, 2014). On the other hand, the FoodBev's role was skills development and training (The Department of Trade and Industry, 2014). Moreover, FABCOS was responsible for the product development. The DTI signed a Memorandum of Understanding with FABCOS to ensure that all identified deliverables between the two institutions are executed accordingly for instance FABCOS was responsible for the rolling out of the mills once DTI has provided the funding (The Department of Trade and Industry, 2014). The IDC, provincial economic departments and Old Mutual Masisizane

Fund were also listed as supporting agencies and department (Industrial Development Corporation, 2014). According to the respondent from the IDC, the institution did not fund any project for the past 10 years and milling was not part of their strategic area. The respondent from DAFF argued that the institution was not part of the project and they had no role to play, referring the study to the provincial department being GDARD. The respondent from GDARD advised that, GDARD role on providing infrastructure was limited due to lack of technical know-how or capacity and through subcontracts with local governments and agencies, GDARD was responsible for facilitating bulk service infrastructure for power, water and sewer services.

4.4.Funding

The funding mechanism of the milling industry was anticipated to be done by more than one institution through various funding models (The Department of Trade and Industry, 2014). However, data from interviews has proven that the funding was only done solely by the DTI and IDC argued that they never funded any projects within the last 10 years. The DTI respondent stated that, the DTI was the only institution which funded the milling project. Notwithstanding the fact that other institutions such as DAFF, NAMC and GDARD never mentioned issues of funding. The Old Mutual Masisizane Fund was also meant to assist with finance as per secondary data (The Department of Trade and Industry, 2014). However, due to limited reports accessible on the finalisation of the project and the institution not availing for the interviews, the research concluded that only the DTI funded the projects.

The study also noted that the ambiguity of the IPAP document in terms of clear roles might also have been the reason why the DTI ended up funding the projects alone. According to the respondent from IDC, the DTI funding was co-funding (not 100%) and the enterprises struggled to source additional funding as other institutions mandated to assist with industrial finance could not assist as government priorities is not always aligned to their priorities. Where there is an alignment, FDIs play their roles for example, in 2018, the IDC provided a ZAR 39 million capital injection to Makhamisa Foods for operational cost in their newly acquired factory which was critical for their expansion. In addition, the IDC also offered funding to Saucy secrets to enable the company to obtain the necessary accreditations, expand its product lines to squashes and cooldrinks as well as print packaging in-house. The lack of alignment also contributed to policy failure and moral hazard, subsequently no current visible successes. Network is not about having various institutions, but institutions who understand their roles, execute and strive to achieve a common goal.

4.5.Enterprise Development

Literature stated that the Old Mutual Masisizane Fund and FABCOS were essential institutions for the expansion of the small-scale milling industry for their role of ensuring the development of SMMEs which would result in growth and sustainable market-driven employment opportunities (The Department of Trade and Industry, 2014). This exchange of information and services would have been a critical success factor to develop SMMEs (HDIs) in various sectors (The Department of Trade and Industry, 2014).

The FABCOS roles among the few were to provide continuous capacity building and training support to SMMEs and facilitate market access and business opportunities (The Department of Trade and Industry, 2014). These roles do not seem to have been fully executed because the enterprises are argued to have failed to sustain themselves due to business practices and not policy prescripts.

Moreover, Old Mutual Masisizane Fund was meant to provide flexible and structured enterprise loan finance to identified micro millers and entrepreneurs linked to milling value chains such as micro millers and grain clusters including mechanisation (The Department of Trade and Industry, 2014). The institution also aimed at providing enterprise support function such as after care support, mentorship support, technical support and market development support to funded enterprises (The Department of Trade and Industry, 2014). However, the study has learnt that these functions were not fully executed and the institution could not avail for interviews, despite numerous follow ups. Based on the respondent from the DTI, the milling project has no visible successes due to poor business practices and not policy prescripts. Stakeholder engagement was also a challenge during the implementation of the policy, meaning most institutions roles were not executed as anticipated.

4.6.Stakeholder Engagement

Effective stakeholder engagement is very essential in ensuring an effective public policy implementation. According to the respondent from GDARD, the GDARD worked with the Rand Water Foundation because of their proximity to engineering services and Municipalities for areas of implementation. For example, the milling project situation, GDARD worked with both the District and Local Municipality (West Rand and Rand West City respectively). The municipalities had their own challenges and their own demands such as the employment of local labour, sub-contracting of local suppliers and often demanded that some of the money be transferred to Municipalities for implementation which has generally not been successful. Despite the engagements with municipalities, GDARD also had a Project Steering Committee

which met on a quarterly basis and more frequently based on the challenges at the project, for instance with the milling project, there was a time where the PSC met every two weeks after the project fell behind schedule.

On the other hand, the respondent from NAMC stated that, NAMC coordinated and chaired the SIP11 Steering Committee which consisted of the Agricultural Research Council, DAFF, DTI and Department of Rural Development and Land Reform to address infrastructural backlogs crucial for the growth of the agricultural and agro-processing sector. Despite the number of institutions being part of the Steering Committee, NAMC still experienced challenges in the quality of data supplied in some cases (insufficient stakeholder buy-in, reporting fatigue, etc). Lastly, the respondent from the DTI mentioned that the institution formed the Agro-processing Forum after 2015, consisting of other government departments as a solution to enhance stakeholder engagement. Coordination of various institutions is the biggest impasse within government due to territorial or mandate issue and reluctance in taking accountability. The study has noted that, despite DTI executing its mandate, with poor stakeholder engagement and intergovernmental institutional arrangements there is no effective public policy implementation.

4.7.Conclusion

The DTI as the lead department with the aim of supporting the market entry of small-scale millers, the institution made use of network systems through use of institutional arrangements. Numerous institutions were interviewed and the ones which were unavailable for the interviews, the study used policy documents and reports to solicit the information. Both primary and secondary data highlighted five themes (institutional arrangements, roles and responsibilities, funding, enterprise development and stakeholder engagement) as areas of focus in dealing with the small-scale milling industry. Due to the weaker network systems because of poor intergovernmental institutional arrangements, the above five themes were not successfully addressed which led to project failure.

CHAPTER FIVE

5. ANALYSIS OF FINDINGS

5.1. Introduction

Development of the agro-processing sector has been viewed as a tool for economic growth through its potential of job creation which alleviate poverty, reduce inequality and improves people's standard of living (The Department of Trade and Industry, 2011). Academics has proven that agriculture is not only aimed at creating jobs, reduce poverty and nourish the continent but a foundation for economic transformation (Briones & Felipe, 2013). In the case of South Africa, government adopted the IPAP as an industrial tool to intervene in priority industries with special focus on manufacturing such as the agro-processing sector to support industrial growth (The Department of Trade and Industry, 2007). The IPAP was adopted through the DTI as the leading department and the implementation thereof required more than one institution (The Department of Trade and Industry, 2007).

The aim of the research was to unpack the institutional arrangements involved when developing the agro-processing manufacturing sector with milling industry as a case study in the period 2011-2015 through applying the network theory principles. To provide responses on the institutional roles, mandates, structure and interrelationships of networks thus primary and secondary questions, literature was collected, reviewed and empirical data was collected through interviews. Qualitative research methodology was used to understand the involved institutions and network systems thereof. The research explored the roles of identified institutions in respect of the subject matter mentioned earlier and highlighted their challenges as highlighted in Table 3 in the previous chapter.

5.2. Institutional Arrangements

Institutional arrangements are currently an important instrument used by government around the world for policy implementation due to an urgent need to improve service delivery, growth the economy, create jobs and alleviate poverty (Hudson et al., 2019). Institutional arrangements enable government departments to solicit expertise from other government departments, agencies and the private sector to ensure effective policy implementation (Naidoo, 2003 and Brynard, 2005). However, this approach is also susceptible to policy failures due to complexities involved in organising and managing the networks (Naidoo, 2003). Moreover, the challenges such as lack of leadership, technical capacity and lack of clear functional roles, faced by intergovernmental institutional relationships are major risk for the success of

institutional arrangements involving the private sector (Kuye & Ile, 2007 and Visser, 2009). The institution indicated that, coordination should happen at highest political level (Ministers level). The Ministries who are to work together must engage at highest level and agree on shared responsibilities and not operational level.

The management of programmes is mainly founded on issues of authority amongst departments whilst policy priorities cut across ministerial mandates (Malan, 2005). Thus, poor incorporation of services at community level, replication and inability to forge collaborative partnerships always result in lack of institutional arrangements and failure of the project or programme (Malan, 2005). The institution further indicated that, prior to the formation of the Agro-forum, coordination in government was very challenging within the agro-processing spectrum. In terms of the milling project, resource sharing was none as the DTI provided the required resources. At a provincial level, the outcome was different as there was attraction to engage with the DTI since the projects were being implemented in the Gauteng Province. However, for long term planning point of view, coordinating stakeholder engagement in government is very challenging. At national level, there is always an element of various institutions arguing that there is mandate encroachments.

Therefore, the network theory was used in this study to analyse the structure, goals, functions and challenges of the institutional arrangements for the development of the micro milling sector under the IPAP.

5.3. Network analysis

The institutional approach to policy implementation is a formal organisation and use of resources from different institutions with the sole objective to improve policy implementation effectiveness. The network theory was therefore, used to establish the structure, function and challenges encountered in the development of the agro-processing sector (Hazlehurst, 2001).

The lack of human capital, technical resources, malfunctioning management processes, ineffective omission by the central government over the functions of the appropriate institutional structures were also identified as significant impediments to policy implementation (Walters, 2014). Thus, this has led to the inability of government to organise within itself and coordinate collaboration for effective policy implementation which has severe implications on the success of institutional approach involving the private sector and NPOs (Malan, 2005 and Visser, 2009). A point in case was the point made by the GDARD, arguing that its role on providing infrastructure was limited due to lack of technical know-how or

capacity and through subcontracts with local governments and agencies, GDARD was responsible for facilitating bulk service infrastructure for power, water and sewer services.

Therefore, the establishment of institutional arrangements with sustainable funding, effective, skilled and experienced leadership, active constituting groups from private and private sector has a huge potential to ensure effective policy implementation (Naidoo, 2003 and Walters, 2014). Moreover, centralised control of this formal institutional approach is important to effectively coordinate and manage complex network linkages involved in the arrangements as networks are a link between two or more actors that share the common goal (Börzel, 1998). The link might be between public and private sector or linking diverse actors who share policy interest and exchange resources to pursue policy through cooperation (Börzel, 1998). Institutional arrangements with decentralised control thus general have deficiency in organisation and effectively operating as a complete system to effectively deliver on their policy mandates (Provan & Milward, 1995).

The structure of the institutional networks in the agro-processing development was centralised and coordinate from and around the DTI which was the lead department. The DTI as the lead agent ensured that developmental finance and market access were available. The implementation of the policy was carried with secondary agents which were provincial departments and private institutions which assisted with access to infrastructure and project management for the procurement and commissioning of the mills. The GDARD was involved in ensuring the access to water infrastructure though collaboration with local institution. The institution indicated that, the GDARD worked with the Rand Water Foundation because of their proximity to engineering services and Municipalities for areas of implementation.

The structure and interrelationships of the networks was also highly characterised by participation of the institutions which were informed by the policy mandates aligned with the organisational strategy and objectives of the institutions (Farrell & Heritier, 2003 and Hill, 2005). For instance, the GDARD stressed that their participation was informed by their goal to create employment and find alternative markets for the farmers in the Gauteng province.

Moreover, the IDC stressed that their lack of funding of projects in the agro-processing sector development was due to the misalignment of their organisational strategy and that of the objectives of the agro-processing sectoral development. The institution emphasised that, the IDC did not fund any project in this subsector citing how the sector did not align with its priority area of focus.

A more prominent feature in the structure and interrelations of the network was territorial disputes between DTI and other departments such as DAFF. Although the participation of DAFF would have made a major contribution into the development of the agro-processing sector, the department was unwilling or reluctant to be involved. The institution indicated that, the national departments such as DAFF would have been effective, but their support was minimal or closer to none due to among others issues of line functions between the departments. The above scenario is a classic example of institutional jealousy which has been widely documented to be a major obstacle for collaboration among the government institutions and this impact policy implementation. The above is consistent with the report of Urwin & Jordan (2008) stating that antagonist policy interplay amongst the stakeholders threaten and undermine the policy goals achievement. Therefore, the effectiveness of institutional arrangements depends on how well each organisation understands and play its role rather than how well the institutional arrangement is integrated (Provan & Milward, 1995).

5.4. Mapping the institutions in the institutional arrangements for development of the micro milling sector, their roles and motive for participation

The development of the micro milling sector was part of the strategic sector development of the IPAP (The Department of Trade and Industry, 2014). The DTI was the lead department for the development of the micro milling sub-sector which aimed at facilitating market entry of small-scale millers into the formal market (The Department of Trade and Industry, 2014). The strategy's objectives were to provide capital expenditure to procure milling equipment for expansion, business incubation and market access (The Department of Trade and Industry, 2014). The institution indicated that, the DTI played only two significant roles, thus of execution and market access of the final products (maize meal) after processing. The execution role was done through the department ensuring that projects identified in IPAP are reflected in their business plans for execution. Therefore, the implementation role was done through ensuring that the industrial finance part of the milling projects was well taken care of.

The DTI's mandate was to redress the South African milling sector ant-competitive practise thereby reducing the cost of basic product, resulting in enterprise development, creation of jobs and reduction in poverty (The Department of Trade and Industry, 2014). The DTI as the lead department provided industrial finance for capital expenditure to small-scale millers to enable integration into the commercial milling market. Moreover, market access was facilitated through offtake agreements which the DTI undertook with supermarkets such as Pick 'n' Pay and Boxer to ensure that the entrepreneurs had access to the market for their products.

Subsequently, incubation played a significant role to ensure the success of start-up enterprises by equipping them with the right management and technical expertise (The Department of Trade and Industry, 2014). The FoodBev Seta and NAMC were the supporting agencies responsible for skills development and training (The Department of Trade and Industry, 2014). However, no data is available or was solicited from FoodBev Seta on the involvement in the incubation of this project due to non-availability for the interview. Although, the DTI signed a Memorandum of Understanding with FABCOS to facilitate the rolling out of the mills, this did not materialize, and the latter could not provide information on their role.

The agro-processing sector success and sustainability is highly dependent on the supply of adequate and affordable feedstock (IDC, 2018). Thus, incorporation of small-scale farmers into the processing value chain was mandatory to achieve the objective (IDC, 2018). The provincial departments operate at a local level which is in close proximity to both the small-scale millers and farmers and were therefore, suitable for supporting departments in the implementation of the IPAP. However, the GDARD through its 2015 revised agro-processing strategy got involved in the micro milling sub-sector development project. The GDARD adoption of and participation within the agro-processing sector was due to the potential of value addition to primary agriculture and potential for employment creation in the province. The GDARD's other role was to provide alternative markets to local maize farmers through supplying the new micro milling subsector. The institution indicated that, the milling project was introduced to GDARD by FABCOS, who were then the implementing agents for the DTI. That was in 2013. However, it was only in 2015, with the adoption of the revised strategy, that the Province got involved in the Micro-milling project. The main objective was to provide alternative markets for our maize farmers in the Maize Triangle.

Moreover, the GDARD facilitated the provision of utilities through collaboration with local authorities or agencies such as the Rand water, West Rand district and Rand West City local municipality for bulk service provision. The NAMC, through the coordination of SIP11 in collaboration with Agricultural Research Council, DAFF, DTI and Department of Rural Development and Land Reform addressed infrastructural backlogs important for growth of the agricultural and agro-processing sector.

The IPAP policy identified the IDC as an industrial finance partner for the development of the micro milling subsector (The Department of Trade and Industry, 2014). However, the institution indicated that, the IDC did not fund any project in this subsector citing how the

sector did not align with its priority area of focus. The micro milling was a feasible sector to commercialise because the local maize meal market is very concentrated. The key players sell multiple products to food retailers as a profitable basket, but drilling deeper, there will be cross subsidisation amongst the different products. Therefore, a new entrant with a single product, would be easily outmuscled by big players targeted with specials at a consumer level thereby making it difficult to survive.

Thus, the institutional network in the micro milling strategy enable the DTI, which was the lead department to establish relationships with non-governmental institutions during the policy implementation (Naidoo, 2003 and Brynard, 2005). The data showed that there was no collaboration during the policy implementation stage. Institutional arrangements, however, can be initiated during the policy formulation stage (Hajer, 2003). Institutional arrangements from the policy implementation stage are ideal to ensure the development of policy strategies that ensure socially and economically optimal goals (Bryson et al., 2006).

Therefore, the lack of active participation by most of the agencies or stakeholders identified by the DTI in the IPAP was a result of poor or lack of stakeholder consultation during policy development. This was mentioned by the IDC respondent, who pointed out that there is always a disconnect between what government develops (in most cases on its own) as programmes and initiatives to drive economic growth and what lenders such as the IDC considers as commercially viable opportunities that can attract commercial capital. Despite being a State-Owned Entity, the IDC's decision to support government policy will only be informed by economic and commercial merit.

The composition of the institutional arrangements included a diverse range of agents thereby enabling active solicitation of non-government resources, experience and expertise to supplement the government's thereby enabling effective policy implementation (Naidoo, 2003 and The Department of Trade and Industry, 2014). However, the active participation of the identified agents/partners was influenced by the individual institution's motives or mandates (Naidoo, 2003). The institution indicated that, the primary concept to understand is that each stakeholder has their own mandates. They will only participate in your project if it addresses part of the mandate.

The motive for policy makers and non-profit organisations is often to achieve outcomes that enhance the overall benefits and well-being of the citizens with little regard on whether the goals of the individual institutions are met (The Department of Trade and Industry, 2014). On

the other hand, private sector is profit driven and will be less motivated to participate in institutional arrangements if the financial incentive to integrate and cooperate is weak (Provan & Milward, 1995). Thus, the GDARD, being a government department, was motivated to participate in order to create employment while FABCOS was motivated by the financial incentives which the institution might receive during the micro milling project.

5.5. Challenges of institutional arrangement affecting policy implementation projects and institutional risks due to policy failure

Institutional arrangements are effective mechanism for policy implementation through their potential to draw together a pool of expertise from the public and private sector (Jepperson, 2001 and Hajer, 2003). However, the success is dependent on the ability and extent to which the different stakeholders can address challenges that the government faces as a lone player in policy implementation and a comprehensive understanding of the government's need for partnership (Provan & Milward, 1995 and Klijn & Koppenjan, 2006). In addition, the involvement and participation of stakeholders in institutional arrangements is influenced by the net benefits of participation, thus, the stakeholders consider the challenges and risk of participation (Farrell & Heritier, 2003 and Hill, 2005).

The outcomes of policy implementation are ultimately dependant on the relative degree of influence, priorities over the policy and sensitivity of the different stakeholders to failure (Farrell & Heritier, 2003 and Hill, 2005). Furthermore, the effectiveness of institutional arrangements depends on how well each organisation play its role rather than how well the institutional arrangement is integrated (Provan & Milward, 1995). For instance, the institution indicated that, government in most cases identifies priorities and develop policies solely and require FDIs to fund meanwhile the FDIs have not identified the same areas as priorities which hinders how well the institution implement its expected role. Although institutional arrangements are designed for the different stakeholders to complement each other, antagonist policy interplay amongst the stakeholders threaten and undermine the policy goals achievement (Urwin & Jordan, 2008). In addition, the effectives of policy implementation may be hampered by differences in the motives of the different agents. The motive for policy makers and non-profit organisations is often to achieve outcomes that enhance the overall benefits and well-being of the citizens with little regard on whether the goals of the individual institutions are met (Provan & Milward, 1995). On the other hand, private sector is profit driven and will be less motivated to participate in institutional arrangements if the financial incentive to integrate and cooperate is weak (Provan & Milward, 1995).

Projects that involve financing or capital expenditure are susceptible to moral hazards. The potential of an entrepreneur misappropriating funds is high since there was no personal capital invested in the project. Moreover, DTI does not perform due diligence to assess the feasibility of the projects and technical ability of the entrepreneurs. For example, the DTI will take risk and provide the funding which is core funding (not 100%) basis and the entrepreneur may fail to secure the balance. The institution indicated that, the high costs of funding start-up is a major risk which determines active participation and financing by stakeholders. The high risk of failure of start-ups thus, is a disincentive for financial institutions to fund and a major injustice to the fiscal when funded through public funds.

In contrast to public institutions or civil society, the private sector and particularly the financial institutions, are primarily driven by profit making. Therefore, participation of the latter is driven by the return on investments (ROI). The failure of the DTI to secure the active participation of industrial financiers in the micro milling project was due to the lack of commercial feasibility of the project. This was a result of a lack of or inadequate consultation by the DTI during the policy development which would have enabled a comprehensive and viable strategy development for the micro milling project. For instance, the IDC respondent stated that, government priorities are not always aligned with the FDIs and it is a challenge for the FDIs to finance projects which are not part of their strategic areas.

In continuation, a lack of technical expertise is another major challenge in policy implementation (Walters, 2014). It was apparent that the lack of supply chain procurement and sound financial as well as accounting expertise in the institutions or agencies, involved in the institutional arrangements, was one of the big challenges faced by institutional arrangements in pursuit of policy objectives. Walters (2014), concurs with the above by arguing that, the lack of human capital, technological resources, defective management processes and organisational culture, ineffective omission by the central government over the functions of the appropriate institutional structures is also significant impediments to policy implementation. The institution stressed that, if GDARD transfer money to these institutions, proper accounting becomes a challenge because they do not account to GDARD and thus there are no disciplinary measures that GDARD can follow except to resort to legal issues based on the signed MOU and that takes long.

Furthermore, the lack of accountability of the funds received and progress made, results in costly lawsuits which are also at the cost of the fiscus (Walters, 2014). Thus, this demonstrates

how antagonist policy interplay amongst the stakeholders and differences in the motives of the different agent threaten and undermine the policy goals achievement (Urwin & Jordan, 2008). Although there are several channels, through which stakeholders engage, are present, the lack of sub-sector specific and clear objective as well as capable technocrats or experts has been a major challenge for policy implementation (Malan, 2005 and Visser 2009). This has led to lack of or poor information sharing which is essential for the success of the policy implementation projects (Malan, 2005 and Visser 2009). This poor coordination of forums is a major challenge for the effective functioning of IGRs which has significantly impacted on service delivery and government's effort for developmental policy implementation (Malan, 2005 and Visser 2009).

Furthermore, the lack of technical capacity within the participating institutions also results in sub-contracting of certain services at a huge cost and with the risk of non-delivery by the sub-contractor thereby affecting policy implementation and/or service delivery. This was apparent in the national's departments expecting the GDARD to carryout infrastructure projects despite the provincial department's incapacity in the area. The institution indicated that, GDARD implementation of infrastructure projects has been by far the biggest challenge. Government requires that infrastructure projects be implemented through the IDMS process, which is challenge for a Department like GDARD which has not been traditionally involved in infrastructure projects. This requires the involvement of other stakeholders. This led to subcontracting by the GDARD, which was a similar strategy adopted by DTI using FABCOS for rolling out the milling projects. The institution further indicated that, GDARD worked with the Rand Water Foundation because of their proximity to engineering services.

Thus, this adds a further layer of complication with regards to stakeholder management due to extensive range of variances in the mandates and objectives in the new role players being adopted in the process. Moreover, the lack of financial commitment by the additional role players results in another layer of moral hazards and thereby increasing the potential of policy failure.

Territorial dispute between government departments remain a major challenge to policy implementation projects. These are a result of duplication of mandates and processes within government departments. This was evident in DAFF's lack of or minimal participation in the milling project despite clear roles that this department could have played as identified from the IPAP policy document. For instance, the DTI identified mechanisation of primary agriculture important to improve productivity and competitiveness thereby ensuring adequate input supply

for the sustainability of the agro-processing sector (The Department of Trade and Industry, 2011).

Institutional arrangements enable the use of a single platform with collective behaviour, action and agenda to drive policy (Klijn & Koppenjan, 2006). However, organisations will be motivated to participate in institutional arrangements if the benefits of the arrangement outweigh the cost of maintaining the relationships, such as any potential loss of operating and decision-making capacity (Provan & Milward, 1995). Therefore, the participation or lack of thereof, was informed by the potential benefits of participation. The potential failure of start-ups in the milling sector was a disincentive for IDC and other private industrial finance institutions to assist in funding could have been attributed to the potential risk involved in the micro milling subsector (Farrell & Heritier, 2003). The data consequently illustrated that sensitivity of the different stakeholders to policy failure was an important determinant of their participation in institutional arrangements (Farrell & Heritier, 2003).

Although institutional arrangements are designed for the different stakeholders to complement each other, antagonist policy interplay amongst the stakeholders threaten and undermine the policy goals achievement (Urwin & Jordan, 2008). This was apparent in the inability of DAFF's to fully or actively participate in the milling project, citing territorial dispute, despite clear roles that this department could have played as identified from the IPAP policy document.

5.6. Stakeholder engagements, management, and challenges of the institutional arrangements

Effective stakeholder management is vital to the success of institutional arrangement in policy execution. The institutional network involved in the micro-milling strategy of the IPAP was comprised of the lead department which was the DTI and supporting agencies/departments which were identified by the DTI to enable soliciting both private and public sector support in the project implementation (The Department of Trade and Industry, 2014). The network theory was used to study the institutional arrangements in the involved in the micro milling strategy of the IPAP. The theory enables to establish the link and cooperation between two or more public and private sector players or who share policy interest and exchange resources to pursue policy (Börzel, 1998).

The DTI used different forums to engage with various stakeholders for the implementation of the micro milling project. The use of the forums proved to be futile due to the composition of various stakeholders which had different interests or mandates which contrasted with the object

of the micro milling project. Thus, the major weakness of the forums was the wide scope which focused on overall IPAP policy rather than being narrowed to sub-sector specific forums. This ultimately led to little information sharing and no key lessons being derived from these forums.

The ineffectiveness of the forums used by the DTI, in the micro-milling project, has been widely published and attributed to a range of weakness within the government. The launch of numerous intergovernmental institutional arrangements and the success thereof of these structures assumes that all spheres of government collaborate with one another in mutual trust, good faith and fully execute their expected roles (Layman, 2003 and Malan, 2005). The committees are mainly informal leading to them not having tangible decision -making powers and low-ranking officials attending (Mentzel & Fick, 1996 and Malan, 2005). There is always a diverse of processes and structures which exist but the roles and interrelationships remain uncertain (Malan, 2005). Thus, ineffective operation of IGR in South Africa will always result in project failure or poor policy implementation.

The stakeholder management in the institutional network of the micro milling project was decentralised and non-hierarchal. This was characterised by the autonomy of the different stakeholders to make decisions in their specific priority area of the project. The GDARD made use of agro-forums at provincial level to establish partnerships with local authorities which had the capacity to provide bulk infrastructure for the micro milling project. The institution indicated that, at GDARD currently there are a few forums such as the National Agricultural Marketing Forum, National Agro-processing Forum both having DAFF and DTI as well as the Provincial Intergovernmental Relations Forum with GDARD and Municipalities. These are good forums; however, they need to be drilled down to project level where challenges with stakeholders at that level can be brought to the attention of the relevant forum and task teams can be set up to resolve those challenges.

The survey data shows that there was minimal participation and interaction between the DTI and the supporting agencies which were meant to provide support such as incubation, training and funding for the micro milling project. The data revealed that stakeholder engagements and management between the DTI and the supporting agencies were a huge constraint due to the informal nature of participation by some of the institutions in the institutional arrangements.

Moreover, financial incentives played a huge role with regards to participation in stakeholder engagements. In contrast, the IDC was not actively involved in the micro milling project due to the lack of economic feasibility of the project which meant there were no or very minimal

ROI considering the huge risk of this subsector. The lack of active participation of FoodBev and NAMC in training and skills development could be attributed to the absence of financial gains for their contribution.

The research uncovered that the DTI and the supporting institutions had an informal relationship and was non-hierarchical, with the administrative strategy and control dispersed among the different agents, which is consistent with the network theory analysis of institutional arrangements (Börzel, 1998; Hazlehurst, 2001 and Blair, 2002). Furthermore, the theory states that effectiveness of institutional arrangements depends on how well each organisation understands and play its role rather than how well the institutional arrangement is integrated (Provan & Milward, 1995). This was greatly illustrated by GDARD's ability to establish relationships outside the institutional arrangement, with other local government agencies to accomplish its goals towards the project's strategies. The approach states that arrangements between multiple institutions are crucial during public policy making process which leads to team-work and sharing of ideas (Börzel, 1998). The lack of idea-sharing was highlighted by the respondents as a major challenge during stakeholder engagement and management, thus this impacted the efficiency on the network during the micro milling sub-sector development.

5.7. Conclusion

The small-scale milling project was a failure due to lack of proper institutional arrangements. According to Provan & Milward (1995), effectiveness of institutional arrangements depends on how well each organisation understands and play its role rather than how well the institutional arrangement is integrated. The study has proven that most institutions did not understand or play their role which led to policy failure. Visser (2009), also reported that the failure of the intergovernmental institutional arrangements was greatly attributed to a lack of clear functional roles for the different actors. Information gathered through document analysis was in line with the findings from the interviews, notwithstanding the fact that some participants could not avail for the interviews due to lack of consultation by the lead department (DTI) when developing the policy, which limits the soundness of the information received by the study.

The success and sustainability of agro-processing sector is highly dependent on the supply of adequate and affordable feedstock (IDC, 2018). Thus, incorporation of small-scale farmers into the processing value chain was mandatory to achieve the objective (IDC, 2018). The involvement and participation of stakeholders in institutional arrangements was influenced by the net benefits of participation, meaning the stakeholders would consider the challenges and

risk of participation (Farrell & Heritier, 2003 and Hill, 2005). The failure of the DTI to secure the active participation of industrial financiers in the micro milling project was due to the lack of commercial feasibility of the project. The lack of or inadequate consultation by the DTI during the policy development which would have enabled a comprehensive and viable strategy development for the micro milling project contributed to the failure of the project.

Moreover, the lack of sub-sector specific and clear objective as well as capable technocrats or experts has been a major challenge for policy implementation which led to poor information sharing which was essential for the success of the policy implementation projects. It is worth noting that various forums were put in place but the focus was wide and not narrowed down to a specific sub-sector forum. This led to networks existing but not concrete or relevant enough for information sharing.

CHAPTER SIX

6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The aim of this exploratory research was to identify the institutions involved in the development of the agro-processing manufacturing sector with milling industry sub-sector in the period 2011-2015 as well as identifying the roles and objectives of each institution.

Information gathered through document analysis is in line with the findings from the interviews, notwithstanding the fact that some participants could not avail for the interviews due to lack of consultation by the lead department (DTI) when developing the policy which limits the soundness of the information received by the study. Literature argued that to avoid wastage and duplication of services or programmes, various institutions need to join available resources and coordinate the services (The Department of Trade and Industry, 2011). However, findings from the interviews has proven otherwise, the reality on the ground is different from theory on networks. Institutions are faced with challenges of coordination and there is no sharing of resources.

An element of institutions sensing duplication of services and mandate encroachment is of high concern and plays a critical role in hindering the coordination processes. For the development of the agro-processing manufacturing sector in the period 2011-2015, the researcher is of the view that it would have been very beneficiary if the institutions shared knowledge, information and support as this could have assisted the sustainability of the commissioned mills.

Therefore, drawing from the interviews and literature, the study discovered that the implementation of the IPAP required a determined effort from both government institutions and private institutions. The finding echoed with the literature which concluded that, the effectiveness of institutional arrangements depends on how well each organisation understands and play its role rather than how well the institutional arrangement is integrated (Provan & Milward, 1995). Urwin & Jordan (2008), also supports arguing that institutional arrangements are designed for the different stakeholders to complement each other, antagonist policy interplay amongst the stakeholders threaten and undermine the policy goals achievement. In addition, the effectives of policy implementation may be hampered by differences in the motives of the different agents (Urwin & Jordan, 2008).

Despite the significant investments into research and business development in the agro-processing sector, literature argues that South Africa remains a net importer of agro-processed products and this is supported by the findings from the interviews stipulating that current visible successes are closer to none due to poor business practices and not policy prescripts. With such situations, the study understands why South Africa is forced to import the processed products because there is ineffective coordination between government and private institution which could address the issues of poor business practices post receiving funding.

In continuation, literature on the institutional arrangements and their roles during the implementation of the IPAP is very limited. Information gathered form the respondents suggest that the network in the implementation of IPAP is covered with various challenges such as mandate encroachment and political influence to mention a few which creates a lag in networks. These challenges were inter-linked with coordination and leadership. According to respondents, leadership is not only about ensuring resources are available but also understanding that politics must come after economics and ensuring that their counter parts from various institutions who share the same policy goals are brought on board.

Meetings with various institutions were a challenge to convene despite the fact that the various institutions shared common goals. The network system was ineffective when brought into practice. Brynard (2005), also argued that, deviations from policy goals during implementation is a result of impracticable policies and shortage of managerial know-how, insufficient coordination amongst different stakeholders, insufficient human capital and capacity in the three spheres of government and linkages thereof. The IPAP identified various institutions as support departments but the findings from the interviews provided a different list of institutions as discussed in the previous chapters arguing that during the implementation process, the DTI provided its own funding towards the projects and coordinating other institutions was challenging. Network was explained as a link between public and private sector or linking diverse actors who share policy interest and exchange resources to pursue policy through cooperation (Börzel, 1998). Thus, for the purpose of this study, the link was not solid enough to sustain the commissioned mills, the network was weak.

In continuation, the DTI funded the project solely without other institutions due to their minimal participatory role or none, none financial implications and territorial disputes. GDARD was meant to be fully involved in the implementation because the pilot province was Gauteng but the findings from the GDARD's respondents proves that the involvement was

very minimal and the institution gained momentum at a later stage post the investigated period. In terms of FDIs, IDC was identified as a financial contributor but the respondent from IDC in a written response stated that the institution has not financed any milling transaction in the last 10 years and milling was not a strategic area. Notwithstanding FABCOS, the institution responsible for the rolling out of the funded mills as per the Memorandum of Understanding, could not avail for interviews and GDARD also mentioned in their written response that the milling project was introduced to the department by FABCOS which reinforces the role of FABCOS. Thus, due to other institutions not availing for interviews, the study relied more on the limited available and accessible secondary data such as policies, reports and articles to solicit the required information.

Furthermore, stakeholder engagements between the institutions has been argued as a very challenging matter. These were stated as reasons among the few, none financial implications required from the other institutions for the project to be executed, resistance to finance the interactions if there are financial implications, mandate encroachments, lack of benefits from the project and to a certain extent duplication of roles. However, various forums were established with the aim of bringing together all the relevant institution who are striving to achieve the same goals such as PSC, SIP11 Steering Committee and Agro-processing Forum.

In summation, the information gathered through the interview and written response has shown that engagements among various institutions did not fully exist meaning the network system was weak and not strictly formal. Within the various government institutions, it was evident that some departments were not aware if they or did not have any role to play in the implementation of IPAP. Despite GDARD playing a role in developing the agro-processing sector, this was not mainly for the implementation of IPAP but implementation of the GDARD Agro-processing Strategy 2014-2019 which was aligned to IPAP. The non-participatory role by other institutions while they were mentioned in the IPAP during the drafting phase as per the literature raises a fundamental question of consultation, duplication of services, mandate encroachment and sharing of information.

An interesting point in the research was the discovery that the mandate of the DTI which is industrial finance and access to markets as per the information gathered from the interview was achieved towards the implementation of the IPAP but there were no visible successes due to business practices and not policy prescripts. Information gathered through interviews claimed that the success of policy execution depends on stakeholder relations meaning the patterns or

link between the network members play a critical role in influencing policy implementation. The project failed due to poor consultation at the initial stages of developing the policy, the policy ambiguity in pronouncing the various roles expected from the individual institutions and government priorities not always aligned to the priorities of FDIs which lead to the projects not receiving additional financial support. Thus, poor intergovernmental institutional arrangements led to poor sustainability of small enterprises in the milling sector, hence project failure.

6.2. Recommendations

6.2.1. Consultation

Lack of consultation within various institution from the policy development stages has proven to have negative consequences on policy implementation. In order to enhance policy implementation and intergovernmental institutional arrangements, the study recommends the following;

6.2.1.1. Industrial policy durations must be introduced to the project at planning phase to avoid lack of participation at implementation phase.

6.2.1.2. Government must work together with DFIs for funding purposes as this will ensure that their priority areas are also considered by DFIs when identifying their strategic areas and are also aligned to FDIs.

6.2.1.3. The DFIs should be allowed to work independently of government and not be biased towards government objectives.

6.2.2. Coordination

Ineffective policy implementation requires good intergovernmental institutional arrangements and proper coordination. Primary and secondary data has proven that coordination within various networks was poor if not closer to none during the development of the small -scale milling project. It is thus for this reason; the study recommends the following:

6.2.2.1. Institutional arrangements between government and private sector need to be strengthened to avoid or minimize poor business practices on entrepreneurs once they have received funding. Thus, within network systems, mentoring institution need to be included to ensure that businesses are run effectively.

6.2.2.2. Coordination between institutions must be introduced at highest political (Ministerial) and decisions made be formalised and escalated down to operational level to avoid issue of encroachment during implementation phase.

6.2.2.3. Collaboration between government, academics and the private sector is very crucial for the successful development and execution of the industrial policy strategy due to enhanced information which results in the formulation of socio-economically optimal strategies (Azarhoushang, 2013).

6.2.2.4. Government to ensure that its role, through collaboration among various government agencies, is aimed at creating and promoting new value chains and markets to enable the successful privatisation of the agro-processing sector.

6.2.3. Policy making, planning and implementation

The policy initiation, planning and execution is very crucial to determine the success of the policy. In this instance, policy implementation in this study did not yield the expected results due to various reasons, which includes poor intergovernmental institutional arrangements and lack of consultation. It is against this backdrop that the study recommends the following in order to improve policy implementation:

6.2.3.1. Government needs to develop policies for the bio-economy and integrate them with agricultural sector simultaneously to address environmental issues and agro-industry development (OECD, 2019).

6.2.3.2. Government needs to develop policy framework to motivate value addition to agriculture for the raw materials to be processed locally and decrease importation of processed goods.

6.2.3.3. Agricultural policies must be drafted together with industrial policies because both policies strive to contribute to the national long-term vision such as job creation, poverty alleviation and reducing inequality (Briones & Felipe, 2013).

6.2.3.4. Government needs to implement laws that discourages monopolies and consequently SOEs to improve productivity. These measures result in huge investments in various sectors and subsequently significant economic growth, skills development and employment creation (Azarhoushang, 2013).

6.2.3.5. Government needs to adopt a largely regulatory role, involvement in infrastructural development and investments in R & D (Azarhoushang, 2013).

6.2.3.6. Government needs to promote and support private investments through financial incentives and subsidies if private investments meet the requirements aligned with policy objectives and has significant socio-economic benefits (Azarhoushang, 2013).

6.2.4. Roles and Responsibilities

The network theory states that for institutional arrangements to be effective, it is not about how well the institutions are integrated but how they all understand their roles and subsequently execute them fully. Secondary data highlighted the roles of various institutions even though they were not clear, and after conducting interviews, the study noted that the institutions were not consulted of the roles and did not understand them. This led to the ineffectiveness of the intergovernmental institutional arrangements leading to poor policy implementation. The study recommends that:

6.2.4.1. The lead department must ensure that consultation is done noticeably with all relevant institutions. The roles of each institution are clearly understood and performed rather than focus on how well institutional arrangement are integrated to avoid weak network systems (Provan & Milward, 1995).

REFERENCE LIST

Anyebe, A. A. (2018). An Overview of Approaches to the Study of Public Policy. *International Journal of Political Science,*4(1), 08-17. https://www.arcjournals.org/pdfs/ijps/v4-i1/2.pdf

Ayinde, A. F., Kwaghe, P. V., Agbiboa, D. E., & Jijji, S. A. (2016). *Political Settlement Analysis of Employment Creation in Agriculture and Agro-industries in Nigeria.* Partnership for African Social and Governance Research Working Paper No. 015, Nairobi, Kenya.

Azarhoushang, B., (2013). *Industrial Policy and Employment promotion: Case of China*. https://www.boeckler.de/pdf/v_2013_10_24_azarhoushang.pdf

ATA, (2011). *Agricultural Transformation Agenda: We Will Grow Nigeria's Agricultural Sector.* http://unaab.edu.ng/wp-content/uploads/2012/10/Agricultural%20Transformation%20Blue%20Print.pdf

Badenhorst, C. (2007). *Research Writing: Breaking the Barriers*. Pretoria: Van Schaik Publishers.

Barrett, C. B., & Lee, D.R. (2005). Institutional Arrangements for Rural Poverty Reduction and Resource Conservation. *World Development*,33(2), 193–197

Blair, R. (2002). Policy Tools Theory and Implementation Networks: Understanding State Enterprise Zone Partnerships. *Journal of Public Administration Research and Theory: J-PART*, 12, (2), 161-190

Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. (2009). Network Analysis in the Social Sciences. *Science* 323, 892-895.

Börzel, T. A. (1998). Organizing Babylon- On the different conceptions of policy networks. *Public Administration*,76, 253-273

Briones, R., & Felipe, J. (2013). Agriculture and Structural Transformation in Developing Asia: Review and Outlook. *Asian Development Bank*, 363. https://www.adb.org/sites/default/files/publication/30380/ewp-363.pdf.

Brynard, P.A. (2005). *Theme: harnessing the partnership of the public and non-state sectors for sustainable development and good governance in Africa: problems and the way forward.*

27th aapam annual roundtable conference, Zambezi Sun Hotel, Livingstone, Zambia 5th – 9th December 2005.

http://unpan1.un.org/intradoc/groups/public/documents/AAPAM/UNPAN025756.pdf

Chang, H., (1997). *Evaluating the Current Industrial Policy of South Africa*. Faculty of Economics and Politics. University of Cambridge.

Cloete, F., & Wissink, H., Eds, (2000). *Improving public policy, theory, practice and results*. Van Schaik Publishers

Cox, G.W., & McCubbins, M.D. (1997). *Political Structure and Economic Policy: The Institutional Determinants of Policy Outcomes*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1009999.

DeGroff, A., & Cargo, M. 2009. Policy implementation: Implications for evaluation. In

J. M. Ottoson & P. Hawe (Eds.), Knowledge utilization, diffusion, implementation, transfer,

and translation: Implications for evaluation. *New Directions for Evaluation,* 124, 47–60.

Department of Agriculture, Forestry and Fisheries, (2012). *Agro-processing Strategy.* Pretoria: South Africa. http://www.nda.agric.za/doaDev/sideMenu/AgroProcessingSupport/docs/DAFF%20agro-processing%20strategy.pdf

DRT, (personal communication, March 17, 2020) *Programme Implementation Plan*. Johannesburg. South Africa

European Commission Directorate for Agriculture. (1998). *Agricultural situation and prospects in the Central and Eastern European Countries*. CEC Summary Report. http://aei.pitt.edu/36227/1/A2222.pdf

European Investment Bank. (2006). An Industrial Policy for Europe*? From concepts to action*. 11 (2), 1-158

FAO in Kenya. (2019). *The agriculture sector in Kenya*. http://www.fao.org/kenya/fao-in-kenya/kenya-at-a-glance/en/

Farrell, H., & Héritier, A. (2003). Formal and Informal Institutions Under Codecision: Continuous Constitution-Building in Europe *An International Journal of Policy, Administration, and Institutions*, 16, (4), 577–600.

Fritz, T. (2011). *Globalising Hunger: Food Security and the EU's Common Agricultural Policy (CAP).* https://www.tni.org/files/download/CAPpaper-draft_0.pdf

Gauteng Department of Agriculture and Rural Development, (2015). *Gauteng Agro-processing Strategy.* Gauteng Province: South Africa.

http://www.gdard.gpg.gov.za/Documents1/Gauteng%20Agro-processing%20Strategy.pdf

GDARD, (2020). *Written responses from the interviews on the Research Questionnaire.*

Grindle, M.S., & Thomas, W.T. (1989). Policy makers, policy choices, and policy outcomes: The political economy of reform in developing countries. *Kluwer Academic Publishers,* 218.

Hajer, M. (2003). "Policy without polity? Policy analysis and the institutional void". *Policy Sciences*, 36, 175-195

Havlin,S., Kenett, D.Y., Ben-Jacob, E., Bunde, A., Cohen,R., Hermann,H., Kantelhardt, J.W., Kert´es, J., Kirkpatrick, S., Kurths, J., Portugali, J., & Solomon, S. (2012). Challenges in network science: Applications to infrastructures, climate, social systems and economics. *The European Physical Journal*, Special Issues, 214, 273–293

Hazlehurst, D. (2001). *Networks and policy making: from theory to practice in Australian social policy*. https://openresearch-repository.anu.edu.au/bitstream/1885/41750/3/No83Hazlehurst.pdf

Hill, M. (2005). *The public policy process*. Fourth Edition. London: Pearson Education Limited.

Hoon Lim, C., Ramchand, R., Wang, H., & Wu, X. (2013). Institutional Arrangements for Macroprudential Policy in Asia. *IMF Working Paper*. https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Institutional-Arrangements-for-Macroprudential-Policy-in-Asia-40787

Industrial Development Corporation, (2019). *Growing and Agro-Processing With Commercial Potential In South Africa*. Johannesburg: South Africa.

https://www.idc.co.za/wp-content/uploads/2019/06/Luhlaza-ISS_Moringa-Research-Study_Final-Report.pdf

IDC, (2020). *Written responses from the interviews on the Research Questionnaire.* Johannesburg. South Africa

Innes, J. E., & Booher, D. E. (2003). Collaborative policymaking: governance through dialogue. In Hajer, M. and Wagenaar, H. (eds.) *Deliberative policy analysis: Understanding governance in the network society*. Cambridge: Cambridge University Press, 33-59.

Ile, I.U. (2010). Strengthening intergovernmental relations for improved service delivery in South Africa: Issues for consideration. *Journal of US-China Public Administration,* 7 (1), 51-57

Jepperson, R.L. (2001). *The development and application of sociological neoinstitutionalism. Florenz*: European University Institute: EUI Working Papers RSC 2001/5

Khan, M.H. (2009). *Learning, Technology Acquisition and Governance Challenges in Developing Countries*. Research Paper Series on Governance for Growth. School of Oriental and African Studies, University of London: London. http://eprints.soas.ac.uk/9967/

Khan, M.H. (2009). and Stephanie Blankenburg 2009. The Political Economy of Industrial Policy in Asia and Latin America, in Dosi, Giovanni, Mario Cimoli and Joseph E. Stiglitz (eds) *Industrial Policy and Development: The Political Economy of Capabilities Accumulation*, pp. 336-77, Oxford: Oxford University Press

Klijn, E.H., & Koppenjan, J.F.M. (2006). "Institutional design: Changing institutional features of networks". *Public Management Review*, 8 (1), 141-160

Kuye, J.O., & Ile. U.I. (2007). Accelerating Public Service Delivery Through the Management of Intergovernmental Relations in Nigeria And South Africa. https://repository.up.ac.za/bitstream/handle/2263/57638/Kuye_Accelerating_2007.pdf?sequence=1

Larkin, M., Watts, S., & Clifton, E. (2006) Giving voice and making sense in interpretative phenomenological analysis. *Qualitative Research in Psychology*, 3. 102-120.

Layman, T. (2003). Intergovernmental Relations and Service Delivery in South Africa. https://sarpn.org/documents/d0000875/docs/Layman,%20Tim.pdf

Loewe, M. (2013). "*Industrial Policy in Egypt 2004-2011*", Discussion Paper 13/2013, German Development Institute.

Mabena, M.B. (2011). *Investigating institutional arrangements available to implement South African policy for older persons in Kwazulu-Natal*. University of Witwatersrand: South Africa

MBI & P, (2018). Agro-processing Sector Intelligence Report. http://www.ggda.co.za/sectors/Agro%20Processing%20Sector%20Intelligence%20Report.pdf

Mentzel, C., & Fick, J. (1996). Transformation perspectives on policy management: dynamics of intergovernmental relations with specific reference to the Eastern Cape. *Africanus*, 26(2), 96-146

Mischen, P.A., & Jackson, S.T. (2008). Connecting the Dots: Applying Complexity Theory, Knowledge Management and Social Network Analysis to Policy Implementation. *Public Administration Quarterly*, 32(3), 314-338

Mouton, J. (1996). *Understanding Social Research.* Pretoria: Van Schaik Publishers.

Naidoo, V. (2003). *Implementation processes: observations from the South African*

Public Service. www.hsrc.ac.za/en/research-outputs/ktree-doc/119

NAMC, (2020). *Written response from respondents on SIP11 Agri-logistics & Rural Infrastructure*. Pretoria. South Africa

National Planning Commission, (2013). *National Development Plan 2030*. http://www.statssa.gov.za/wp-content/uploads/2013/07/NDP-2030-Our-future-make-it-work.pdf

Olivier, N. (2002). "Intergovernmental Relations in South Africa: Conflict Resolution within the Executive and Legislative Branches of Government," in P. Meekison, ed., Intergovernmental Relations in Federal Countries, Ottawa: Forum of Federations, 71-90.

Provan, K.G., & Milward, H.B. (1995). A Preliminary Theory of Interorganizational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems. *Administrative Science Quarterly*, 40(1), 1-33.

OECD, (2019). *Bio-Economy and The Sustainability of The Agriculture And Food System: Opportunities And Policy Challenges.* http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/CA/ENV/EPOC(2018)15/FINAL&docLanguage=En

Ramsden, P. (1992). *Learning to teach in higher education.* Routledge: London

Stiglitz, J.E. (2016). *Role of Government and the Private Sector in a Development State.* https://windhoek.sites.unicnetwork.org/tag/the-role-of-government-and-the-private-sector-in-a-developmental-state/

The Department of Trade and Industry, (2007). *Industrial Policy Action Plan August 2007*, Pretoria: South Africa.

http://www.DTI.gov.za/industrial_development/docs/IPAP_r1.pdf

The Department of Trade and Industry, (2011). *Industrial Policy Action Plan. Economic Sectors & Employment Cluster IPAP 2011/12 – 2013/14*, Pretoria: South Africa. https://www.environment.gov.za/sites/default/files/docs/ipap.pdf

The Department of Trade and Industry, (2013). *Industrial Policy Action Plan. Economic Sectors & Employment Cluster IPAP 2013/14 – 2015/16*, Pretoria: South Africa.

The Department of Trade and Industry, (2014). *Industrial Policy Action Plan. Economic Sectors & Employment Cluster IPAP 2014/15 – 2016/17*, Pretoria: South Africa. https://www.idc.co.za/wp-content/uploads/2019/02/IPAP2014.pdf

The Department of Trade and Industry, (2015). *Industrial Policy Action Plan Economic Sectors & Employment Cluster IPAP 2015/16 – 2017/18*, Pretoria: South Africa.

http://pmg-assets.s3-website-eu-west-1.amazonaws.com/150804IPAP2015.pdf

The Department of Trade and Industry, (2018). *Industrial Policy Action Plan Economic sectors, employment and infrastructure development cluster IPAP 2018/19 – 2020/21*, Pretoria: South Africa. http://www.theDTI.gov.za/DownloadFileAction?id=1245

The Department of Trade and Industry, (2019). *Industrial Development,* Pretoria: South Africa. http://www.DTI.gov.za/industrial_development/agro_processing.jsp

The Department of Trade and Industry, (2019). *Interview feedback on the Research Questionnaire,* Pretoria: South Africa.

Trade & Industrial Policy Strategies, (2016). *Analysis of existing industrial policies and the state of implementation in South Africa*.

Urwina,K., & Jordan, A. (2008). Does public policy support or undermine climate change adaptation? Exploring policy interplay across different scales of governance. *Global Environmental Change,* 18, 180–191

Van Meter, D. S. & Van Horn, C. E. (1975). The policy implementation process: A conceptual framework. *Administration and society*, 6(4), 612-616

Visser, J. (2009). Developmental Local Government in South Africa: Institutional Fault Lines. *Commonwealth Journal of Local Governance.* 2, 7-25. https://repository.uwc.ac.za/bitstream/handle/10566/1251/DeVisserDevelopmentalLocalGovernment.pdf?sequence=1&isAllowed=y

Wagner, C., Kawulich, B., & Garner, M. (2012). *Doing Social Research*. United Kingdom: Mc

Walters, J. (2014), 'Public transport policy implementation in South Africa: Quo vadis?', *Journal of Transport and Supply Chain Management* 8(1), 134-144. http://dx.doi.org/10.4102/jtscm.v8i1.134

Williamson, C.R. (2009). Informal institutions rule: institutional arrangements and economic performance. *Public Choice,* 139,371–387

Witbooi, E. (2006). Law and fisheries reform: Legislative and policy developments in South African fisheries over the decade 1994–2004. *Marine Policy*, 30, 30–42

World bank, (2013). *Growing Africa: Unlocking the Potential of Agribusiness, AFTFP/AFTAI Report*. Washington.

Xiaoyun, L. (2019). *What Can Africa Learn from China's Success in Agriculture?* http://www.iprcc.org/userfiles/file/Li%20Xiaoyun-EN(1).pdf

ANNEXURE A

Interview questions or questionnaires

A questionnaire was developed with the aim of yielding any significant data or information. The information received was treated with strictest confidentiality.

The following formed part of the questionnaire:

1. What role did your institution play in the implementation of the IPAP, with specific focus on the agro-processing manufacturing sector and the milling industry as a sub-sector in the period of 2011-2015:
2. At what point did you get involved in the milling project, how did you become part of it and what was your mandate/role/objective?
3. What was the motive or incentive for the institution to participate in the agro-processing sector?
4. What are the risks that the institution will be faced with in an event the strategies in the development of the sector fails?
5. Describe your progress so far in pursuing your mandate or attaining your objective.
6. Describe some of the challenges you have been faced in this pursuit.
7. Which other stakeholders in this project have you engaged with and how are these interactions coordinated?
8. How do you often interact with them and what are the purposes of the interactions?
9. Have the interactions you have had been beneficial in terms of achieving your objective and the policy goals?
10. What are the challenges faced in coordinating stakeholder engagements, knowledge and resources sharing?
11. Do you think there are any major institutional or political challenges affecting the policy implementation? If yes, why?
12. Describe the currently visible successes during the period 2011-2015.
13. Additional comments on how institutional arrangements or relationships could be strengthened.