

**EXPLORING THE DETECTION OF CARTELS FOR INVESTIGATION  
PURPOSES**

by

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Submitted in partial fulfilment of the requirements for the degree

**MAGISTER TECHNOLOGIAE**

In the subject

**FORENSIC INVESTIGATION**

at the

**UNIVERSITY OF SOUTH AFRICA**

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**JANUARY 2019**

## DECLARATION OF AUTHENTICITY

“I Thembekile Priscilla Tshabalala, student number 410741114, declare that **Exploring the detection of cartels for investigation purposes** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis/dissertation to originally checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.”

.....

Thembekile Tshabalala

January 2019

## **ACKNOWLEDGEMENTS**

- I would like to express my appreciation to my supervisor, Dr Juanida Horne, for her guidance and support during this study.
- In addition, a special thanks to the Cartels Division Manager and the investigators of the CCSA who granted me permission to interview them for the purpose of this research.
- To my family, thank you for your support and understanding, and the sacrifice of our precious time to give me the opportunity to finish this research.

## **ABSTRACT**

This research explores the methods for detection of cartels for investigation purposes. Cartels involve an agreement of concerted practice between two or more competitors who engage in fixing prices and/or trading conditions, dividing markets, and/or collusive tendering. The scourge of cartel operation is often collusive, deceptive and secretive, and such an operation is conducted by means of a conspiracy among a group of firms, with the aim of making it difficult to detect or to prove its existence without the assistance of a cartel member. Cartels lessen or prevent competition in the market and deter to achieve more effective and efficient economy.

The aim of this research was to explore detection methods that might be used to detect cartels for investigation purposes. The researcher explored the methods that might be used by competition authorities that enable investigators to be proactive in cartel detection. The researcher utilised national and international literature sources and interviewed participants to gather information about the methods and best practices used to detect cartels.

## **KEY TERMS**

Detection, Cartels, Competitors, Conspiracy, Secretive, Investigation, Criminal Investigation; Forensic Investigation; Investigator.

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## ABBREVIATIONS

CCSA	Competition Commission South Africa
CLP	Corporate Leniency Policy
DOJ	Department of Justice in the US
DPCI	Directorate for Priority Crime Investigation
FTK	Forensic Toolkit
ICN	International Competition Network
IT	Information Technology
MOU	Memorandum of Understanding
NIA	National Intelligence Agency
OECD	Organisation for Economic Corporation and Development
SAPS	South African Police Service

## CHAPTER 1

### DETECTING CARTELS FOR INVESTIGATION PURPOSES

#### 1.1 INTRODUCTION

According to the Competition Commission South Africa Cartels (2017), a cartel involves an agreement or concerted practice between two or more competitors who engage in fixing prices and/or trading conditions, dividing markets and/or collusive tendering. By artificially limiting the competition that would normally prevail between them, firms avoid exactly the kind of pressures that lead them to innovate, both in terms of product development and production methods. This ultimately results in high prices and reduced consumer choice.

Competition authorities give high priority to cartel detection and prosecution (Abrantes-Metz, Kovacic & Schinkel, 2013:9). According to the Competition Commission South Africa Corporate Leniency Policy, Competition Act No. 89 of 1998 (1998:264), the cartel operations are illegal, they are generally highly secretive and evidence of their existence is not easy to find. They are conducted by way of a conspiracy among a group of firms, with the aim of making it difficult to detect. According to the Competition Commission South Africa Corporate Leniency Policy, Competition Act No. 89 of 1998 (1998:263), cartel investigators' objective is to eradicate and prevent cartel activity, as it harms the economy of the country. Cartels are a particularly damaging form of anti-competitive agreement that often results in price increases that are harmful to consumers of the goods or services concerned (Sutherland & Kemp, 2016:ch11:7). Cartels also hinder development and innovation in the industries within which this activity occurs.

The availability and quality of evidence to be used in cartel cases are decisive for the successful initiation of a case and completion of a cartel investigation (Regional Centre Competition in Budapest OECD-GVH, 2015 seminar). According to the Competition Commission South Africa (CCSA), Competition Act No. 89 of 1998 (1998:75), a cartel investigation can be triggered by a Commissioner initiating a complaint, and any person can submit information concerning an alleged prohibited practice to the CCSA in any manner or form, and/or submit a complaint against an alleged prohibited practice to the CCSA in the prescribed format or by self-reporting

via the CCSA's leniency programme. It is difficult to uncover cartels without the assistance of a member who is part of the cartel. Anti-cartel enforcers rely mostly on a leniency programme that allows a cartel member to confess involvement in a cartel and fully cooperate with a cartel investigation by providing evidence that will aid in the proceedings against other cartel members (World Bank Group, 2016:33). The Corporate Leniency Policy (CLP) is a key driver in detecting and sanctioning cartels. Leniency programmes are bound to continue to play an important role in that respect; however, other detection methods should not be underestimated.

The difficulty arises when the cartel manager manages the information submitted to the competition authorities, and/or when there is no leniency applicant for that cartel in operation. Some cartels could go on undetected and unprosecuted for a long time. In this instance, the researcher believes that other detection methods could be used to detect or deter cartels, unlike being reactive after receiving applications for leniency, or external information and/or complaints. Proactive detection methods such as other enforcement agency cooperation, industry monitoring, case analysis and use of economics will play a huge role in early detection.

Companies and company executives must realize that competition authorities can and will bring cases, and will keep on punishing companies for breaking the law, without the benefit of leniency applicants or whistle-blowers. Effectively fighting cartels requires that cartels be discovered, successfully prosecuted, and that successfully prosecuted cartels be penalized. Operating effectively in all three stages, namely detection, prosecution and penalization, is crucial to disrupting existing cartels and deterring new ones from forming (Harrington, 2007:51).

## **1.2 RATIONALE OF RESEARCH (PROBLEM STATEMENT)**

According to the CCSA, Competition Act No. 89 of 1998 (2009:2), "the Competition Commission South Africa (CCSA) is responsible for investigation, control and evaluation of restrictive practice, abuse of dominant position and mergers." The Cartels Division investigates all the contraventions of Section 4(1)(b) of the Competition Act, which prohibits an agreement between, or concerted practice among, competing firms, or a decision by an association of firms to coordinate their competitive behaviour, for instance through conduct such as price fixing, division or

allocation of markets, and/or collusive tendering (Govender, Verfeld & Dingley, 2017:545). The investigators may fail in their legislative mandate to investigate if the cartel is not detected, and this may prevent the achievement of a more effective and efficient economy in South Africa. The cartel may run for many years before it is detected, all the time reducing or preventing competition in the market.

Construction cartel investigation is resulted in one landmark case. The investigation conducted by CCSA into prohibited practices in the construction sector was initiated in September 2009, as case number 2009Sep4641. This initiation was preceded by events that led to the understanding that collusion was pervasive in the construction sector. Firstly, the suspicions of cartel conduct arose in connection with the construction of stadia for the World Cup. These suspicions led to the initiation of an earlier investigation in February 2009, into the construction of the World Cup stadia. As the firms in question became familiar to investigators, it became apparent that the prohibited conduct was not limited to the World Cup stadia. This led to the belief, expressed in the September 2009 initiation statement, that “collusion is prevalent in the construction industry” and that “the practice of collusive tendering, price-fixing and/ or market allocation is an industry norm.”

It is evident that the cartel operation is collusive, secretive, difficult to detect and prevent. The CCSA had to rely on the cartelists for information of collusive behaviour. A large number of cartel instances of collusive behaviour were disclosed, and in response, the CCSA developed a Fast-track Process to resolve these cases. The Fast-track Process was custom-designed to enable the resolution of the very large number of cartel instances that was in the process of being revealed by the construction sector investigation. This process entailed inviting implicated firms to disclose their misconduct and offering lenient settlement terms to firms that engaged early with the CCSA.

During the investigation, the researcher noted that cartelists in some instances managed the information submitted to the authority to protect the individuals involved, or where several firms disclosed the same conduct, their witnesses would all forget anything that was beyond the general outlines of the prohibited conduct. In this way, it was possible for the CCSA to proceed against firms without establishing the identities of the people who had colluded on behalf of the firms. In

some instances, witnesses stated that they could not recall exact events, and the CCSA had to terminate the investigation due to lack of evidence.

The main problem that led to this research was that in the researcher's work area, she identified that it was difficult for the South African Police Service (SAPS) and the Directorate for Priority Crime Investigation (DPCI) investigators to detect cartels' activities for investigation purposes. The difficulties encountered were that cartel operation is often collusive, deceptive and secretive, and that it is conducted by means of a conspiracy among a group of firms, with the aim of making it difficult to detect or to prove without the assistance of a cartel member (Competition Commission South Africa Corporate Leniency Policy, Competition Act No. 89 of 1998, 2001:264). Leniency applicants, complainants and external informants (whistle-blowers) have played an important role in the detection of cartels. Table 1.1 below illustrates the detection methods.

**Table 1.1: Illustration of detection methods and case outcomes**

Case name	Detection method	Settlements (Administrative penalty)	Cases prosecuted (at competition tribunal)	Sanctions /penalties so far	Cases not prosecuted
Construction Sector	Leniency application	R1,5 Billion (Phase 1 for 15 firms) and R84 Million (Phase 2 for 11 respondents)	11 respondents	±R22 million <sup>1</sup>	14 respondents, due to lack of evidence
Margarine and oil (Food Sector)	Whistle-blower	R35 Million (1 respondent) and further settlement terms imposed. Remedial market interventions for R135 Million	1 Respondent <sup>2</sup>	Litigation stage	None
Industrial Surfactants	Whistle-blower	R37 million (2 respondents)	Both settled	None	None
Bread	Leniency application	R143 million (2 respondents)	1 respondent	R196 million	None

(Source: Compiled by researcher from CCSA Reports)

<sup>1</sup> Prosecutions of construction sector cartels have not been completed, as seven cases are still being heard. This figure will likely change when these other matters are heard.

<sup>2</sup> Case not yet heard.

The researcher has had four years' cartel investigation experience in the CCSA, based in Pretoria, South Africa, and is currently working as a Senior Investigator in the Cartel Division. The researcher is responsible for investigating South African and international cartel cases that have an effect on South Africa. As an investigator, the researcher liaises and interacts with other investigators, and observation of the investigative processes has revealed that CCSA and its investigators rely mostly on the information received from the cartel participant, informers and complaints for detection and identification of cases for investigation. If the whistle-blower wants to remain anonymous and the information furnished is not sufficient, the CCSA may take a decision to initiate a complaint and conduct a search-and-seizure operation at the premises of the firms involved. As is the case with other international jurisdictions, the CCSA has developed a CLP to facilitate the process by which firms participating in a cartel are encouraged to disclose information about the cartel's conduct, in return for immunity from the imposition of an administrative penalty or prosecution of a firm, but the employees of that firm are exposed to criminal sanctions.

The researcher believes that investigators could be proactive and have other methods of detecting cartels before they are reported by the cartelist. These methods could detect cartels at an early stage before they could cause harm to the economy, therefore consumers would have freedom of product choice. In addition, all parties involved could be prosecuted and no immunity would be granted.

### **1.3 AIM OF THE RESEARCH**

According to Curtis, Murphy and Shields (2014:13), an aim can be considered as the general rationale for the project, while the objectives detail the steps by which the researcher will achieve the aim. The aim of the research is to explore detection methods that may be used to detect cartels for investigation purposes.

### **1.4 PURPOSE OF THE RESEARCH**

Creswell (2014:124) states that the purpose statement sets the objectives, the intent, or the major idea of a proposal or study. Further, Creswell (2014:124) asserts that the purpose statement also contains information about the central phenomenon explored in the study, the participants in the study, and the research sites. The

purpose of the study is to explore other methods to detect cartels for investigation and prosecution purposes, and to contribute knowledge that will help people understand the nature of a problem so that human beings can control their environment more effectively (Patton, 1990:152). Leong and Austin (2006:93) explains that in generic terms, the purpose of research is to discover knowledge, that is, to know something that was previously unknown. Research cannot be adequately designed unless the purpose of the research is carefully thought out and well stated, as suggested by Leong and Austin (2006:93). The purpose of this research, as derived from the evaluation of the research design, is exploration, description, explanation, as submitted by Babbie (2017:451). Denscombe's (2002:27) description of the purpose of the study includes the following:

#### **1.4.1 Evaluation of the situation**

The researcher examined and assessed the current methods of how anti-cartel enforcers detect and prosecute cartel activities. From the evaluation, it was clear that this scourge could remain undetected or not be resolved, as competition authorities mostly rely on a cartel participant to provide information about the cartel for immunity, or on a whistle-blower. The study investigated other methods that can be used to lead to early detection and the expeditious finalization of cases that otherwise would have been difficult, if not impossible, to detect and resolve.

#### **1.4.2 Examination**

The researcher is an investigator at the CCSA and explores how anti-cartel enforcers locally and internationally detect cartel activities for investigation and prosecution. Furthermore, this research assessed and determined how international cartels are detected and deterred. The literature on this topic was reviewed and explored extensively.

#### **1.4.3 Applied research**

The results of this research will be useful for investigators of the CCSA and other competition authorities for detection of cartel activities, as well as the investigation and prosecution of cartel members (firms). The SAPS and DPCI investigators will also be able to investigate cartels successfully and the research results will be helpful to prosecutors to prosecute the cartel executives involved (individuals).



#### **1.4.4 Empowerment of those being researched**

The information obtained in the research will be made available to the competition authorities via the library of the CCSA and can be used to empower the researcher and fellow investigators by providing other methods and techniques for detecting cartel activities at an earlier stage for investigation.

### **1.5 RESEARCH OBJECTIVES**

Creswell (as quoted by Craig, 2009:89) indicates that the research objective is a statement that outlines the goals that the researcher hopes to achieve as the result of a qualitative study. Oster and Cordo (2015:50) further explain that the research objective is the logical subset of the long-term goal, but is more limited in scope, since it relates to only one proposed research project. The research objective should be broad enough to cover all of the proposed aims, (Oster & Cordo, 2015:50). According to Wrenn, Stevens and Loudon (2002:18), the research objectives consist of questions and hypotheses. The research questions represent a decomposition of the problem into a series of statements that constitute the end-results sought by the research project (Wrenn et al., 2002:18). The questions serve to guide the research results by providing the direction and scope of a given project, and serves as the basis for developing the methodology to be used in the project (Wrenn et al., 2002:18). The specific research objective of this study is to address the research aim to determine how detection methods could be used by investigators of the CCSA to detect cartels. Competition authorities should be proactive and use sophisticated methods to detect cartels instead of relying heavily on reactive detection methods, especially on leniency programmes.

### **1.6 RESEARCH QUESTIONS**

Jesson, Matheson and Lacey (2011:18) explain that a research question provides the structure for the whole of the literature review of a research study and suggest that defining the research question is a crucial step that points the way for the research investigation.

In the initial planning of the research, the researcher should think ahead to the areas of thematic interest that he/she envisages addressing. The research question is related to the problem in a study and is the question that the researcher attempts to

answer, as stated by Biu (2009:33). Biu (2009:33) further explains that the research question guides the type of data that will be collected and/or how the data should be collected. As far as possible, researchers must consider at the outset of the project, the key themes that they wish to address and should have designed their project accordingly (Noaks & Wincup, 2004:122). The research question of this study is as follows:

- What detection methods could be used by investigators of the CCSA to detect cartels?

## **1.7 DEFINITION OF KEY TERMS**

Mligo (2016:102) states that definition of the key terms provides clarity to readers as they continue reading the report. According to Denscombe (2012:68), the researcher identifies the key terms and concepts, and then pinpoints what he understands these to mean and how he will use them during the course of the search. According to Maxfield and Babbie (2005:120), presenting a specific working definition allows readers to understand exactly what is meant by each key concept. It is important to define the concepts presented below, as they are frequently used in this research.

### **1.7.1 Cartels**

A cartel is a group of producers in a particular industry that band together to coordinate their output and prices, sometimes with government support (Driver, 2010:32). For cartel members, success requires eliminating competition within the group and preventing new competitors from entering the market, as suggested by Driver (2010:32). According to Zheng (1995:75), a cartel is an arrangement or agreement in which competing firms have reached an agreement on price, divided their territories or customers, output, or related matters, for independent decision-making.

### **1.7.2 Cartel detection**

According to Harrington (2004:1) there are two general ways in which cartels are detected, namely by observing the way firms conduct the coordination and ultimately observing the end-result of that coordination.

### **1.7.3 Criminal investigation**

Criminal investigation is the process of collecting crime related information to reach certain goals, according to Brandl (2004:4). For Brandl (2004:4), this simple definition has three important components: (a) the process, (b) crime-related information, and (c) goals.

### **1.7.4 Forensic investigation**

According to Tong, Byrant and Horvath (2009:184), forensic investigation is the integration of the range of scientific and technological evidence and intelligence in support of a criminal investigation.

### **1.7.5 Investigator**

According to Stich (2006:140), an investigator is any individual authorised by a department or agency to conduct or engage in investigations or prosecutions of violations of the criminal laws.

## **1.8 RESEARCH DESIGN AND APPROACH**

Beri (2013:70) is of the opinion that research design is the plan, structure and strategy of an investigation, conceived so as to obtain answers to research questions and to control variance. Phillips (as quoted by Beri, 2013:70) supports the idea that research design is the blueprint for the collection, measuring and analysis of data. This blueprint will include interviews, experiments and the analysis of records.

Research communicates the intentions of the researcher, the purpose of study and its importance, together with a step-by-step plan for conducting the study (Kumar, 2008:30). Bhattacharya (2006:12) states that research is how you find answers to research questions by applying a systematic and scientific approach towards purposeful investigation by the collection of data, analysing and interpreting the results, and reaching the conclusion in the form of a solution. The researcher's strategy was to find answers to the research question by interviewing participants and reviewing literature. In this research design, the reviewers will understand the researcher's intentions, purpose and benefits of the study.

Malhotra (2016:2) describes empirical design as an attempt to compare the theories and observations, using the real-life data for analysis. The empirical design explores relationships, proves theoretical concepts, evaluates the accuracy of the models, and assesses and improves techniques and methods (Malhotra, 2016:2). In empirical research it is necessary to get the facts first-hand, at their source, and actively go about doing certain things to stimulate production of the desired information (Achari, 2014:15). Empirical design for this study is suitable according to Blessing and Chakrabarti (2009:138-139). They explain that empirical design defines the research goal and objectives for the study; research questions to be addressed; data collection methods; data processes and analysis methods; data interpretation methods and methods to validate the findings. In this study, the researcher answered research questions by means of the data collected from literature and interviews. The researcher posed the interview questions that extracted the relevant data from the interviewees, more specifically with regard to how they detect cartels for investigation purposes, and also how the methods can be improved. Punch and Oancea (2014:3) state that empirical design means that it is based on direct experience and observation, or on interaction with the world.

Data was collected from multiple sources, including interviews with participants who are knowledgeable in the field of cartels and literature. Empirical design involves observation; it requires cases, measures and scores or analysis. In this study, the researcher observed that in most cartel cases, the cartelist reported the crime. However, with the measuring and analysis of data collection, other identification methods could be employed.

The researcher used a qualitative approach, since it involves discovery, and because the data collection by means of literature and interviews was described, explained and interpreted. According to Lichtman (2013:3), qualitative research is a new way of asking questions and answering the questions about the world in which you live. Williams (2007:67) suggests that qualitative research enables the researcher to develop a level of detail as a result of his/her intense involvement in the actual experience. This is a social phenomenon being investigated from the participants' point of view, hence the researcher used a qualitative approach.

## **1.9 POPULATION**

According to Drew, Hardman and Hosp (2008:83), a population refers to all constituents of any clearly described group of people, events, or objects who are the focus of an investigation and must relate to the topic under study. First, the population size and type depend on the purpose of the research. Population is a collective term used to describe the quantity and type of the cases in the study, whether they are events, objects, or people (Cargan, 2007:236). Population is the set that the research focuses upon and to which the results obtained by testing the sample should be generalized (Bless, Higson-Smith & Kagee, 2000:85). The ideal population for this study should have been all investigators in the CCSA but due to the numbers involved and the limited time available for this research, the researcher narrowed the population and used a target population.

According to Henry (1990:36), the target population is the group about which the researcher would like to make statements. The target population can be defined, based on conditions and concerns that arise from the theory being tested, or on concerns generated from the policy being examined (Henry et al., 1990:36). The target population for this research consisted of 36 investigators from the CCSA in the Cartels Division, Pretoria, Gauteng Province, and it is where the problem was identified. It is not practical to interview each investigator since they are in the same division and exposed to the same problem, therefore it was most likely that one would get the same answers from everybody. Further, due to workload or number of cases to be investigated, it was not possible to interview the whole population. According to Bless, Higson-Smith and Kagee (2000:85), sampling is a practical way of collecting data when the population is infinite or extremely large, thus making a study of all its elements impossible. The researcher used the study population because it is a convenient subgroup of the population that is suitable for this study, (Jewel, 2009:44).

## **1.10 SAMPLING**

Sampling is when determining what population size is necessary for the study, and the first consideration is the purpose of the study, since the characteristics of the population involved will, in turn, affect the size of the sample needed (Cargan et al., 2007:236). Goddard and Melville (2005:35) state that a sample must be

representative of the population being studied, otherwise no general observations about the population can be made from studying the sample.

Random selection is a basic principle used to try to avoid bias in a sample (Goddard & Melville, 2005:36). These authors further explain that the random selection of a sample must ensure that each member of the population has as much chance as any other of being included in it. Kumar (2008:43) suggests that random sampling from a finite population refers to the method of sample selection that gives each possible sample combination an equal probability of being picked up, in the entire population to have an equal chance of being included in the sample. Kumar (2008:43-44), explain that in simple random sampling, the selection of participants is provided with tables of random numbers, and the numbers in a population are assigned to a series of members. If there is selected random numbering without replacement, this will provide a simple random sample.

There are 36 cartel investigators at different levels at the CCSA Cartels Division in Pretoria, Gauteng Province. To select a representative sample, the researcher decided to randomly select seven of the 36 investigators. The researcher requested a list of the investigators' names and followed the procedure of writing down the names of each of the investigators on a separate piece of paper of equal size. The names of the investigators were numbered from one to 36. Each piece of paper containing the 36 investigators' names was placed in a container. Thereafter, the researcher shuffled the names in the container and the names were picked one by one without looking until the number of names chosen reached seven. This means that seven investigators were randomly selected, and each investigator had an equal opportunity of being selected.

The study participants were asked their years of experience in cartel detection, training they had attended and their highest qualification. All participants had attended cartel investigation training, and all participants had between four and ten years of experience at the CCSA. Five participants had a Masters degree in law and two participants had LLB degrees.

## 1.11 DATA COLLECTION

No research can be undertaken without data. Information gathered can come from a range of sources. The researcher looked for data so as to answer the research questions and achieve the research objectives. Collins (2010:124) states that in primary data collection, you collect the data yourself, using methods such as interviews and questionnaires. Data you collect is unique to you and your research, since you have designed and undertaken research specifically to answer the problem you have defined (Collins, 2010:124). Zikmund and Babin (2007:160) explain that secondary data is data that had been previously collected for some purpose other than the one at hand. Secondary data is historical and already assembled (Zikmund & Babin, 2007:160). Wren, Stevens and Loudon (2007:72) are of the opinion that secondary data could often provide exploratory information that could be useful in planning and designing the instruments used to gather primary data. The extensive use of secondary data reduces the possibility of reinventing the wheel by gathering primary data that someone else has already collected (Wrenn et al., 2002:72). In this study, the researcher used the primary and secondary data to answer the research questions.

According to Pawar (2004:17), there are a variety of techniques for data collection methods such as interviews, questionnaires and surveys, focus groups, documents and records. Pawar (2004:6) indicates that qualitative research dwells in depth and detail, does not use predetermined categories of analysis, increases understanding of cases and situations, reduces generalisability, and focuses more on the researcher as his/her skills and competence are crucial in the research.

The researcher used more than one method to collect data. The following are the methods:

- Literature;
- Interviews; and
- Experience.

The researcher reviewed several literature sources from the Internet and library, interviewed participants and provided experience gained to deliver comprehensive findings of the study (Allaste & Tiidenberg, 2015:96). According to Elsbach and

Kramer (2016:287), the use of multiple methods to study a problem, such as interviews, observations and literature review in research is called 'triangulation.' Triangulation is a strategy to test validity through the convergence of information from different sources (Lee, 2009:211). As such, this approach validates thoroughness, richness and depth of the research design from collected data (McMurray, Scott & Pace, 2004:263).

### **1.11.1 Literature review**

Whittaker and Williamson (2014:30) explains that a literature review is a comprehensive summary and a critical appraisal of the literature that is relevant to your research topic. It presents the reader with what is already known in this field, and identifies traditional and current controversies as well as weaknesses and shortcomings in the field (Whittaker & Williamson, 2014:30). The researcher reviewed various publications on this topic.

The researcher used a qualitative research method and visited various web sites on the Internet to find publications relevant to the research topic, using the topic and research questions. It became difficult to obtain South African literature related to the research study that was being conducted. However, a number of international sources and publications were found, mostly journals that were relevant to this research study. The researcher collected information required to cover the research questions and shortcomings identified. The literature was critically analysed, and the strengths and weaknesses were assessed and presented.

The researcher further visited the Muckleneuk library of the University of South Africa (UNISA) to search for various sources pertaining to the research topic. The researcher also visited the CCSA library, and publications were collected that could shed light on the subject to be researched.

### **1.11.2 Interviews**

The interview is a face-to-face verbal exchange, in which one person, the interviewer, attempts to elicit information or the expression of an opinion or belief from another person or persons (Brinkmann, 2013:1). For the purpose of this study, the researcher used semi-structured interviews. Kaiser, Ferri and Blum (2014:92) stated that semi-structured interviews allow participants the freedom to express



their views in their own terms. An interview schedule generated from the research question was used to interview participants, and the interview schedule is attached as Attachment A. The participants could provide their own answers, as the interview consisted of open-ended questions, and no choices were provided from which they could choose. Semi-structured interviews allowed discussion with the participants, rather than straightforward questioning. Where necessary, the researcher followed up on a question to get a fuller picture or understanding of the topic.

The semi-structured, standardized interview includes various types of questions and is complemented by ideas about how to structure its contents during data collection (Flick, 2009:165). Merriam (2009:90) states that interviewing in qualitative research is more open-ended and less structured. This format assumes that individual participants define the world in unique ways. Gray, Grove and Sutherland (2016:55) are of the opinion that researchers may conduct a pilot study to test the plan and method of the study. The generated interview schedule for this study was piloted in order to improve the wording of the questions asked. The pilot study is conducted to examine the achievability of an approach that the study intends to use.

An interview guideline provides more structure to an interview than the completely unstructured, informal, controversial interview, while maintaining a relatively high degree of flexibility (Stumpfegger, 2015:60). Fontes (2008:14) provides the following guidelines for preparation before the interview: decide who to include in the interview, create a welcoming environment for interviewees, handle the interview professionally to reduce unforeseen occurrences and improve the quality and quantity of information obtained. The researcher used the guidelines provided by Leedy and Ormrod (2005:147), as outlined below:

- In this study, the researcher prepared questions in advance. The researcher used the semi-structured interview, and the questions are based on the research question. Wengraf (2001:5) states that well-prepared questions are designed to not be leading, so that the subsequent questions of the interviewer cannot be planned in advance but will be spontaneous.
- The interviewees are representative of the group and the random sampling technique was used. Potter (1996:104) states that if everyone is given an equal

chance of being in a sample, the resulting sample can be regarded as being representative of the population.

- The researcher conducted the interviews in a meeting room to ensure that the researcher and participants were not interrupted. Fontes (2008:19) states that the guidelines generally recommend that interviews be conducted in a neutral environment.
- The researcher applied for permission to conduct the research from the Manager of the Cartels Division at the CCSA, and the letter granting consent is attached as Annexure A. Before commencement of the interview, consent was also obtained from all participants by requesting them to sign the consent form, which is attached as Annexure B.
- The researcher established rapport with all the participants that were interviewed. Ryan and Dundon (2008:444) mention that rapport is seen as a degree of acceptance or cooperation on the part of the interviewee in a research study.
- No words were put in the participants' mouths and they answered according to their views and experience. Merriam (2009:90) states that interviewing in qualitative research allows individual respondents to define the world in unique ways.
- The researcher recorded the participants' responses verbatim in a written interview schedule, as interview notes and information gained from the interviewees are presented exactly as received from them.
- The researcher respected the opinions of all participants and adopted a neutral facial expression during the interviews.
- As the interview is not about providing facts, the researcher kept in mind the fact that the participants' responses are perceptions rather than facts.

### **1.11.3 Experience**

The researcher has 18 years of investigation experience, working for various institutions. This includes four years of cartel investigation at CCSA as a Senior Investigator. The researcher has been involved in forensic investigation and in cartels investigation, where valuable experience in investigation and dismantling cartels was gained. The researcher holds a BTech Degree in Forensic Investigation

obtained from the University of South Africa (Unisa), and is currently studying for a Master's degree in Forensic Investigation.

## **1.12 DATA ANALYSIS**

According to Motte, Sullivan and De Jong (2011:432), the raw material for qualitative data analysis is always in the form of field notes and in-depth interviews. Motte et al. (2011:432), further state that in qualitative data analysis, the researcher attempts to transform the raw data and extracts some meaning from it by means of observation. The purpose of data analysis is to interpret the data and draw conclusions from the mass of collected data and provide the researcher with a general picture of the study's results (Lamb, Hair & McDaniel, 2008:269).

In this study, raw data was coded to draw conclusions so that the researcher could have a picture of the study results. Coding is the process of organising material into chunks or segments of text before it becomes a final product that is readable and understood (Koshy, Koshy & Waterman, 2011:134). The coding process generates a description of the setting or people, as well as categories of themes for analysis. Koshy et al. (2011:134), suggest that researchers, when coding, must use:

- code what the readers expect to find, based on past literature and common sense;
- code what is surprising and anticipated; and
- code for the unusual that might be of conceptual interest to readers.

The researcher sorted and organised the information to generate the findings of the study. Following the guidelines of Koshy (2005:113-114), the researcher applied the following steps during the analysis of the collected data:

- **Organize data**

The researcher organised the collected data that had been obtained from the literature and the interviews by transcribing the interviews and scanning the material to arrange the various types of data in a specific order.

- **Read data**

The researcher obtained a general sense of information by making notes and arranging general thoughts into themes.

- **Detailed analysis**

A detailed analysis began with coding the data by hand. The researcher organised the interview field notes, sorted the data gathered from the literature and interviews, and categorised segments of text before giving meaning to information by coding it. Topics were clustered according to research questions, and irrelevant information was eliminated.

- **Use coding process to generate description of people**

Categories of themes for analysis were prepared with certain headings, based on evidence of the interpretation of the study. The researcher compared the participants' answers to the literature. All participants answered the questions and some provided more than one answer. The researcher indicated the answers that were similar to what is in the literature, and those that differed from the literature.

### **1.13 TRUSTWORTHINESS OF THE STUDY**

According to Kumar (2011:184), one of the areas of difference between quantitative research and qualitative research is in the use of and importance given to the concepts of validity and reliability. There have been some attempts to define and establish validity and reliability in qualitative research. Rubin and Babbie (2010:231) further state that the key issue in evaluating the thoroughness of qualitative research is trustworthiness. According to Riordan (2004:672), validity reflects truth, accuracy and reality, therefore for data to be valid, the measures and methods used for data collection must also be reliable. Validity concerns the accuracy of the questions asked, the data collected and the explanation offered. Reliability refers to the accuracy, consistency, precision, and stability of measurement in the way data are collected (Riordan, 2004:672).

Allan (2009:160) explains that one technique for ensuring that qualitative research is valid and reliable is through triangulation, and this involves using multiple data sources as a means of creating an accurate account of the research. In this study,

data and information obtained from the literature and the interviews were used to establish patterns and trends to ensure the validity of data and information. In order to ensure validity, the researcher used numerous sources of information such as literature and interviews. To ensure reliability, the researcher ensured that if the same methods were used by different researchers, they should still produce the same results.

Creswell (2014:201) states that terms such as 'dependability,' 'conformability,' 'verification,' 'transferability,' 'trustworthiness,' 'authenticity,' and 'credibility' are used to describe the idea of validity. Guba and Lincoln (as quoted by Kumar, 2011:184) further elaborate that trustworthiness in a qualitative study is determined by four indicators – credibility, transferability, dependability and confirmability, and it is these four indicators that reflect validity and reliability in qualitative research.

### **1.13.1 Credibility**

Lodico, Spaulding and Voegtle (2010:175) explain that credibility refers to whether the participants' perceptions of the setting or events match up with the researcher's portrayal of them in the research report. In other words, has the researcher accurately represented what the participants think, feel, and do, as well as the processes that influence their thoughts, feelings and actions? Lodico et al. (2010:175), state that qualitative researchers look at whether the researcher's methods are likely to yield accurate and deep pictures of the experiences of the participants. Of the several forms that qualitative research can take, for the purpose of this research, emphasis was placed on how the researcher as well as the participants have had, cumulatively and individually, repeated, prolonged, and substantial involvement in the field. Participant validation is a technique for exploring the credibility of results (Birt, Scott & Cavers, 2016).

To ensure validity, the researcher sought the opinions of CCSA investigators who were asked the same questions based on the interview schedule. These questions were derived from the research questions, ensuring that they measured what they were intended to measure and were based on the problem identified for this research (Miller & Whitehead, 1996:183). Kenny (2009:33) further states that to ensure credibility, the research report should bring the interviewees' experiences to

life. The literature reviewed was limited to the aim and research questions in order to explore the study. This data was collected from journals, books and the Internet. The multiple methods used for data collection made findings robust, rich and comprehensive.

In addition, qualitative study should indicate how much time was spent in the field and how the researcher established and nurtured strong relationships with the participants (Lodico et al., 2010:175). To further ensure and increase credibility, Mills, Eurepos and Wiebe (2010:243) propose the strategies below to enhance credibility, and they were applied during the research as follows:

- The researcher extended the time spent in the field, which is also essential for building trust in research participants, thereby increasing the likelihood that they will be frank with the researcher, and that they accept the researcher's interpretations.
- Participants were invited to collaborate as core researchers. This was done by consulting with the participants throughout the data collection and data analysis processes, and while compiling the research findings. This was done to provide opportunities to assess the level of agreement regarding the accuracy of the data and the researcher's interpretations and accounts drawn from the data.
- The researcher adopted a reflective approach to document how her own biases and perspective influenced the data collection and interpretation. Such reflection intended to neutralize the impact of the researcher's biases and personal perspectives as much as possible, so that the results would express the views of participants and not those of the researcher.
- Respondent checking. The researcher ensured that the results of the research were returned to the participants to check for accuracy and resonance with their experiences.
- An audio-recording device was used to record all the interviews. This was done so as to enable the researcher, after leaving the field, to review data resources from the audio recordings as well as transcripts, which were transcribed by the researcher.
- Verbatim statements from participants were captured in the interview schedule by the researcher herself.

In this study, the researcher ensured that the methods used to collect the data are truthful, accurate, authentic and valid by giving attention to the strategies stated above.

### **1.13.2 Transferability**

According to Allan (2009:160) and Kaura (2013:133), transferability relates to the possibility of transferring the findings from the particular qualitative study to other situations. Kaura (2013:133) further explains that in transferability you assess whether the nature of the sample and the study setting have been described in enough detail to allow readers to determine whether the findings could be applied to their situations.

Coghlan and Miller (2014:691) are of the opinion that the thoroughness with which credibility is achieved, provides the groundwork for transferability. Data collection techniques used to enable transferability are listed below (Coghlan & Miller, 2014:691) and were applied during this research:

- **Thick descriptions/external checks**

Given (2008:886) explains this strategy for increasing transferability, namely that the researcher provides the reader with a full and purposeful account of the context, participants and research design so that the reader can make his own determination about transferability. The researcher ensured that participants provided enough context to explain actions, words and experience so that a person outside the culture can determine the meaning of the behaviour. Further, the researcher ensured that the participants are closely linked to the subject being researched. All participants work at the CCSA, Cartels Division.

- **Structured journals**

The data collection was relevant to the topic. The researcher maximised the range of data collected, while providing clear discussions of and comparison to relevant data sources, which enabled the researcher to comment with greater confidence on the similarity of the sample to the population. The researcher also perused sources of data that contradicted the ideas that emerged from the data. Findings that

reflected the breadth of experiences or ideas were more easily transferred or related to various groups, as explained by Macnee and McCabe (2008:172).

Kenny (2009:33) is of the opinion that to ensure transferability, interviewers can use naturalistic or analytic generalisation. Naturalistic generalisation relies on personal experience, and analytic generalisation involves reasoned judgement about the extent to which the findings from one study can be used as a guide to what might occur in another situation. As has been indicated, the researcher used an interview schedule for credibility. Therefore, the researcher further made sure that the participants were not led to answer in a specific direction, and this ensured that the research questions were appropriately answered, as explained by Given (2008:886). This also ensured that when different researchers conduct the same research, using the same interview schedule, they are likely to obtain the same results.

The researcher ensured transferability by ensuring that what is meaningful in one specific setting or for one specific group, will also be meaningful and accurate in a different setting or a group (Macnee & McCabe, 2008:172). When similarities occur between and among contexts, the results of a qualitative study may be transferred.

### **1.13.3 Dependability**

Dependability involves validating findings and ensuring that there is an audit trail. The use of a range of different data sources will help to produce dependable findings and hence to build up an accurate picture of the focus of the study (Allan, 2009:160). According to Conrad and Serlin (2006:416) and Tappen (2011:160), dependability is achieved when the process of the study is consistent, and is reasonably stable over time and across researchers.

Conway (2014:97) states that dependability is the traditional view of reliability that is based on the assumption of replicability or repeatability, which is concerned with whether we would obtain the same results if we could observe the same thing twice. In this study, the researcher ensured dependability by keeping an interview schedule, electronic recording and notes of the participants' interviews. The recorded interviews were transcribed and verified in conjunction with the participants to determine whether the transcriptions reflect their answers. All



sources of the literature have been recorded. The information drawn from the participants was analysed and compared to data collected from various literature sources. A detailed record of the procedure has been preserved to ensure repeatability. The research methodology of the study is available.

The researcher ensured that there is dependability by compiling a record of how the research was conducted, as listed below (Tappen, 2011:160). Conrad and Serlin (2006:416) further explain this process by naming the elements that contribute to dependability:

- **Raw data:** The researcher ensured that all field notes, tape recordings and literature were collected.
- **Data analysis:** Regarding the data that was collected and analysed the researcher ensured that a summary is available.
- **Data synthesis products:** Coding schemes were created for all collected data.
- **Process notes:** There is a description of how data was collected and analysed.
- **Reflections of the researcher:** The personal notes and transcripts are kept by the researcher.
- **Interview schedule:** All forms used to collect information about participants were collected at the end of the interview.

The researcher ensured that dependability was achieved by means of an enquiry audit, as explained by Allan (2009:160), and the process of defining the research problem, collecting and analysing data and findings was made available to participants and other groups. The audit trail is an excellent idea in a qualitative study. It helps the researcher to provide transparency.

#### **1.13.4 Confirmability**

Allan (2009:60) explains that confirmability relates to the idea that as a researcher you take appropriate steps to ensure that you do not affect the research outcomes. According to Obiakor, Bakken and Rotatori (2010:28), confirmability means that the researcher has determined the accuracy or credibility of the findings by means of specific strategies. The common approaches to confirmability that the researcher applied, are as follows (Obiakor et al., 2010:28):

- **Triangulation:** The researcher ensured that the data collected was corroborated by various participants that were interviewed and several different sources of literature (books, journals, and internet). All this corroboration was done during data analysis. The interviews were then transcribed from the audio and reviewed for confirmation.
- **Robust data-collection methods:** The data is strengthened by comparing it to the participants' views and adding it to the confirmation of the findings. The researcher ensured that (a) data was collected in an informal setting, properly chosen by the researcher, (b) literature was reviewed, (c) the researcher was alone with the participants during interviews, which were recorded.

#### 1.14 ETHICAL CONSIDERATION

Ethical guideline is a normative discipline whose main goal is to render prescriptive and evaluative rather than descriptive and explanatory accounts of standards of conduct (Resnik, 2005:13). The researcher has to use his or her own judgement when deciding how to conduct him- or herself if faced with significant moral choices during the research process (Gregory et al., 2003:4). The researcher adhered to UNISA's ethical research policy, which states that it informs the researcher of the researcher's responsibilities while conducting ethical research, to understand and promote adherence to all applicable procedures and protect the rights of all stakeholders (Policy on research ethics, 2016). The researcher was granted approval by Unisa's Ethics Committee to proceed with this research on 28 November 2017. The approval letter is attached as Annexure C. This dissertation was submitted to originality checking software and the Turnitin digital receipt is attached as Annexure D.

According to Leedy and Ormrod (2005:101), most ethical issues in research fall into one of four categories: protection from harm, informed consent, the right to privacy, and honesty to professional colleagues. These issues are elaborated on below.

- **Protection from harm**

The researcher abided by the ethical conditions by not exposing participants to undue physical or psychological harm. The risk involved in participating in a study was not noticeably greater than the normal risk of day-to-day living.

- **Informed consent**

Participants were informed of the nature of the study to be conducted and were given the choice of either participating or not participating. The participants were accordingly informed that they have the right to withdraw from the study at any time and that participation is voluntary. The researcher obtained a written agreement from all the participants to participate in the study.

- **Right to privacy**

Any research study respects the participants' right to privacy. Under no circumstances should a researcher's report be presented in such a way that readers become aware of how a particular participant responded in the research study. The researcher assured the participants that all information given was treated confidentially. Participants were allocated a number, and at no stage were the participants' names used on the interview schedule.

- **Honesty to professional colleagues**

The findings and recommendations are based on the facts determined in the research study. The researcher did not fabricate data to support findings. All data used in this research was adequately referenced and the results of this research study were presented accordingly, without the influence of the researcher.

## **1.15 RESEARCH STRUCTURE**

This research is divided into three chapters that are presented after the chapter layout below. In these three chapters, the research design is presented, the research questions are discussed extensively, and the research findings are presented and interpreted.

### **Chapter 1: General orientation**

In this chapter, the main focus was on presenting the research outline of the study, including the rationale of the research, the aim, purpose, objectives, definition of key terms and the research question. This chapter also outlines the research design and approach, sampling and how data was collected and analysed. The chapter further evaluated the trustworthiness and authenticity of the study. The ethical

considerations in respect of the study were taken into account by the researcher and the research structure was outlined.

## **Chapter 2: Cartel detection methods**

The main aim is to explore cartel detection methods for investigation purposes. The researcher discusses the mandate of the CCSA and the role played by its investigators in detecting cartels. The study introduces other methods that could be employed to detect cartels at an early stage or to prevent cartel formation. The literature reviewed and interviews conducted, highlighted various methods for cartel detection and some are used in other jurisdictions, therefore in this chapter, the researcher focuses on employing methods used by other regulatory bodies and competition authorities. Following that, the research question is answered. The new detection methods are explained and discussed.

The chapter further deals with the role played by the CCSA and its investigators in the methods used to detect cartels. The methods are explored thoroughly for implementation.

## **Chapter 3: Findings and recommendations**

In this chapter, the researcher presents the findings of the study, and recommendations are made.

## CHAPTER 2

### METHODS USED TO DETECT CARTELS

#### 2.1 INTRODUCTION

“Competition authorities cartel busting pays off for South Africa” (Mail & Guardian, 2016:20). The detection and busting of cartels depend heavily on the methods used by the CCSA and its investigators. Cartels are by their nature hidden and secretive, so there are various methods that competition agencies might use to detect signs of cartel activity in an industry to bring the cartel to a halt and punish the companies and individuals involved (ICN, 2007:3). It all begins with a brief summary of the principal methods of detection.

The CLP is a process by means of which the CCSA will grant a self-confessing cartel member, who is first to approach the CCSA, immunity for its participation in cartel activity. Leniency programmes have been quite successful in helping competition authorities to uncover cartels they did not know about (Kokkoris & Lianos, 2010:134). If competition authorities rely too much on the success of leniency programmes, cartelists might start doubting whether authorities can detect cartels (Lowe, 2011:128). Friederiszick and Maier-Rigaud (2007:10) state that leniency programmes are little more than terminal care for cartels that are old or about to break up, since leniency applicants report old cartels, not new ones. The Cartels Division of the CCSA mostly relies on the information received from the cartel members, informers and complainants for detection and identification of cartels for investigation purposes. If third parties do not report cartels, they might go undetected.

Cartelists have become more sophisticated in concluding cartel agreements. CCSA investigators will have to employ more proactive and advanced methods to detect cartels. These methods could detect cartels at an early stage before they cause harm to the economy.

In this digital age, Information Technology (IT), especially the forensic process, is increasingly regarded as a key instrument in competition authorities' fight against cartels worldwide (Aprahamian & Pop, 2016:49). The CCSA will have to invest in

technology related methods for the identification and investigation of cartels. Will and Emery (2012:vii) state that ongoing experience in practice helps to assess whether there are further areas that should be aligned or improved, in particular to facilitate multiple leniency fillings. The functioning cartel enforcement systems pose a threat to cartel members and make anti-competitive agreements among cartels more difficult (Aprahamian & Pop, 2016:48).

This chapter endeavours to answer the research question, namely “How could detection methods be used by investigators of the CCSA to detect cartels?” The chapter also focuses mainly on understanding the idea of a cartel, cartel forming, the impact of a cartel in the market, methods available to detect cartels, as well as positive and negative attributes of detection methods. Information gathered in this study, from literature and feedback from the research participants, is analysed before the researcher makes findings based on the comparisons.

## **2.2 UNDERSTANDING A CARTEL**

According to Tragakes (2011:205), a cartel is a formal agreement between firms in an industry to take actions to limit competition in order to increase profits. The Competition Act No. 89 of 1998 (1998:17), section 4(1)(b), states that an agreement between, or concerted practice by firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if it involves the following restrictive horizontal practices: (i) directly or indirectly fixing purchase or selling price or any trading conditions; (ii) dividing markets by allocating customers, suppliers, territories, or specific types of goods or services; or (iii) collusive tendering. The agreement may involve:

(a) fixing the quantity to be produced by cartel members, which cause price increase, (b) fixing the selling price of the product, (c) dividing markets by allocating geographical areas or other elements, (d) agreeing on barriers to enter the market (Tragakes, 2011:205).

Bruneckiene, Guzavicius, Soviene, Pekarskiene and Palekiene (2015:6) explain that a cartel is a (i) prohibited agreement of competitors and also a conspiracy and a combination of persons for an unlawful purpose, (ii) an agreement between two or more to do something criminal, illegal or reprehensible, (iii) a plot. Beaton-Wells and Fisse (2011:246) define cartel conduct as the agreement between the individual representatives of the firms involved in a cartel and the plotting of the agreement

being their conspiracy. The definition of cartel conduct applies to individuals and to corporations, given their capacity as juristic persons (Beaton-Wells & Fisse, 2011:246). Freeman (2000:87) describes a cartel as a voluntary, intentional combination of independent private enterprises supplying like commodities or services that agree to limit their competitive activities. Competitive activities are limited by allocating customers or markets, regulating quantity or quality of output, pulling returns or profits, fixing prices or terms of sale, exchanging techniques, trademarks or patents or by other methods of controlling production, price or distribution, bid rigging, or combinations of these.

McGowan (2010:23) explains that the agreement between competitors may be advantageous for the parties concerned, but it may have adverse and negative effects on other competitors, work to the detriment of consumers, and undermine the competitiveness of the economy in general. Cartels attempt to support higher than competitive prices, higher than they would in the normal market conditions if not infiltrated by cartels. (Carbaugh, 2009:241). Niels, Jenkins and Kavanagh (2011:550) state that a cartel enables firms to achieve the goal of maximizing profits without the competition. Instead of contesting the market and the resultant profits, the firms cooperate in various ways that are calculated to achieve maximum profits for all the members of the cartel (Niels et al., 2011:550). The key objective of a cartel is to limit competition between the member firms and attempt to maximise joint profits (Tragakes, 2011:205).

Wardhaugh (2014:7) argues that the effect of such cooperative agreements allows the cartelists to act in the market as if they were divisions of a single monopolist, replacing competition with coordination. Firms repeatedly risk so much by joining conspiracy because of the desire to make monopoly profits (Utton, 2011:1). Cartel members collectively behave like a monopoly (Tragakes, 2011:205). The highest profit that can be gained is the amount that the monopolist could earn by charging the monopoly price. This would restrict output to sustain the higher price and ensure that the monopoly is maintained in the face of potential new entries (Utton, 2011:1). Paha (2016:89) emphasizes that cartels are anti-trust violations and thus related to other types of white-collar crime such as bribery, fraud and forgery.

In response to the question “What is your understanding of a cartel?” the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Five (5) participants said that a cartel is an agreement between competing firms that are in the same line of business in terms of product offering. They reach an understanding to collude either on price, tender collusively and divide the market. Participants explained that this conduct is considered to be that of a cartel.
- Two (2) participants pointed out that a cartel is conduct that firms engage in when they have a meeting and determine each firm’s conduct in the market. This could include what the firms should charge in the market, what they should do with regard to customers, and also to the business that is available out there.
- One (1) participant said a cartel is when a group of firms reaches an agreement on how to deal with customers who buy their service and products.
- One (1) participant explained that a cartel is when business people are sitting in a dark room conspiring on how to rob poor people by colluding on prices, since cartels are very secretive. Cartels rob all consumers of goods, irrespective of their status.

The literature demonstrates that there is a universal understanding of what a cartel is, a fact proven by the diverse international sources to which reference is made above. The majority of the participants responded in line with the literature and the applicable South African legislation. The word ‘cartel’ has a formal, codified meaning as per the Competition Act No. 89 of 1998 (as amended) in section 4(1)(b), and the participants’ responses agreed with how it is stated in this legislation. Only one participant emphasized the fact that cartels are secretive and conducted by means of a conspiracy to cheat consumers. This corresponded to what Beaton-Wells and Fisse (2011:246) mentioned, namely that the genesis of the agreement between competitors is a conspiracy.



Additional information found in the literature and not discussed by participants is that firms conclude cartel agreements by seeking to act in the market as if they were divisions of a single monopolist, and limit competition to maximise profits at the cost of the consumers. In the pursuit of maximum profits, firms have recourse to the usual business strategies but they will at times resort to illegal business. Cartels are one such extra-legal strategy to which some firms resort in order to maximize profits. In the ordinary course of business, firms that provide the same goods or services contest the market, seeking to maximize their profits at each other's expense.

The participants elaborated further by stating that a cartel is a conduct where firms meet and decide on each other's conduct in the market, including what the firm should charge, and what they should do in respect of customers and their business. They further stated that a cartel will be when firms meet and agree on how to deal with their customers. The understanding of a cartel is universal, hence the literature and participant's information is the same.

Greed and the desire for more profits are the genesis of cartel formation in the market, as the firms understand that it requires costly investment to increase efficiency and to improve their products, while lowering their prices will have a direct negative impact on their profits. The solution to their problem is to conspire with their competitors and to form a cartel. The next section considers what is meant by the formation of a cartel.

### **2.3 MEANING OF CARTEL FORMING**

Firms have an incentive to form a cartel and to behave cooperatively rather than competitively (Arnold, 2014:270). Arnold (2014:270), Niels et al. (2011:550), and Paha (2016:91) explain that in any industry where there are no profits, a reduction in output through the formation of a cartel raises prices and brings profits, which are shared among the members of the cartel. The life cycle of markets themselves may facilitate cartel formation, while in other instances external pressures (entry barriers, existence of non-cartel firms, role of innovation, changes in demand) are other variables that influence cartel formation (Bruneckiene et al., 2015:54).

The existence of strong and efficient business, producers or trade associations could automatically provide the necessary operational mechanism for setting up a

cartel through information exchange and arrangements regarding prices, production and sales (Bruneckiene et al., 2015:54 and Freeman, 2000:87). Industries in decline or experiencing economic downturns are more likely to enter into prohibited agreements in order to avoid competition and survive in the market (Bruneckiene et al., 2015:54 and Arnold, 2014:270). Paha (2016:90-91) adds that economic shocks and unexpected events influencing industry profits are the most important triggers for cartel formation. The objective is to manipulate the market to stop price wars, and the over-supply or shrinkage of product demand in order to allocate market shares through a cartel formation (Paha, 2016:91).

The participants were asked the question: “What is the meaning of cartel forming?” The participants could provide their own answers as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Three (3) participants are of the opinion that it is when competing firms act as one in the market, as opposed to competing for customers and decide to agree on prices, allocate markets, and tender collusively to benefit their firms by making more money.
- Two (2) participants said it is when firms competing in the same industry realize that they are not making profit, and subsequently discuss and agree on the type of collusive conduct and how to behave in the market, as it is much more profitable than a situation where they are competing independently. They further explained that when the economy is not doing well, cartels are susceptible to formation, rather than competing aggressively in the market.
- One (1) participant explained that cartel formation is when firms avoid competition to exploit an exclusive position.
- One (1) participant said that cartels are formed when firms decide not to be innovative, compete in products and marketing, or invest in better technology but instead act as one and do things the same way.
- One (1) participant described cartel forming as when competitors stop competing and start working together with the same objective in mind. These

competing firms then share information and price lists etc., and this harms the economy and customers.

- One (1) participant said it is when competing firms are in a mutual agreement and act in a similar manner or concerted practice.
- One (1) participant said it is a conspiracy between firms that are in a horizontal relationship, agreeing to work together in conducting their business and thus preventing competition among themselves.
- One (1) participant is of the opinion that it is a meeting of minds of competitors with the intention of reaching a cartel agreement.

The opinions expressed by the participants corresponded to what Arnold (2014:270), Niels et al. (2011:550), and Paha (2016:91) explained, namely that the origin of cartel forming is the economic downturn, which is an activity during the course of a normal business cycle. As some participants explained, when there are no profits, the strategy of a number of firms will be to form a cartel, and this was in line with sources found in the various literature. Participants added to what was stated by Bruneckiene et al. (2015:54), namely that competitors would avoid competition at all costs just for profit-making. The majority of participants discussed cartel forming as cooperation, agreements and meeting of minds between competitors, as they just want to avoid competition, which was in agreement with what was stated in various literature sources. In addition, the literature highlighted why cartels are formed in other instances. It is due to a lack of competitors' innovation. Instead of competing, they stop price wars (competing aggressively), and arrange over-supply or shrinkage of product demand to allocate market shares by forming a cartel. One participant alluded to this aspect. All the participants did not highlight the aspect stated by Bruneckiene et al. (2015:54), and Freeman (2000:87), namely that the existence of strong and efficient business, producers or trade associations could automatically provide the necessary operational mechanism for setting up a cartel by means of information exchange and arrangements regarding prices, production and sales.

The cartelists would agree on what price to charge and who takes which customer or contract. The problem of how to cope with the difficult economic situations supports the move towards cartel-forming. Competition law is supposed to protect

the functioning of the market and the economy (Lee, 2016:1). When cartels are formed, it will have a negative impact on the economy, as cartels harm the economy. The impact of cartels is discussed in the next section.

## **2.4 THE IMPACT OF CARTELS ON THE ECONOMY**

According to Lee (2016:1), cartels cause diverse negative aspects to the economy and they also deprive consumers of benefits that competition among suppliers would have otherwise produced. Cartels are considered damaging per se, because colluding firms have strong incentives to overcharge consumers for products or services, without adapting the quality, or to block the entry of new rivals (Licetti, Pop, Nyman & Gomez, 2017:77). Cartels shield their co-conspirators from competition, thus allowing them to charge higher prices, and reducing the pressure on them to improve the products they sell or to find more efficient ways to produce (Licetti et al., 2017:77). Customers (companies and consumers) foot the bill in terms of paying higher prices for lower quality and narrower choices (European Commission Competition, 2012). This not only makes consumers and businesses suffer but also adversely affects the competitiveness of the economy as a whole (European Commission Competition, 2012).

Cartels cause price inflexibility, regardless of a change in the economic circumstances, thereby leading to malfunctions in a free-market system, due to curbing the competition among suppliers as an essential element of the free-market mechanism (Lee, 2016:1). Ashton (2018:2) adds that the cartelization of a market leads to two types of effects: a transfer of wealth and exacerbation of inefficiencies, both of which have to be considered as damage from the point of view of the affected economic actors role-players. Due to the higher price induced by the cartel there is also an economic burden carried by consumers (Ashton, 2018:2). The role of price competition in allocating resources to their most efficient uses is undermined since, while the conspiracy holds, no firm can cut the price (Utton, 2011:6). Furthermore, if stability of the cartel is maintained for any length of time it may have the corrosive effect of slowing the pace of innovation. In the most recent World Bank economic update on South Africa, it released its findings on how the competition policy could stimulate the economy and alleviate poverty (Mail & Guardian, 2016:33). It found that work done by South Africa's competition authorities in battling cartels in the

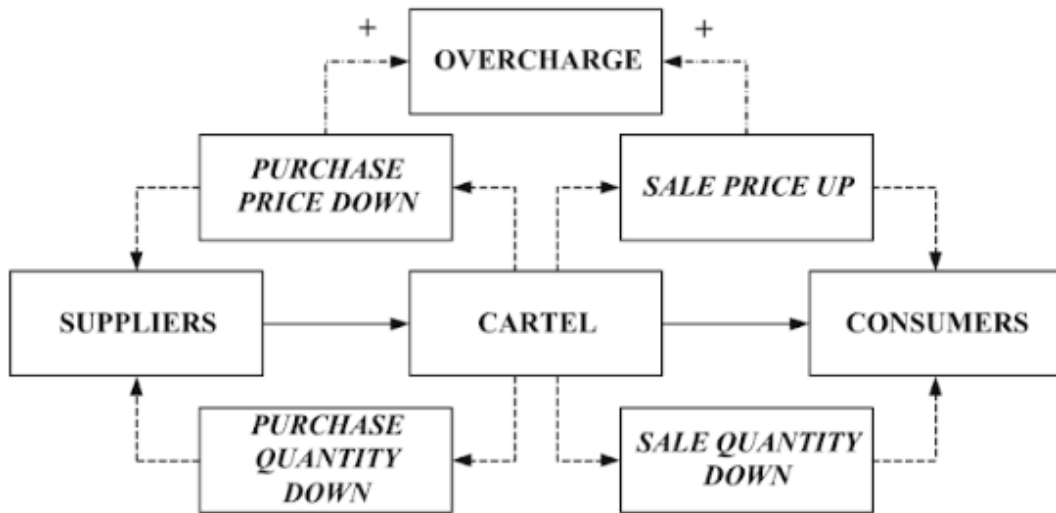
cement and food industries has helped to reduce prices, stimulate growth (including by allowing new entrants into some markets), and helping hundreds of thousands of South Africans ward off deeper poverty (Wagner & Hosken, 2016).

Paha (2016:89) is of the opinion that firms, may suffer from cartel fines in case of detection, since at times the individual violating the laws might be a manager of the company that tries to maximise the firm's profits and the shareholders are not aware of the cartel's deception. Therefore, participation in cartels undermines a firm's reputation (Bruneckiene et al., 2015:141-142).

Bruneckiene et al. (2015:141-142), and Lee (2016:26-27) mention the inefficiencies and impact on the economy caused by the cartels:

- Cartels' existence in the market creates conditions for inefficient firms to remain in the market as a result of the umbrella effect, or by joining the cartel. Meanwhile in the presence of market competition they should either invest in the efficiency of their performance or leave the market.
- Cartels in the market could lead to industry restructuring, which is not always beneficial.
- Customers suffer due to the actions of cartels, as they are forced to either pay a higher price or find a product substitute.
- Cartels could also have an impact on market demand as a result of the lower purchase prices that the cartel firms pay to the suppliers of their products. Cartels also impact on purchase quantities and raising sales price that is paid by the buyers.
- An inflated market price is responsible for increased inflation in a country, while decrease consumption and production undermine economic viability both in the cartel market and in other cartel-related markets.
- Cartels have exploitative effects directed against customers and suppliers, and also have exclusionary effects directed against new non-cartel firms or product substitute firms willing to enter the market.
- Cartel firms exclude existing rivals from the market or reduce their share.

Figure 2.1 below illustrates how cartelists manipulate the economy. In this scenario, the cartelists purchase goods with a low price from the suppliers and agree to sell to their customers at an inflated price.



**Figure 2.1: Illustration of lower purchase price by cartelist to suppliers and raising purchase price paid by customers**

(Source: Bruneckiene et al., 2015:142)

Fear (2006:4) is of a different opinion, namely that cartels do not abolish competition but regulate it and reshape the rules of the game on which competition rests. It is a misconception that cartels halt competition and innovation (Fear, 2006:4). Bruneckiene et al. (2015:140), emphasizes that there are different attitudes to cartel effects in the competition market, where some argue that a cartel restricts or reduces competition, while others' opinions are that a cartel only modifies but does not eliminate competition, and the competition moves to the process of cartel formation and fulfilment. Lee (2016:26) supports Fear (2006:4) and Bruneckiene et al. (2015:140), in that cartels have benefits that could have good effects on the economy. Lee (2016:26) mentions the following advantages of cartels:

- Restraining disruptive competition (situation where over-invested capital in the market does not reap as much profit as investors expected but rather goes to chronic deficit, due to less demand and decreasing prices).
- However, the entrepreneur in a competitive market will see the opportunity to lower prices to reap profit by increasing his sales volume.

- Securing large-scale investment capital (joint sponsorship for a project such as a joint research venture, which costs too much for the individual entrepreneurs to take on but that is of substantial benefit to all the participants in the markets is suggested to be another area where cartels can play a role).
- Voluntary regulation by the industry or professional association (when the public requests its government to regulate an industry).
- Reducing price fluctuations (cartels are argued to prevent price fluctuations due to their independence from costs and their agreement on fixed prices).

In response to the question “What is the impact of cartels on the economy?” the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets) as follows:

- Seven (7) participants explained that by avoiding competition, the consequences are that consumers are exploited either by paying higher prices for the products and receiving a poor-quality product.
- Two (2) participants asserted that cartel prices do not reflect actual production cost.
- Two (2) participants responded by stating that if there is no competition, firms in a cartel fail to be innovative. There will be no innovation in respect of products.
- Two (2) participants stated that cartels cause barriers to entry, since smaller players are not able to enter the market.
- One (1) participant is of the opinion that if fewer goods are purchased due to high prices, it means less production, therefore the economy will be affected on a large scale.
- One (1) participant stated that cartelists increase their market share to maximise their profits.

The researcher noted that all the participants had mentioned that cartels are considered to be the most damaging form of all anti-competitive behaviour and because they artificially raise prices in the market, they make goods and services unaffordable to the consumers, as argued by Lee (2016:1) and Licetti et al.

(2017:77). The prices of the goods do not reflect the actual cost of the goods and consumers are not getting the actual value for the money spent on those services or products received from cartelists. Two participants support the opinion of Licetti et al. (2017:77), namely that cartels prevent new entry into the market and sabotage growth in the industry. One participant, whose opinion agrees with that of Bruneckiene et al. (2015:141-142), stated that artificial prices caused by cartels affect the economy, since the shortage of goods means less production.

Paha (2016:89) highlights the statement that was not mentioned by any participants, namely that even the firms involved in a cartel may suffer from cartel fines, in a case where the cartel is detected and the shareholders may not be aware of it. Paha (2016:89) further highlights that cartels also undermine the reputation of a firm, which could cause the market share to drop. Fear (2006:4) mentioned this but not even one participant highlighted the fact that cartel only modifies but does not eliminate competition. There are even some cartel agreements that could benefit the economy. Some cartels benefit the economy by limiting disruptive competition, and markets then experience lower demand for products, which forces prices to decrease. Cartels also benefit the economy by means of their joint sponsorship of firms for a project that is beneficial to participants of the project, enabling consumers to get the product at a lower cost.

Firms will collude only if the cartel incentive limit is not violated, that is, if the expected profits of collusion are higher than the chances of being detected by the competition authority. It is thus important to devise methods of cartel detection to remove this cruel and toxic culture of cartelists. It is the mandate of the CCSA to promote and maintain competition in the market. Cartels have a very negative impact on the economy, and early detection of collusion will protect consumers and promote efficient functioning of the economy. The detection of cartels will be addressed in the next section.

## **2.5 THE DETECTION OF CARTELS**

The antitrust authority's fundamental challenge is to detect hard-core cartels (Huschelrath, 2009:87). Marshall and Marx (2012:3) illustrate that because cartel agreements are illegal, the members of a cartel cannot enter into legally binding



collusive contracts with one another and there is no judicial authority to enforce the agreements. Compliance comes from within, that is each cartel member's willingness. Ehlermann and Atanasiu (2007:83) state that in modern times these agreements are frequently verbal, and may therefore be very difficult to detect. Wells and Tran (2015:1) add that cartels involve secrecy and deception by participants, with the deliberate aim of avoiding discovery. Cartels are therefore difficult to detect, documentary evidence is rarely available and cartels are also difficult to prosecute, even when detected (Wells & Tran, 2015:01). In some markets, cartels are detected fast enough, while in others they exist for decades (Bilgin, Danis, Demir & Can, 2016:69).

The suspicion suggesting the existence of a cartel in the market and a factual comparison with the real market situation may represent the preliminary stage in the cartel detection process and verification of cartel existence (Bilgin et al., 2016:69). Harding and Joshua (2010:178) are of the opinion that there are various kinds of evidence that may be used to establish participation in a cartel, even where the behaviour in question is clandestine. Such evidence will relate to meetings and other communications, and will record the working out and consummation of planned collusion (Harding & Joshua, 2010:178). The competition authorities point out that leniency programmes have had a major impact on the development of today's cartel enforcement (Wijckmans & Tuytchaever, 2015:64). For many competition authorities, dealing with leniency applications has gone hand in hand with most of the development of their cartel enforcement and cartel-detection skills (Wijckmans & Tuytchaever, 2015:64). Other government authorities in procurement departments work hand in hand with competition authorities to discover cartel activities in those entities (Wijckmans & Tuytchaever, 2015:67).

In response to the question: "Are cartels easy to detect?" the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Seven (7) participants explained that it is difficult to detect a cartel, since the formation of cartels is concluded in secret places, no minutes are taken and no

record is exchanged. Firms in a cartel are advanced and they use sophisticated methods that the competition authorities might not know of.

- Two (2) participants stated that collusive tendering is easier to detect than other types of cartel conduct, since government officials working in procurement are trained with regard to what to look for when processing tenders.
- One (1) participant responded by saying that at the time when the competition authority is being established, it is easy to detect a cartel because firms are not worried about enforcement and are relaxed about hiding information. New competition authorities discover many cartels.

All seven (7) participants support the view of Ehlermann and Atanasiu (2007:83) and Wells and Tran (2015:1), stating that it is difficult to detect cartels, as secrecy is maintained to avoid discovery. Only Harding and Joshua (2010:178) believe that even if cartels are concluded in secrecy, there are, nevertheless, ways of detecting cartel participation in the market. The opinions of two (2) participants concur with those of Wijckmans and Tuytchaever (2015:67), mentioning that detection of collusive tendering (cartel) is easier than price fixing and market allocation because government procurement officers are trained and will know more about the market and notice the warning signs of the collusion. The exception was one (1) participant, who said that if the competition authority is still in the development stage, it could be easy to detect cartels because firms do not think that they might be caught, and this was not highlighted by any source in literature. Wijckmans and Tuytchaever (2015:64) highlighted that dealing with leniency applications has helped to develop the competition authority's cartel enforcement and detection skills.

Cartels are difficult to detect in general and this has been an obstacle for competition authorities worldwide. The responsibility to detect cartels should not rest solely on the competition authority, as this scourge affects the economy as a whole, as well as markets and customers. The responsibility for cartel detection will be discussed in the next discussion.

### **2.5.1 The responsibility for detecting cartels**

The detection of a cartel and the identification of evidence regarding the cartel member's behaviour is one of the most crucial concerns in the anti-trust policy

(Forssbeck & Oxelheim, 2015:par 6.3). Harding and Joshua (2010:178) and Huschelrath and Veith (2011:30) state that cartel detection is usually viewed as a key task of either competition authorities or compliance officials in firms with an elevated risk of cartelization. It is often not immediately clear whether markets are infected by collusive behaviour; hence economists are traditionally well trained in identifying such potential crime (Bos, 2009:97). Wells and Tran (2015:1) emphasize that detecting and prosecuting cartel conduct is a high priority for competition authorities worldwide. However, Wijckmans and Tuytchaever (2015:66) explain that information about undetected cartels originates in the outside world, rather than in the offices of a competition authority. Interacting with organizations, companies, and people outside the competition authority regularly yields unexpected results when it comes to detecting illegal conduct (Wijckmans & Tuytchaever, 2015:66).

In response to the question “Who is responsible for detecting cartels?” the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Five (5) participants explained that customers or citizens must be held responsible for detecting cartels because they are participants in the market, so they must be aware of cartel conduct.
- Three (3) participants stated that government departments that issue tenders should detect cartels (collusive tendering).
- Three (3) participants said whistle-blowers, especially employees of the firms, are also responsible for detecting cartels.
- Two (2) participants explained that the regulator, i.e. the competition authority, should detect cartels, since it is their mandate.
- One (1) participant believes that competitors who are not involved in a cartel should be able to detect cartels because they are participants in the market.

The opinions of the majority of the participants agree with those of Wijckmans and Tuytchaever (2015:66) that members of the outside world, consisting of citizens, competitors or customers, are responsible to detect cartels since they are the

people who can monitor the market. These participants believe that customers will be able to monitor suspicious events in the market. Out of seven participants, only two mentioned that the competition authority should detect cartels as its sole mandate, and were in agreement with the opinions of Wells and Tran (2015:1). Three participants were in agreement with Huschelrath and Veith (2011:30) and Harding and Joshua (2010:178), and stated that employees of firms, including officials in compliance departments, should detect cartels and also be whistle-blowers. Bos (2009:97) states that economists are well trained in identifying cartels when markets are infected by collusive behaviour however, all the participants did not mention this.

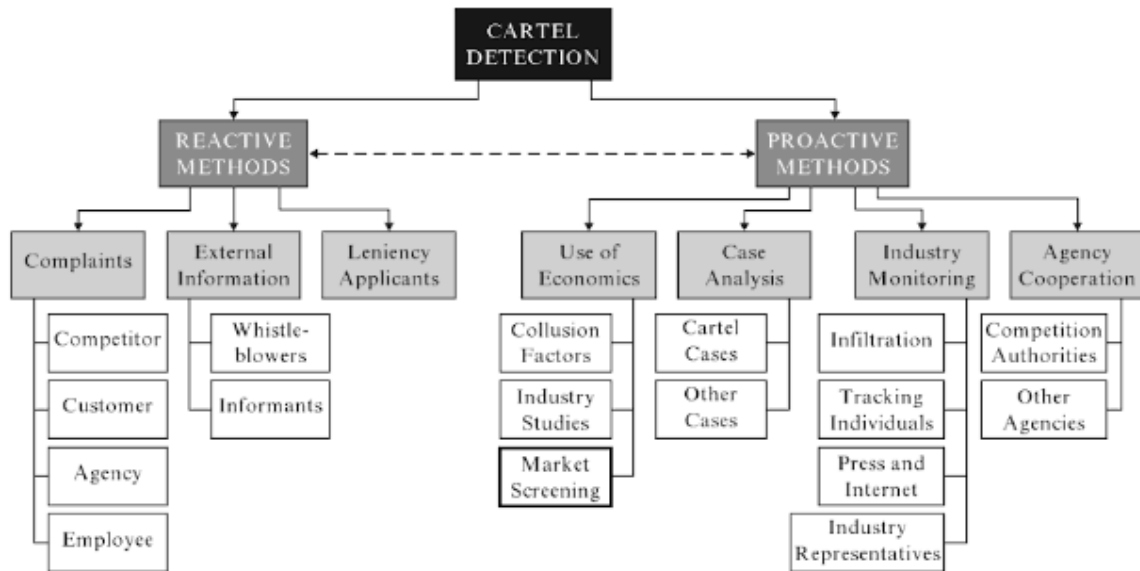
Cartel detection and investigation are the sole mandate of the competition authority; therefore competition authorities should continually improve the methods that may be used by investigators to detect cartels. It should be taken into account that cartels are secretive and difficult to detect. It has become necessary that the detection methods should be very sophisticated. In the next discussion, the methods used by investigators to detect cartels will be addressed.

## **2.6 METHODS USED BY AN INVESTIGATOR TO DETECT CARTELS**

A clear understanding of the circumstances in which cartels are more likely to form, and thus their form, is helpful towards gaining the ability to detect cartels, even when attempts have been made to hide them. According to Ehlermann and Atanasiu (2007:83) it would be helpful to understand more fully the factors that lead to cartel formation, in order to identify the location of cartels that have not yet been uncovered. There may be common economic factors that can help inform the process of deciding where to apply effort in the detection process (Ehlermann & Atanasiu, 2007:83). Harding and Joshua (2010:178) state that material evidence of some kind, in hard copy, or in electronic form, perhaps later further substantiated by verbal evidence, has to be the basis of a cartel case that has been detected and is under investigation. As is the case in criminal investigation, the practical difficulty is one of locating and retrieving evidence (Harding & Joshua, 2010:178).

Neumann and Weigand (2013:322) state that the competition authority could use a selection of reactive (complaints, other external information and leniency applicant)

and proactive (use of economics, case analysis, industry monitoring and agency cooperation) detection methods to increase the probability of cartel detection. Reactive and proactive detection methods to detect cartels are displayed in Figure 2.2 below:



**Figure 2.2: Cartel detection methods**

(Source: Neumann & Weigand, 2013:323)

The most significant development in cartel detection by competition authorities was due to the introduction of corporate leniency programmes (Lewis, 2013:197). In principle, leniency policies both uncover existing infringements of cartel laws and deter future infringements from occurring (Wells & Tran, 2015:141). Friederiszick and Maier-Rigaud (2007:10) are of the opinion that leniency is little more than terminal care for cartels, since cases based on leniency are cartels that are close to the point where they would have broken up in any case. It is good that competition authorities do not rely exclusively on leniency applicants as a source of cartel detection (Wijckmans & Tuytchaever, 2015:65). Harding and Joshua (2010:178) state that in most cases, competition authorities use two particular techniques for evidence detection, which have in turn accounted for much of its actual cartel-busting success, namely the dawn raid and the offer of leniency. Neumann and Weigand (2013:324) explain that whistle-blowers and informants could be current or former employees who are aware that the employer is involved in a cartel, or it could be an outsider who gains access to information from within the cartel.

Bajari and Summers (2004:102) introduce technical detection methods by stating that the DOJ (Department of Justice in the US) has embraced investigative techniques such as wiretapping and electronic surveillance to improve cartel detection. Bajari and Summers (2004:102) and Bos (2009:97), explain that a straightforward way to discover cartel activity is through interception of relevant communication between cartel members, such as finding minutes of a cartel meeting. However, Bos (2009:97) states that an attempt to detect cartels by sifting through e-mails or phone calls between firms is not only legally impermissible, but is also likely to be a dead-end road. With modern technology it is becoming easier to encode pieces of information (Bos, 2009:97), therefore the constant monitoring of industries by means of the infiltration of informants, career tracking of industry managers, press and internet monitoring as well as regular contact with industry representatives promises to increase the probability of detecting cartels (Neumann & Weigand, 2013:323).

There are other econometric methods for identifying collusion by means of the examination of bid data (Bajari & Summers, 2004:102). Huschelrath and Veith (2011:30) suggest that monitoring markets by using screening methods has the potential for substantial cost reductions, thereby improving the competitive position of the respective user firms, but also allows the conclusion that competition authorities should view customers of potentially cartelised industries as important allies in their endeavour to fight hard-core cartels. Bajari and Summer, (2004:102) believe that these detection methods can be used to follow up tips and monitor markets. Cartel-spotting is positioned between the structural and behavioural features of the market, and is accomplished by analysing whether something odd is going on, such as company behaviour not being in line with competitive behaviour, or there being structural breaks in price or bidding patterns for which there is no apparent normal explanation, such as a change in cost (Niels et al., 2011:306). Huschelrath (2009:87) and Neumann and Weigand (2013:322) state that the following three-step procedure could guide the anti-trust authority in actively detecting cartels:

The following should be alphabet numbering:

- a. structural assessment of all industries in an economy;

- b. behavioural assessment of suspicious industries; and
- c. collection of hard evidence.

A structural assessment of all industries in an economy is undertaken, followed by an in-depth behavioural study of those industries that are identified as suspicious by the initial structural assessment. If sufficient behavioural evidence is found, the anti-trust authority may in a third step be allowed to execute dawn raids with the aim of collecting written proof of the existence of conspiracies (Huschelrath, 2009:87). Indirect evidence of cartel activity should create a sufficient degree of suspicion to justify inspection (search and- seizure) by the competition authority (Friederiszick & Maier-Rigaud, 2007:7).

Friederiszick and Maier-Rigaud (2007:5) state that cartel members cannot write enforceable contracts, therefore if one wants to detect collusion, a relevant insight is that tacit (firms can establish supra-competitive price without direct interaction) and explicit (where firms directly interact to establish collusion). However, Bos (2009:95) explains that the role of economics in cartel detection is limited to the identification of potential crime scenes, meaning industries that are prone to collusion. In the evaluation of certain industry practices, economic screening is used to detect cartels. However, this is costly and time-consuming. Since competition authorities are hampered by time and budget constraints, this cartel detection method is not an attractive option.

Lewis (2013:196) also says that economic evidence alone is generally insufficient to prove a cartel. The economist tends to reject the idea of prosecuting cartels on economic grounds only (Friederiszick & Maier-Rigaud, 2007:5). However, the economic market screening (cartel detection method) has an encouraging effect on complainants and whistle-blowers because even cases that initially exhibit weak evidence can be followed up (Friederiszick & Maier-Rigaud, 2007:5). The outbreak of a sudden price war, for example, may be evidence of a robustly competitive market or of a cartel disciplining deviant members (Lewis, 2013:196).

According to Friederiszick and Maier-Rigaud (2007:5), the equivalence of the underlying economics of tacit and explicit collusion means that the criteria established in the context of merger control to identify tacit collusion provide a

meaningful framework for the detection of explicit collusion as well. The basic aim of the merger control is typically not to detect the conduct of merging as such but rather to assess whether a notified merger would cause significant anti-competitive effects (Huschelrath, 2009:203). In addition, the competition authority can obtain useful information about existing cartels by analysing past cartel cases or other competition cases (Neumann & Weigand, 2013:323). Wijckmans and Tuytchaever, (2015:67) state that a major source of detection is a competition authority's relationships with other enforcement agencies that are not necessarily related to the competition's law enforcement. Formal and informal relationships with other national public bodies have the potential of yielding a large return on investment in terms of finding cartels (Wijckmans & Tuytchaever, 2015:67). The related development is that of a witness reward programme (Wijckmans & Tuytchaever, 2015:68). However, proactive methods are usually more resource-intensive and costly to implement, and their success rate, in terms of the number of cartel cases actually discovered through such methods, seems to be rather low (Abrantes-Metz et al., 2013:12).

In response to the question: "Which methods may be used by an investigator to detect cartel forming?" the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Four (4) participants listed market studies (market enquiries) as another method of cartel detection. The enquiry is of use to the CCSA in revealing the type of conducts that may be involved in the anti-competitive conducts.
- Three (3) participants explained that leniency programmes constitute one of the methods of cartel detection. This is when a cartel member reports the cartel to the CCSA for leniency.
- Two (2) participants stated that cartels can be detected by means of whistle-blowers.
- Two (2) participants listed dawn raids as another method. They explained that investigators must be vigilant regarding any other form of collusive behaviour that could be taking place during the search-and-seizure process.



- Two (2) participants indicated that investigators might deploy intelligence officers/informants and wiretaps in various markets. Investigators have to infiltrate those markets.
- Two (2) participants said that cartels are detected in the process of mergers and acquisition of firms. During this process, some firms bring information voluntarily, and the CCSA is able to analyse this information and examine the market to discover what sort of behaviour the players are engaged in.
- One (1) participant mentioned that CCSA investigators must also keep an eye on the reports in the media about various markets, and that information found there might give an indication as to the type of conduct that might be taking place in those markets.
- One (1) participant said investigators might monitor industry associations in the South African market.
- One (1) participant explained that investigators must observe the markets, at first not to investigate but to observe the patterns that might point to collusion.
- One (1) participant said that investigators might summon anyone to come to the CCSA and give information to the CCSA.
- One (1) participant responded that investigators could analyse tender documents from the municipalities to check whether there is anti-competitive behaviour.
- One (1) participant mentioned that cartels are detected by way of other investigations in the CCSA, such as while investigating another cartel, merger proceedings, and abuse of dominance cases. Firms submit information to the CCSA and during the subsequent analysis other cartels could be detected.
- One (1) participant mentioned that by presenting outreach programmes, especially in government departments, and by training officials with regard to cartels and how they are detected, more cases would be reported.
- One (1) participant is of the opinion that desktop research on the Internet by investigators could be another method of detection. Investigators must always be alert to their surroundings for market information.

The majority of participants are in support of sources in the literature when they mention detection methods such as leniency programs (3), mergers (2), market

studies (4), media (1), monitoring of industries, market screening (1), intelligence-gathering methods (2), analyses of tender documents (1), whistle-blowing and other complaints (2), through analysis of CCSA's existing cases (1) and desktop research (1). The exception was the participant who highlighted summons as a method of cartel detection and no literature was found on which to base this statement. The CCSA has the power to summon anyone to provide information. Through this process, investigators could pick up a cartel when analysing the information received.

One other participant mentioned that outreach programmes could be of assistance in cartel detection. Two participants mentioned raids as another method of cartel detection, while another cartel could be detected in the search-and-seizure of a reported cartel. Friederiszick and Maier-Rigaud (2007:7) mentioned search-and-seizure as another method of cartel detection. However, this method was mentioned in the context where there is indirect evidence of cartel activity but that it is still capable of creating a sufficient degree of suspicion to justify inspection.

Wijckmans and Tuytchaever (2015:67) highlighted three other aspects not mentioned by the participants, i.e. the social media, including cell phones; witness reward programmes; and cooperation between agencies. Either competition authorities or other national or international agencies could promote the detection of cartels. Abrantes-Metz et al. (2013:9), highlights that proactive methods are costly and deliver minimal results in the detection of cartels, hence, economics could be used for detection and not for proving collusion.

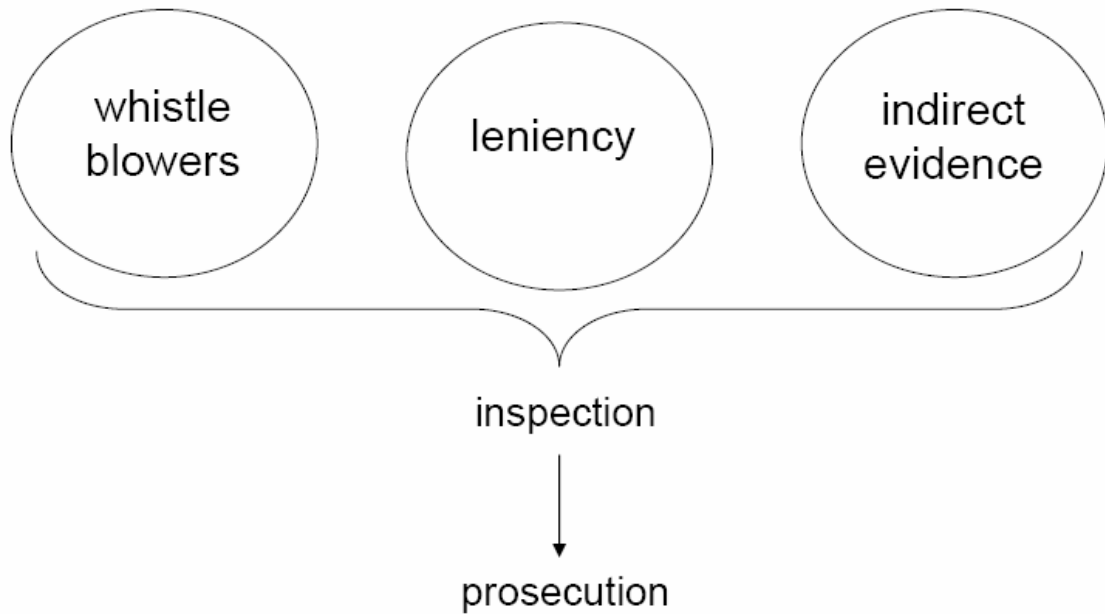
The use of technical detection methods such as wire-tapping and electronic surveillance by the CCSA could improve the current situation; however, legislation should be amended. Furthermore, market screening and monitoring of industries will be additional best methods for cartel detection. As mentioned before, these methods are costly, unlike in developed jurisdictions where the agencies are resourced. While the participants and sources listed many detection methods, various competition authorities have their preferred methods that are common to each jurisdiction. The most common detection methods are discussed in the next section.

## **2.7 THE MOST COMMON DETECTION METHODS TO DETECT CARTELS**

Competition authorities have increasingly focused their enforcement activities on detecting cartels and imposing fines. These fines imposed have an effect, because the number of cases reported to the competition regulator has increased due to the fines imposed on the detected cartels (Kerikmae, 2014:111). Wijckmans and Tuytchaever (2015:64) explain that competition authorities point out that the leniency programmes have had a major impact on the development of today's cartel enforcement across the globe. Leniency programmes have significantly fostered cooperation between competition authorities globally. International Competition Network (ICN) members benefit from having a common set of rules and a system specifically designed for cooperation and exchanging information (Wijckmans & Tuytchaever, 2015:67). Many competition authorities' has procedures in place that enable people to disclose information on cartels under safeguards about the confidentiality of their identity, or as anonymous informants (Wijckmans & Tuytchaever, 2015:68). Cartel cases may have two types of origin. Firstly, a complaint may be reported to the CCSA by an undertaking, natural or legal person, or by any member state. Secondly, the CCSA could launch its own investigation, based on certain market behaviour (Blstakova, 2016:17).

A number of competition agencies reported having used screening to detect bid-rigging that was made possible by the availability of extensive and reliable bidding data on public tenders (Abrantes-Metz et al., 2013:7). Blstakova (2016:14) states that screens are a useful tool, not only to anti-trust agencies and authorities but also to defendants and plaintiffs in anti-trust cases and companies for internal monitoring purposes. Screening techniques may also help companies decide whether to apply for leniency or not. The main disadvantage of such a broad analysis is the high demand for data, quality, and extent of the analysis, which also requires control of many determinants of behaviour (Blstakova, 2016:14). In practice, cartel detection is based on inspections at the premises of firms and plays a crucial role (Friederiszick & Maier-Rigaud, 2007:5). Surprise inspections at the premises of firms are by far the most effective, and sometimes the only, means of obtaining the necessary evidence.

Leniency applicants, whistle-blowers, and complainants such as competitors or customers, when they provide indirect evidence of the alleged cartel, often provide the initial evidence that prompts the CCSA to adopt an inspection decision (Friederiszick & Maier-Rigaud, 2007:5-6). Methods of cartel detection that provide evidence are displayed in Figure 2.3 below.



**Figure 2.3: Methods of cartel detection**

(Source: Friederiszick & Maier-Rigaud, 2007:5-6)

In response to the question: “What are the most common detection methods to detect cartels?” the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets) as follows:

- Five (5) participants indicated that third-party reporting to the CCSA is the common detection method. For example, whistle-blowers, customers that are being exploited, competitors excluded from a cartel, or competitors facing barriers to entry, employees, and leniency applicants (CLPs) might report the existence of a cartel.
- Four (4) participants included raids/search-and-seizure, and indicated that these methods are provided for in the Competition Act. During search-and-

seizure operations, investigators discover other cartels that have not been reported.

- Two (2) participants said market enquiries are other common detection methods and they are proactive.
- Two (2) participants said summons or requests for information are other common methods; when firms submit summoned information to the CCSA, they also submit information that implicates them as being members of another cartel. Summons are also provided in the law.
- Two (2) participants explained that during the interviews or interrogations, cartels are detected when firms answer the questions and implicate themselves in another collusion. Interrogation is also provided in the law.
- One (1) participant said that during merger proceedings, investigators detect cartels while they analyse information submitted by firms with regard to a merger.
- One (1) participant mentioned that market trends from other jurisdictions are another method of detecting cartels. Getting cartel information from other international authorities and in other instances when attending conferences, one could find out what other jurisdictions are investigating.
- One (1) participant mentioned media as a common detection method. Competition authorities should be alert at all times about what is being said about the industries.

The opinions expressed by the majority of the participants (5 participants) corresponded to what Wijckmans and Tuytchaever (2015:64) and Blstakova (2016:17) mentioned, namely that third-party reporting to the CCSA is the most common detection method. The opinions of four participants corresponded to those of Friederiszick and Maier-Rigaud (2007:5-6) regarding search-and-seizure inspection as another method for cartel detection. However, in a Competition Act, search-and-seizure is stated as an investigative tool, not a detection tool. The participants' experience has shown that raids could uncover information about other cartels that were unknown. Therefore, raids play a dual role. Several participants highlighted some of the methods not found in the literature, i.e. methods such as mergers, summons, and during interrogations. The CCSA initiates many cartel

cases and it plays a huge role in the detection of cartels. The role of the CCSA in the detection of cartels is addressed in the next section.

### **2.7.1 Role of CCSA in detection of cartels**

The CCSA is a statutory body, incorporated in terms of the Competition Act 89 of 1998, mandated to probe restrictive business practices and abuse of dominant positions and mergers. The CCSA was created in response to the recognition that the South African economy was being subjected to high levels of anti-competitive behaviour by many firms. The government's response to this state of affairs was to create a regulatory authority that would oversee all sectors of the economy and enforce rules that would both eliminate anti-competitive practices and foster competitive conduct by market participants. Towards this end, the CCSA regulates the conduct of firms by detecting and sanctioning anti-competitive conduct. It is the latter function that gave rise to the Cartels Division of the CCSA, which is responsible for the investigation of cartel conduct. In terms of detecting cartels, the Competition Act No. 89 of 1998 (1998:75), section 49B, states that any person may:

- submit information concerning an alleged prohibited practice to the CCSA, in any manner or form; or
- submit a complaint against an alleged prohibited practice to the CCSA in the prescribed form.

The CCSA developed the CLP for the purpose of detecting, stopping and preventing cartel behaviour, in terms of the Competition Act No. 89 of 1998, (1998:264) which mandates the probing of restrictive business practices (anti-competitive behaviour) and the abuse of dominant positions and mergers. Carteling is one of these anti-competitive behaviours and has to be detected, investigated and prosecuted to ensure that our economy is free for all. The CLP is a process by way of which the CCSA will grant a self-confessing cartel member, who is first to approach the CCSA, immunity for its participation in cartel activity. The reactive detection methods are based on information or evidence brought before the competition agency by third parties (Abrantes-Metz et al., 2013:12). Leniency programmes are considered most effective because the cartel member provides the competition agency with direct evidence of a cartel (Abrantes-Metz, 2013:12). However, there is a concern that

leniency programmes are largely used by dying cartels and thus their value lies more in increasing penalties than in shutting down active cartels (Harrington, 2015:14). Further, leniency programmes are more effective against the least stable cartels and could be enhancing the duration of the most stable cartels (Harrington, 2015:14).

According to the Global Competitiveness Report (2015:18-25), in South Africa the cartels operate for an average of eight years and the participants of a particular cartel are usually involved in up to five other cartels in multiple sectors. In the World Economic Forum's 2015-2016 Global Competitiveness Report, South Africa is ranked 13<sup>th</sup> among 140 countries in terms of the effectiveness of its anti-monopoly policy. Its relatively high rating is attributable, says the bank, to the CCSA's leniency policy, which provides for whistle-blowers to be given immunity from prosecution. To date, more than 500 leniency applications have been made to the CCSA. Although South Africa's cartel detection rate is among the world's best, with 33% of such operations exposed compared to only 13% in Europe, those discovered are merely the tip of the iceberg.

The study participants were asked: "What role does the CCSA play in the detection of cartels as it initiates its cases?" This was an open-ended question where the participants could provide their own answers to the question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets). One participant refrained from answering this question. The participants responded as follows:

- Two (2) participants indicated that it raises awareness in the market. Cartel players are aware that there is a raider looking at them in a market.
- One (1) participant stated that the mandate of the CCSA is to promote and maintain competition in the market. The CCSA's role is to ensure that competing firms compete for the benefit of consumers.
- Two (2) participants said that the CCSA takes proactive steps to initiate cases. Every time a complaint is lodged or information is received, the CCSA intervenes to examine that market.

- One (1) participant mentioned deterrence.
- One (1) participant said the CCSA initiates cases based on CLP, whistle-blowers and complainants. The CCSA also investigates cartels that no longer exist. The CCSA is not even aware whether the same cartelists are planning another cartel.

Two participants' statements are in correlation with what the Competition Act affirmed when they responded about the role played by the CCSA in the detection of cartels, that is, by means of information received from third parties, complaints lodged and leniency applications. The above corresponds to the view of the Global Competitiveness Report that leniency plays a huge role in South Africa when it comes to cartel detection. Two participants stated that when the CCSA Commissioner initiates a case and intervenes in a certain market to investigate, the CCSA is proactive in detecting what is happening in the market. The two participants' view was that the CCSA's mandate is to promote and maintain competition in the market, and that the mandate could be a deterrent. One participant highlighted that the CCSA conducts awareness campaigns, which are also seen as deterrents. The exception is one participant, who stated that the role played by the CCSA to detect cartels is not proactive because cartels that are reported are historical or dying cartels. This statement corresponds to the view expressed by Harrington (2015:14) that leniency programmes are extensively used by dying cartels. The more stable cartels are, the less likely that they will be caught because non-leniency enforcement is weaker. The proactive cartel detection methods employed by the CCSA are addressed in the next discussion.

### **2.7.2 Proactive cartel detection methods employed by the competition commission of South Africa**

Competition agencies employ a variety of proactive detection methods, such as the monitoring of media or trade press, monitoring of the participation of firms in trade/business association activities, and of their attendance at industry events, and empirical economic analysis and screens (Abrantes-Metz et al., 2013:12). An informant reward system may be an attractive method of detecting cartels (Kim, 2005:2). The CCSA conducts inquiries in respect of the general state of competition in a market, without necessarily referring to the conduct or activities of any particular firm (Healthcare Inquiry, 2016). The CCSA conducts a market inquiry if it has reason



to believe that there are features of the sector that prevent, distort or restrict competition (Healthcare Inquiry, 2016). The CCSA is a member of the South African Development Community (SADC) competition authorities, and its objective is to foster closer cooperation in the enforcement and commit themselves to cooperate by, among other things, sharing information on cases and coordinating investigation of cases (Ngobese & Kuhn, 2017:1-3). The SADC cartel cooperation framework ensures the effectiveness of each country's anti-cartel enforcement regime. In 2007, the CCSA conducted raids in coordination with its counterparts from the European Commission and the US Department of Justice on an international cartel involving freight-forwarding companies (Ngobese & Kuhn, 2017:1-3). Harrington (2015:8) states that cartels continue to be discovered at a significant rate and include some of the largest in history in spite of the aggressive enforcement, higher fines, and vibrant private litigation with treble customer damages.

In response to the question: "What proactive methods of detection could CCSA take in detecting cartels?" the participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Five (5) participants indicated that market enquiries are proactive methods.
- Four (4) participants mentioned that CCSA may work closely with other criminal investigation authorities such as the police. If we have a reasonable suspicion that collusion may be taking place, intercept the communication or infiltrate those people.
- Three (3) participants indicated that the CCSA is proactive in cartel detection by conducting awareness campaigns among citizens of South Africa.
- Two (2) participants mentioned vigilance during raids and in merger proceedings when evaluating a merger.
- Two (2) participants stated that if CCSA could reward whistle-blowers, this could encourage them to come forward with the information.
- Two (2) participants indicated that CCSA is pro-active in detecting cartels by observing media statements in certain industries to understand the industry behaviour.

- One (1) participant mentioned monitoring of industry.
- One (1) participant stated that the CCSA could exchange a Memorandum of Understanding (MOU) with other jurisdictions to share information about cartels that are not known in the country.
- One (1) participant indicated that imposing high fines on cartel members who are found guilty by the Competition Tribunal could result in the CCSA receiving more leniency applications from other unknown cartels.
- One (1) participant is of the view that investigators should be trained to be able to engage on a high level to question everything in their surroundings with regard to competition issues.
- One (1) participant indicated that a leniency applicant's (CLP) information will be submitted to the CCSA before the latter detects and probes that case. In most instances, a case is reported and other cases arise from the one reported case.

The majority of the participants listed market inquiries. Two participants stated media monitoring and one participant mentioned monitoring of industries as proactive methods that could be used by the CCSA to detect cartels. The listed methods supported the view of Abrantes-Metz et al. (2013:12). One participant mentioned that cooperation with other competition agencies is important and this was also mentioned by Ngobese and Kuhn (2017:1-3). Several of the participants included some proactive methods not addressed in the literature, such as merger control proceedings, search-and-seizure, awareness campaigns, to impose high fines to discovered cartels, training of CCSA investigators to be able to detect cartels in their surroundings, and work with other government agencies who can assist with technical detection methods. Imposing high fines for detected cartels could destabilise existing cartels in certain markets and this could encourage whistle-blowers and cartel participants to report unknown cartels by means of the CLP. Only two participants included rewarding whistle-blowers as a proactive method to detect cartels, whereas it was noted in the literature as a reactive method of detecting cartels (Kim, 2005:2). One participant added that during the investigation of a reported case, other cartel cases arise from the one reported case. When the investigators analyse information in the original case they will discover another cartel case. Competition agencies strive to detect cartels by making use of the various available methods, which could have an impact on the competition

agency. In the following discussion, the researcher looks at the impact of detection methods on the CCSA.

## **2.8 IMPACT OF DETECTION METHODS USED BY THE COMPETITION COMMISSION**

Cartel detection has an important direct effect on leniency. When cartel detection increases the probability of discovery, it encourages members of a cartel to apply for leniency (Bos, 2009:97). Effective anti-cartel enforcement delivers direct benefits to consumers by:

- preventing price overcharges;
- possibly being beneficial in reducing poverty, as prices will drop to benefit consumers;
- boosting the sharing of prosperity; and
- increasing competition as a result of detecting and sanctioning cartels (Licetti et al., 2017:77).

The immediate rise in detection and conviction from the amnesty programme causes the less stable cartels to collapse, thereby leaving the more stable cartels, and consequently having more time to discover them (Beaton-Wells & Ezrachi, 2011:Part C).

The impact of the CCSA intervention in the economy by detecting cartels demonstrated by the cement case, as an example. CCSA investigated a case of collusive conduct in the cement cartel against four main cement producers, and hefty penalties had to be paid by some of them. After detection of this cartel the industry became competitive and consumers are benefiting. Jenny and Katsoulacos (2016:329) found that the total savings to South African consumers due to CCSA's intervention in the cement case are approximately in the range of R4,5 to R5,8 billion between 2010 and 2013. Apart from financial benefits, the market has generally become more competitive, as evidenced by firms penetrating into regions in which they were not previously active (Jenny & Katsoulacos, 2016:329). A 2016 World Bank Study on Competition policy in South Africa showed that by tackling four cartels in wheat, maize, poultry and pharmaceuticals, some 202 000 individuals were lifted above the poverty line through the lower prices that followed. The savings

put an additional 1,6% back into the pockets of the poorest 10% by raising their disposable income. The Competition Commission South Africa Act (2017:3) states that an economy that is free from anti-competitive behaviour provides the following benefits:

- Provide all South Africans an equal opportunity to participate fairly in the national economy.
- Achieve more effective and efficient economy in South Africa.
- Provide for markets in which consumers have access to, and can freely select, the quality and variety of goods and services they desire.
- Create greater capability and environment for South Africa to compete effectively in international markets. Merola, Derenne and Rivas (2013:Part II, 462) add the following points in support of the Competition Act above that:
  - Enforcement policy seeks to meet consumer choices; and
  - To preserve and enhance free and open competition on a level playing field.

The respondents were asked the following question: “What is the impact of the detection methods used by the Competition Commission?” This was an open-ended question where the participants could provide their own answers to the question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- One (1) participant said that when CCSA detects more cartels, cartelists get worried that they will be caught, and members of the cartels come forward to the CCSA to apply for leniency regarding their activities that the CCSA is not aware of and inform the CCSA about the cartel operations. Cartelists will not want to miss the opportunity to apply for leniency because if CCSA detects the cartel, high penalties will be levied against the members. The leniency applicant will assist the CCSA to prosecute the case.
- One (1) said the impact is a deterrence factor.
- One (1) mentioned that consumers may claim damage if they have suffered harm.

- One (1) stated that firms would start to comply because they know what the consequences are of forming cartels.
- One (1) said there would be changes in the market because firms would begin to compete, be innovative, product offerings would increase and prices would decrease.
- One (1) participant mentioned that when the CCSA conducts a search-and-seizure operation and summons proceedings, they discover evidence and new cartels are detected.
- One (1) participant said the impact is that the CCSA will be able to obtain information that will be useful in the prosecution of a case.
- One (1) participant mentioned that the result of the market enquiry will give an indication whether that particular industry is competitive or not. If not, there is the option to investigate, prosecute and dismantle that cartel. The impact is that the CCSA will bring that industry to the competitive horizon.
- One (1) participant said the impact of outreach awareness programmes was that they sent out a strong message that cartels would be punished and that they would be deterred.
- One (1) participant said it would bring an end to a cartel that exists or expose a cartel that long ago ceased to exist.

All participants responded differently to this question. One participant's response corresponded to the literature by Bos (2009:97) when he explained that the impact of cartel detection encourages members of a cartel to apply for leniency. Another participant agrees with Licetti et al. (2017:77), that prices will decrease, firms will be innovative, and there will be good benefits for consumers. The effectiveness of the cartel detection methods promotes competition and work to promote faster poverty alleviation. The CCSA fulfils its mandate by detecting cartels. It also enhances the ability to detect cartels. The impact has a direct effect of discouraging cartel formation in the first place. This is the direct effect, including stimulation of leniency. The competition authority's fight against cartels leads the economy to competitive markets. The impact is beneficial to the market and these indicate that there are best practices to detect cartels, which will be addressed in the next discussion.

## **2.9 BEST PRACTICES FOR CARTEL DETECTION**

According to Campbell (2017:4-5), information sharing among agencies is critical to promote convergence of standards and procedures. As investigations and cases continue to grow in international scope, spanning across multiple jurisdictions, communication is key to the effectiveness of global anti-cartel enforcement (Campbell, 2017:4-5). Hawk (2005:107) stated that the best practice for developing agencies enforcing the anti-trust laws is to learn from the international anti-trust enforcement community by sharing experiences, and requesting technical and case-enforcement assistance. One of the platforms for information sharing is the ICN, where members have cartel workshops that provide a unique opportunity for the global sharing of best practices and experiences in respect of leniency programmes, analytical methods for detecting cartels, and information-sharing in cartel investigation (Campbell, 2017:4-5).

It is good practice for agencies to use a variety of techniques and methods to detect cartels. According to ICN (2016:15), a mix of both reactive and proactive methods will increase the opportunities for detecting cartels and help demonstrate a particular agency's enforcement capacity. ICN (2016:15) lists the best practices regarding reactive and proactive methods of cartel detection, and these are discussed below:

### **a. Reactive methods**

- It is good practice for agencies to have a formal system in place for receiving, handling and responding to complaints. The competition authorities should establish clear and transparent procedures for dealing with complainants in the pre-investigatory phase and to provide ongoing training to authority officers with regard to such procedures.
- It is also good practice for agencies to utilise a wide range of reactive methods for cartel detection, including leniency programmes and systems to receive both information and complaints from whistle-blowers/informants, business, government and the public in general.

### **b. Proactive methods**

- It is good practice for agencies to develop good working relationships with domestic law-enforcement agencies and their international counterparts,

and to have regular contact in order to promote cooperation and the sharing of information as far as permitted by applicable laws, treaties and/or cooperation agreements.

- It is good practice for agencies to regularly and consistently monitor the media, trade press, Internet sites and other publicly available industry and trade association sources that could provide an indication or early warning sign of cartel activity.
- It is good practice for agencies to engage in education and outreach programmes to raise awareness about anti-cartel laws and the harmful effects of cartels. It is good to educate people about the operation of the law and the typical signs of cartel conduct, and to generate leads about cartel activity that may be a source for the initiation of a formal investigation (ICN, 2016:15).

Competition advocacy promotes a competitive culture by means of mechanisms beyond enforcement (Aprahamian & Pop, 2016:47). The ability to raise awareness and issue opinions when policies, laws or regulations could impair competition is at the core of ensuring competitive and open markets (Aprahamian & Pop, 2016:47). If the agency could acquire new powers, it could try to put the powers into practice to make their enforcement effective (ICN, 2007:9).

The participants were asked the question: “What are the best practices to detect cartels?” The participants could provide their own answers, as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets) as follows:

- One (1) participant stated that when awareness campaigns are conducted to the public, to alert them about cartel conduct, there will be a lot of reporting if citizens know about this conduct. Citizens are more likely to detect cartels than the regulator.
- One (1) participant said the competition authority has to be vigilant in respect of what is happening in the market. It is best to conduct market research on prices in a particular industry and to determine whether there are fewer firms in that

particular industry (it could be that only a few firms are dominating that industry). The research will help a new and upcoming firm to establish whether it is expensive to enter that specific industry or not.

- One (1) participant said it is good to have informants that are experienced in the market (experts).
- One (1) participant said the CCSA must have a relationship with the consultancy firms that understand the industries, or to carry out surveys. The participant further stated that CCSA must engage with these consultancy firms to obtain information on how the industry evolves in the market.
- One (1) participant mentioned that attending international conferences, engaging with other international authorities, sharing of information with other jurisdictions and issuing summons to cartel members are the best practices.
- One (1) participant said that putting witnesses and cartelists at ease during interviews and interrogations promotes obtaining sufficient evidence from interviewees. During interrogations, cartelists tend to hold back the information because everything is under oath.
- One (1) participant said conducting raids is the best practice to detect cartels.
- One (1) participant said to invest in IT forensic tools.
- One (1) participant mentioned that the CCSA should be aware of industries that have been investigated before. There are industries that are prone to cartelising because it is easy to make money. Investigators must be vigilant.
- One (1) participant mentioned that investigators must be proactive by engaging other internal divisions in the CCSA, especially the screening section and economic research division, because information received from the screening section can be evaluated, and cartels can be detected and cases initiated if there is collusion.

All participants had different views with regard to best practices regarding cartel detection. All the responses were relevant to the question posed. One (1) participant's response was in line with Aprahamian and Pop (2016:47), stating that one of the best practices to detect cartels is to raise awareness about their existence. Aprahamian and Pop (2016:47) further state that it is good practice to involve competition authorities during economic policy changes and during the amendment of regulations regarding the economy of the country. However, no



participant interviewed highlighted the aspect of involving the competition authorities during the policy and regulation changes. One participant (1) supported the view of Campbell (2017:4-5), explaining the importance of information sharing among agencies globally by using the ICN platform and conferences in respect of several cartel enforcement aspects.

Different views highlighted by participants but not found in the literature included that the agency has to be vigilant in the market, use experts as informants, forge relationships with consultancy firms in the market, make use of summonses and raids to detect other cartels, have rapport with witnesses, invest in IT forensic tools, share information with other investigators internally, and be aware of industry histories.

The literature highlighted other best practices that the participants had not mentioned, such as the importance of assisting developing agencies for anti-trust enforcement, using a mix of both reactive and proactive methods of cartel detection, putting in place systems for receiving complaints, training authority officials on such systems, and monitoring industries and the media. All best practices mentioned above could help the CCSA in improving the methods of cartel detection. The improvement of cartel-detection methods are addressed in the following discussion.

## **2.10 IMPROVEMENT OF CARTEL-DETECTION METHODS**

Kim (2005:3) states that the success of cartel regulation depends on successful detection. An informant reward system, a bid-rigging indicator analysis system, institutional changes and strengthening the capabilities of investigators will improve the methods of cartel detection, which complements leniency (Kim, 2005:2). An informant reward system may be an attractive method of detecting cartels and does not involve the use of scarce resources by the competition authority. More information can be obtained and search costs are reduced (Whelan, 2014:135). Another improvement in respect of detection could be in the role of purchasing officers in the government procurement, since they know more about the market than outside agencies. These procurement officers are uniquely placed to detect collusion (Deterrence & Detection, 2016:15). During the last years, economic analysis in general and screenings in particular have become increasingly important

in cartel cases (Zlatcu & Suciu, 2017:3). Competition authorities and other agencies around the world have begun to use screens more and more to detect possible conspiracies and market manipulations, and experience has shown that over time it has helped in uncovering hard-core cartels (Zlatcu & Suciu, 2017:3).

Will and Emery (2012:vii) state that ongoing experience in practice helps to assess whether there are further areas that should be aligned or improved, in particular to facilitate multiple leniency filings as well as to offer safeguarding and protection standards, which are pertinent for the smooth functioning of leniency programmes throughout the globe. Information sharing and cooperation among the members of the ICN have proved that jurisdictions have changed their legal frameworks and practices with a view to greater detection and deterrence of cartels (Will & Emery, 2012:vii). Aprahamian and Pop (2016:49) explain that in this digital age, IT Forensics is increasingly regarded as a key instrument in Competition Agencies' fight against cartels worldwide. Investigators should be trained in using tools such as Forensic Toolkit (FTK) software on how to gather digital data, finding the probative bits and presenting the results in a human-readable format (Aprahamian & Pop, 2016:49).

The respondents were asked the question: "How could the methods to detect cartels be improved?" The participants could provide their own answer as this was an open-ended question and no choices were provided from which they could choose. Some of the participants accordingly provided more than one answer (number of responses indicated in brackets), as follows:

- Three (3) participants indicated that the methods to detect cartels could be improved by the CCSA signing the MOU with the National Intelligence Agency (NIA) and SAPS to share information This MOU will give CCSA the power to intercept the communication between suspected individuals in the firms that are being investigated.
- Two (2) participants mentioned the use of IT forensic tools.
- Two (2) participants mentioned training investigators in all divisions to be able to detect cartels at all times. They should be able to detect the potential cartels even during raids.

- Two (2) participants mentioned raising awareness regarding cartels; inviting the public and private sectors to conferences; providing media coverage about fines imposed on firms; and prosecution.
- One (1) participant indicated that as a result of the CCSA receiving more leniency applications, other cartels could be detected or might arise from the reported cartels.
- One (1) participant stated that CCSA must have its own proactive means of detecting cartels, and not to rely on CLP only.
- One (1) participant is of the view that existing methods should be constantly reviewed to determine whether they yield good results or not.
- One (1) participant indicated that recruiting informants who understand and know what is happening in the particular industry that has to be investigated would improve detection of cartels.
- One (1) participant mentioned working with other competition authorities to share information with the CCSA.
- One (1) participant indicated that conducting research was necessary so as to know which other methods CCSA can use to detect cartels.
- One (1) participant mentioned that CCSA should amend the Competition Act. The CCSA needs more powers, legislation and the ability to use detection methods and conduct investigations. Cartelists are getting smarter and CCSA is not on a par with them.

The majority of the participants' answers correspond to the literature, which included the use of screening, leniency, information sharing with other agencies, IT forensic use, and work on improving methods to detect cartels. Two participants included the training of investigators and support the view of Kim (2005:5), namely that investigators need expertise and skills in on-the-spot detection, investigation, collection and analysis of electronic evidence, interrogation, and handling media sources. Only one participant stated that the Competition Act No. 89 of 1998 should be amended. The CCSA must have more power and ability to use detection methods. No participant indicated what Kim (2005:2) highlighted in respect of an informant reward system, bid-rigging indicator analysis system, institutional changes and strengthening the capabilities of investigators. These methods that Kim (2005:2) listed are improved methods of cartel detection that complement

leniency. The use of procurement officers in government purchasing departments is important, since these officers are uniquely placed to detect collusion (Deterrence & Detection, 2016:15).

The researcher wanted to determine whether there are other methods that have to be improved for cartel detection. Most of the participants' responses are in line with the literature; however, one participant indicated that the Competition Act should be amended. The above-mentioned improvements would move the CCSA to proactive detection methods, which also have their pros and cons. Proactive methods for detecting cartels are more resource-intensive than reactive techniques. The proactive methods do not provide sufficient hard evidence to bring a case to court, besides being constrained by the availability of data (Dorabialski, 2014:4). The advantage of proactive methods is that it provides more evidence to justify a formal investigation or a dawn raid, and data becomes more easily accessible (Dorabialski, 2014:4).

It has been stated that the aim of the study is to explore detection methods that may be used to detect cartels for investigation purposes. The researcher's concern is that the CCSA too often relies on leniency applicants, whistle-blowers and third-party complaints for detection of cartels, and by the time the cartel is detected, the damage has already been done. It is best practice to improve and use other methods for better detection of cartels. Based on the literature and interviews conducted, the following additional detection methods were found, as illustrated in Table 2.1 below:

**Table 2.1: Illustration of current CCSA practice of cartel detection methods and other methods available for improvement**

No.	Current practices of cartel detection	Additional methods available for cartel detection
1.	Use of reactive methods, including leniency programmes, information and complaints received from whistle-blowers, informants, business, government and public.	CCSA has to be vigilant as to what is happening in the market: monitor media, trade press, Internet sites.
2.	Information sharing, global sharing of best practices and experiences, and request for assistance from other developed anti-trust agencies.	The use of informants such as trade association sources that could provide an indication or early warning sign of cartel activity.
3.	Engage outreach programmes to raise awareness about anti-cartel laws.	CCSA must have a relationship with the consultancy firms that understand certain industries or that do surveys for information on how industry evolves in the market.
4.	CCSA conducts market research on prices in a particular industry and knowing markets that have fewer players (market enquiry).	CCSA to develop good working relationships with other domestic law-enforcement agencies. For example: use of intelligence to intercept communication.
5.	During the interviews of witnesses and cartelists, additional information is obtained that detects other cartels.	Investing in IT forensic tools.
6.	Detailed, transparent procedures for handling and responding to complaints.	Informant reward system.
7.	Raids is one of the best methods for detecting additional cartel currently in use by CCSA.	Bid-rigging indicator analysis system.
8.	Investigators receive refresher cartel detection and investigation training.	Screening of industries (economics).
9.	Reliance on government procurement officers to detect and report cartels to CCSA (National Treasury).	

(Source: Compiled by researcher)

## 2.11 SUMMARY

The exploration of cartel detection methods is, as stated in the study, for investigative purposes. This context shows the approach and structure of the exploration for detection and investigations of cartel activity. The Competition Act

empowers the CCSA to investigate cartels, the CCSA has a dedicated unit, its Cartels Division, whose sole focus is the investigation and prosecution of cartels. The Competition Act gives jurisdiction to the CCSA over all conduct that has an impact on the South African economy.

This broad jurisdiction reflects the extensive impact of cartels on the South African economy. Cartels are detrimental to the economy in many ways, including the extraction of super-normal profits from the public purse and from the private sector. Cartels remove the element of competition between firms that are contesting a market, and as a result, there are limits on innovation and creativity, all to the detriment of consumers. It is, therefore, very important that cartels be investigated, as provided by the Competition Act. Before cartels can be investigated, however, they must be detected. This step, which precedes the investigation, has been taken as the focus of the present study.

In order to discuss the detection of cartels in a meaningful manner, there must be a clear understanding of what a cartel is. A statutory definition is provided by the Competition Act in section 4(1)(b), where any agreement or practice between competitors to fix prices, divide markets or tender collusively is prohibited. This process considers the roots of cartels and not just their visible parts above the ground, where the conspiratorial nature of cartel formation emerges. Cartels are formed when there are no profits, or during economic downturn Cartelists hold their discussions in secret and hide their clandestine agreements because it is known that cartels are prohibited

There are various methods available for use in detecting cartels. The entire range of the available reactive and proactive methods is canvassed, as they are categorised by the literature reviewed, as well as the participants of this study, who detect and investigate cartels. This canvassing of the whole range of available methods precedes a closer look at the more common methods of cartel detection. This commonality is based on the practical experience of the CCSA where, among other things, the Corporate Leniency Programme is prominent as a method for uncovering the existence of cartels. There is a growing recognition that proactive methods such as technical detection methods or infiltration for the purpose of

detecting cartels would be preferable to simply decreasing the dependence on cartel participants that is encouraged by the leniency programme.

The impact of the various methods is considered, looking into the effectiveness of these methods in light of the secretive nature of cartels. Their efficiency is investigated, with regard to their use of various resources and their results. This then explains appreciation of the best methods of cartel detection, from those available and those that are in common use. Putting into place proper policies and systems for receiving complaints, and cooperation with other competition agencies and domestic law enforcement agencies are some of the best practices that will help to detect cartels at an early stage. From the impact of the methods, it is possible to identify cartel detection methods that would objectively be preferable to others. The objective of the research is achieved in this way, having reviewed step-by-step the various considerations that provide the background of cartels, cartel detection methods, and how cartels could be detected in future. Having studied the outcomes that can be expected from the various methods available it is then possible to provide insightful recommendations on how the detection of cartels could be enhanced.

## CHAPTER 3

### FINDINGS AND RECOMMENDATIONS

#### 3.1 INTRODUCTION

Firms have an incentive to form a cartel and to behave cooperatively rather than competitively (Arnold, 2014:270). A clear understanding of the circumstances in which cartels are more likely to form, and thus their form, is helpful towards gaining the ability to detect cartels, even when attempts have been made to hide them. The researcher found that the individuals in firms would meet and reach agreements on how to limit competition in order to increase profits. Cartels are considered damaging per se. The purpose of the research were to explore detection methods that might be used to detect cartels for investigation purposes. This will empower enlighten competition authorities and the investigators with regard to the cartel-detection methods. The researcher also intended to highlight best practices regarding cartel detection. To achieve the aim and the purpose of the research, the researcher asked this research question:

- How can detection methods be used by investigators of the Competition Commission to detect cartels?

The research problem and research question were evaluated with the purpose of making findings and recommendations.

#### 3.2 RESEARCH FINDINGS

The following findings of the study are based on information obtained from the literature and interviews conducted with the sample participants.

##### 3.2.1 Understanding the cartel

This research sought to gain an understanding of what a cartel is. In particular, the legal definition of a cartel was required, and the enquiry was extended to also enquire about the characteristics of a cartel as well as the behaviour of cartelists. During the study, the following was found:

- The definition of a cartel is founded on the legislative provisions of the Competition Act, where Section 4(1)(b) provides that an agreement between



competing firms is prohibited if it fixes prices, allocate markets or effects collusive tendering. The participants had an understanding of the definition of a cartel.

- Cartels are secretive in nature and conducted by way of conspiracy whereby firms that are competitors, act jointly to maximise their profits at the expense of their consumers.
- Cartels limit competition, since the cartelists behave as if they are parts of a single, monopolistic firm, planning each other's conduct in the market, including what and how they should charge their customers. Participants of this study did not mention that cartelists behave like monopolists in the market, but it was highlighted in the literature.

### **3.2.2 Meaning of cartel forming**

The research sought to understand the circumstances under which cartels are formed and what cartelists do in forming cartels. During the study, the following was found:

- Cartels are more likely to form in adverse economic circumstances, such as when markets are in decline or there is pressure on expected profits, due to external variables. Two participants showed better understanding of this reasoning of a cartel forming.
- Trade associations and other platforms for business communication are also turned into cartel formation forums by providing mechanisms through which the competitors can agree or exchange information in the market. Cartelists hide behind these associations. Participants did not even highlight this aspect about the possibility that trade associations could be a vehicle for cartel forming.
- Cartelists are driven to avoid competition towards the cooperation, agreements and meeting of minds that are demonstrated in cartel forming by the desire to make more profits.
- Cartelists respond to adverse trading conditions by agreeing what prices to charge and allocating markets among themselves. They may also decide jointly not to invest by improving their offerings.

### 3.2.3 Impact of cartels on the economy

During the study it was found that:

- Cartels have a negative impact on the economy, are a damaging form of anti-competitive behaviour, artificially raise prices, and reduce consumer benefits. All participants had a good understanding of the impact.
- The outcome of cartels is that it sabotages growth in the industry and new entries battle to enter the market. It makes it difficult to compete effectively in the market. Cartelization leads to transfer of wealth and inefficiencies.

The inefficiencies caused by cartels in the economy were found to be the following:

- An inefficient firm stays in the market because it is a member of the cartel, while the firm is not innovative, and does not invest in efficient performance.
- Cartels could lead to industry restructuring, which is not necessary.
- Cartels could cause unnecessary market demand.
- An inflated market price is responsible for increased inflation in a country.
- Cartelists exploit their customers.
- Cartelized firms exclude rivals from the market or reduce their share.

Shareholders and stakeholders may suffer from cartel fines in case of detection, since at times, an individual violating the law might be a manager of the company who tries to maximize his/her incentives in a company by acquiring high profits from being involved in cartel arrangements, while the shareholders of the company are not aware of it.

Not only negative aspects were highlighted. From the literature it was found that cartels do not eliminate competition, and that some cartel agreements could benefit the economy. Other cartels restrain disruptive competition, and secure large-scale investment when the public requests government to regulate an industry and reduce price fluctuations.

### **3.2.4 Detection of cartels**

During the study, the following aspects were discovered:

- Due to the secrecy of cartels and their aim to avoid discovery, it is difficult to detect cartels. In some instances, these cartels exist for decades.
- In modern times, cartel agreements are verbal and documentary evidence is rarely available, which also makes it difficult to detect. Firms that are involved in cartels are now advanced in their operations.
- Wijckmans and Tuytchaever (2015:64) highlighted that dealing with leniency applications enabled the competition authorities to develop cartel enforcement to improve cartel detection skills.
- When the competition authority is being established, it is easy to detect a cartel because cartelists are relaxed and their agreements are not hidden.
- Detection of collusive tendering cartel is easier to detect than price fixing and market allocation collusion because government procurement officers are trained and are able to notice the warning signs of collusion. After discovery of the collusion, the government procurement officers report the alleged cartel collusion to the competition authority for further investigation.

#### **3.2.4.1 Responsibility for detection of cartel**

During the study it was found:

- The responsibility for cartel detection is a key task of competition authorities worldwide and it is the most crucial-concern in the anti-trust policy.
- Cartel detection can be achieved by interacting with other organizations, companies, and people outside the competition authority.
- The participants (customers or citizens) in the market are responsible to detect cartels.
- Government officials in procurement departments have a high level of responsibility to detect cartels (collusive tendering) and report to the competition authority. The National Treasury of South Africa reports cases to the CCSA.
- The competitors who are not involved in the cartel should be able to detect cartels, since they know more about the industry.

- Employees of companies that are involved in a cartel are responsible to detect cartels. Compliance officers in the said companies have a high level of leverage in enforcing competition policies and reporting to the competition regulator if there is suspected collusive behaviour. These employees could be whistle-blowers or complainants, or could even apply for leniency to the competition authorities.
- Economists are trained to detect cartels when markets are infected by cartels.

### **3.2.5 Methods used by an investigator to detect cartels**

The following factors were discovered:

- Competition authorities may use various reactive (complaints, external information and leniency applications) and proactive (use of economics, case analysis, industry monitoring and agency cooperation) cartel detection methods.
- Use of technical methods for cartel detection includes investigative techniques, such as wiretapping and electronic surveillance.
- Use of intelligence by monitoring industries by means of infiltration of informants, career tracking of industry managers, press and internet monitoring, as well as regular contact with industry representatives, yields better benefits.
- Dawn raids, as another cartel detection method, are conducted if indirect evidence of cartel activity creates a sufficient degree of suspicion.
- The monitoring of markets by using screening methods is important in the competition authority's endeavour to detect and fight hard-core cartels.
- Analyses of economics can be used to detect cartels.
- Merger control is another method used to detect cartel because merger evaluations amongst other requirements it assess whether a notified merger at the competition authority would cause any significant anti-competitive effects. If the cartel is detected, the merger will be stopped but if not, the merger will be approved.
- By analysing past cartel cases or other competition cases, the competition authority could obtain useful information that could help to detect existing cartels.
- Another major source of cartel detection is the competition authority's relationships with other enforcement agencies that are not necessarily related to competition law enforcement.

- Market enquiries are another tool of cartel detection.
- Summons is an investigative tool, but it was found that summons can be used as another detection method. The participant's view is that cartelists or information summoned usually brings more than what was summoned, therefore in the process of analysis, extra cartels are detected.
- Outreach programmes are useful for detecting cartels.
- Desktop research on the Internet.

### **3.2.6 Most common methods to detect cartels**

The research aimed to discover cartel detection methods that are used mostly by the competition authorities. During the study the following was found:

- Third party reporting is the most common detection method used by the anti-trust authorities.
- Search-and-seizure inspection is another tool for cartel detection, and it was found that raids played a dual role. Search-and-seizure is an investigative tool, not a detection tool; however, the participants highlighted that raids could give information about other cartels that were previously unknown.

#### **3.2.6.1 Role of CCSA in detection of cartels**

During the study the following was found:

- The role played by the CCSA in the detection of cartels is by means of information received from third parties, complaints lodged and leniency applicants. The Global Competitiveness Report states that leniency plays a huge role in South Africa when it comes to cartel detection.
- The CCSA conducts outreach programmes to detect cartels, and cartelists are aware that the competition authority is working solely to find the transgressors.

#### **3.2.6.2 Proactive cartel detection methods employed by the CCSA**

During the study the following was discovered:

- The use of market inquiries was listed as a proactive method to detect cartels.
- Media monitoring and the monitoring of industries are proactive methods that the CCSA employs to detect cartels.

- Cooperation with other competition agencies helps in discovering other cartels before they can be reported in a local jurisdiction.
- During the evaluation of a merger, a new cartel might be detected.
- New cartels are detected during search-and-seizure operations.
- Awareness campaigns constitute another proactive detection method used by the CCSA.
- The Competition Tribunal imposes high fines on discovered cartels. This judgement destabilizes the cartels out there and encourages whistle-blowers and leniency applicants to report unknown cartels.
- CCSA investigators are trained to be able to detect cartels in their environments at all times, and to work with other government agencies who can assist with technical detection methods.
- Rewarding whistle-blowers is the other method that the CCSA could use as a proactive method to detect cartels.
- Econometric methods could be used but the competition authorities face both time and budget constraints, therefore economics in cartel detection is not an attractive option.

### **3.2.7 Impact of the cartel detection methods on the Competition Commission**

Detection methods have a discernible impact on the work of the CCSA. An understanding of this impact was sought, where the intention was to determine whether the detection methods in practice were effective. During the study, the following came to light:

- Cartel members are encouraged to apply for leniency as this ensures that they can escape the harsher sanctions that are meted out to firms that do not disclose information and seek leniency.
- Prices may decrease and competing firms become more innovative, delivering positive yields for consumers as firms compete more robustly for their business.
- The effectiveness of the cartel detection methods improves the general economic position because it stimulates competition. This also works to promote faster poverty alleviation.

- The impact of detection methods is also visible where the competition authorities are able to fulfil their mandate more fully and this has the direct effect of discouraging cartel formation in the first place as well as encouraging applications for leniency.

### **3.2.8 Best practices to detect cartels**

The question was how to extract the soundest methods of cartel detection from among all the possible approaches that are available. This draws from international practices as well as the practical experiences of the participants. During the study the following was found:

- Raising awareness about cartels was highlighted as a superior method that was helpful in the detection of cartels, as it led to disclosure of more cartels by informants or complainants.
- The involvement of competition authorities in the amendment of regulations and policy changes is a best practice, as such authorities are best positioned to detect potentially problematic policy directions and regulatory arrangements, as well as to steer these towards improved efficiency in the competition authorities' functions.
- The importance of information sharing among agencies globally via the ICN platform and conferences in respect of several cartel enforcement aspects was highlighted as a good method for detecting cartels - even cartels that operate internationally across other jurisdictions.
- The use of a mixture of reactive and proactive methods of cartel detection also aids the competition authorities' detection methods, as this provides results from two angles of approach to cartels. This mixture includes the enhanced use of forensic information technology methods.
- CCSA officials have to be vigilant in the markets, monitor industries and media, and share information with other investigators internally, as well as being aware of industry histories.
- Forging relationships with various parties, including industry experts and consultancy firms with particular industry insights, would also contribute to the detection of cartels.

- The use of summonses to call on witnesses and cartelists to disclose information, as well as raids to search for and seize such information directly are advantageous methods in the detection of cartels.
- Systems for receiving complaints and training of authority officials on such systems must be put in place.
- CCSA officials should receive general training in the detection of cartels.

### **3.2.9 Improvement of cartel detection methods**

The objective of this question was to reveal investigators' views on what could possibly be added to the current processes of the CCSA in order to improve the authority's ability to detect cartels. The following facts were discovered during the study:

- The provision of incentives for people who disclose information to the competition authorities may be of benefit to the detection of cartels. At present there is the incentive of leniency for a cartel member who discloses information about a cartel, and this could be enhanced by the provision of financial rewards for informants.
- The use of screening to detect cartels is another method that has not been employed in the CCSA, and which can be applied to good effect.
- The use of forensic information technology and analysis of data is another method that could improve detection methods.
- The sharing of information with other agencies could also yield improvements in the detection of cartels, where reciprocal arrangements with sister competition agencies to share cartel discoveries could lead to the detection of more cartels for all parties.
- The training of investigators to improve their expertise and skills in on-the-spot detection, investigation, collection and analysis of electronic evidence, interrogation and media sources, was identified as another method to improve detection.
- Amendment of the Competition Act No. 89 of 1998. The CCSA must have more power and ability to use detection methods that are not currently employed, and institutional changes strengthening the capability of investigators must be made.



### **3.3 RECOMMENDATIONS**

The reason for the present research was to enhance the methods employed by the CCSA to detect cartels. The findings and recommendations gained from exploring the cartel's detection methods could easily be adopted by the competition authority to improve their own methods to detect cartels.

The findings drawn from the literature review and interviews with the participants are discussed above. On this basis, the following recommendations are presented, based on the research findings:

- It is recommended that competition policies and regulations should be harsher when penalizing detected cartels and the individuals involved.
- It is recommended that competition authorities conduct awareness campaigns to trade associations and/or business sectors to mitigate the formation of cartels.
- Due to the secrecy shrouding the cartels, it is recommended that sophisticated methods be employed to detect cartels, such as the use of technical methods (industry monitoring, infiltration, tracking individuals, wiretapping and media screening).
- It is recommended that legislation be amended to give CCSA the power to use technical methods and intelligence-gathering methods such as infiltration.
- It is recommended that channels for reporting should be clear and well communicated. The Competition Act does stipulate how cartels can be reported but as a further initiative in the CCSA policy, it should be communicated to reach all levels of people. Such reporting channels might be communicated during awareness campaigns and in CCSA media reporting.
- It is recommended that a programme be initiated to conduct cartel awareness campaigns to all government departments, including the provincial level and municipalities.
- It is recommended that CCSA increase the capabilities of investigators.
- It is recommended that IT forensic tools be used as a cartel-detection method and investigators be trained in the use of these tools.
- Based on the literature and interviews conducted, the researcher compiled an illustration of the current CCSA practice of cartel-detection methods and other methods available for improvement, as per Table 2.1 in paragraph 2.10 in this

study. It is recommended that the other methods of detecting cartels be considered in order to produce more positive results when detecting cartels, since this involves examining data over which cartelists have no control and cannot hide, and does not depend heavily on the existence of informants or leniency applicants as the present methods do. The CCSA would have more data available at its disposal and be in control of detecting and investigating cartels without being managed by leniency applicants. In addition, the adoption of additional methods would contribute to detecting cartels at an early stage and before they could cause a huge negative impact in the economy.

### **3.4 CONCLUSION**

Smith (2005:111), in the *Wealth of Nations*, writes, “People of the same trade seldom meet [together], even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.” Adam Smith recorded this observation on the fact of cartels’ existence in 1776. In 2018, the game of economics has not changed in this respect; cartels are still a problem. What has changed is that there are now dedicated competition authorities, such as the CCSA, that are charged with the responsibility of rooting out cartels from the economy. The detection of cartels for investigative purposes is therefore a high priority for the welfare of consumers as well as that of the broader economy within which cartels operate.

Much reliance is placed on leniency programmes that require cartel members to disclose their misdeeds in exchange for lenient treatment by the competition authorities. This has proved to be an effective method of detecting cartels, as is borne out by the research from all the cited sources, and is a commendable part of the CCSA’s cartel detection methods.

The research outcome indicates that there is a need for improvements to the cartel-detection methods currently employed by the CCSA. The theme of proactive cartel detection is raised, which would employ methods such as forensic analysis of economic data. The enhancement of the capacity of the competition authority’s investigators in various ways is also a noteworthy view that emerges, ranging from training investigators, to amendments of the legislative provisions to grant more

invasive investigative powers. Such amendments would also be required to empower the competition authorities to engage with the economy in the proactive manner that is suggested by the sources. The investigative reach of the CCSA's officials would thereby be extended to operate without prompting from external sources and become more sophisticated in its use of the various economic data that are available to the CCSA.

Besides this, awareness of the pervasive and harmful nature of cartels ought to be raised so that all citizens understand that it is their duty and to their benefit to report cartels when they have knowledge of their existence. Further, harsher penalties for cartelists, once they are caught, would increase the awareness of the public and firms alike, thus giving support to the effectiveness of existing cartel-detection methods such as the leniency programme as well as encouraging whistle-blowers to come forward.

The researcher made use of well-positioned sources by accessing the institutional voice of the CCSA via its individual cartel investigators whose views agree, for the most part, with those that appear in the literature on the subject of cartel detection. Consideration of these views on how to improve cartel detection may yield better results in the CCSA's function of exposing and eliminating cartels that operate in the South African economy. This research will be of benefit to all parties who are interested in the regulation of the economy for the greater good of the Republic of South Africa.

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## **5. ATTACHMENTS**

### **5.1 ATTACHMENT A: COPY OF THE INTERVIEW SCHEDULE**

#### **INTERVIEW SCHEDULE**

**PARTICIPANT NUMBER**



**TOPIC: EXPLORING THE DETECTION OF CARTELS FOR INVESTIGATION PURPOSES**

**AIM: To explore detection methods that may be used to detect cartels for investigation purposes.**

#### **RESEARCH QUESTION:**

How could detection methods be used by investigators of the Competition Commission to detect cartels?

You are kindly requested to assist the researcher by answering the following questions in this interview schedule. The questions, responses and results will be revealed.

Confidentiality will be maintained throughout the study, and the researcher will ensure that participants are treated equally regardless of their socio-economic status. The information given will be treated as confidential and no other person will have access to interview data. The participants to the research will remain anonymous. The information you provide will be used only in a research project for a Master of Technology degree registered with the Programme Group: Police Practice at the University of South Africa. The analysed and processed data will be published in a research report.

Your answers will be noted by the interviewer herself, on paper and recorded by dictaphone. Should any question be unclear, please ask the researcher for clarification. Only one answer per question is required. When answering the questions, it is very important to give your own opinion.

Written permission has been obtained from the Competition Commission of South Africa, Cartels Division, in advance, for the interview to be conducted.

**PARTICIPANT**

I hereby give permission to be interviewed and that the information supplied by me may be used in this research.

YES / NO

---

**SECTION A: SECTION A: BACKGROUND INFORMATION**

- Where do you work?

- How long have you been in the Competition Commission's Cartels Division?

1 – 5 years	5 – 10 years	10 years and more
-------------	--------------	-------------------

- Are you currently detecting cartels for investigation purposes? / Are you currently investigating detected cartels?

YES	NO
-----	----

- For how many years have you been detecting and investigating cartels?

- What is your highest qualification?

- Did you undergo any training on cartels detection and investigation?

YES	NO
-----	----

## **SECTION B:**

### **I: CARTELS: UNDERSTANDING THE CRIME**

1. What is your understanding of a cartel?
2. What is the meaning of a cartel forming?
3. What is the impact of cartels on the economy?
4. Are cartels easy to detect? Why?
5. In your opinion, who is responsible for detecting cartels?

### **II: METHODS AVAILABLE TO DETECT CARTELS**

6. Which methods may be used by an investigator to detect a cartel forming?
7. In your opinion, what are the most common methods to detect cartels? Why?
8. What role does the Competition Commission of South Africa play in the detection of cartels as it initiates its cases?
9. What proactive detection methods could the Competition Commission of South Africa use to detect cartels?

### **III: ASSESSING THE EFFECTS OF DETECTION METHODS**

10. How could detection methods be used by investigators of the Competition Commission to detect cartels?
11. What is the impact of the detection methods on the Competition Commission?
12. What are the best practices to detect cartels?
13. In your opinion, how could the methods to detect cartels be improved?

6. ANNEXURES

6.1 ANNEXURE A: LETTER OF APPROVAL TO CONDUCT RESEARCH IN CCSA CARTELS DIVISION



T: +27(0) 12 394 3200 / 3220  
F: +27(0) 12 394 0168  
E: [ccsa@compcom.co.za](mailto:ccsa@compcom.co.za)  
W: [www.compcom.co.za](http://www.compcom.co.za)

DTI Campus, Muzyno (Block C)  
77 Menzies Street, Sunnyside, Pretoria

Private Bag X23, Lynnwood Ridge  
0040, South Africa


Mrs. PT Tshabalala

**BY HAND**

Date: 18 May 2017

**REQUEST TO CONDUCT RESEARCH IN THE COMPETITION COMMISSION SOUTH AFRICA (CCSA) CARTELS DIVISION.**

1. I, Makgale Mohlala in my capacity as the Manager of the Cartels Division of the CCSA, herewith grant permission to conduct interviews with investigators from the Cartels Division, on condition that:
  - You do not under any circumstances refer to case under investigation or litigation;
  - You do not refer to any investigator so interviewed by name;
  - You remain vigilant at all times not to compromise any confidential information which may come to your knowledge while conducting your research
2. The information supplied during the interview can be used in the research and subsequent research report.
3. Should there be any queries, I am available on (012) 762 8932 or email at [MakgaleM@compcom.co.za](mailto:MakgaleM@compcom.co.za).

  
**MAKGALE MOHLALA**  
**MANAGER: CARTELS DIVISION**  
06/06/2017



## 6.2 ANNEXURE B: COPY OF INFORMED CONSENT FORM



### PARTICIPANT INFORMATION SHEET

Ethics clearance reference number:

Research permission reference number: 41074114

12 October 2017

**Title: EXPLORING THE DETECTION OF CARTELS FOR INVESTIGATION PURPOSES**

Dear Prospective Participants

My name is Thembekile Tshabalala and I am doing research under the supervision of Dr. J. S. Horne, who is a senior lecturer in the Department of Criminal Justice, towards a MTECH in Forensic Investigation at the University of South Africa (UNISA). We are inviting you to participate in a study entitled 'EXPLORING THE DETECTION OF CARTELS FOR INVESTIGATION PURPOSES'.

#### WHAT IS THE PURPOSE OF THE STUDY?

I am conducting this research to explore other methods to detect cartels for investigation and prosecution purposes. It is difficult to detect cartels activities for investigation purposes by investigators unless it is reported. The difficulties encountered are that Cartel operation is often collusive, deceptive, secretive, and it is conducted through a conspiracy among a group of firms, with the aim to make it difficult to detect or to prove without assistance of a cartel member.

#### WHY AM I BEING INVITED TO PARTICIPATE?

I have chosen you to participate in the study because of your experience and that you are employed at the Competition Commission, Cartels Division as a cartels investigator to investigate and prosecute cartels. I have obtained the permission to conduct the research in your division through the Manager of Cartels Division. You are chosen to participate in the study because you possess the relevant information that could help answer questions raised in the study. In total, there are seven participants that I will work with in this Division. The purpose of



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The information obtained in the research will be made available to the Competition Authorities via the library of the Competition Commission South Africa and University of South Africa. It can also be used to empower the researcher and other investigators with the sophisticated methods and techniques of detecting cartel activities at an early stage for investigation.

**ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?**

There are generally no negative consequences if you participate in the study. However, you may be inconvenienced from your work for the duration of the interview. If it happens that you are not comfortable during the interview you may indicate so and the interview will be rescheduled for another time. This is a low risk study and there is no foreseeable risk of harm for participating in this study.

There is no one who will identify you that you are a participant in this study, since names of the participants will not be shared in the study. All participants will be given a number for identification.

If there is an emergency (injury or harm) during the interview, all necessary precautions will be taken into account to ensure that medical assistance is received. The interview will be held in the offices of the Competition Commission and there are policies in place for any emergency attention.

**WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?**

The information that you convey to the researcher and your identity will be kept confidential. Your identity will be referenced with a specific code and cannot be traced to your identity. You have the right to choose which information you provided should reflect in the research report.

You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research, everything will be kept confidential. In addition, your name will not be recorded anywhere and no one will be able to connect you to the answers you give, your identity will be kept anonymous. Your answers will be given a code number or a pseudonym.



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this letter is to provide you with much information so that you make an informed decision to voluntarily participate with the full knowledge of what the study entails.

#### **WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?**

The study will use primary and secondary data to answer the research question. For this purpose, the study involves semi structured interviews to collect data. The researcher will record the responses verbatim in a written interview schedule as interview notes and audio taping. There will be different type of questions that will be posed to the participants and the questions are prepared in advanced. The duration of the interview will be approximately an hour.

The question that will be asked will be more of finding out the following:

- What is cartel forming?
- Which methods may be used by an investigator to detect cartel forming?
- How could detection methods be used by investigators to detect cartels?

#### **CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?**

Statement that participation is voluntary and that there is no penalty or loss of benefit for non-participation.

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

#### **WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?**

The study will help in detecting cartels at an early stage before it causes harm to the economy. Consumers would thereby have liberty of product choice, fair prices and there will be new entrance of suppliers in the economy. Further the cartelists involved could be prosecuted and no immunity could be afforded to them.

and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

The interview recordings and the consent form which has your name will be kept safe in the location known by the researcher only. Your name will not be recorded anywhere and no one will be able to link you with this study. You will be given a code number or pseudonym and you will be referred to in this way in the study, any publications, or any other reporting methods such as conference proceedings.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

#### **HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?**

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing at my work place which has a 24 hour physical security, cameras and biometric access doors at Competition Commission offices. For future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. The information will be destroyed after 5 years, hard copies will be shredded and/or electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme.

#### **WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?**

There will be no payment or reward offered, financial or otherwise. There are no costs that you will incur.

#### **HAS THE STUDY RECEIVED ETHICS APPROVAL**

This study has received written approval from the Research Ethics Review Committee of the \_\_\_\_\_, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.



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**HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?**


If you would like to be informed of the final research findings, please contact Thembekile Tshabalala on 082 932 8204 or 012 762 6958, Thembekilet@gmail.com. The findings are accessible by end of 2018 after it has been examined and approved.

Should you require any further information or want to contact the researcher about any aspect of this study or should you have concerns about the way in which the research has been conducted, you may contact please contact Dr. J. S. Horne on 012 433 9415 or 084 582 7829, homejs@unisa.ac.za.

Contact the research ethics chairperson of College of Law, Prof. D Govender at 012 433 9482 or govend1@unisa.ac.za, if you have any ethical concerns.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.



Thembekile Tshabalala

## ANNEXURE C: COPY OF UNISA COLLEGE OF LAW ETHICS COMMITTEE LETTER OF APPROVAL TO CONDUCT RESEARCH

### ANNEXURE C



#### UNISA CLAW ETHICS REVIEW COMMITTEE

Date 20171128

Reference: ST60 OF 2017

Applicant: T Tshabalala

Dear T Tshabalala

**Decision: ETHICS APPROVAL  
FROM 28 NOVEMBER 2017 to  
27 NOVEMBER 2020**

Researcher: T Tshabalala  
Supervisor: Dr JS Horne

#### Exploring the detection of cartels for investigation purposes

Qualification: Mtech in Forensic Investigations

Thank you for the application for research ethics clearance by the Unisa CLAW Ethics Review Committee for the above mentioned research. Ethics approval is granted for 3 years.

*The CLAW Ethics Review Committee reviewed the Low risk application on 28 November 2017 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision was ratified by the committee.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the CLAW Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.



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4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No research activities may continue after the expiry date 27 November 2020. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

*Note:*

*The reference number ST60 of 2017 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,




PROF D GOVENDER  
Chair of CLAW ERC  
E-mail: govend1@unisa.ac.za  
Tel: (012) 429-9482



PROF OS SIBANDA  
Acting Executive Dean : CLAW  
E-mail: sibanos@unisa.ac.za  
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## 6.4

## ANNEXURE D: TURNITIN DIGITAL RECEIPT

### Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

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Submission ID:	1037432702

EXPLORING THE DETECTION OF CARTELS FOR INVESTIGATION PURPOSES

by  
THEMBEKILE PRISCILLA TSHABALALA  
41074114

Submitted in partial fulfillment of the requirements for the degree

DEGREE  
MAGISTER TECHNOLOGIAE

In the subject  
FORENSIC INVESTIGATION

at the  
UNIVERSITY OF SOUTH AFRICA

Subject  
MPSCJ90

SUPERVISOR  
Dr J.S. Horne

Date of submission:  
November 2018

- 1 -

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