# UNDERSTANDING AND SOLICITING KEY INTELLIGENCE NEEDS IN COMPETITIVE INTELLIGENCE: AN INFORMATION INTERMEDIARY PERSPECTIVE

**by**

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**ABSTRACT**

This study investigates a critical, yet under-explored phase of the competitive intelligence cycle of soliciting, articulating, expressing, and understanding key intelligence needs within the realm of competitive intelligence. Through a synthesis of in-depth qualitative interviews with competitive intelligence and information service intermediaries, coupled with an extensive review of existing literature, this study explores and sheds light on the roles, challenges, methods, and strategies employed by these intermediaries.

To better understand the components that lead to the effective soliciting of information and key intelligence needs, it was imperative to also understand the challenges and solutions that come with both being an intermediary and those challenges associated with information and key intelligence needs. Challenges identified include clients' limited understanding of their own needs, ambiguity in articulating the information and key intelligence needs, and assumptions of prior knowledge. The strategies to overcome these challenges are embedded in the Four-phase Outline for Competitive Intelligence Solicit Framework (FOCIS).

In the scarcity of literature that explains the articulation, solicitation, and understanding of key intelligence needs within the competitive intelligence cycle, this study bridges a significant gap by offering a comprehensive framework to improve the understanding of key intelligence needs.

**Keywords:** Competitive intelligence, competitive intelligence cycle, key intelligence needs, information needs, information and key intelligence needs extraction, intermediaries, competitive intelligence theories, competitive intelligence intermediaries, information service intermediaries

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## LIST OF ABBREVIATIONS AND ACRONYMS

CEO – Chief Executive Officer

EBIT – Engineering, Built Environment and Information Technology

FOCIS – Four-phase Outline for Competitive Intelligence Solicit Framework

ICT – Information and Communication Technology

IRC – Internet Relay Chat

ISIC – Information Seeking in Context

KINs – Key Intelligence Needs Process

KITs – Key Intelligence Topics Process

LIS – Library and Information Science

LISA – Library and Information Science Abstracts

NDA – Non-disclosure Agreement

POPIA – Protection of Personal Information Act

SCIP – Strategic Consortium of Intelligence Professionals

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# CHAPTER 1: INTRODUCTION AND BACKGROUND

## 1.1 INTRODUCTION

An organisation's ability to survive in the information economy rests on its capacity to foresee external change and perceive the broader picture within its competitive environment. (Aguilar, 1967; Choo, 2016; Ranjan & Foropon, 2021). Information about competitors is therefore a critical component of both tactical and strategic decision-making (Asri & Mohsin, 2020; Du Plessis & Gulwa, 2016). Information and knowledge concerning the business environment in which companies operate, when acted upon, can confer significant competitive advantage and enable informed decision-making (Madureira et al., 2021; Tao & Prescott, 2000; Tsitoura & Stephens, 2012). Managers and other decision-makers have an obligation to be aware of trends, changes, and news affecting their operating environment (Choo, 2016; Hassani & Mosconi, 2021; Singh & Hess, 2017). The implementation of competitive intelligence is a response to that need (Bergeron & Hiller, 2002; Chaki, 2015; Tuan, 2016).

Competitive intelligence is considered a multidisciplinary field which encompassing areas disciplines such as business intelligence, which operates in the context of both information and knowledge management (Bartes, 2015; Bergeron & Hiller, 2002; Dishman & Calof, 2008). Furthermore, strategic intelligence, competitor analysis, and market intelligence are all related to competitive intelligence, according to Cavallo et al. (2021) and Dewi and Darma (2019). Rouach and Santi (2001, p. 523) have explained competitive intelligence as:

> an art of collecting, processing and storing information to be made available to people at all levels of the company to help shape its future and protect it against current competitive threats; it should be legal and respect code of ethics; it involves the transfer of knowledge from the environment to the organisation within established rules.

It should be noted that, although information is emphasised in this explanation, competitive intelligence involves more than just gathering information (Bartes, 2015; Jensen, 2012; Jin & Ju, 2014). As intelligence, it also entails the analysis of data and its transformation into processes that can be used by the organisation (Johnson, 2004; Kahaner, 1996; Keiser, 2016; Kirkwood, 2016; Negash, 2004).

Competitive intelligence involves looking for opportunities and identifying risks. These activities are driven by the expressed key intelligence needs of managers, chief executive officers (CEOs), directors, and decision-makers (Nicholas & Herman, 2010). More often, managers are the ones that request competitive intelligence gathering, and may follow instructions from other organisational members such as shareholders and other executive members (Bai & Li, 2020; Fleisher & Wright, 2009; Rouach & Santi, 2001). Calof and Sewdass (2020) further add that competitive intelligence is not about gathering all kinds of information, but only focuses on important issues identified by management and considered as key intelligence needs.

According to Bergeron and Hiller (2002), key intelligence needs are issues of critical importance to an organisation and are based on primary intelligence requirements (Bai & Li, 2020; Tarek et al., 2016). In the same vein, Du Toit (2007) mentions that, to ensure focused gathering of information, organisations must be able to identify the variables within their competitive environment accurately. These are often their key intelligence needs. Key intelligence needs differ significantly from one organisation to the next, and if key intelligence needs are not effectively identified, determined, prioritised according to importance, and communicated to the relevant stakeholders, the entire competitive process may fail (Muller, 2004).

Several authors have noted challenges in the implementation of the competitive intelligence process. These include factors such as the lack of a conceptual understanding of the process, inadequate organisational positioning, and poor information-gathering skills (Bose, 2008; Calof & Wright, 2008; Dishman & Calof, 2008; Du Plessis & Gulwa, 2016; Du Toit, 2015). In addition, Maritz and Du Toit (2018), Maungwa and Fourie (2018, 2020) and Zarei et al. (2018) have identified delegation of work such as the gathering of data and intelligence through the use of an intermediary as a challenge leading to competitive intelligence failure. In addition, the challenges associated with intermediary information seeking, such as the inability to solicit key intelligence needs, inefficient communication, the inability to use available information infrastructure and information overload, also cause competitive intelligence failure.

Intermediary information, also known as proxy-information seeking, refers to a process where one person searches for information on behalf of another (Bates, 2019; Buchanan et al., 2019; Case & Given, 2016; Jinkook & Jinsook, 2005). Intermediary information seeking is further defined by McKenzie (2003, p. 27) as "contacting or interacting with information sources through the initiative of another agent". Several authors who have written from the perspective of competitive intelligence suggest that competitive intelligence intermediaries are in charge of conducting the process. This entails identifying, negotiating, and soliciting decision-makers' key intelligence needs, gathering data, processing and analysing the data, and disseminating the gathered intelligence or actionable insights (Carr, 2003; Du Toit, 2015; Jensen, 2012; Tarek et al., 2019). Traditionally a human intermediary is a librarian, an information specialist or a professional. For this study both the competitive intelligence intermediary and the information service intermediary will assume the role of intermediaries in their respective contexts and work fields.

While the term 'intermediary information seeking' can be used to refer to tasks that are undertaken by the competitive intelligence intermediary, the term is more prominent in the library and information science (LIS) disciplines than in competitive intelligence. The LIS discipline presents a substantial body of literature on intermediary information seeking, which, according to several authors, is a multi-faceted process that comprises different components, including reference interviews, question negotiation, information searching, the subject domain knowledge of the searcher, information, and infrastructure (Buchanan et al., 2019; Katz, 1978; Taylor, 1998). As noted by Buchanan et al. (2019) and Luo and Park (2013), intermediaries encounter difficulties while assisting clients to meet their information needs (i.e. dormant information needs). According to Wilson (2000), dormant information needs are those needs that go unmet because people do not always completely understand the extent of their information needs. Muller (2002), writing from the perspective of competitive intelligence, acknowledges the challenges of articulating information needs by stating that managers may not always know what they know or what they need to know, which makes it difficult for them to define their information needs. Katz (1978, p. 90) further adds that the articulation of information needs during intermediary information seeking can be challenging since this involves "one person trying to describe for another person not what he knows, but rather something he does not know".

Challenges related to intermediary information seeking have received extensive scholarly attention (Maungwa & Fourie, 2020). It has been noted that challenges can arise at different phases and can be brought on by factors such as interviewing and cognitive styles, question types, the identification and expression of information needs, the domain knowledge underlying those needs, knowledge of information infrastructure, and information searching abilities (Buchanan et al., 2019; Saunders, 2016).

To successfully gather competitive intelligence, it is necessary to have a greater understanding of the difficulties involved in recognising key intelligence needs, expressing those needs, as well as recognising them as information needs (Oraee, 2023).

**1.2 BACKGROUND TO THE PROBLEM**

The solicitation and determination of key intelligence needs form a major component of the competitive intelligence cycle, yet it is seldom considered an independent phase of the competitive intelligence cycle, nor is it sufficiently discussed in the literature (Madureira et al., 2021; Ranjan & Foropon, 2021). Theoretically, it is postulated that the constituents of competitive intelligence are represented as a process or a cycle of phases (Madureira et al., 2021). The reason being that competitive intelligence moves in a cyclic continuous loop that never stops. Further, the cycle indicates that the phases are inter-related and that the output of one phase serves as the input for the next (Nasri, 2011; Ranjan & Foropon, 2021). Bose (2008) describes a competitive intelligence cycle as the process by which raw information is acquired, gathered, transmitted, evaluated, analysed, and made available as complete intelligence for policymakers to use in decision-making and action.

The traditional competitive intelligence cycle comprises four phases, according to Calof and Skinner (1998) and Kahaner (1996). These phases are as follows: determining what information is required to generate the intelligence (planning), acquiring the necessary information (data collection), transforming the information into the required intelligence (analysis) and transmission of intelligence to those who will use it (dissemination). Various competitive intelligence cycles have, however, been presented in the literature over the years. Common elements are present in each process although the name and number of phases differ. Examples are those by Melo and Medeiros (2007), who add evaluation to Kahaner's (1996) competitive intelligence cycle to make it a five-phase cycle composed of planning, collection, analysis, dissemination, and evaluation. Muller (2002) identified six phases of the competitive intelligence cycle. These include planning and focus, collection, analysis, communication, process and structure, and organisational awareness and culture.

Strauss and Du Toit (2010) also proposed 'skills development' as the seventh phase. Most recently, Van den Berg et al. (2020) added the phases of information storage and capturing to their competitive intelligence cycle. Despite these variations, Maungwa and Laughton (2023) presented a unified competitive intelligence cycle (examined in depth in Chapter 2). This cycle demonstrates that, despite differences in naming and phase divergencies, results of each phase and the cycle's overall outcomes are consistent.

From the consulted literature, it was found that the determination of key intelligence needs and topics are mentioned in the various competitive intelligence cycles. However, they are typically included as a part of the planning and direction phase rather than being represented as a separate phase, as in the competitive intelligence cycles by Kahaner (1996), Bose (2008) and Van den Berg et al. (2020). The competitive intelligence cycle by Muller (2002) and Botha and Boon (2008) is among the few outliers that specifically identify the determination of key intelligence needs and topics as a separate phase. Different names are, however, given to this phase, such as 'obtaining competitive intelligence requests,' 'intelligence needs and determine key intelligence topics', 'understanding the need', and 'defining the competitive intelligence demand' (Botha & Boon, 2008; McGonagle & Vella, 2002; Muller, 2002). In addition, the work of Botha and Boon (2008) and Bose (2008) was used as the foundation for Maungwa and Fourie's (2018) integrated competitive intelligence cycle, which includes two additional phases, determining key intelligence needs and determining key intelligence topics, which are depicted below in Figure 1.1

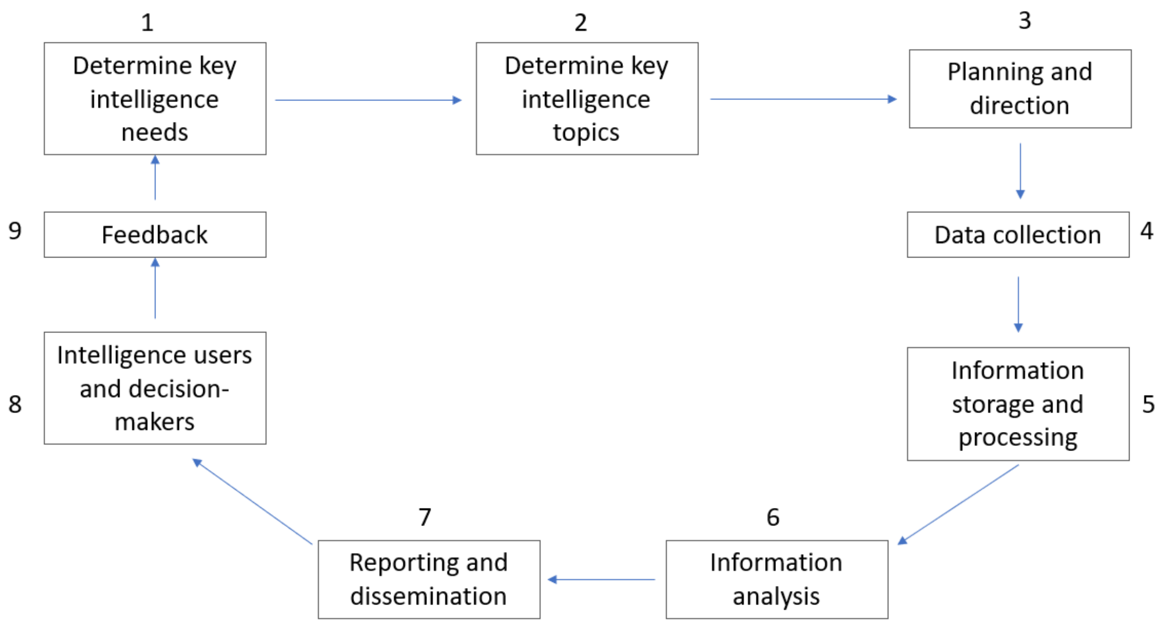


**Figure 1.1: Competitive intelligence cycle (Maungwa & Fourie, 2018)**

The first two phases in Figure 1.1 involve narrowing down the key intelligence needs of decision-makers into key intelligence topics (Botha & Boon, 2008). For Nasri (2011), these two phases are characterised by decision-makers pinpointing the intelligence needed to make effective decisions. According to Botha and Boon (2008, p. 5), competitive intelligence intermediaries work with decision-makers to "discover, identify and determine their key intelligence needs, and then translating those needs into their specific intelligence requirements". Du Toit (2007) differentiates between key intelligence needs and key intelligence topics by associating key intelligence needs with organisational information needs (see Section 2.4) that are areas of importance, while key intelligence topics refer to discrete questions that address the key intelligence needs, and define the research and analysis activities. According to Muller (2002), key intelligence topics are created by the competitive intelligence intermediary and concentrate on the areas where an information gap has been detected or when information needs have to be examined, compared or reviewed. In addition, Du Toit (2007) notes that some writers identify key intelligence topics as a synonym for key intelligence indications or taskings (Calof & Wright, 2008; Muller, 2002).

The competitive intelligence literature explains that the best way to determine and solicit key intelligence needs is through interviewing approaches (Chaki, 2015; Asri & Mohsin, 2020).

Similarly, Du Toit (2007) and Hassani and Mosconi (2021) claim that the solicitation, negotiation and identification of key intelligence needs is driven by an interaction between decision-makers and competitive intelligence intermediaries. Similarly, Nelke and Håkansson (2015) suggest that interviews or team discussions are often needed to clarify the defined key intelligence needs. Additionally, there is a substantial body of literature from library science (the discipline from which this study is produced) that affirms interviews as the best way to negotiate information needs (Cole, 2018; Lundh, 2010; Taylor, 1998; Wilson, 2000). The mode of discourse may be oral in both face-to-face and remote modes. However, Murphy (2006) points out that, although interviews have a structure and aim to get precise information, performing interviews is not a simple task.

Both competitive intelligence and information behaviour literature address the difficulties and challenges that might arise when the negotiation of key intelligence needs necessitates an intermediary (Buchanan et al., 2019; Du Toit, 2015; Taylor, 1998). There is no clear structure, framework, guideline or set of recommendations that specifically address how the process of identifying, soliciting and negotiating key intelligence needs should be supported. This is despite the fact that scholars tend to promote interviewing as the most productive method of soliciting key intelligence needs.

Given the lack of empirical knowledge from the competitive intelligence discipline regarding the determination, identification, solicitation and understanding of key intelligence needs, and the intermediary information seeking process in its entirety, this study will thus be informed by both traces of literature from competitive intelligence, and key texts from the field of library science, more especially information behaviour where the determination, understanding and negotiation of information needs have been thoroughly explored.

## 1.3 PROBLEM STATEMENT, RESEARCH QUESTION AND SUB-QUESTIONS

The existence of intermediary information seeking complexities and challenges has been noted, but not thoroughly explored within the competitive intelligence literature (Du Toit, 2015; Asghari et al., 2020; Calof, 2020).). On the contrary, literature on information behaviour presents a broad spectrum of intermediary information seeking challenges (Bates, 2019;

Quint, 2016; Huvila, 2020; Savolainen, 2024). Such challenges are discussed in studies by Taylor (1998), Wilson (1999) and McKenzie (2003), who focused on the difficulties around the recognition, understanding, and expression of information needs. They also discuss other factors, including reference interviews, question negotiation, interviewing styles, and communication (Ingwersen & Järvelin, 2005; Nicholas & Herman, 2010; Quint, 2016). Against the identified gaps, concepts needing greater understanding are further explored. In order to investigate and understand the solicitation of key intelligence needs within competitive intelligence, the study poses the following research question**:**

**What key factors should be included in the development of an information intermediary framework for competitive intelligence intermediaries?**

To answer this research question, the study focused on issues that impact the recognition and solicitation of key intelligence needs and information needs. The research question was thus divided into the following sub-questions:

1. How is the intermediary role conceptualised within the competitive intelligence process with specific reference to key intelligence needs and information needs?
2. How are key intelligence needs triggered, recognised and shared?
3. How can competitive intelligence intermediaries facilitate the solicitation and negotiation of key intelligence needs as information needs?
4. What challenges do competitive intelligence intermediaries experience when soliciting key intelligence needs?
5. How can the challenge of recognising key intelligence needs and information needs that guide the collection and analysis of competitive intelligence be addressed?
6. How do competitive intelligence intermediaries and information service intermediaries compare in their approach to identifying and soliciting key intelligence needs and information needs?

### 1.4 PURPOSE AND OBJECTIVE OF THE STUDY

This study aims to explore factors that aid in identifying and soliciting key intelligence needs. The study also aims to highlight challenges in identifying, understanding and soliciting key intelligence needs, and strategies to overcome them. This is done in light of the lack of empirical knowledge on the complexities and challenges of intermediary information seeking within competitive intelligence. This study's goal is to gain a deeper understanding, perception, and awareness of the challenges and complexities from the viewpoint of information behaviour and how they may affect the training of future competitive intelligence intermediaries and other professionals who work with intermediaries. The following are the study's primary objectives:

- To identify the intermediary's role, particularly in the soliciting of key intelligence needs
- To explore key factors that impact on the competitive intelligence intermediary's capacity to identify, solicit and negotiate key intelligence needs
- To provide a theoretical background on the triggers, recognition and understanding of key intelligence needs and information needs from the subject literature on intermediary information seeking challenges.
- To provide a framework that shows factors that contribute to the effective solicitation of key intelligence needs.

## 1.5 CONTRIBUTION TO THE FIELD OF STUDY

- Given the limited competitive intelligence literature on the intermediary process, and the identification, solicitation and negotiation of key intelligence needs, this study adds to the body of literature by investigating awareness of intermediary problems within the competitive intelligence process. In addition, the study compares how the intermediary process differs between competitive intelligence and information service intermediaries (librarians).
- Findings of the study will be used to satisfy the four objectives (Section 1.4). Furthermore, a framework will be developed to guide the future identification, solicitation and negotiation of key intelligence needs within organisations.

## 1.6 BRIEF LITERATURE OVERVIEW

The key intelligence topics process (KITs) was suggested by Herring (1999) and is well known in the field of competitive intelligence as a formal and systematised process for identifying key intelligence needs. However, it became evident from the literature that, apart from identifying the main methodological approach used, the actual solicitation of key intelligence needs is not discussed in detail. Furthermore, consulted literature, including key competitive intelligence books and journal articles, revealed a lack of terminology standardisation, where different scholars discuss the KITs process using different labels and naming conventions. For instance, Du Toit (2007) refers to the KITs process as the key intelligence needs process (KINs), and Nasri (2011) calls it obtaining the manager's needs, while Muller (2002) calls it defining the organisational needs. Despite the differences in naming conventions, most competitive intelligence authors, including Prescott and Miller (2001), Tyson (1998) and Blenkhorn and Fleisher (2005) agree that the process entails three phases:

1. Soliciting key intelligence needs, which comprises a two-way interactive discussion between the intermediary and the manager. Herring (1999) claims that formal interviews are the most successful way to carry out this discourse, although other approaches can still be used (e.g., email, informal conversation).
2. Once the key intelligence needs have been identified by the intermediary, they must be assigned to one of three functional categories, which have been broadly accepted in the competitive intelligence literature as tactical issues, early warning signs, and knowledge of key market players.
3. After the key intelligence needs have been categorised, they are translated into questions that can be used to collect information.

In addition to the KITs process, García-Madurga and Esteban-Navarro (2020) proposed the competitive intelligence initiation, which takes managers' key intelligence needs into account. However, much like Herring (1999), interviews are only mentioned as an effective method. The interviewing process itself is not described in detail.

Despite this lack of uniformity, Murphy (2006) outlined the skill set required to efficiently solicit key needs during interviews. These include good communication skills, an understanding of psychology types, interview planning, and subject identification. In a similar vein, McGonagle and Vella (2002) presented a checklist, which includes identifying the target, figuring out what specific information is needed, choosing the assignment's priorities, and analysing the key intelligence needs in light of other phases. Blenkhorn and Fleisher (2005) are two of the few authors to explicitly link difficulties and complexities in soliciting key intelligence needs to misinterpretation, failure to appreciate the advantages of competitive intelligence, lack of credibility on the interviewee's part, and a lack of clarity regarding the requirements for competitive intelligence.

There is a substantial body of literature on information behaviour that discusses how information needs are negotiated and solicited through a dialogical approach and reference interviews. This knowledge may be utilised to inform both the competitive intelligence literature and practices on the solicitation of key intelligence needs. According to Sundin and Johannison (2005), information needs are created by language-articulated negotiation processes that occur among various communities of justification. Lundh (2010) studied information needs as question negotiations in an educational setting, using a dialogical method. According to Lundh (2010), information needs are best understood as arising from negotiation processes that are stated at formalised and compromised needs levels (Taylor, 1968). McKenzie (2004) underscores the importance of information needs negotiation by utilising positioning theory to analyse information needs negotiation in a clinical midwifery environment. This theory offers a framework that makes it possible to examine ordinary conversation to ascertain how the actors dynamically negotiate and develop their information needs. Since information needs are developed through dialogue and conversation, they are not seen as a static entity that the information seeker brings to the information-seeking process. Such an understanding is shaped by elements that include the degree of precision in the reference interview questions, the language used in conversation, and the unique roles played by the participants in dialogue (McKenzie, 2004).

Furthermore, Ingwersen and Järvelin (2005) and Saunders (2016) have identified the complexities and challenges encountered during reference interviews as follows:

- Inability to recognise information needs
- Lack of reference interview guidelines
- Poor communication skills

The importance of communication skills and proficiencies during reference interviews is further highlighted by Harter (1986), who notes that communication challenges that impact the success of the reference interview can occur at the technical, semantic, and syntactical levels of communication.

## 1.7 CLARIFICATION OF CONCEPTS

This section outlines working definitions of main terms used throughout this study. From the research question (Section 1.3), it is evident that the terms competitive intelligence, key intelligence needs, intermediary information seeking, and information needs must be clarified.

### 1.7.1 Competitive intelligence

The literature has several definitions of competitive intelligence (Du Toit, 2007; Weiss & Naylor 2010). The recent paper by Madureira et al. (2021) that discusses the unified view and modular definition of competitive intelligence, defines competitive intelligence as "the process, and forward-looking practices used to produce knowledge on the competitive environment's purview with the purpose of improving the organisations performance" (Madureira et al., 2021. P.7). According to Madureira et al. (2021), the majority of definitions that have developed and emerged over time merely differ in their focus and semantics. Madureira et al. (2021) and Fleisher and Wright (2009) further mention that, while certain terms have been added or removed from earlier definitions, less significant changes have seldom been made.

According to Brody (2008), competitive intelligence is a process that is applied in dynamic scenarios where players are operating in a business environment that is continuously changing. The range of definitions may be a representation of this process. Although Cloutier (2013) acknowledges that definitions might differ, she also points out that the process and the result, which are often rather broad, are typically included in the definitions. For instance, some definitions encompass only the notion of competition as the subject of research: McGonagle and Vella (2002, p. 35) define competitive intelligence as "the use of public sources to locate and develop data that are then transformed into information, generally about competition, competitors, and the market environment in the broadest sense". According to Cloutier (2013), other definitions are broader and include the environment as a whole. For example, Hughes and White (2005, p. 5) defines competitive intelligence as the "conversion of unprocessed data about the external environment into actionable intelligence that supports business decisions". For Pellissier and Nenzhelele (2013), competitive intelligence is a continuous process of gathering data, information and knowledge about actors (competitors, customers, suppliers, government, etc.) which interact with organisations in the business external environment in order to support decision-making processes for enhancing organisational competitiveness. Some definitions highlight the impact of competitive intelligence on strategy. For instance, Nasri (2011, p. 54) defines competitive intelligence as “information about the actions, capabilities, and intentions of current and potential competitors that provide input in formulating long-term strategy and goals”. Similarly, Bartes (2015, p. 1235) defines competitive intelligence as “the ethical gathering, analysis and dissemination of external information that can assist organisations with decision-making and the designing of operational and strategic plans.”

Given the above definitions, this study will accept competitive intelligence as a set of legal and ethical methods of gathering and analysing information from the external environment about the future behaviour of competitors, customers, suppliers, market products, and the general business environment, which is used to support timely decision-making and to design operational and strategic plans that are driven by expressed managers’ needs and expectations.

### 1.7.2 Key intelligence needs

According to Du Toit (2007, p. 1) “key intelligence needs relate to key areas of intelligence, such as information on the environment that must be collected to produce intelligence on threats and opportunities that can affect an organisation”. Herring (1999), Sewlal (2004) and Johnson (2004) argue that key intelligence needs can also focus on business issues that are of critical importance to an organisation and decision-based strategic issues, which might be captured in a pre-eminent list of priorities. Muller (2002) states that there are three possible ways that a key intelligence need may arise: routine scanning activities that find information that could impact strategy in a positive or negative way; events or developments in the competitive environment that raise the need for intelligence gathering; and serendipity, or the unintentional discovery of information.

Once key intelligence needs are recognised and acknowledged, the next step would be to translate them into key intelligence topics (Nasri, 2011). Competitive intelligence intermediaries are usually responsible for this process, while decision-makers and other stakeholders are mostly the people who determine key intelligence needs.

The operational definition that follows was modified from Du Toit (2007) and includes ideas from Muller (2002), Johnson (2004) and Sewlal (2004). Key intelligence needs refer to all key organisational areas that influence strategic decision-making (e.g. business issues, strategic and tactical matters, early warning signs, market segmentation and other priorities). They also have to do with the business environment, both internal and external, about which data must be gathered to provide intelligence on the opportunities and risks that might have an impact on the organisation.

These can be a predetermined list of priorities and can be supplemented through regular environmental scanning activities, events or developments in the business environment and issues discovered through serendipity. Key intelligence needs are translated as key intelligence topics that will guide intelligence gathering.

### 1.7.3 Key intelligence topics

Definitions of key intelligence topics are complex with often very diverse interpretations. Muller (2002, p. 10) defines key intelligence topics as “the translation of the key intelligence needs into simple, clear and concise questions that would yield answers, key intelligence topics are compiled by competitive intelligence intermediaries and focus on the areas where an information gap has been identified”. The questions might be specific or discrete as argued by Calof (2017). They address the key intelligence needs. Although not mentioned in the definitions consulted, there must be a process of translating key intelligence needs into key intelligence topics.

Key intelligence topics are topics of the greatest significance to an organisation’s senior executives (Du Toit, 2007). Bose (2008) views key intelligence topics as providing purpose and direction to the competitive intelligence function. Rather than seeing key intelligence topics as guidance to collect information, Blenkhorn and Fleisher (2005) argue that they are filters through which information gathering and processing pass.

The purpose of key intelligence topics is to define the research and analysis activities that need to follow (Calof, 2017). They must be understood and require interpretation or analysis by the employee providing competitive intelligence services (Prescott & Miller, 2001). Competitive intelligence intermediaries work with decision-makers to discover their intelligence needs and then translate those needs into specific intelligence requirements or ‘key intelligence topics’ (Du Toit, 2007; Herring, 1999).

Based on the definition of key intelligence topics by Muller (2002) and elements from Pearce and Robinson (2005) and Calof (2017), this study will accept key intelligence topics as questions that might be specific or discrete, directly addressing the key intelligence needs of decision-makers and other senior personnel in a company, organisation or smaller enterprise. They are the outcome of the translation of the key intelligence needs into simple, clear and concise questions that yield answers to strategic needs as reflected in the key intelligence needs. Competitive intelligence intermediaries (or employees with different titles taking on this role) are responsible for the interpretation, translation and articulation of key intelligence needs as areas of intelligence.

### 1.7.4 Information needs

Definitions of information needs, ranging from simple to intricate, have been propounded by reputable authors in the field of information behaviour such as Kuhlthau (1991), Ingwersen and Järvelin (2005), Case and Given (2016) and Cole (2018). Wilson (1999, p. 252) states that "an information need is not a primary need, but a secondary need that arises out of needs of a more basic kind; and second, that in an effort to discover information to satisfy a need, the enquirer is likely to meet barriers of different kinds". In addition, other characteristics of information needs have been noted. For instance, it can be unexpressed, ill-defined, and also ambiguous (Kuhlthau, 2004). Leckie et al. (1996) emphasised the professional's work context and state that information needs are brought on by situations related to a certain task associated with one or more of the work roles of the professional. This description is similar to a less well known one by Ikoja-Odongo and Mostert (2006), who define an information need as the recognition of the existence of uncertainty in the personal or work-related life of the individual.

### 1.7.5 Intermediary information seeking

According to Jinkook and Jinsook (2005) and Buchanan et al. (2019), an intermediary is a human or non-human party that assists people in processing information. The collection, gathering and dissemination of information can also be included. Saracevic (1997) further states that an intermediary is an information professional that is skilful in both user modelling and subsequent information searching and seeking. McKenzie (2003) and Savolainen (2010) define intermediary information seeking as occasions when people interact with information sources through the initiative of an agent. Intermediation in a broader sense implies a dialogue where information in the form of counselling flows from one person to another (Fourie & Meyer, 2014).

As a result, this study accepts the definition of intermediary information seeking as a process that entails communication or interaction between a user seeking information and an agent (such as an information scientist, librarian, broker, online searcher, or information officer) who has the knowledge and abilities to gather, arrange, and disseminate information (Maungwa & Fourie, 2020).

## 1.8 RESEARCH DESIGN

According to Leedy et al. (2021), research design provides an overview of the overall structure for the procedure that the researcher must follow. MacMillan and Schumacher (2001), further define research design as a method for selecting subjects, study sites, and data gathering methods to answer a particular research question. For Durrheim and Tredoux (2004) research design refers to a plan that indicates a strategic framework for action, which serves as a link between the research question, its execution, and its implementation. In essence, a research design is the general overall nature of the research activity (Given, 2015). This section offers a brief overview of the research design, which includes the research paradigm and approach, research methods, study population, data collection methods, data verification, and the ethical concerns of the study. A thorough discussion of the research design is provided in Chapter 3.

### 1.8.1 Research paradigm and approach

Shah and Al-Bargi (2013, p. 59) define a research paradigm as “a basic belief system and theoretical framework with assumptions about ontology, epistemology, methodology and method”. According to Pickard (2017), the major research paradigms are positivism, post-positivism and interpretivism. This study is situated in an interpretivist paradigm, which refers to the development of a new theory through the collection and analysis of data about a phenomenon (Creswell, 2013; Gorman & Clayton, 2015; Pickard, 2017). Creswell (2013) further states that the interpretivist paradigm defines reality as created based on people’s experiences of their internal world. According to Pickard (2017), the interpretivism paradigm’s methodological approach is based on close interactions between the researcher and the subject of the study, with the researcher investigating and interpreting each creation of reality. According to Guba and Lincoln (1994), interpretivist approaches rely on naturalistic methods such as interviewing, observation and analysing existing texts. In addition, Blumer (1969) mentions that interpretivism leans towards qualitative research approaches. There are three approaches to conducting research. These are qualitative, quantitative, and mixed methods (Creswell, 2013; Leedy et al., 2021; Pickard, 2017). According to Leedy et al. (2021), the choice of research approach depends on the researcher's philosophical orientation, the type of knowledge sought, and the preference of data collection methods.

This study follows a qualitative research approach. The fundamental idea behind qualitative research is to gain insight into constructs of reality (Leedy & Ormrod, 2015). The goal of qualitative research is to describe, interpret, and comprehend phenomena or concerns from the perspective of the population being investigated to develop conceptions and hypotheses (Gorman & Clayton, 2015). Therefore, this study deemed it relevant to investigate the key factors that should be included in the development of an intermediary framework for competitive intelligence intermediaries using a qualitative research approach.

According to Creswell and Poth (2018), there are five approaches to a qualitative inquiry, which are popular within the social sciences. These are phenomenology, narrative research, case study, ethnography, and grounded theory. After careful consideration, the use of grounded theory was found appropriate for this study. This choice was further motivated by the lack of theory use within the competitive intelligence literature. Similarly, Du Toit's (2007) study found that theory adoption and use within the competitive intelligence field is relatively low. An exception is the study by Jin and Bouthillier (2008), who used activity theory to understand the information transformation process within a competitive intelligence context. In addition, Olzak (2014) used strategy theory to discover information tools and technologies that are used in competitive intelligence. Most recently Hakamoui and Berrada (2021) used resource-based theory to discover the relationship between competitive intelligence maturity and competitive advantage. However, no theories were found in the literature reviewed to explain the identification and soliciting of key intelligence needs. According to Corbin and Strauss (2008) grounded theory is derived from data that is systematically gathered and analysed through research processes. Grounded theory is a qualitative inquiry in which the researcher constructs a general explanation (a theory) of a process, activity, or interaction based on the views of participants (Charmaz, 2006). When one adopts this qualitative inquiry, a theory is not discovered; rather, it is constructed by the researcher who views the world through their own lens (Glaser, 2002).

This study also acknowledges the several distinct methodological genres of grounded theory. They are the traditional grounded, evolved grounded theory and constructivist grounded theory propounded by Glaser (1978, 1992, 2002) and Charmaz (2006). While there are some similarities across grounded theory genres, there are some distinctions as well, such as the researcher's philosophical viewpoint, the use of literature, and the methodology related to coding, analysis, and theory construction. Grounded theory and its underlying elements are briefly discussed in this part, while a thorough explanation of how grounded theory was used in this study is done in Chapter 3.

### 1.8.2 Study population

The study population refers to "the entire aggregation of respondents that meet the designated set of principles" (Given, 2015, p. 85). The rational and elaborate description of the study population is outlined in Chapter 3. The study considered two groups of intermediaries that would inform the study's population. These included competitive intelligence intermediaries and information service intermediaries. The study used convenience sampling, a method that collects data from a population that is conveniently available to participate in the study (Creswell, 2017). In order to reach more people within the target demographic, the snowball sampling technique was also used. According to Handcock and Gile (2011) this entails asking participants for more contacts of potential participants. To comply with the Protection of Personal Information Act (POPIA), participants were asked to contact anyone in their network who might be interested in taking part in the study.

### 1.8.3 Data collection methods

Semi-structured electronic interviews were found appropriate for collecting data from potential participants. Pickard (2017) refers to this sort of interview as synchronous or real-time interviewing, which involves the use of internet relay chat software that enables a live interaction and real-time dialogue between two or more individuals. To make the interviews more convenient for the participants, a variety of software platforms such as Skype, Zoom, Google Hangout, telephone interviews, Microsoft Teams, and face-time calls were used.

Conversely, Glaser (1978) contends that the study's supporting literature review should be considered later on. According to Glaser, conducting the literature review prior to data collection can hinder, and obstruct the researchers' attempts to create codes, categories, properties and establish a theory. However, Strauss and Corbin (1990) counter Glaser (1978) by pointing out that the researcher brings to the research both his or her own professional experience and knowledge gained from the literature; as a result, it is advised that the researcher engage with the literature throughout all phases of the study rather than removing themselves from it. In addition to Strauss and Corbin (1990), Ramalho et al., (2015) mentions that funding bodies and Ethics committees often require that applicants demonstrate prior knowledge in the study field through a brief literature review.  Figure 1.2, therefore depicts the data collection process using the argument by Strauss and Corbin (1990). The figure provided below only serves as a brief overview of the data collection process, a more thorough diagram illustrating the grounded theory principles applied in this investigation may be found in Chapter 3 (Section 3.2.2)., showing the tenets of grounded theory employed in this study, is provided in Chapter 3 (Section 3.2.2).

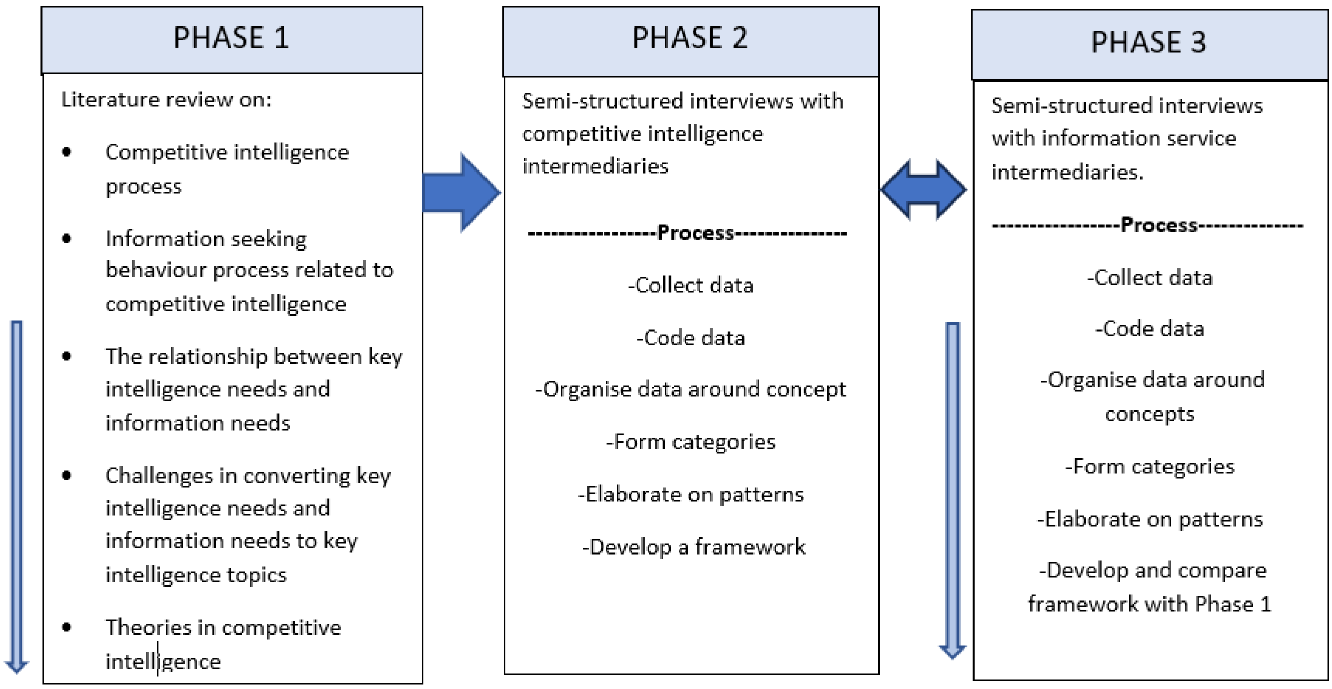


**Figure 1.2: Data collection**

### 1.8.4 Data analysis

Data analysis, according to Lacey and Luff (2001), include organising, modifying, summarising, and giving the large amount of gathered data significance. Scholars such as Charmaz (2006), Corbin and Strauss (2008) and Leedy and Ormrod (2015) believe that data analysis starts practically soon after data collection, and entails the researcher creating categories from the data collected. Accordingly, the data analysis followed grounded theory tenets, which include a cyclic application of data collection, coding, analysis, memoing, theoretical sampling and using the constant comparative method. A detailed description of the grounded theory tenets and their application to this study is provided in Section 3.2.6. In order to make sense and create structure from the collect data, the study will use QSR NVivo qualitative analysis software alongside manual coding.

### 1.8.6 Credibility

Qualitative researchers have used various methods to enhance the trustworthiness and credibility of the data they collect (Corbin & Strauss, 2014; Thornberg & Charmaz, 2014). These strategies include transferability, dependability, and confirmability as the natural equivalents for validity (Charmaz & Bryant, 2011). Major critical strategies for ensuring trustworthy and credible findings in qualitative research include reflexivity, triangulation, member checking, the seeking of exceptions and contradictory evidence, checking for representativeness, thick and rich description, external audits and negative case analysis (Leedy et al., 2021). This study, however, adopts the quality criteria of a constructivist grounded theory approach by Charmaz (2014), which consists of four components: fit, workability, relevance, and modification. The description of these quality criteria is provided in Chapter 3 (Section 3.2.7) and their application in relation to the emerged theory is discussed in Chapter 6 (Section 6.5).

### 1.8.7 Ethical consideration

According to Leedy et al. (2021) ethics is an integral part of research that should be taken into consideration when dealing with human participants. In addition, Pickard (2007) asserts that a research study that includes both human and animal subjects must address the ethical ramifications and must not exploit its subject term. Moriña (2021) further adds that, during qualitative research, a researcher involved with participants should adhere to guidelines. This includes not deceiving participants, ensuring that no person's rights are violated, collecting data only upon informed consent and treating collected data with confidentiality and privacy. The Engineering, Built Environment and Information Technology (EBIT) Faculty Committee for Research Ethics and Integrity at the University of Pretoria provided ethical clearance for this study.

Before taking part in the study, each participant had to provide written consent (Appendix A). Additionally, before the interview began, participants were asked for permission to record the interview. Where appropriate, the employers were asked for permission to allow their employees to participate (Appendix B). Participants were given the assurance that their answers would be treated in a confidential manner, and great care was taken to maintain their anonymity. The full scope of ethical issues involved in the study is discussed further in Chapter 3

## 1.9 AN OUTLINE OF CHAPTERS

This study is divided into six chapters. Each chapter is briefly described below:

### Chapter 1: Introduction and background

This chapter addressed the introduction and background of the study. The chapter provided an overview of the background information, a brief literature review, the research problem, the research question and sub-questions, research design, clarification of concepts and the structure of the thesis.

### Chapter 2: Literature analysis

Chapter 2 discusses literature that is relevant to the research question. The chapter presents an in-depth discussion of the competitive intelligence cycle. It covers literature on the conceptual analysis of the intermediary role within the competitive intelligence process. Since the study focuses on both competitive intelligence and information behaviour, the relationship between key intelligence needs and information needs is established and discussed. Other issues covered include the challenges of soliciting, understanding, articulating and expressing key intelligence needs and information needs. Lastly, the chapter explores theories that are used to explain the solicitation of key intelligence needs.

### Chapter 3: Research design

The research design followed in this study is provided in Chapter 3. This chapter addresses the research paradigm and approach, research methods, sampling procedures, research participants, data collection techniques and methods of analysis. This chapter also presents steps taken to ensure the theory's credibility, and lastly, a discussion of ethical issues.

**Chapter 4: Data findings and analysis**

The chapter presents and analyses the data that was collected through semi-structured interviews. This chapter also gives a detailed account of how grounded theory was applied to the acquired data, as well as a sequential technique for handling the analytical step.

**Chapter 5: Data interpretation and discussion of findings**

This chapter presents a discussion of the main findings that are in correlation with the literature.

**Chapter 6: Presentation and discussion of the emergent theory**

This chapter presents and discusses the emergent theory. This includes a visual framework that explains the theory. A discussion of how the theory is linked to the competitive intelligence cycle is also provided.

**Chapter 7: Findings, recommendations, suggestions for further research and conclusion**

This chapter presents findings, recommendations, as well as the conclusion reached in respect to the research question and answers to the sub-questions. The study also addresses how it meets the study objectives and provides suggestions for further research.

## 1.10 CONCLUSION

This chapter presented the background information against which the study was conducted. The chapter therefore provided a justification for conducting the study in the form of a problem statement, research questions and sub-question, the purpose of the study and objectives. This chapter also gave a brief overview of the research design and the clarification of terms used throughout the study, as well as a discussion of the further chapters that make up the thesis. Chapter 2 presents the literature review, guided by the proposed research question.

# CHAPTER 2: LITERATURE ANALYSIS

## 2.1 INTRODUCTION

The study's background information, problem statement, research question, and sub-questions were all presented in the preceding chapter, which also included brief explanations of the research design, methodology, and literature analysis. The literature analysis that places this study in perspective and highlights its contribution to the field of competitive intelligence and information behaviour is presented in this chapter.

The literature analysis addresses the research question: ***What key factors should be included in the development of an information intermediary framework for competitive intelligence intermediaries*?** This research question and associated sub-questions are outlined in Chapter 1 (Section 1.3). The principal research question will also be used to establish the sub-topics for this chapter. This chapter is divided into the following main sections:

- The competitive intelligence processes
- Information behaviour processes related to competitive intelligence
- The relationship between key intelligence needs and information needs
- The conversion from key intelligence needs and information to key intelligence topics
- Challenges in converting key intelligence needs and information needs into key intelligence topics
- Competitive intelligence theories
- Chapter summary and conclusion

## 2.2 THE COMPETITIVE INTELLIGENCE PROCESS

While the competitive intelligence process was partially presented in Chapter 1 (in Section 1.2), it was only done to serve as background information and introduce the focal context of the study. The competitive intelligence cycle presented in Chapter 1 (in Section 1.2) only focused on the phase that explains the determination of key intelligence needs. At this point of the study, it is important to establish a comprehensive picture and discussion of the competitive intelligence cycle.

There has been a growth of different competitive intelligence cycles in literature, such as those proposed by Muller (2002), Bartes (2015), Nenzhelele (2015), Du Toit (2015), Maungwa and Fourie (2018), Köseoglu et al. (2021) and Maungwa and Laughton (2023). One such contribution, that from Nenzhelele (2015), offers a framework that is widely recognised and shows variations of the competitive intelligence cycle, as well as alternate naming standards and factors that influence competitive intelligence. Maungwa and Fourie (2018) provide a comprehensive analysis of the differences and similarities across several competitive intelligence cycles. While Maungwa and Laughton (2023) show that the bulk of the competitive intelligence cycles published only differ in semantics and naming conventions, they also emphasise that, despite these variances, each competitive intelligence cycle's premise and purpose has remained the same.

To account for the various competitive intelligence cycles, Maungwa and Laughton (2023) proposed a unified competitive intelligence cycle, which was developed by collating the phases of 14 different competitive intelligence cycles published between 2000 and 2023, and classifying them based on each phase's description and activities to illustrate similarities among all the competitive intelligence cycles. From this work, it appears that variations of the competitive intelligence cycles in literature all follow the same premise. Table 2.1 depicts various competitive intelligence cycles grouped by phases as suggested by Maungwa and Laughton (2023).

## Table 2.1: Variations of the competitive intelligence cycle (adapted from Maungwa and Laughton, 2023)

| Competitive intelligence phases (varying naming convention)[1] | Muller (2002) | Wright and Calof (2006) | Bose (2008) | Sawka and Hohhof (2008) | Botha and Boon (2008) | Cucui (2009) | Bartes (2015) | Cloutier (2013) | Pellissier and Nenzhelele (2013) | Du Toit (2015) | Maungwa and Fourie (2018) | Köseoglu et al. (2021) | Ali and Anwar (2021) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ARTICULATION AND DEFINING** | | | | | | | | | | | | | |
| -Planning and direction | | | ■ | | ■ | | | | ■ | ■ | ■ | ■ | |
| -Planning and focus | ■ | ■ | | | | | ■ | ■ | | | | | |
| -Obtaining the competitive intelligence request | | | | ■ | | | | | | | | | |
| -Task definition | | | | | | | | | | | ■ | | |
| -Articulating key intelligence needs | | | ■ | | ■ | | | | | | | | ■ |
| -Identifying competitors | | | | | | | | | | | | | |
| -Defining the competitive intelligence demand | | | | | | ■ | | | | | | | |
| -Determining key intelligence needs | | | | ■ | ■ | | | | | | ■ | | |
| **INFORMATION RESOURCES GATHERING** | | | | | | | | | | | | | |
| -Information collection | ■ | ■ | ■ | | ■ | | | ■ | | | | | |
| -Gathering information | | | | | | | ■ | | ■ | ■ | | | |
| -Research and gathering | ■ | | | | | | | | | | | ■ | ■ |
| **INFORMATION PROCESSING AND COLLATION** | | | | | | | | | | | | | |
| -Processing | | | | ■ | ■ | | | | | | | | |
| -Information sorting | ■ | | | | | | ■ | ■ | ■ | | | | |
| -Information processing | | ■ | ■ | | ■ | ■ | | | | | ■ | | ■ |
| -Evaluation | | | | | | | | | | | ■ | | |
| -Filtering | | | | | | | | | | | | ■ | |
| **ANALYSIS** | | | | | | | | | | | | | |
| Information analysis | ■ | ■ | ■ | | ■ | | | ■ | | | | | |
| Intelligence analysis | | | | | | | ■ | | ■ | ■ | | ■ | |
| **REPORTING** | | | | | | | | | | | | | |
| -Dissemination | | | ■ | | ■ | | | | | ■ | | | |
| -Communicating the intelligence | ■ | ■ | | | | | | | ■ | | | | ■ |
| -Intelligence dissemination | | | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | | |
| -Providing the final service | | | | | | | | | | | | ■ | |
| **FEEDBACK AND EVALUATION** | | | | | | | | | | | | | |
| -Feedback | | | ■ | | | | | | | | | | |
| -Decision-making | ■ | | | ■ | ■ | ■ | | | | | | | ■ |

While the study acknowledges that the competitive intelligence cycles presented in Table 2.1 are not an extensive account of all the cycles that have been described and published in literature to date, the idea behind the competitive intelligence cycles in Table 2.1 is to demonstrates the variety and complexity of competitive intelligence cycles that have been published. Additionally, despite differences in terminology and the number of phases present in each competitive intelligence cycle, it is clear that most competitive intelligence cycles have similar components. While some scholars present fewer phases and alternative naming standards, others specify additional phases in the competitive intelligence cycle. Despite differences in naming standards, intended applications, theoretical foundations, and presentation, the competitive intelligence cycles published in the literature are united by a shared understanding of the nature, scope, and methodology of competitive intelligence.

In addition to Table 2.1., Maungwa and Laughton (2023) developed a unified competitive intelligence cycle (Figure 2.1), which aimed at bridging the gap between variations within the competitive intelligence cycles, and further show that, despite these variations and differences, most competitive intelligence cycles are similar.

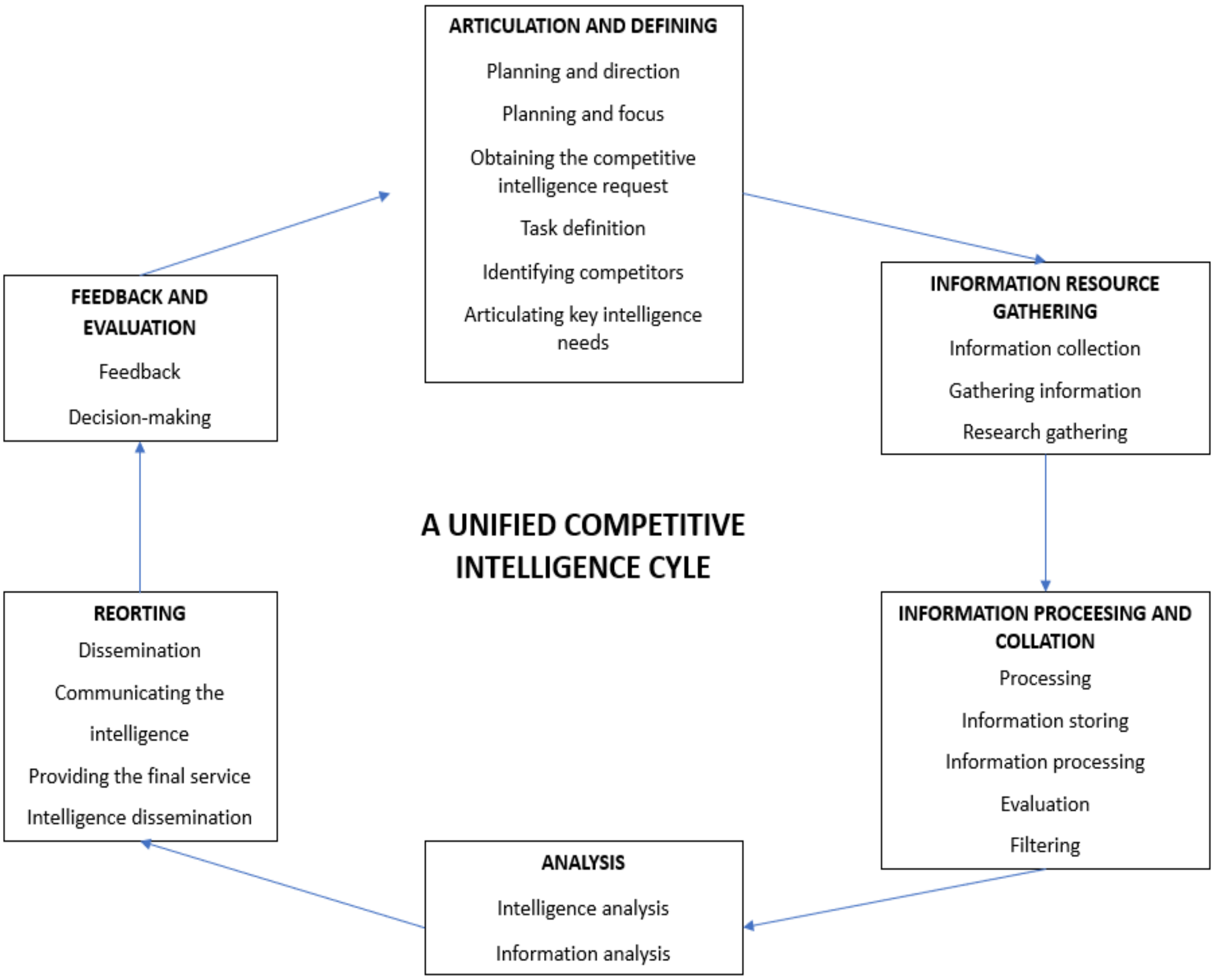


**Figure 2.1: A unified competitive intelligence cycle (adapted from Maungwa & Laughton, 2023)**

### 2.2.1 Articulation and defining

This study is focused on soliciting key intelligence needs. It should, however, be noted that the defining and articulation phase goes beyond just the solicitation of key intelligence needs to include other components, such as discussing deadlines for completing tasks and the allocation of financial and human resources. The competitive intelligence articulation and planning phase is concerned with organising the complete competitive intelligence process (Bose, 2008; Herring, 1999). According to Prescott and Miller (2002), the defining and articulating phase should concentrate on what is important to decision-makers rather than gathering all information possible.

It was pointed out in Chapter 1 (Section 1.2) that several authors, including Muller (2002), Calof and Wright (2008), Bartes (2015) and Du Toit (2015), do not address the soliciting of key intelligence needs and how they translate into key intelligence topics as a distinct phase. Rather, they address it as part of the defining and articulation phase. However, Bose (2008), Botha and Boon (2008) and Maungwa and Fourie (2018) frequently handle the identification and solicitation of key intelligence needs as a distinct phase of the cycle. Despite these differences, competitive intelligence scholars generally agree that the planning and defining phase should aim to identify the resources required to obtain the relevant information to meet the decision-makers' key intelligence needs (Pellissier & Nenzhelele, 2013; De Pelsmacker et al., 2005).

Competitive intelligence intermediaries, decision-makers and stakeholders must comprehend the work at hand during this phase. Additionally, the planning and defining phase assists in highlighting less obvious elements of the intelligence puzzle that would have otherwise gone unnoticed (Bernhardt, 1994). Once the key intelligence needs have been solicited and translated to key intelligence topics, the information resource gathering begins (see Section 2.4.1 for further detail).

### 2.2.2 Information resource gathering

During this competitive intelligence phase, data is gathered and collected from various sources, among others, primary and secondary sources (Prescott & Miller, 2002). Shaker and Gembicki (1999) define primary sources of information as those that provide data directly through contact with the intended information source. These include speeches, corporate websites, polls and interviews (Fleisher & Blenkhorn, 2003; Sandman, 2000). Analysts' reports, companies' financial reports and online sources are examples of secondary information sources that provide second-hand data through the services mediator (Du Toit, 2007; Miller, 2001). The collectors' creativity is of utmost importance. Many pieces of information can be obtained legally and morally if a collector uses their mind. Here, interpersonal abilities, including elicitation strategies, conversational skills, and interviewing abilities, become increasingly crucial for obtaining human intelligence (Kahaner, 1996). Once information has been collected, the next phase of the competitive intelligence cycle is the processing and collation of the collected information.

### 2.2.3 Information processing and collation

The processing and collation phase is essential to determine what is accessible and whether there are any gaps that still need to be filled through collection (Murphy, 2006; Nasri, 2011; Ranjan & Foropon, 2021). Processing entails recording interviews and compiling sources that are available. Data storage is essential because a strong internal database can reduce future expenditure related to data gathering and research (Wu et al., 2023) by eliminating the chance that the same data could be utilised repeatedly across various projects. Consequently, the internal database or library becomes an essential part of the business's intellectual property (Ottonicar et al., 2021).

### 2.2.4 Analysis

Analysis is necessary to add value to information that has been gathered and processed (Iwu-James et al., 2020; Asri & Mohsin, 2020). According to Shaker and Gembicki (1999), during the analysis phase, the collected information is checked for both reliability and accuracy. The competitive intelligence cycle's analysis phase is its essential component (Muller, 2002). According to Nasri and Zarai (2013), actual intelligence is produced at the analysis phase by transforming information and data into actionable intelligence. Muller (2002, p. 2) further states that "analysis is the central nervous system of competitive intelligence". Through an understanding and interpretation of the information obtained, the analysis phase responds to the decision-makers' intelligence needs (Maungwa & Fourie, 2018). Competitive intelligence intermediates must compare their results to the key intelligence needs originally stated in the previous two phases to ensure that there is no misalignment between the key intelligence needs and the produced intelligence (Muller, 2002; Bose, 2008).

### 2.2.5 Reporting

In the reporting phase, the competitive intelligence intermediary must determine the preferred format for delivering intelligence to decision-makers (Heppes, 2006). As a result, decision-makers should get the intelligence analysis's findings in a format that is clear, legible, and helpful (Heppes, 2006; Muller, 2002). Muller (2002) states that there are several ways to report intelligence results. These include intelligence reports, bulletins, and presentations.

The last phase of the competitive intelligence cycle involves obtaining feedback from decision-makers, which comes after they have evaluated the intelligence reports and offered options for assessment and modification of the initially produced intelligence.

### 2.2.6 Feedback and evaluation

During the feedback and evaluation phase, decision-makers will either seek more information about the report or give the competitive intelligence unit a new duty, according to Bartes (2015). Additionally, according to Botha and Boon (2008), the dissemination of intelligence to decision-makers and users will result in the discovery of new intelligence needs, which will reactivate the competitive intelligence process.

From the discussion provided in this section, it is evident that there are different competitive intelligence cycles in the competitive intelligence literature. Additionally, different industries have unique needs and challenges when it comes to competitive intelligence, which can also influence the development of different cycles. Irrespective of the constructs and arrangement of the competitive intelligence cycle, ultimately, the goal of any competitive intelligence cycle is to provide actionable insights that can help make informed decisions and gain a competitive advantage. All phases of the competitive intelligence process may involve some challenges and difficulties, but this study specifically focuses on those that arise in the articulation and defining phase, specifically during the soliciting of key intelligence needs, which is characterised by interaction between the competitive intelligence intermediary and decision-makers, and involves the competitive intelligence intermediary's attempt to understand the decision-makers' key intelligence needs through an interviewing process. Even though this contact between the competitive intelligence intermediary and decision-makers is extensively known and acknowledged in competitive intelligence literature, very little or no depth is supplied. However, there is a wealth of information on how information professionals express the information needs of their clients in the literature on information behaviour, specifically on intermediary information seeking studies. In order to use the information behaviour literature to inform this study, it was deemed relevant to first find the relationship between competitive intelligence and information behaviour, which is presented and discussed in Section 2.3.

## 2.3 THE RELATIONSHIP BETWEEN INFORMATION SEEKING BEHAVIOUR PROCESSES AND COMPETITIVE INTELLIGENCE

As a research field, information behaviour focuses on how people need, seek, and use information in their everyday lives (Agarwal, 2022; Moring, 2017; Savolainen, 2016). Both Wilson (1999) and Case and Given (2016), writing through the lens of information behaviour, agree that the term 'information behaviour' is an umbrella term for all information-related activities and encounters, such as information seeking, information searching, browsing, identifying and expressing information needs, information encountering, information avoidance, and information use.

One of the concepts commonly used in information behaviour research in conjunction with information seeking is 'intermediary information seeking', which first appeared in the Library and Information Science Abstracts (LISA) database in a Hungarian article titled "Intermediaries in information transfer (seeking ways or increasing the information spectrum?)". The term gradually gained acceptance in the library and information science literature, and later in information behaviour (Buchanan et al., 2019; Cole, 2018; Kuhlthau, 1992; Wilson, 2000). Intermediary information seeking refers to a process whereby one person searches and seeks for information on behalf of another (Buchanan et al., 2019; Jinkook & Jinsook, 2005; McKenzie, 2003).

The term 'intermediary information seeking' is seldom used, but when used in competitive intelligence literature, the process of competitive intelligence follows that of intermediary information seeking, in that an information professional (competitive intelligence intermediary) is responsible for gathering and seeking information on behalf of decision-makers (Sufah & Subiyantoro, 2023). The study, however, acknowledges that the competitive intelligence intermediary's role extends beyond seeking and searching for information. They also analyse, interpret, and produce intelligence, which is then disseminated to decision-makers. Furthermore, it is well recognised that the competitive intelligence process involves information-related activities such as information searching, information storage, information manipulation, information use, and information communication, all of which fall under the information behaviour umbrella (Lundh, 2010; Wilson, 2016).

While there are similarities in information-related activities used in the two disciplines, competitive intelligence is rarely studied from an information behaviour perspective. Exceptions are Maungwa and Fourie (2018), who studied the failures of competitive intelligence from an information behaviour perspective, and Jin and Bouthillier (2014), who explored the information behaviour of competitive intelligence intermediaries. Both Maungwa and Fourie (2018) and Jin and Bouthillier (2014) concluded that information-related activities conducted by competitive intelligence intermediaries are closely related to those of information service intermediaries. Therefore, such information-related activities that occur in the competitive intelligence process can be studied from an information behaviour lens. To corroborate these claims, competitive intelligence scholars, including Du Toit (2015), Van den Berg et al. (2020), Ranjan and Foropon (2021), and Sufah and Subiyantoro (2023), point out that competitive intelligence depends on the ability to properly identify intelligence needs, gather information sources that can be used to address these needs, and establish the channels to secure the information and the methods of converting the information into intelligence. These aspects are highly relevant to the components of information behaviour research – information needs, information seeking and information use. Given the close relationship between these disciplines and the overlap in information-related activities, information behaviour research can provide an interesting framework to explain phenomena in competitive intelligence.

Considering the foregoing discussion on the similarities between activities in competitive intelligence and information behaviour, this section provides an explicit connection between these disciplines, with the intention of generating solid justification for using insights from information behaviour to study intermediation in competitive intelligence. A few models and processes are examined to rationalise the connection between competitive intelligence and information behaviour. While information behaviour research presents many models that hold potential and can contribute to this study, such as Leckie et al.'s (1996) model of information seeking professionals, Choo's (2001) process for environmental scanning, Byström and Järvelin's (1995) task complexity and information seeking user model, Dervin's (1998) sense-making framework, Ellis's (1989) information behavioural framework, and Wilson's (1981) model of information behaviour, they cannot all be used to explain the relationship between competitive intelligence and information behaviour. Therefore, considering the potential relevance to the study focus, Wilson's (1999) information behaviour model is appropriate to observe a relationship between the two disciplines, and to show how information-related activities overlap between both information behaviour and competitive intelligence, thus providing justification for studying competitive intelligence intermediary information seeking from a human information behaviour lens.

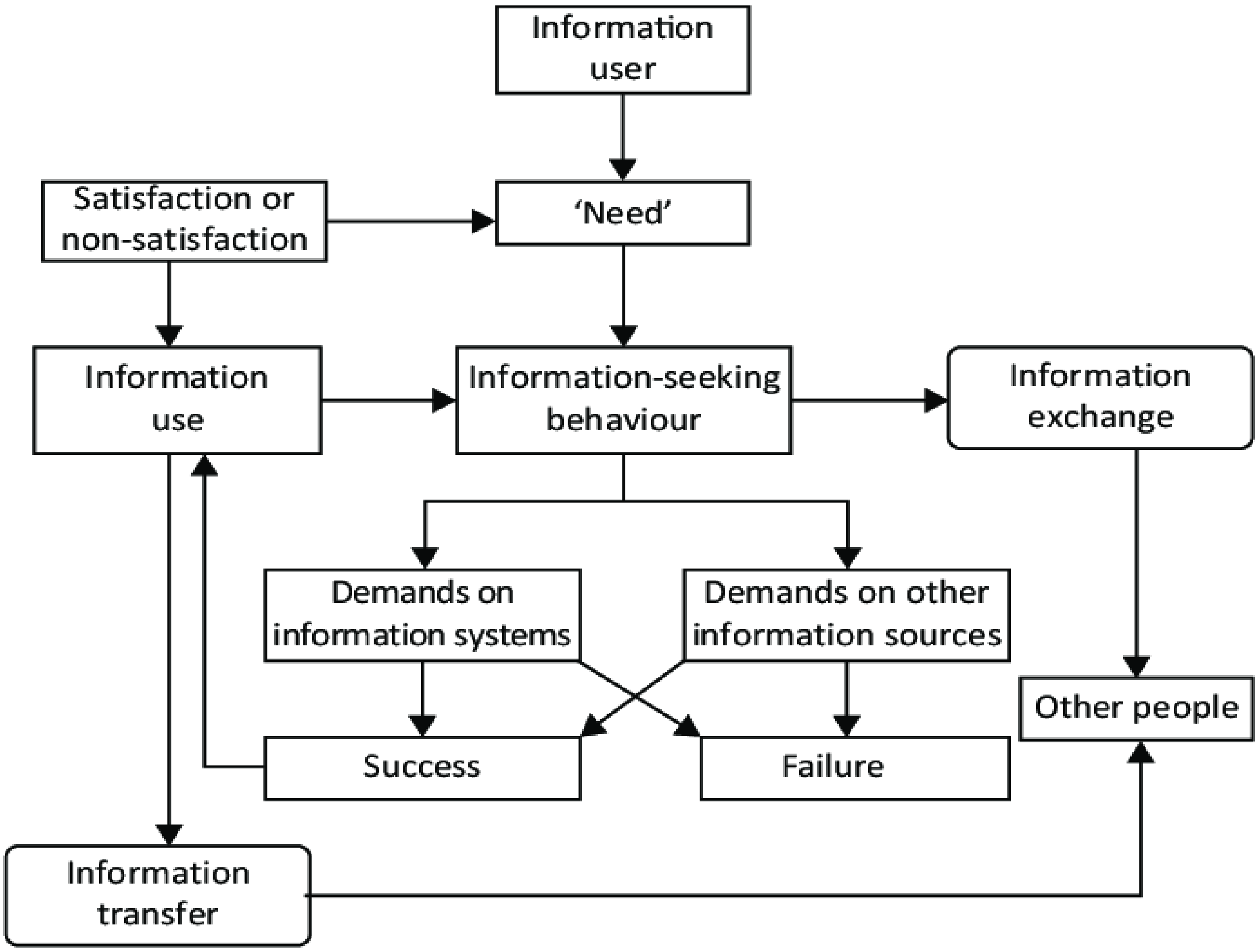


**Figure 2.2: Wilson's information seeking behaviour model (Wilson, 1981)**

The above model presents Wilson's (1981) information seeking behaviour model. Wilson (1999) states that information seeking arises due to a perceived need by the user. Wilson (1981) identified a number of variables that might affect a professional's information need. These consist of the person's characteristics and circumstances, such as their age, occupation, career stage, and geographic location (Leckie et al., 1996). The same argument can be drawn from competitive intelligence, whereby the competitive intelligence process is initiated to satisfy a key intelligence need or a need for information. According to Wilson (1999), once the information need has been determined, the individual can make demands upon formal and informal information systems or services. This is considered acts of information seeking or information gathering. From Figure 2.2, the same sentiment can be shared whereby the gathering of information sources follows the determination of key intelligence needs.

Wilson (1999) and Byström and Hansen (2005) state that, as a result of information seeking, information is gathered, retrieved, and put to a variety of uses. Furthermore, information can be transferred from one place to another by being shared or transmitted after it has been utilised. Similarly, from a competitive intelligence perspective, once the information has been collected and gathered, it is stored, processed, analysed, and disseminated to the relevant stakeholders (Wu et al., 2023). From Wilson's (1981) model, the outcome of the information seeking efforts is when the information need is satisfied. However, there is a possibility that the outcomes do not meet the information need and further information seeking has to be pursued. Similarly, from Section 2.2, the outcome of the competitive intelligence process is the production of actionable intelligence, which is aimed at satisfying a particular key intelligence need. According to Muller (2002) and Bose (2008), the initially derived intelligence further holds the potential for more information to be collected and can give rise to a new key intelligence need. Similar to the competitive intelligence cycle, although not explicitly stated in Wilson (1981), the information behaviour model follows a continuous process. This is evident when one looks at the studies by Hanlon and McLeod (2020), Jamali and Nabavi (2022) and Zhang et al. (2022) that were based on Wilson (1981). While the majority of the components of Wilson's (1981) information seeking behaviour model fit in the competitive intelligence process, some information activities overlap between the two processes, as shown in Figure 2.3.

| Wilson's (1981) information behaviour model | Competitive intelligence process |
|---|---|
| ***Information activities***<br>1. *Sourcing user information needs*<br>2. Making demands of information systems and other information sources<br>3. Information use<br>*4.* Information transfer | ***Information activities***<br>1. *Determination of key intelligence needs*<br>2. Gathering of information resources<br>3. Information processing and collation<br>4. Information analysis<br>5. Intelligence dissemination |
| ***Process outcome***<br>• *Satisfaction or non-satisfaction*<br>• *Development of new information need* | ***Process outcome***<br>• *Intelligence evaluation*<br>• *Development of new key intelligence need* |

**Figure 2.3 Similarities between the information activities of both the information behaviour model and the competitive intelligence cycle**

Through exploring Wilson's information behaviour model (1981), this discussion demonstrates that information-related activities in the field of information behaviour share similar characteristics with competitive intelligence. This provides justification for studying intermediary information seeking within competitive intelligence using information behaviour as a lens. This study recognises that intermediate information seeking involves a wide range of information-related activities, including articulating and expressing information needs, searching for information, seeking it out, filtering it, and conveying it to the user. However, the primary focus of this study is on the first stage of intermediary information seeking, which is articulating and expressing information needs, also known in competitive intelligence as the identification and expression of key intelligence needs. In order to understand the articulation of information needs and key intelligence needs, it crucial to first discuss the relationship between information needs and key intelligence needs in the following section.

## 2.4 THE CONCEPTUAL RELATIONSHIP BETWEEN KEY INTELLIGENCE NEED AND INFORMATION NEED

The term information need is related with information behaviour, whereas key intelligence need is a concept that is associated with competitive intelligence (Case, 2007; Cole, 2018; Strauss & Du Toit, 2010). From Chapter 1 (Section 1.7.2), key intelligence needs were described as business issues that are of critical importance to an organisation. According to Case (2007), an information need, on the other hand, arises when an individual senses a problematic situation or information gap in which their internal knowledge and beliefs, and model of the environment fail to suggest a path towards the satisfaction of their goals. Du Toit (2007) goes into great detail on identifying and explaining key intelligence needs. It appears from this research and the works of other authors, such as Maungwa and Fourie (2018, 2020), that key intelligence needs and information needs, which are prominent in information behaviour, are strongly connected. Du Toit (2007) has tied the two concepts together, claiming that the concept of key intelligence is the same as the information needs of a business. Additionally, it was observed that participants in a study by Maungwa (2017) that involved interviewing professionals in competitive intelligence referred to the concepts of information needs and key intelligence needs interchangeably, assuming that the concepts are the same and that the only distinction is the discipline from which they originated.

From the consulted literature, key intelligence needs have received little attention, as was acknowledged in the previous chapter. Although the bulk of competitive intelligence authors include key intelligence needs in their research, academic papers and books fail to go into detail or to provide concrete explanations of the concepts. On the other hand, information needs have been investigated extensively in a variety of contexts, such as health care, libraries and organisations. In studies on the information needs of cancer patients (Oh et al., 2016), users of a folk music library (Inskip et al., 2008), and SME managers (Jorosi, 2006), authors have concentrated more on deconstructing the idea of information needs. Cole (2018) has also discussed the negotiation of information needs, while Erdelez (1999) studied the origins of information needs and Wildemuth et al. (2014) researched the properties of information needs.

The term 'information need' is a vague term with a variety of interpretations (Naumer & Fisher, 2010). Authors rarely provide a conceptual analysis of the term 'information need'.

There are a few outliers, such as Taylor (1962), who provided the four levels of information needs, Case (2012), who established a continuum that distinguishes between subjective and objective approaches to information needs, Choo (2016), who divided information needs into situational and affective dimensions, and Sundin and Johannison (2005), who suggested an organised, individual, and communication-based method of expressing information needs. Table 2.2 provides a list of authors who have written on the conceptual analysis of information needs. The purpose of Table 2.2. is to draw attention to the areas of research that have been conducted on information needs compared to key intelligence needs.

**Table 2.2. Information needs focus research areas**

| **Information needs focal research** | **Author(s)** |
|---|---|
| Four levels of information needs (visceral, conscious, formalised, and compromised) | Taylor (1962; 1968); Pintrich and De Groot (1990); Savolainen (2012); Agarwal (2015); Ruthven (2014); Cole (2018) |
| Information needs origin (environmental scanning, serendipity) | Erdelez (1995, 1997, 2005); Lawley and Tompkins (2008); McCay-Peet and Toms (2010); Case (2012); Cole (2015) |
| Types of information needs (verificative, conscious, muddled) | Ingwersen and Järvelin (2005); Case and Given (2016); Savolainen (2017) |
| Factors affecting information needs (physiological, affective or cognitive) | Wilson (1981, 1999, 2000, 2006); Belkin (1980); Bruce (2005); Choo (2016) |
| Information needs continuum (objective, subjective) | Anderson (2006); Case (2012); Cole (2018) |
| Properties of information needs (complexity, difficulty, urgency) | Naumer and Fisher (2010); Wildemuth et al. (2014) |
| Approaches to information needs (situational, task performance, dialogue) | Julien and Michels (2004); Byström and Hansen (2005); Courtright (2007); Westbrook (2008) |
| Information needs perspectives (structure, individual, communication) | Taylor (1968); McKenzie (2004); Sundin and Johannison (2005); Lundh (2010) |
| Information needs elements (uncertainty, avoidance) | Case et al. (2005); Savolainen (2010); Sweeny et al. (2010); Loiselle (2019) |

| Information needs focal research | Author(s) |
|---|---|
| Articulating and sharing information needs (reference interviews, question negotiation) | McKenzie (2004); Sundin and Johannisson (2005); Nicholas and Herman (2010); Lundh (2010); Savolainen (2012) |

Given the discussion in this section, it is clear that key intelligence needs and information needs are both knowledge gaps that create information search efforts. However, while information needs are those that reflect a person's or individual's need for information, key intelligence needs are more organisational in nature and are fulfilled as a response to the organisation's goals, mission, and vision.

The terms 'key intelligence needs' and 'information needs' will both be used in this study, with 'key intelligence' being related with competitive intelligence and 'information needs' being associated with the information behaviour lens from which this study is derived. The practical use of both concepts is presented in Chapter 4. Given the relationship between key intelligence needs and information needs, the following sub-section presents literature on the origins and triggers of key intelligence needs, information needs, their articulation, and how they are translated into key intelligence topics for information and data collection.

### 2.4.1 From key intelligence needs and information needs to key intelligence topics

According to Herring (1999), management is responsible for defining and articulating their key intelligence needs based on decisions they need to make. These key intelligence needs provide the necessary direction to the competitive intelligence efforts, ensuring that the operation focuses on collecting and analysing only key data relevant to the key intelligence needs.

While the competitive intelligence literature lacks precise methods and techniques to define and solicit key intelligence needs, to date, a number of competitive intelligence authors, including Cavallo et al. (2021) and Hanif et al. (2022) cite Herring's (1999) framework of defining key intelligence needs, titled "The key intelligence topic process (KITs)". The KIT process, as defined by Herring (1999), is a systematised or formal 'management-needs identification process' that facilitates the two-way communication required to define and identify a company's key intelligence needs. It also fosters a cooperative environment between intelligence users and competitive intelligence intermediaries. In addition to Herring's (1999) framework, Garca-Madurga and Esteban-Navarro's (2020) framework was also found in the literature search. The two frameworks differ in semantics and naming convention, but both explain the origin and articulation of key intelligence needs. As a result, this study examines both frameworks. Figure 2.4 shows a graphic representation of the key intelligence topics process. Since Herring (1999) does not provide any graphic illustration of the process, the works of authors who have cited Herring (1999), such as Calof (2017), Tyson (1998) and Murphy (2016), were used as a guideline.

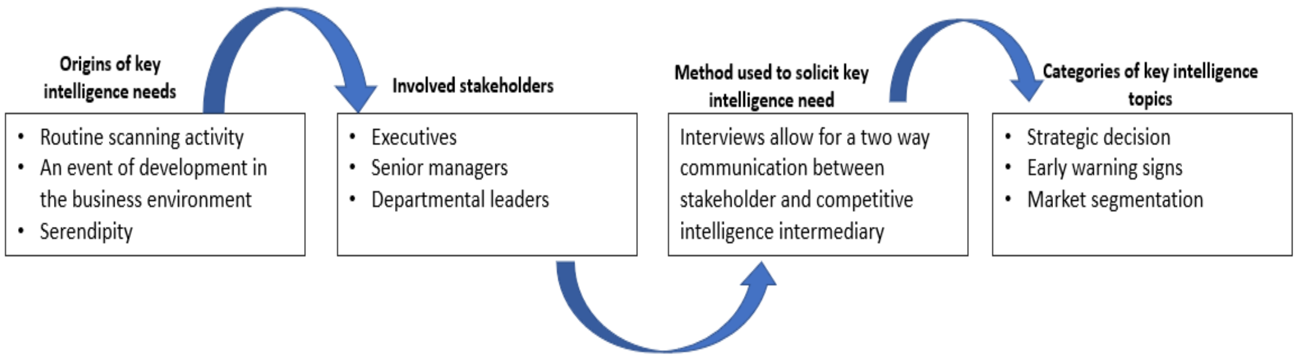


**Figure 2.4: The key intelligence topics process (Herring, 1999)**

From Figure 2.4. It is evident that there are two origins of key intelligence needs:

1. An event or development in the competitive environment, which could give rise to a key intelligence need, for example, an unexpected takeover involving two competitors that changes the competitive environment.

2. The routine scanning activity of an organisation, which may reveal information that has the potential to have a positive or negative impact on its strategy, for instance, a rival creating a new product or offering a new service that would be able to capture more market share and drive other businesses out of business.

Choo (2001, p.5) used the phrase "the routine environmental scanning activity" to describe the process of gathering and applying data about relationships, trends, and events in an organisation's external environment. This information would help management plan the organisation's future course of action. According to Sutton (1988), environmental scanning operations are carried out to enhance both short- and long-term planning, acquire a competitive edge, discover opportunities, and prevent surprises.

Apart from the twofold key intelligence needs origin identified by Muller (2002), Du Toit (2007) and Strauss and Du Toit (2010) have also suggested the accidental discovery of information as a source of key intelligence needs. From the perspective of information behaviour literature, this is often referred to as serendipity. Agarwal (2015) asserts that serendipity is primarily about information that is discovered or encountered by chance rather than on purpose. The larger driving force behind soliciting key intelligence needs should be a dialogue between the competitive intelligence intermediary and the stakeholders, such as senior managers, decision-making, and senior executives. Similarly, the studies by Taylor (1968), Sundin and Johannison (2005) and Allen (2011) conclude that the best way to define information needs is through a dialogical approach. These authors are in line with Herring (1999), who argues that formal interviews are the most successful way to carry out this discourse, although other approaches can still be used (e.g. email, informal conversation).

After all the key intelligence needs have been considered, agreed upon, documented, and articulated, they should be further reduced to a set of simple and logical questions called key intelligence topics or questions, which are used to assign tasks to others in order to gather the necessary information. Key intelligence topics are discrete questions that address the key intelligence needs and define the research and analysis activities. Herring (1999) uses the following three functional categories; strategic decisions and actions; early-warning topics; and descriptions of key marketplace players. These categories are not mutually exclusive because a KIT that is strategy-focused may also need a competitor profile and early-warning information to notify the user of changes in rival activity, which would indicate that the new competitive strategy needs to be modified. However, Calof (2017) provides different naming convention to the three categories, although the premise is the same as that identified by Herring (1999):

1. Strategic key intelligence needs, for example monitor market growth.
2. Early-warning key intelligence needs, (monitoring the technology environment and predicting what the major change in technology will be.
3. Profile key intelligence needs, developing a profile on customers or competitors to predict their moves.

Once the key intelligence topics have been assigned to their respective groups, information based on the key intelligence topics can be collected.

García-Madurga and Esteban-Navarro (2020) refer to their framework as the ‘competitive intelligence initiation process’, which is depicted in Figure 2.4. Similar to Herring (1999), the competitive intelligence initiation processes are aimed at identifying and defining the key intelligence needs. There are, however, differences in the naming convention and how these processes are conducted.

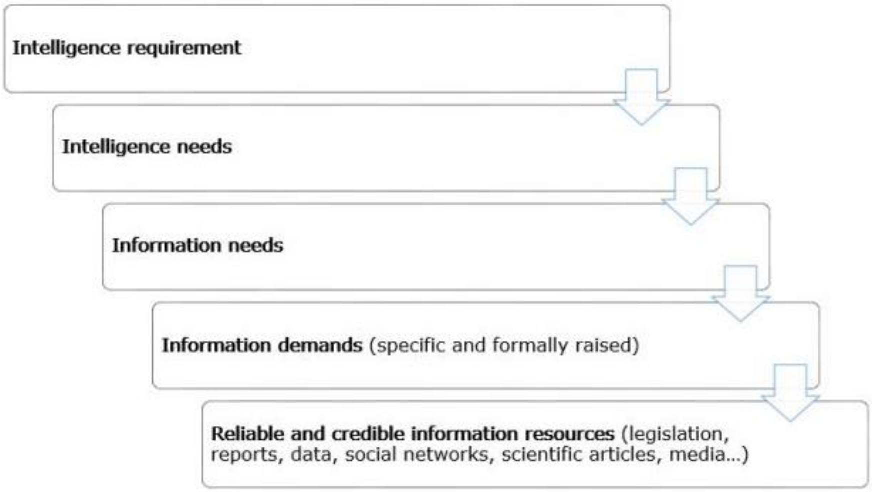


**Figure 2.5: The competitive intelligence initiation process (García-Madurga & Esteban-Navarro, 2020)**

Figure 2.5 illustrates how Garca-Madurga and Esteban-Navarro (2020) begin by identifying and articulating intelligence requirements rather key intelligence needs, as proposed by Herring (1999). According to Garca-Madurga and Esteban-Navarro (2020), the competitive intelligence process is triggered when decision-makers approach a problem with an intelligence requirement. Garca-Madurga and Esteban-Navarro (2020) make similar claims to Sutton (1988), Herring (1999) and Muller (2002) regarding the origin of intelligence requirements, stating that they can originate from different applications of products, processes, materials, and technologies, depending on the organisation.  Moreover, social, legal, normative, project development, or competitive activities may result in the need for intelligence. According to Garca-Madurga and Esteban-Navarro (2020), converting intelligence requirements into intelligence needs is the primary step in the competitive intelligence process.

When converting intelligence requirements into intelligence needs, it is important to take into account the intended audience for the intelligence, as well as its anticipated usage (García-Madurga & Esteban-Navarro, 2020). Once the intelligence needs have been outlined, they are further transformed into information needs. Every information need will result in distinct, more focused requests for information that will be made and explicitly articulated (García-Madurga & Esteban-Navarro, 2020). Furthermore, the information needs are expressed in a suitable way to gather information (García-Madurga & Esteban-Navarro, 2020). Thus, it can be inferred that García-Madurga & Esteban-Navarro (2020) discuss breaking down intelligence needs into information needs, whereby information demands, collection, and gathering can be made, whereas Herring (1999) refers to the breaking down of key intelligence needs into key intelligence topics.

García-Madurga and Esteban-Navarro (2020) and Herring (1999) provide frameworks for identifying key intelligence. These frameworks further explain how these needs are broken into manageable questions that enable information collection and gathering. However, from observation, it is clear that the processes differ both in steps that are followed and their naming convention. García-Madurga and Esteban-Navarro (2020), unlike Herring (1999), do not mention the grouping of key intelligence topics into the three categories (strategic key intelligence needs, early-warning key intelligence needs, and profiling key intelligence needs). On the other hand, Herring (1999) does not mention intelligence requirements and information demands although, from analysing the process, this study deduces that both frameworks follow the same notion of articulating decision-makers' intelligence needs.

The discussion provided above presents two different frameworks that explain the identification and articulation of key intelligence needs and their translation into key intelligence topics or information demands. Despite these differences, it is evident that there is a close relationship between key intelligence needs and information needs as already established in Section 2.3. Furthermore, key intelligence needs are triggered by, and originate from several sources and factors, such as environmental scanning. Key intelligence needs are identified and defined through an interactive dialogue between the competitive intelligence intermediary and decision-makers. Key intelligence needs are then translated to key intelligence topics by identifying specific areas where intelligence is needed to support decision-making. This can be done by conducting a thorough analysis of the organisation's goals, objectives, and strategies, as well as the external environment in which it operates. Once these needs have been identified, they can be translated into key intelligence topics or information demands that will provide the necessary information to support decision-making. These topics can include market trends, competitor analysis, customer behaviour, and emerging technologies, among others. By aligning key intelligence needs with key intelligence topics, organisations can ensure that they are gathering the information they need to make informed decisions and stay ahead of the competition.

The following section will address reports and research that have discussed the challenges of identifying, recognising, articulating, and solicitating information and key intelligence needs. The literature analysis reveals that there are remnants of competitive intelligence publications that have mentioned the solicitation of key intelligence needs, but no depth or information is supplied; as a result, these publications do not provide enough content to adequately address the research question and sub-questions. Because of this, and as also mentioned and explained in Section 2.3, the information behaviour literature on intermediary information seeking will also be considered and used to inform competitive intelligence.

## 2.5 CHALLENGES IN CONVERTING KEY INTELLIGENCE NEEDS AND INFORMATION NEEDS INTO KEY INTELLIGENCE TOPICS

The main goal of this study is to identify the critical factors that competitive intelligence intermediaries should take into account when soliciting key intelligence needs. It was deemed necessary to first have an understanding of the elements influencing the difficulties in soliciting key intelligence needs, and potential solutions for reducing such risks. Due to the lack of competitive intelligence knowledge on this topic, the literature presented below will stem from competitive intelligence and information behaviour, where much has been published on intermediaries and the challenges of soliciting information needs. The assumption is that literature from information behaviour can be used to inform a similar process of soliciting information needs as such observed in competitive intelligence.

The first part of the literature (Section 2.5.1 to 2.5.3) presents studies on factors that contribute to the challenges of understanding and sharing information needs, the complexities surrounding referencing interviews, and communication-related issues that may impede the success of the reference interviews. The second part of the literature (Section 2.4.5 to 2.5.9) focuses on other information-related activities that cause intermediary information-seeking challenges. Table 2.3. presents the challenges of intermediary information-seeking, focusing on the factors that impact the recognition, expression, and articulation of key intelligence needs.

**Table 2.3 Challenges of solicitating information and key intelligence needs and converting those needs to key intelligence topics**

| Factors | Authors from an information behaviour lens | Authors from a competitive intelligence lens |
|---|---|---|
| Complexities of understanding information needs and key intelligence needs | Taylor (1998); Wilson (2002); Nicholas and Herman (2010); Case and Given (2016); Dorner et al. (2015); Huvila (2020); Savolainen (2024) | Muller (2002); Nasri (2011); Du Toit (2007); Madureira et al. (2021) |
| The dynamics of the reference interview | Taylor (1968); Lichstein (1990); Jennerich and Jennerich (1997); Sundin and Johannison (2005); Lundh (2010) | Strauss and Du Toit (2010); Salguero et al. (2019); Du Toit (2015); García-Madurga and Esteban-Navarro (2020) |
| Communication proficiencies | Baird (1978); O'Leary and Cooper (1981); Taylor (1998); McKenzie (2003); Prakasan (2013) | Strauss and Du Toit (2010); Rapp and Baker (2011) |

### 2.5.1 Complexities of understanding and sharing information needs and key intelligence needs

Information behaviour studies present a broad spectrum of authors that have acknowledged the complexities of information needs. These include Wilson (1981, 1999, 2000), Naumer and Fisher (2010) and Ingwersen and Järvelin (2005). Taylor (1968) was one of the first to mention that information needs can be personal, psychological, and at times inexpressible and vague. Both Taylor (1968) and Harter (1986) have reported on the challenges to identify, determine, articulate, and negotiate information needs. Authors writing from a competitive intelligence standpoint include Muller (2002), Nasri (2011) and Du Toit (2015), who have also noted complexities and challenges of articulating key intelligence needs. The work of Choo (2001, 2016, 2017), writing from an information behaviour perspective with expertise in knowledge management, sheds light on how organisations seek and use information to construct meaning, and the complexities and challenges involved, which can be used to inform the intermediary information seeking challenges experienced within competitive intelligence.

Information behaviour research and theoretical literature generally recognise the complexity of information needs (Ingwersen & Järvelin, 2005; Case & Given, 2016). The challenges of recognising and identifying information needs have been examined through an information behaviour lens in the works of Taylor (1968, 1998), Belkin (1994), Dervin (1998), Shenton (2007), Cole (2011, 2018), Coonin and Levine (2013) and Savolainen (2017). The four stages of information needs, reference interview methodologies, misunderstanding of information needs, and users' incapacity to articulate their information needs were among the topics these authors concentrated on. According to Ford (2015), misguided information needs are those for information that a person misinterprets, regardless of whether the information professional is aware of them.

The literature on competitive intelligence does not specifically address the difficulties linked to identifying key intelligence needs. Nonetheless, research by Tsitoura and Stephens (2012) and Strauss and Du Toit (2010) indicates that the identification of key intelligence needs is impacted by a number of individual characteristics, such as knowledge gaps, skill gaps, and inadequacies. Wilson (2000) mentions that information needs are at times unrecognised or remain dormant. This refers to that fact that people may, at times, not be able to fully express or are unaware of their information need. Similar to this, Du Toit (2007) notes that one of the main issues with identifying and soliciting key intelligence needs is that senior managers have difficulties expressing their key intelligence needs. Du Toit (2007) goes on to say that even with the finest techniques, senior managers may have subconscious key intelligence needs that are difficult to express and transmit. In a study on the challenges of competitive intelligence in South Africa by Nenzhelele (2015), it was found that the identification of key intelligence needs is a significant issue that hinders the efficient and timely collection of data as mentioned by 39.5% of interviewed competitive intelligence intermediaries.

Maungwa and Fourie (2018) also discovered that the fluctuation of key intelligence, which is created by unstable business environments, can have an impact on the way key intelligence needs are collected. To ensure that there is no misalignment, the regular confirmation of key intelligence needs should be maintained at the start of the process, as well as during data collection.

Understanding information needs and key intelligence needs can be complex, but it is an important part of any decision-making process. It involves identifying the specific information that is required to make informed decisions, and then gathering and analysing that information in a way that is relevant and useful. To address these complexities, it is important to have a clear understanding of the goals and objectives of the decision-making process, as well as the stakeholders involved. This can help to identify specific information that is needed, and to prioritise that information based on its relevance and importance.

Given the complexity of information and key intelligence needs. Competitive intelligence intermediaries should be skilled in conducting in-depth, probing interviews to ascertain the precise needs of management and increase the likelihood that the request will be appropriately interpreted. Key intelligence needs are negotiated through dialogue, which may be understood as the spoken conversational exchange between two or more individuals. Du Toit (2014) contends that competent interviewing techniques are essential for competitive intelligence intermediaries to effectively elicit managers' needs. The studies that follow make claims about the intermediaries' poor interviewing abilities.

### 2.5.2 The dynamics of the reference interview

According to Jennerich and Jennerich (1997), the reference interview is an interaction between an intermediary and a patron, where the intermediary asks non-directional questions. This process is also applicable to competitive intelligence. It is observed when the competitive intelligence intermediaries interact with senior management or decision-makers to help articulate and solicit their key intelligence needs (Du Toit, 2015; Park et al., 2017). According to Harter (1986), the reference interview forms part of an interdisciplinary subject, drawing its expertise from other disciplines, including management science, library science, decision theory, and psychology. It also presents discussions on the analysis of information needs, cognitive styles, interviewing procedures and models of information seeking. Taylor's (1968) seminal study on question negotiation and information seeking for information professionals provides a point of departure for conducting interviews to solicit information needs. Insight from Taylor’s (1968) study can inform competitive intelligence intermediaries on the solicitation of key intelligence from decision-makers by focusing on the four levels of information needs:

1. The visceral information need, which is the actual need.
2. The conscious need, where the user can formulate the information need.
3. The formalised information need, whereby the user can verbalise their information need.
4. The compromised information need, which is the question formulated for the information system.

The centrality of Taylor’s (1968) levels of information needs is also emphasised by McKenzie (2004), who applied positioning theory in the analysis of the negotiation of information needs in a clinical midwifery setting. Authors, including Ingwersen and Järvelin (2005), Nicholas and Herman (2010) and Saunders (2016), have noted complexities and challenges experienced during reference interviews that impact on the quality of an interview. The challenges of interview practices are also acknowledged in competitive intelligence (Bergeron & Hiller, 2002; Du Toit, 2015; Weiss, 2002), but these are not addressed in detail. Determining the full procedure and skills for conducting interviews to solicit key intelligence needs and information needs is challenging. Katz (1978) contended that complex techniques for questioning patrons are challenging to explain and teach; for example, “how does one try to find out what another person wants to know, when the latter cannot describe his need precisely” (Katz, 1978, p. 90).

While reference interviews and interviewing techniques have been taught to information professionals, Jennerich and Jennerich (1997) contend that the library community’s reference skills have not yet been fully integrated into the process of obtaining intermediate information, which also entails question negotiation, search strategy knowledge, and search heuristics (Bates, 1989; Harter, 1986). Although interview techniques are mentioned in the literature on information behaviour and competitive intelligence (Salguero et al., 2019; Strauss & Du Toit, 2010), they do not completely address the difficulties associated with intermediary information seeking and competitive intelligence.

Numerous authors from a variety of disciplines have noted the lack of a generally accepted systematised methodology to guarantee that information professionals and intermediaries are conducting reference interviews effectively (e.g. Barton et al., 2000; Jahoda, 1981; Jennerich & Jennerich, 1997; Schoenfield & Schoenfield, 1977; Stieg & Steig, 1980; Wilkinson, 2001). Similar to any other professional technique, doing a successful reference interview calls for certain expertise and skills. It was not until 1954 that Maxfield (1954) examined the reference interview in greater detail in his paper and identified certain competencies and skills required for a reference interview to be successful. In particular, he noted that information professionals need to pay close attention to the patron and, if needed, amplify and clarify what they say. This is related to communication proficiency, as discussed in Section 2.5.3.

Adequate interviewing skills are an essential part of the reference interview. It is through efficient interviewing methods that the competitive intelligence intermediary can gain a better understanding of the user's key intelligence needs (Du Plessis & Gulwa, 2016; Herring, 1999). Additionally, adequate interviewing methods can help to ensure that questions being asked will elicit the most accurate and complete responses from your sources (Wu et al., 2023). This can be particularly important in competitive intelligence, where the quality of the information being gathered can significantly impact an organisation's success (Hassani & Mosconi, 2021). In conclusion, reference interviews, as discussed in information behaviour and competitive intelligence, are complex. Studies by Harter (1986), Taylor (1968) and Jennerich and Jennerich (1997) emphasise the importance of understanding these needs and suggest skills for effective interaction. The dialogical approach and neo-pragmatism provide valuable insight into the negotiation of information and key intelligence needs. Good communication skills are essential in the reference interview. They enable the intermediary to accurately understand and clarify information and key intelligence needs and to facilitate effective negotiations to overcome any challenges. The following section therefore discusses literature on communication proficiencies.

### 2.5.3 Communication proficiencies

The importance of communication skills and proficiencies during reference interviews is highlighted by Harter (1986), who notes that communication challenges that impact the success of the reference interview can occur at the technical, semantic, and syntactical levels of communication. In his book on internet research, Harter (1986) goes into further detail on the value of dialogue in reference interviews. He expanded on the ideas of Shannon and Weaver (1949) that identified three communication levels – technical, semantic, and syntactical – at which difficulties may arise and affect the effectiveness of intermediate information seeking. Brandt and Kracht (2011) make similar observations. They concentrate on pragmatic errors, such as unidentified misunderstandings on the parts of the information professional and the client. The information professional may fail to hear the client properly and may choose to accept the unintentional interpretation rather than seeking clarification. Furthermore, Dewdney and Michell (1996) described phonological errors, interpretation, and hearing and comprehension obstacles as communication impediments. Although not explicitly stated, communication errors and mistakes may also occur during the competitive intelligence process when the competitive intelligence intermediary is soliciting the intelligence needs of decision-makers. The errors pointed out by Shannon and Weaver (1949), Dewdney and Michell (1996) and Brandt and Kracht (2011) may also arise.

From the reviewed literature on the competitive intelligence database and key expert books, it was found that the majority of authors often refer to the communication of intelligence products to senior managers and decision-makers instead of the communication that occurs during the solicitation of key intelligence needs (Strauss and Du Toit, 2010; Hassani & Mosconi, 2021). However, Strauss and Du Toit (2010) aver that the individual in competitive intelligence requires communication capabilities to communicate and present findings of information from the external environment for it to be utilised strategically by decision-makers or executives. Although Du Toit (2007), Rapp and Baker (2011) and others have recognised that soliciting key intelligence needs requires successful communication, they do not offer insight or specificity into this component of communication.

In conclusion, effective communication is an important aspect of the reference interview, as highlighted by Harter (1986) and supported by researchers like Dervin (1998), McKenzie (2003) and Shenton (2007). Technical, semantic and syntactic challenges, along with pragmatic errors, significantly impact the effective solicitation of information and key intelligence needs. Brandt and Kracht (2011) further stress the importance of addressing pragmatic errors, such as misinterpretations, in the communication process. Apart from the complexities of information, reference interview dynamics and communication proficiencies, the literature brought to light other factors that should be taken into consideration to understand the solicitation of information and key intelligence needs. While some of the variables listed below may directly relate to soliciting information and key intelligence needs, other aspects might make it difficult for the intermediary to carry out their duties.

**Table 2.4. Other factors contributing to intermediary information seeking challenges**

| Challenges | Information behaviour authors | Competitive intelligence authors |
|---|---|---|
| Lack of prior domain knowledge | Chen and Dhar (1991), Fox and Duggan (2013), Lou and Park (2013) | McGonagle and Vella (2002), Blenkhorn and Fleisher (2005) |
| Inadequate information search skills | Belkin (1994), Elliot and Kling (1997) | Murphy (2006), Frion and Yzquierdo-Hombrecher (2009), Strauss and Du Toit (2010), García-Alsina and Ortoll-Espinet (2012) |
| Inadequate use of available information infrastructure and landscape | Katz (1978), Behrens (2000), Savolainen (2006), Johnston (2010), Choo (2016) | Girard and Moureau (1981), Jin and Bouthillier (2008), Frion and Yzquierdo-Hombrecher (2009), Strauss and Du Toit (2010), Case and Given (2016), Garcia-Alsina et al. (2013) |
| Habitual use of information sources and information source preference | Kuhlthau and Tama (2001), Savolainen (2006), Case and Given (2016), Choo (2016) | Carr (2003), Blenkhorn and Fleisher (2005) |
| Information overload and inability to deal with information richness | Miller (2000), Wilson (2000), Savolainen (2007) | Viviers et al. (2002), De Pelsmacker et al. (2005), Dishman and Calof (2008), Garcia-Alsina et al. (2013) |

### 2.5.4 Lack of prior domain knowledge leading to misunderstanding of information and key intelligence needs

Prior domain knowledge, or understanding of a search topic, helps the intermediary better comprehend the information need. Additionally, the effectiveness of the information search is enhanced by thoroughly understanding the information need and its originating discipline (Fox & Duggan, 2013; Luo & Park, 2013; Wilkinson, 2001). Information professionals' difficulties in handling search complexity and their lack of domain-specific expertise and knowledge when searching on behalf of patrons have been discussed by Harter and Hert (1998), Vakkari (1999) and Ingwersen and Järvelin (2005). Chen and Dhar (1991) discovered that insufficient knowledge in a particular field can cause issues with how search themes and specificity are expressed, as well as with the use of unsuitable search phrases and the incorrect interpretation of the subject headers that are frequently present in databases.

Abrahamson et al. (2008) discovered that it was challenging for information service intermediaries to find health information using information systems when they lacked health literacy. Because they were unsure of their search terms, they found it difficult to assess the reliability and quality of the material they found. According to Tu's (2007) research on virtual health reference services, certain information service intermediaries have insufficient understanding about consumer health since they are generalists and are not educated in health information searching, which compromises the quality of the information they retrieve.

Patrons have occasionally been known to seek information that is not found in conventional literature sources, such trade secrets, information about upcoming events, and confidential government material, also known as 'grey literature' (Katz, 1978; Schöpfel & Farace, 2009). Grey literature for competitive intelligence could include investments made by other businesses, laws from the federal and state levels, and upcoming technological developments (Blenkhorn & Fleisher, 2005; McGonagle & Vella, 2002). Competitive intelligence intermediaries might not only lack knowledge of the topic(s) covered by the key intelligence needs, but might also experience challenges in finding grey literature.

The literature on information behaviour underscores the importance of intermediaries having prior domain knowledge to effectively understand information needs. Studies by Wilkinson (2001), Tatatabai and Shore (2005) and Fox and Duggan (2013), along with others, show that having prior knowledge enhances search performance, efficiency and effectiveness. However, Harter and Hert (1998), Vakkari (1999) and Ingwersen and Järvelin (2005) have identified challenges faced by information professionals due to a lack of domain-specific knowledge, leading to issues in search complexity, term usage, and subject interpretation. The competitive intelligence literature highlights that, due to a lack of domain knowledge, professionals may not only struggle to understand key intelligence needs, but may also find it difficult to locate grey literature. This leads us to the next section on inadequate information searching skills.

### 2.5.5 Inadequate information searching skills

Harter (1986) asserts that heuristics and search techniques are combined into search abilities. According to Harter (1986) and Ingwersen and Järvelin (2005), search strategies are plans or approaches for search problems. Harter (1986) suggests a range of search tactics, including building blocks, consecutive search strategies, and citation pearl expanding search procedures.

Girard and Moureau's (1981) study on information service intermediaries looking for chemistry literature had some conclusive findings, showing that intermediaries were unable to conduct efficient database searches because they lacked knowledge of the database they were looking for, its scope, the indexing philosophy, and the full vocabulary connected with the database's language. Information search behaviours of competitive intelligence intermediaries are influenced by inhibitory variables, as investigated by Garcia-Alsina et al. (2013). They found common barriers to competitive intelligence, such as poor information awareness, poor information diversity, poor information analysis techniques, poor information gathering techniques, irregular information seeking frequency, and poor information practices.

Competitive intelligence intermediaries need to be able to identify the most relevant and reliable sources of information, and to use various search strategies and tools to find the information they need. They also need to be able to critically evaluate the information they find to ensure that it is accurate, up to date, and relevant to the needs of their clients. The following section explores literature on the habitual use of information sources and consideration of information pathways and horizons.

### 2.5.6 Inadequate use of available information infrastructures and changing information landscapes

Information service intermediaries' roles and responsibilities have undergone a radical change as a result of new information technology tools and developing information infrastructure (Luo et al., 2020; Tait & Pierson, 2022). According to the research, information service intermediaries occasionally fail to use all available information sources while seeking information (Fabunmi et al., 2023).

The majority of information behaviour research on the insufficient use of information infrastructure focuses on digital information resources. The research generally agrees that the adoption and use of computer-based systems are highly impacted by the attitudes and views of information service intermediaries. The quality of electronic resource supply and infrastructure in Nigerian academic libraries was assessed by Asogwa et al. (2015), who found that the facilities were underutilised. These results are consistent with research conducted by Park et al. (2009) and Baro et al. (2014), who found that low levels of computer literacy and information technology skills, a lack of subject area expertise, a lack of trained technical experts (which makes it difficult to manage technical issues), a lack of formal policies supporting the implementation of digital information services in Nigerian university libraries, and a lack of experienced and skilled staff were all barriers to the successful implementation of these services.

Jin and Ju (2014) investigated the usage of the corporate information agency by competitive intelligence intermediaries to increase the effectiveness of the competitive intelligence process. The study's findings point to a number of obstacles that competitive intelligence intermediaries face when attempting to use the corporate information agency. These include their discontent with the agency's assistance, their belief that requesting assistance from the agency is inconvenient, their ignorance of the information that is available within the company, and their deficiency of information relevant to competitive intelligence. Furthermore, Jin and Bouthillier (2008) and Tsitoura and Stephens (2012) identified issues with the organisational information infrastructure that competitive intelligence intermediaries encounter, such as inaccurate data, information overload, incomplete data, biased information, and outdated information.

Competitive intelligence in China was examined by Tao and Prescott (2000). Their study's findings showed that, while competitive intelligence is well developed in China, the intermediates in the field had minimal expertise utilising a variety of information sources. The study also demonstrated that Chinese competitive intelligence intermediaries lack adequate access to public information.

While the use of information and communication technology (ICT) is evolving at an exponential rate, there are limited current or recent publications regarding the intermediary process and the changing information infrastructure. Hence, this study also consulted some older publications. In summary, literature shows that competitive intelligence intermediaries primarily rely on internal information and only occasionally use external information sources. They do not exhaust all options for information collection. Accessibility is a major factor in competitive intelligence intermediaries' preference for internal information sources. The information behaviour literature demonstrated the value of understanding a wide range of information services and landscapes. The following section explores the habitual use of information sources by intermediaries. This includes information pathways and horizons.

### 2.5.7 Habitual use of information sources and source preference, consideration of information pathways and horizons

The selection of information resources is one of most essential steps during the intermediary process. In information behaviour, and particularly with regard to training in reference work, it has been frequently highlighted how important it is to understand the factors that contribute to information source preference and usage (Behrens, 2000; Katz, 1978). Similarly, the competitive intelligence literature presents a substantial body of literature on data collection and information source selection (Garcia-Alsina et al., 2013; Viviers et al., 2002). Users' preferences for information sources have changed as a result of advancements in computer and telecommunications technology, the proliferation of information, and the accessibility of a wide range of contemporary information technologies for the effective use of information resources. One recurring observation in the literature is that, in the majority of situations, users will base their selection among the alternatives at their disposal on the single criterion of least average rate of probable work (Allen et al. 2019; O'Leary & Cooper, 1981).

To emphasise the range and diversity of information resources that need to be looked into to satisfy information needs, the concept of information horizons was presented from an information science viewpoint (Choo, 2016; Johnston, 2010; Savolainen, 2006). An information horizon can include a range of information resources, including co-workers, papers, libraries, and websites, according to Sonnenwald (1999). Additionally, Savolainen and Kari (2006) suggested that the creation of information source horizons takes place in a larger framework that may be referred to as a perceived information environment.

Studies on inadequate knowledge of information infrastructures, and the incapacity to investigate avenues of available information are presented in the literature on information behaviour and competitive intelligence (Savolainen, 2006). According to a trend noted by

Daland (2016), there is a growing need for information workers and intermediaries to have more understanding of specialised databases and transdisciplinary sources.

A finding of the Baltimore Study (Warner et al., 1973), which is in line with this argument, was the wide range of information sources that are utilised for information seeking in daily life. For instance, it seems that the most approachable sources were seen to be interpersonal ones, such friends and co-workers. These results are in line with research conducted by Viviers et al. (2005) on competitive intelligence methods in South Africa, which found that co-workers were the primary source of information for competitive intelligence and that very little information was obtained from outside sources. Similarly, Pirttilä (1998) discovered that collegial relationships turned out to be the most beneficial sources of information. Furthermore, the survey of Sewlal (2004) found that 69% of South Africans who engage in competitive intelligence methods depend on data they get from individuals within the company.

It is also clear that preferences for sources vary depending on the particular requirements of the issue at hand. For instance, Chen and Hernon (1982) researched the information source preference criteria in a comprehensive telephone survey and discovered that information seekers typically favor sources by drawing on criteria like the accuracy and understandability of information. Overall, Chen and Hernon's (1982) research shows that people typically choose dependable, well-known sources when seeking knowledge in everyday situations. Ease and speed of use, and information value were found to be the two main factors for selecting sources in another research by Julien and Michels (2004). Similarly, Zangoueinexhad and Moshabaki (2009) found that information infrastructure should have certain information qualities, such as accuracy, completeness, currency, importance, reliability, content, timeliness, understandability, and usefulness. Their study focused on the influence and role of structural capital on competitive intelligence.

From Nasri's (2011) study on competitive intelligence methods in Tunisian organisations, information is gathered from a variety of sources, utilising a range of methodologies. The study also found that there is a huge preference of internal sources for convenience of access, the low cost of using internal sources, and the capacity to create more raw materials. Fisher et al. (2004) drew similar conclusions in a study on information grounds, where participants were asked to explain the reasons for the sources that they normally use and select, and to further explain their information seeking habits. They identified source preference criteria such as ‘‘gives reliable information/trustworthy’’, ‘‘quick to contact/access/convenient’’, ‘‘inexpensive’’, ‘‘easy to use or communicate with’’, and ‘‘knows me and understands my needs’’.

According to the aforementioned studies, information sources that are simpler to use are seen as more accessible and will be utilised more regularly than those that are more difficult to use. This observation explains why information professionals and intermediaries gravitate towards readily available, user-friendly sources like unofficial communications and personal collections. Besides ease of use, time constraints appear to be an influential parameter in the accessibility of the source. Exposure to various information sources, infrastructure and landscapes, if not approached effectively, can lead to information overload, which is a common problem in business, especially in today’s digital age where there is access to overwhelming amounts of data. It can be challenging to sift through all the information and determine what is relevant and important. The next section will address the issue of information overload as one of the intermediary information seeking challenges.

### 2.5.8 Information overload and the inability to deal with information richness

The primary function of competitive intelligence intermediaries has been to gather and filter large volumes of data to provide the timely, and essential pieces of information needed to make high-quality choices for the whole organisation (Oraee, 2023). Paradoxically, increasing competitive intelligence information collection and gathering can reduce and impact the ability to curate and analyse information effectively (Edmunds & Morris, 2000; Oraee, 2023). Although the internet represents significant competitive intelligence opportunities, it has also brought about many technical, cognitive, and organisational challenges (Ranjan & Foropon, 2021). Because the amount of information available on the internet is overwhelming, competitive intelligence intermediaries are constantly facing the problem of information overload (Nordstrom & Pinkerton, 1999; Tu & Hsiang, 2000). Bawden and Robinson (2009, p. 182) defined information overload as “a state of affairs where an individual’s efficiency in using information is hampered by the amount of relevant, and potentially useful, information available to them”.

According to Eppler and Mengis (2004), information overload is a widespread issue that affects both individuals and organisations. It can result in unwanted negative consequences as infoglut, analytical paralysis, information fatigue syndrome, and pollution. As the quantity of available and captured information increases, it becomes more crucial than ever to effectively filter or curate the competitive information that has been gathered.

De Pelsmacker et al. (2005) concluded an investigation on competitive intelligence intermediaries in Belgium and South Africa. Determining the methods for gathering data and the amount of time spent on analysis were two aspects of the research. The study's findings indicated that, in comparison to Belgian intermediaries, who typically obtained easily accessible information from contractors and spent more time interpreting the information, South African competitive intelligence intermediaries spent 31% more time gathering information, but less time analysing and evaluating it. This supports research by Viviers et al. (2002) and Dishman and Calof (2008) that found competitive intelligence intermediaries spend more time gathering data than analysing it. Additionally, Jaworski et al. (2002) and Garcia-Alsina et al. (2013) found that information richness, defined as the amount of data that is available in a competitive environment, delays the speed at which information is found and increases the likelihood of information overload, which compels analysts to concentrate only on a subset of the data rather than the entirety of it.

Westney and Ghoshal (1994) studied the examination of competition information in three sizable organisations. One of the most significant conclusions was that competitive intelligence intermediaries spend an excessive amount of time managing their data, such as retrieval, storage, categorisation, and acquisition, while very little time is spent actually analysing the data.

Information overload is extensively discussed in the literature on information behaviour. Nevertheless, the information overload that information workers face is the subject of very few of these studies. Among the research done on information service intermediaries are the studies by Woolfson (2012), who looked at how information overload affected those professionals who had to keep up with and learn about new developments in their industry on a constant basis. All but one of the 12 information service mediators that Woolfson (2012) spoke to said that they were overwhelmed with information. The most frequent cause of information overload and the anxiety that followed explained the necessity to manage massive amounts of information.

Additionally, Gigerenzer and Brighton (2009) investigated information overload in the University Library of Cambridge, in the United Kingdom. Employees across a range of professional levels expressed feeling overwhelmed and finding it hard to keep up with the flood of information. The advent of the internet and mobile technology has made communication overload worse, which, in turn, has made information overload worse. The impact this has on academic reference librarians was investigated by Burns and Bossaller (2012). They described overload as the state in which librarians' work is consistently hampered by communications via email or a mobile device. They contended that disruptions resulting from overabundance of communication were a cause of aggravation, impeding productivity and reducing support for users.

Countermeasures, or ways to lessen the detrimental consequences of information overload, are being investigated in relation to information overload. Numerous coping mechanisms have been recognised. Miller (2001) introduced the ideas of filtering (leaving some types of information unprocessed) and queuing (postponing information processing to less busy periods) as coping strategies. Based on perceived priority, Sperber and Wilson (1995) further subdivided the queuing technique into a four-level information processing strategy:

1. To be taken care of right away.
2. To be investigated further if time permits.
3. To be recorded and stored for potential future use.
4. To be thrown away or disregarded.

Several other coping mechanisms, including information avoidance, information withdrawal, filtering, and satisficing, were compiled by Bawden and Robinson (2009). The incapacity of intermediaries to assess information is closely linked to information overload and may result from their incapacity to digest information outside of their area of expertise.

### 2.5.9 Inability to evaluate information

According to a study conducted by Wathen and Roma (2005), information service mediators who were looking for health information on behalf of a family member had trouble making sense of the information and utilising the information they found to address the issue at hand. This is consistent with the research on sense making done by Klein (2015), who contends that discovering data that fits into a frame and then seeking a frame that fits that data are both necessary for making meaning of decisions. If this does not happen, data might be rejected.

According to Luo and Park's (2013) study, health information service intermediaries frequently encounter difficulties because a large portion of medical information is published at a professional level, making it challenging for them to assess whether the information is appropriate for the individuals for whom they are obtaining it. Intermediaries in competitive intelligence must possess the ability to comprehend, evaluate, and scrutinise the gathered data to provide top executives with significant perspectives.

The aforementioned research gave an overview of the many issues and difficulties related to intermediary information seeking. Each issue is substantial, has a body of literature unique to it, and can be researched separately. While the studies above provide a point of departure in understanding the soliciting of information and key intelligence needs, the factors needed to fully understand this phenomenon are still not fully understood. Therefore, apart from the literature and studies above, this study considered analysing different theories that have been applied in competitive intelligence publications with an effort to identify those theories that can be used to explain the solicitation of key intelligence needs.

The decision to explore theories was further motivated by Gelso (2006), who mentions that theories provide a structural framework for understanding phenomena within a specific field. It should further be noted that the theories presented, discussed and reviewed in Section 2.6, were guided by the work of Maungwa and Laughton (2023), who researched the use of theories in competitive intelligence, and Madureira et al. (2021), who researched competitive intelligence frameworks. The following section thus provides a discussion on the theories in competitive intelligence.

## 2.6 THEORIES IN COMPETITIVE INTELLIGENCE

Theories in competitive intelligence can offer academics and practitioners a common language, and shared vocabulary and understanding (Calof & Sewdass, 2020). Although theory usage in competitive intelligence is still in its infancy, it was noted that, since 2000, there has been a steady growth of competitive intelligence publications that have used applied theories in their studies. A few examples include those publications by Jin and Bouthillier (2008), who used activity theory to explain the information behaviour of the competitive intelligence analyst. Nitse and Parker (2003) used archive theory to explain competitive intelligence systems and how organisations can archive public documents in both printed and electronic format. In addition, Rapp et al. (2015) used social cognition theory to explain employee motivation and how managers' recognition, appraisal and acknowledgement can increase employee performance. In order to understand the extent of theory usage in competitive intelligence, a literature search was conducted on key expert databases. Table 2.5 shows theories that have been mentioned in the competitive intelligence literature.

**Table 2.5. Theories cited in competitive intelligence literature**

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| Activity theory | Management | 1 | Jin and Bouthillier (2008) | In the context of competitive intelligence, the information behaviour of the analyst is explained by activity theory. In addition to learning more about the analysts' primary daily duties and activities, this research also aims to identify the most time-consuming, challenging, significant, and frequent jobs, as well as the tools and resources that competitive intelligence intermediaries use in their analysis processes. |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| Archive theory | Library science | 1 | Nitse and Parker (2003) | Competitive intelligence systems' methods for gathering information were explained by the archive theory. The concept is that, with the aid of competitive intelligence systems, public records may be preserved in printed and digital media. |
| Bourdieu capital theory | Sociology | 2 | Naeini et al. (2019) | People exist in a number of sectors, made up of aspects that include economic, cultural, social, and symbolic capitals, according to Bourdieu's theory of capital. Therefore, someone who aligns with such characteristics can get an edge from the standpoint of competitive intelligence. |
| Competitive intelligence theory | Management | 1 | Kun (2014), Mogbolu (2022) | The theory states that competitive intelligence gives businesses a competitive edge by enhancing corporate performance. To gather data and guide operations toward a desired result, businesses need to obtain knowledge of how factors interact with one another. |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| Information theory | Mathematics | 1 | Fellman and Post (2008) | The information theory of competitive intelligence is used to explain the shortcomings of data analysis. Inaccurate data may be produced as a result of disinformation, which is defined as false or incomplete information used to mislead an organisation's competitive intelligence activities. |
| Interaction theory | Sociology | 1 | Prilop et al. (2013) | The practice of continually and collaboratively making sense of the competitive environment through active engagement with all relevant stakeholders is known as competitive intelligence. To accomplish competitive intelligence tasks in a cooperative, non-linear manner, interactive competitive intelligence systems were proposed using the interactive theory. |
| Innovation theory | Management | 1 | Calof and Sewdass (2020) | Competitive intelligence and the subjects connected to competitive intelligence were examined using the innovation theory to explore how they may be used to enhance organisational innovation. |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| Knowledge-based view | Management | 1 | Hanif et al., (2022) | In the competitive intelligence perspective of a product, data gathering is described as knowledge, which is why management gathers and reserves it for use in strategic management operations. Acquired knowledge has a major impact on an organisation’s ability to implement strategic management. |
| Managerial cognition theory | Management | 1 | Hanif et al. (2022) | The primary focus of management cognition theory is how managers make decisions by seeing and analysing the business environment. Among other things, management cognition affects strategic operations. Thus, the process by which managers watch and assess changes in their organisational contexts might be characterised as management cognition. A corporation’s strategic decisions and actions are greatly influenced by this process. This perspective has been bolstered by the management cognition hypothesis. |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| Open system theory | Biology | 3 | Mogbolu (2022), Moneme et al. (2017), Muritala et al. (2019) | Organisations interact with their external environment, as explained by open system theory, to create or improve goods and services that meet or even surpass the needs of customers. |
| Porters five-forces theory | Management | 2 | Ahmadinia and Karim (2016), Ezenwa et al. (2018) | Buying power, supplier power, threat of new entry, industry rivalry, and threat of substitution were the five factors used in Porter's five-forces theory to evaluate the level of industry competitiveness. An industry is considered unappealing if the combination of these five factors results in a decrease in total profit. This is in line with Porter's five-forces theory, which defines attractiveness as overall profitability. |
| Resource-based view theory | Management | 5 | Grant (1991), Hanif et al. (2022), Olszak (2014), Taib et al. (2008), Voola et al. (2004) | The resource-based theory illustrates the connection between competitive advantage and resources. The overall objective of competitive intelligence is to collect information for strategic management, |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| | | | | the results of which will have a big influence on companies' financial resources. Thus, in line with this idea, companies get a competitive advantage by gathering substantial assets and expertise. |
| Social cognition theory | Psychology | 1 | Rapp et al. (2015) | According to the social cognition theory, employee motivation and attempts to get competitive information would be further boosted if they believed that their work was sufficiently acknowledged and that their supervisor valued their contributions. |
| Strategic balance theory | Psychology | 1 | Sande and Ragui (2018) | According to the theory of strategic balance, companies that are neither extremely differentiating nor highly conforming outperform those that are moderately different. For this reason, companies looking for a competitive advantage should strive to be as unique as they can be without creating a negative impact on their ability to compete. Being too unique can also raise |

| Theory | Discipline | Number of competitive intelligence studies cited (count) | Authors who used theory in a competitive intelligence context | How author(s) applied the theory to competitive intelligence |
|---|---|---|---|---|
| | | | | issues of legitimacy, which can be detrimental. |
| Theory of performance | Management | 1 | Calof and Sewdass (2020) | The theory of performance offers a lot of benefit for organisations that use competitive intelligence, which improves organisational performance. Outstanding performance leads to worthy successes. A manager can be effectively investigated utilising the theory of performance if he boosts his degree of successes. As a manager's performance level grows, so does their capacity to more efficiently manage people and resources, and provide higher-quality products more quickly. As per the performance theory, companies that attain elevated levels of performance yield several benefits such as superior quality products and services, reduced expenses, and enhancements in competence, knowledge, skill, identity, and motivation. |

From the consulted literature, it was found that theory usage in competitive intelligence has not been extensively researched. It was further discovered that theories used in competitive intelligence literature are drawn from various disciplines, such as psychology and sociology, with most of the cited theories originating from business management. These findings, however, align with the nature of competitive intelligence, since the discipline uses concepts such as information needs identification, decision-making, communication, information analysis and data collection. It would then make sense to study these concepts directly from their originating disciplines.

Numerous conclusions can further be drawn by carefully examining the theories in Table 2.5. Several publications used different words to refer to the same theory. Ahmadinia and Karim (2016) and Ezenwa et al. (2018), for example, used Porter's five-forces theory and competitive force theory, respectively. They were standardised to a single naming convention. Second, the bulk of publications appeared between 2014 and 2022, which shows a rise in the number of authors that write about competitive intelligence and include theories in their works. Additionally, it appears that the majority of the referenced theories originate from the management field, which is understandable given that competitive intelligence is rooted in business and strategic management. Authors such as Nitse and Parker (2003) and Calof and Sewdass (2020) have mentioned various theories in their works. In this case, however, the authors did not base any theory on their primary investigation; rather, they presented a number of theories that are connected to the competitive intelligence phenomenon that they were researching. In addition, it was discovered that the three theories with the highest prevalence in the literature studied were the resource-based theory, the open system theory and Porter's five-forces theory. From analysing the description of each theory and how it is applied in the publication, it was noted that the majority of the theories presented in Table 2.4, have a close relationship with different competitive intelligence phases, and can be used to provide a theoretical understanding and explanation of the competitive intelligence phases. Multiple theories were also found to be closely related to various phases. For instance, the interactive theory can be used to explain the interactive conversations that take place during the planning and defining phase, reporting and disseminating phase, and feedback and assessment phase.

The information resource collection phase is closely related to the open system theory, the resource-based perspective, and the knowledge-based view (Mogbolu, 2022; Moneme et al., 2017). Furthermore, these theories assert that competitive intelligence interacts with the external environment through a range of channels, including suppliers, customers, and competitors, to obtain and employ unique assets and capabilities. The archive theory explains how data from financial reports, market research findings, customer surveys, product specifications and more are processed and kept, while taking into account the information processing and collation phase (Nitse & Parker, 2003).

The theories of communication and knowledge management are strongly tied to the reporting and dissemination phase. According to Prilop et al. (2003), the interaction theory offers a useful framework for understanding the function that communication plays in competitive intelligence, as well as the impact that socialisation and contact have on the creation of meaning and knowledge. Lastly, performance theory, Bourdieu's capital theory, and management theory may all be used to understand the feedback and evaluation phase. The aforementioned theories underscore the importance of performance evaluation in assessing the efficacy of individuals and organisations (Ali & Anwar, 2021; Calof & Swedass, 2020; Naeini et al., 2019).

In the competitive intelligence process, one of the activities that occurs within the articulation and defining phase is the articulation of key intelligence needs, which is characterised by extensive communication both within the competitive intelligence team and between the competitive intelligence intermediary and stakeholders. However, in addition to the interactive theory discussed by Prilop et al. (2013), there are no communication-related theories that could more effectively explain the interaction that takes place during the articulation of key intelligence needs, nor are there any theories that have been linked to this phase. Shannon and Weaver's (1949) communication theory was suggested by Maungwa and Fourie (2018, 2020) in their studies to explain the reference interaction that takes place between competitive intelligence intermediaries and stakeholders.

As a result, more research is still needed, particularly in the domain of communication theories, to fully understand the competitive intelligence discipline from a theoretical standpoint. This chapter has shown that the competitive intelligence literature does not provide much regarding the articulation of key intelligence needs, let alone their challenges. Furthermore, the published theories related to competitive intelligence do not provide enough detail. It is thus deemed appropriate for this study to follow a grounded theory approach, in which a theory and framework explaining the challenges of articulating key intelligence needs will be formed.

## 2.7 CHAPTER SUMMARY AND CONCLUSION

Information seeking through intermediaries frequently faces difficulties and errors. This literature review has demonstrated that difficulties can be broken down into numerous aspects of seeking intermediary information (e.g., identifying and understanding the complexity of information needs, conducting reference interviews, using search techniques and heuristics, being familiar with information infrastructures, assessing outcomes, and having domain knowledge of the information need). Each of these justify in-depth studies to understand their full complexity.

The literature review on information intermediary information seeking from competitive intelligence and information behaviour reports highlights problems like inadequate training in competitive intelligence, an incapacity to generate intelligence, the inadequate application of suitable methodologies, inadequate communication, a lack of rigorous procedures, and challenges in articulating clients' information needs.

It is evident from the literature explored in this chapter that intermediaries in competitive intelligence can gain from exposure to information behaviour scenarios. While competitive intelligence has presented a number of theories that can be useful, the study did not find any theory that can explain the phenomenon under investigation, hence the decision to follow a grounded theory approach. The following chapter discusses the research methodology. It provides a detailed description of how the study follows tenets of grounded theory.

## CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

### 3.1 INTRODUCTION

The previous chapter discussed the literature analysis for the study. This included a discussion on the different competitive intelligence cycles and the information behaviour models that are related to competitive intelligence. The literature review also discussed the studies on the challenges of soliciting key intelligence and information needs. The chapter concluded with a discussion of theories that have been cited and used in competitive intelligence literature. From the literature analysis it was concluded that there is a lack of theories that can be used to study the main research question, its sub-questions and the study's objective, therefore the study uses grounded theory, which will be discussed in detail in this chapter and implemented throughout the remaining chapters. This chapter provides a description of the research design and methodology used. The chapter will cover the research paradigm and approach, research method, rationale for a qualitative research approach, study population, and sampling. Along with these items, the chapter will cover data collection techniques, data analysis, triangulation, the credibility of the emerged theory, and ethical considerations for this study.

### 3.2 RESEARCH DESIGN

Research design is defined as a plan for a study which provides a framework for data collection, according to Leedy et al. (2021). MacMillan and Schumacher (2001) define a research design as a strategy for choosing individuals, study locations, and methods for gathering data to address the research topic. Similarly, Turner et al. (2017) mention that research needs a plan and structure that guides data collection and data analysis. Given (2015) mentions that research design comprises choices on the conceptualisation of the research, as well as the techniques of data collection. Furthermore, Durrheim (2002) describes research design as a strategic framework that acts as a link between the research topic, the execution of the plan, and the research strategy.

The purpose of the research design is therefore to acquire a greater understanding of what needs to be done and why it is being done (Leedy et al., 2021). Furthermore, research design serves as the blueprint for conducting the study (Creswell, 2013; Leedy & Ormrod, 2015; Pickard, 2017). The sections to follow (3.2.1 to 3.2.8) therefore discuss the components that make up the research design for this study.

### 3.2.1 RESEARCH PARADIGM AND APPROACH

Rehman and Alharthi (2016) define a paradigm as a fundamental theoretical framework and belief system, which comprises three components: ontology, epistemology and methodology. Table 3.1 provides a relationship between these components and how they apply to this study. According to Smith (2012), ontology is a subfield of philosophy that addresses the premises we make to accept something as true or real, as well as the fundamental characteristics of the social reality we are studying. In research, epistemology describes how we learn something; how we know reality or the truth (Kivunja & Kuyini, 2017), while the term 'methodology' refers generally to the study design, techniques, approaches, and processes utilised in a well-planned inquiry to discover anything (Al-Ababneh, 2020).

According to Babbie (2011), a research paradigm consists of a body of research and methods, established theories, and models. The three major paradigms that have been identified in the social sciences and related disciplines, such as information science, includes positivism, post-positivism and interpretivism (Creswell & Creswell, 2018; Gorman & Clayton, 2015; Guba et al., 2005; Leedy et al., 2021). A brief description of each research paradigm will be outlined, followed by a detailed explanation and rationale of the chosen research paradigm.

Park et al. (2020) state that positivism uses the hypothetico-deductive method, from which functional relationships between explanatory and causative factors (independent variables) and outcomes (dependent variables) can be derived to verify a-priori hypotheses that are frequently expressed quantitatively. On the other hand, post-positivism holds that reality can only be reached probabilistically and is constantly inhibited by flaws brought about by human fallibility (Panhwar et al. 2017). Irshaidat (2022) claims that the interpretative paradigm is focused on deriving an understanding of the universe from people's subjective experiences. Irshaidat (2022) claims that the interpretative paradigm is focused on deriving an understanding of the universe from people's subjective experiences.

Given the aforementioned explanations, it was deemed relevant to place this study under the interpretivism research paradigm. Interpretivists hold that an in-depth analysis of the issue is the only way to truly understand something. According to Cohen and Manion (1994, p. 36), interpretivist researchers comprehend “the world of human experience”. For Creswell (2013) and Schwartz-Shea and Yanow (2013), interpretivist researchers use participant perspectives, their own experiences, and backgrounds to uncover reality. Taking into account the views of various scholars, it can be deduced that the interpretative paradigm enables researchers to see the world through the perspectives and experiences of their participants. Similar to this, Pickard (2017) holds that the interpretivism paradigm’s methodological stance is that the researcher engages with the subject of the study and examines and interprets each creation of reality.

The elements of the interpretivism paradigm are shown in Table 3.1, along with how they relate to this research.

**Table 3.1: Components of the interpretivism paradigm related to the study**

| Elements | Relation to the study |
|---|---|
| Purpose of the study | Developing a framework for understanding the solicitation of key intelligence needs process for competitive intelligence intermediaries. |
| Ontology | ➢ There are multiple realities that can be explained by competitive intelligence intermediaries and information service intermediaries based on their experiences.<br>➢ Realities can be understood and explored through human interactions.<br>➢ Discover how people make sense of their social worlds in a natural setting by means of conversations.<br>➢ Multitude of social realities due to diverse human experiences, including people’s knowledge, opinions, and interpretations |
| Epistemology | ➢ A more interactive and personalised approach to data collection.<br>➢ The participants and the researcher are engaged in a conversation that involves both listening and talking.<br>➢ Through contact with social surroundings, mental processes of interpretation are used to understand events. |
| Methodology | ➢ The method of gathering data through in-depth, semi-structured interviews.<br>➢ The values of the researcher are reflected in the research. |

Obtaining ‘insight’ and ‘in-depth’ knowledge is the researcher’s primary goal according to the interpretative paradigm. Employing a quantitative research approach, which uses measurements and statistics rather than words to explain the world, is not going to be beneficial for this particular study. A qualitative research approach is therefore more suitable for this study. Interpretivists require rich and comprehensive data from qualitative methodologies to properly comprehend and understand situations, as Willis (2007) explains. Thomas (2003, p. 6) asserts, in line with Willis's idea, that interpretivists often accept qualitative approaches because they "portray a world in which reality is socially constructed, complex, and ever changing".

Following the above, Creswell (2009, p. 4) states that "qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem". According to Pickard (2007, p. 86), if a design is qualitative in nature, one can assume that the researcher has a commitment to and has identified the need for some form of naturalistic interpretive approach to inquiry to explore or address the substantive focus or question. Similarly, Leedy et al. (2021) note that the assumption made by those following the qualitative research is that the meaning of events, interactions, and occurrences can be understood only through the eyes of the participants in specific situations and lies within the interpretivist paradigm. The section that follows discusses in detail the rationale for selecting a qualitative research approach and the type of reasoning approach adopted in this study.

#### 3.2.1.1 Rationale for a qualitative research method and inductive reasoning

According to Patton (2002), a qualitative research approach is designed to help researchers understand people, and the social and cultural contexts within which they live. Systematic investigation of social phenomena in their natural environments is known as qualitative research. These phenomena can include, but are not limited to, how people behave as individuals or in groups, how they perceive different elements of their life, how organisations operate, and how relationships are shaped by encounters (Teherani et al., 2015). When the purpose of the research is to explain a phenomenon by depending on the perspective of an individual's experience in a particular scenario, a qualitative study is acceptable. (Leedy et al. 2021). Likewise, this study aims to understand the challenges of intermediary information seeking with a focus on the process of articulating key intelligence needs.

According to Domegan and Fleming (2007), qualitative research aims to explore and to discover issues about the problem on hand, because very little is known about the problem. Similarly, Leedy et al. (2021, p. 258) states that "when little information exists on a topic, when variables are unknown, or when a relevant theory base is inadequate or missing, a qualitative study can help define what is important, that is what needs to be studied." As outlined in the preceding chapters, there is very little known and written on the study topic from a competitive intelligence perspective, and what is provided only acknowledges the existence of challenges, but does not give a detailed account of the challenges of intermediary information seeking. Given the lack of literature on this topic, the statements by Domegan and Fleming (2007), and Leedy et al. (2021) provide a thorough justification for using a qualitative research approach in this study.

Furthermore, the qualitative research approach was chosen after taking into account the characteristics of qualitative research, as discussed by Patton (1990), Denzin and Lincoln (2000), and Hancock et al. (2001) and Creswell (2003).

- Qualitative research focuses on how people can have different ways of looking at reality (usually social or psychological reality) (Hancock et al., 2001).
- Qualitative research is non-manipulative and non-controlling, as it focuses on understanding people from their own viewpoint (Patton, 1990; Fidel, 1993).
- Qualitative research focuses on reports of experiences that cannot be represented numerically (Hancock et al., 2001; Creswell, 1999).
- Although often questioned, qualitative research can be scientifically valid. It cannot be replicated since it examines a phenomenon at a particular point (Fidel, 1993). Strategies such as triangulation and member checking are common methods of ensuring data verification (Denzin & Lincoln, 2000).

From the discussion by Patton (1990), Fidel (1993), Creswell (1999), Denzin and Lincoln (2000) and Hancock et al. (2001) regarding the characteristics of the qualitative research approach, it can be concluded that a qualitative approach would be suitable for gaining insight into intermediary information seeking on the competitive intelligence process, focusing on the views, opinions and experiences of both competitive intelligence and information service intermediaries regarding the factors that constitute the soliciting of information and key intelligence needs.

Three categories of reasoning are used in research: deductive, inductive, and abductive, according to Forman et al. (2008). Deductive reasoning begins with the general norm and works its way down to a certain conclusion that is assured. Usually, abductive reasoning starts with an incomplete collection of observations and works its way down to the most likely explanation for the set. This study used inductive reasoning, which, according to Cornelissen and Clarke (2010), starts with the observations, and proposes theories towards the end of the research process as a result of these observations. For Sauce and Matzel (2017) inductive reasoning is a logical process in which multiple premises, all believed to be true or found true most of the time, are combined to obtain a specific conclusion or to supply evidence for the truth of a conclusion. In line with Sauce and Matzel (2017), this study combines the perceptions, experience, understanding and insight of the participants about the phenomenon being investigated, which are all believed to be true, in order to obtain a conclusion that will be used to derive a theory and a framework.

It was further decided to use a grounded theory approach, which ties in with inductive reasoning. According to Charmaz (2017), grounded theory takes a systematic inductive, comparative, and interactive approach to inquiry and offers several open-ended strategies for conducting emergent inquiry. The following section (Section 3.2.2) provides a detailed discussion on the rationale for using grounded theory and how such an approach benefits this study.

### 3.2.2 RATIONALE FOR GROUNDED THEORY

From the theories that were explored in Chapter 2 (Section 2.6), it was discovered that there was no theory or set of theories that can be applied to explain and guide the solicitation of key intelligence needs. The study therefore deemed it relevant to follow grounded theory, with the aim of discovering and building a theory grounded in the data collected from the competitive intelligence and information service intermediaries.

Grounded theory is a qualitative method of inquiry that generates a general explanation (a theory) of a process, an action, or an interaction shaped by the views of a large number of participants (Charmaz & Thornberg, 2021). Grounded theory may be used to describe an investigation approach as well as the outcome of a research process in addition to being an inquiry technique (Charmaz, 2017; Corbin & Strauss, 2008). In order to develop a theory, grounded theory research concurrently collects, analyses, and codes data regarding the fundamental social processes associated with the topic under study (Glaser, 2001). Glaser and Strauss (1967, p.3) explain the benefits of developing a theory which are discussed in Table 3.2. While Glaser and Strauss (1967) wrote these benefits from a sociology perspective, they believe that such benefits are also applicable to other disciplines, which may adopt the use of grounded theory.

**Table 3.2: Benefits of developing a theory (Glaser & Strauss, 2014)**

| Benefits of developing a theory | Relevance to this study |
|---|---|
| Theories enable the prediction and explanation of behaviour. | The phenomenon studied is also related to human information behaviour with a focus on information need recognition, articulation, and communicating. It is assumed that the theory developed in Chapter 6 can be used to predict the factors that contribute towards the solicitation of key intelligence needs. |
| Theories provide an explanation of a phenomenon, which creates a common understanding for the practitioner and the academic. | The emerged theory (Chapter 6) not only caters for academics and researchers, but can also be used by competitive intelligence intermediaries to create a supportive environment that promotes the effective extraction of key intelligence needs and equips competitive intelligence intermediaries with the ability to ask and probe effective questions that encourage managers to share and articulate their needs. |
| Theories guide and provide a style for research on particular areas of behaviour. | The emerged theory allows for guidance on further research and cross-industry learning, meaning research can be conducted using the same theory on different industries to assess if the same behaviour observed in this study will emerge. |

Apart from the benefits explained in Table 3.2, the primary reason for selecting grounded theory for this study was to develop a substantive framework that explains the process of soliciting key intelligence needs. Additionally, grounded theory research is appropriate when little is known about a topic due to grounded theory’s exploratory and inductive style of enquiry (Birks & Mills, 2015). The introductory literature search did not find a research-based definition or an established theoretical framework or theories for soliciting key intelligence needs. This demonstrated the lack of knowledge about this topic and the need to develop an explanatory theory. According to Glaser and Strauss (2014), some researchers do not employ grounded theory correctly. Therefore, in order to determine when it is appropriate to use grounded theory, this study took into account the work of Charmaz (2005), Turner (1983) and Glaser and Strauss (2014), who explained when it is relevant to use grounded theory. These discussions are provided in Table 3.3, alongside their applicability to this study.

**Table 3.3: Relevance of grounded theory to this research**

| A grounded theory approach is relevant when… | How grounded theory is applicability to the study |
|---|---|
| …there isn't much written about the subject being studied. | The consulted competitive intelligence literature did not show any insight on the challenges of intermediary information seeking, hence an inter-disciplinary approach was adopted in Chapter 2 to seek insight and understanding on this phenomenon from the information behaviour literature. |
| …the literature may have models available, but they were developed and tested on samples and populations other than those of interest to the qualitative researcher. | The available models in literature acknowledge the existence of problems, but do not provide any detail. The KITs process is the closest well-cited competitive intelligence model that explains key intelligence needs. However, the model does not provide a detailed holistic picture of the solicitation of key intelligence needs. |
| …there may be theories, but they are insufficient because they don't account for factors or categories that the researcher may find relevant. | Theories have been published from a competitive intelligence standpoint that explain other phases of the competitive intelligence cycle. However, no theories are able to explain the solicitation of key intelligence needs. |
| …a theory that describes how individuals are perceiving a phenomena can be developed using grounded theory. Such a framework will be provided by the theory that the study has established. | A framework is needed to explain the process behind the articulation of key intelligence needs, as literature has alluded that there is a lack of guidelines and frameworks to guide competitive intelligence intermediaries. Chapter 6 presents a visual representation of the theory and how such a framework is linked to the competitive intelligence cycle, specifically the articulating and defining phase. |

- The following are further elements in favour of using a grounded approach:

- It is frequently employed in qualitative management and organisation research, specifically in relation to social processes in social contexts (Locke, 2000).
- This research is concerned with a social process (soliciting key intelligence needs) in an organisational setting (the corporate environment).
- There have been other studies that have used a similar methodology in the wide topic field of this research: it “has travelled extensively, for example, to information science” (Locke, 2000, p. 1). A goal of the research is to make a contribution to the domain of both competitive intelligence and information behaviour.

On the basis of the abovementioned reasons, the decision was taken to adopt a grounded approach, where the output is a grounded explanation of what was obtained from the in-depth interviews with participants.

Charmaz (2006, p. 127) explained that “grounded theory contains both positivist and constructivist inclinations.” According to Birks and Mills (2015), the positivist philosophical stance is an entirely objective perspective derived from the human experience. The constructivist grounded theory approach takes study participants' perspectives into account for both data presentation and analysis (Charmaz, 2014). Although the positivist approach to grounded theory contends that data have a meaning of their own (Glaser & Strauss, 2014), the constructivist viewpoint implies that participants and the researcher engage in a construction process (Charmaz, 2015). This study was conducted using grounded theory with a constructivist approach. This study sought to conceptualise the phenomenon of each participant’s experience, to understand in abstract terms built through coding the data from interviews, and to build a framework based on the interpretation of their shared experiences.

*The grounded theory methodology used in this study was based on Bryant and Charmaz's 2007 Sage Handbook of Grounded Theory.* Tenets including coding, writing memoranda, choosing key categories from coding, creating theory, and analysing data as it is collected are described by Bryant and Charmaz (2007). In order to encourage the possibility that a new theory may emerge from the data, the procedural stages in applied grounded theory methodology helped the researcher to continuously see the data through a fresh lens (Charmaz, 2005). A graphic depiction of the grounded theory process followed in this study is provided in Figure 3.1.

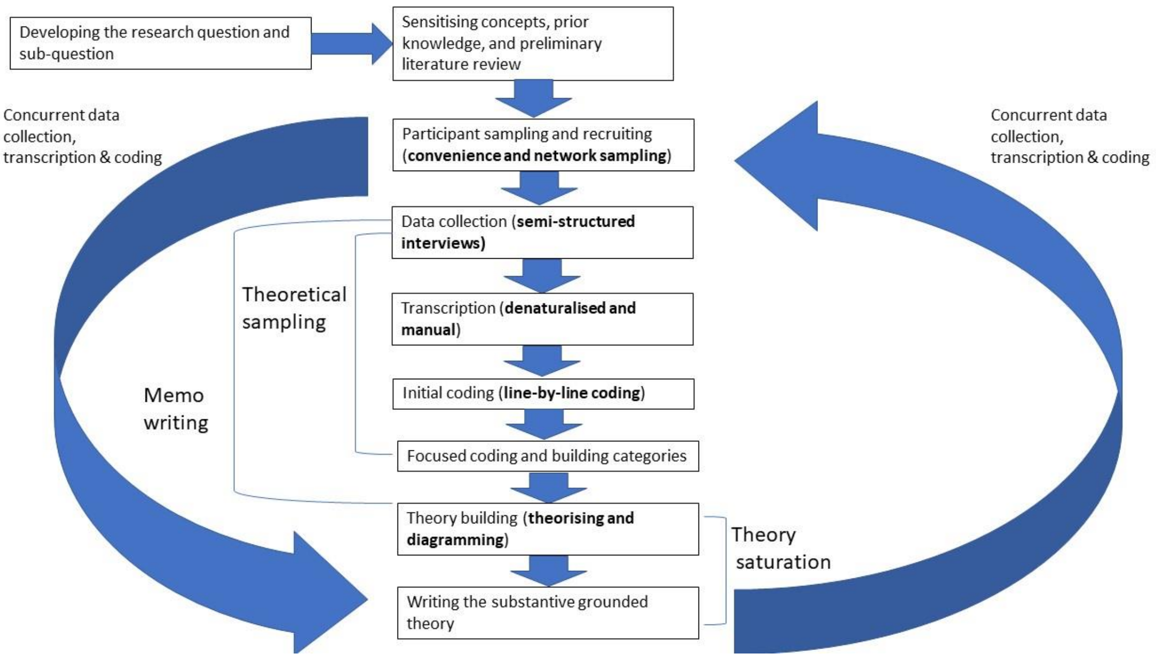


**Figure 3.1: The grounded theory process followed in this study**

The tenets outlined in Figure 3.1 and how they apply to this study are discussed in full later in this chapter (Section 3.2.3 to 3.2.8). The research population will be covered in the following section.

### 3.2.3 RESEARCH POPULATION

According to Pickard (2017), a research population is the entire set of individuals or things from which inference will be made. For Given (2008a), population, as a concept in research method, refers to all the individuals who fit the criteria that have been specified for the research participants. Furthermore, Polit et al. (2001, p. 232) defines population as "the totality of all subjects that conform to a set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research results can be generalised". It is always efficient to obtain and collect data from only some of the population instead of studying the entire population (Babbie, 2011; Leedy et al., 2021). Grounded theory dictates that the researcher chooses participants who have experienced or are experiencing the phenomenon under study (as explained in Section 3.2.3). By doing so, the researcher has chosen 'experts' in the phenomenon who were able to provide the best data (Corbin & Strauss, 2008).

The potential population comprises two groups:

- Competitive intelligence intermediaries
- Information service intermediaries

According to Polit et al. (2001), the criterium that specifies population characteristics is referred to as eligibility. Lavrakas (2008) further states that eligibility refers to whether a sampled population is eligible to have data gathered from it. In this study the competitive intelligence intermediaries are people who possess knowledge, background, insight and understanding on the activities that comprise the competitive intelligence process. While the study's specific focus is on the intermediary information seeking process and the articulation of key intelligence needs, it was still necessary for the study population to have a holistic understanding of the competitive intelligence process. The second study population involved information service intermediaries who had knowledge and understanding of the intermediary process, and experience of the interactive dialogue that occurs with patrons when they try to understand and articulate their information needs. Section 3.2.4 provides a detailed description of the sampling procedure adopted in this study.

### 3.2.4 SAMPLING PROCEDURES

Sampling refers to the process of selecting actual data sources from a larger population. This process consists of two elements: defining the full set of the data source; and selecting a specific sample of the data source from the identified population. This is referred to as the sample (Given, 2008b; Pickard, 2007). For Pickard (2017), sampling is used when it is not practical to include the entire population in the study. Pickard (2017) further defines sampling as the process of identifying and selecting a few members from the many to conduct an empirical research. Pickard (2017) is also of the opinion that it is not feasible to study the entire population, but rather, to draw a sample from the population for data collection. While this study acknowledges that the key to qualitative research following grounded theory is to generate enough data that the illuminated patterns, concepts, categories, properties, and dimensions of the given phenomena can emerge, it is essential to obtain an appropriate sample size that will generate sufficient data (Glaser & Strauss, 1967; Strauss & Corbin, 1990). However, due to the sensitive nature of competitive intelligence, identifying and getting hold of a suitable sample population in competitive intelligence research is challenging (Calof & Skinner, 1998; Du Plessis & Gulwa, 2016; Maungwa & Fourie, 2018).

To obtain a reasonable sample size, many competitive intelligence studies have benefited from association with professional organisations such as the Strategic Consortium of Competitive Intelligence Professionals (SCIP), which is the local representative body for competitive intelligence intermediaries (De Pelsmacker et al., 2005; Davenport & Harris, 2007; Sewdass, 2012; Du Toit & Sewdass, 2014). Furthermore, the South African POPI Act (Protection of Personal Information Act, No. 4 of 2013) prevents the gaining of prospective participants' information from other parties. Some qualitative studies on competitive intelligence use very few participants. Such studies include Maungwa and Fourie (2018), Priporas (2019), Pellissier and Nenzhelele (2013) and Madureira et al. (2021). In these studies, the number of participants ranged between 20 and 50. Given (2008a), however, justifies this by stating that qualitative research tends to study a smaller number of participants in detail. Spencer et al. (2003) concur and further mention that samples in qualitative research tend to be small to support in-depth analysis that is fundamental to the mode of inquiry. Qualitative research experts argue that there is no straightforward answer to the question of 'how many' and that sample size is contingent on a number of factors relating to epistemological, methodological, and practical issues (Galvin, 2015; Morse, 2000). In light of grounded theory, Charmaz (2006, p. 115) advises researchers not to use general guidelines like recipes, but rather to stay "open to what is happening in the field and be willing to grapple with it … use grounded theory guidelines to give you a handle on the material, not a machine that does the work for you". Guided by the above arguments, the target sample size of this study consisted of 24 participants, being 12 competitive intelligence intermediaries and 12 information service intermediaries. The section below discusses the sampling techniques followed in this study.

Qureshi and Ünlü (2020) mention that grounded theorists have freedom to choose sampling techniques to obtain the relevant data. Furthermore, Corbin and Strauss (2014) argue that researchers using grounded theory can utilise sampling schemes that are flexible and versatile to suit the needs of the emerging theory. Given the arguments by Qureshi and Ünlü (2020), Charmaz (2006) and Corbin and Strauss (2014), this study used three sampling techniques: convenience sampling, network sampling, and theoretical sampling.

### 3.2.4.1 Convenience sampling

In grounded theory, the researcher's initial task is to get a general picture of the process, according to Richards and Morse (2007). Scoping the phenomena, establishing its parameters, and deciding on the project's course are all necessary. Initially, convenience sampling was employed by the researcher to choose people who are knowledgeable about the topic and are readily available. Participants were selected on the basis of accessibility. This method of sampling was used at the beginning of the project to identify the scope, major components, and trajectory of the overall process. Five competitive intelligence intermediaries expressed interest in the study when the researcher attended the biannual Information Seeking in Context (ISIC) Conference in 2020. Upon obtaining ethical clearance, the potential volunteers were extended an invitation to partake in the research.

The researcher extended invitations to a few SCIP members in an attempt to find potential participants, but no one from this community responded. It was then decided to use LinkedIn to identify and strategically target and invite potential participants based on their title and work experience. The researcher performed a job title search on LinkedIn, using the search terms 'competitive intelligence intermediary' and 'information service intermediary'. It was, however, noticed that these titles are not common in South Africa. The job search terms where then changed to 'competitive intelligence professionals' and 'corporate librarian'. A total of 45 invitations were sent through LinkedIn, which yielded ten responses, comprising six competitive intelligence intermediaries and four information service intermediaries. Furthermore, the researcher applied for data collection permission from a company that specialises in research and had corporate librarians who fit the inclusion criteria. The company then approved data to be collected from five of its corporate librarians. In addition to convenience sampling, networking sampling was also used, which will be discussed below.

### 3.2.4.2 Network sampling

The decision to add network sampling was motivated by the difficulty in obtaining competitive intelligence participants, as highlighted by Odendaal (2006), Pellissier and Nenzhelele (2013) and Maungwa (2017). Network sampling is a collection of techniques used to get statistically significant samples from populations that are difficult to reach. According to Kozlowski et al. (2021) network sampling is one of the most popular techniques that is used in qualitative research. It has the characteristics of networking and referral practices. The researcher usually starts with a small number of participants who are then asked to recommend other contacts who fit the research criteria and might potentially be willing to participate, who, in turn, recommend other potential participants (Given, 2008a; Handcock & Gile, 2011). For the current study, the researcher ensured that the networking sampling technique was applied in a manner that was compliant with the South African POPI Act. Following each interview, the researcher inquired from the participants if they knew anyone who would be interested in participating in the study and that matched the inclusion criteria. The participants then contacted their network, sharing their contact information with the researcher only after getting permission. Four individuals were obtained through network sampling, which comprised one competitive intelligence intermediary and three information service intermediaries.

**Table 3.4: Summary of the sampled population**

| Competitive intelligence intermediaries | Information service intermediaries |
|---|---|
| **Convenience sampling:**<br>Obtained through LinkedIn connections: 6<br>Obtained through ISIC conference: 5 | **Convenience sampling:**<br>Obtained through LinkedIn connections: 4<br>Obtained through the research company: 5 |
| **Network sampling:**<br>Obtained through participant referral: 1 | **Network sampling:**<br>Obtained through participant referral: 3 |
| **Total:** 12 | **Total:** 12 |

### 3.2.5 Data collection

Across information science, and more specifically in the field of information behaviour, there is a variety of data collection methods that target diverse questions, topics, and populations (Sonnenwald et al., 2001; Given, 2015). Questionnaires, transaction logs, focus groups, interviews, and observation are popular data collection methods cited in information behaviour literature, as evidenced by Abrahamson et al. (2008), Allen et al. (2019) and Savolainen (2017). However, in recent years, there has been a shift towards greater use of diverse data gathering methods, such as institutional ethnography, eye tracking, infodemiology, and diaries (Case and Given, 2016; Cisek & Krakowska, 2019; Cox & Benson, 2017; Hartel & Thompson, 2011). This study acknowledges the myriad of data collection methods used across the information science discipline. However, with considerations of grounded theory, it was deemed more appropriate to use in-depth semi-structured interviews. In-depth semi-structured interviews are explained in detail in the section below.

#### 3.2.5.1 In-depth semi-structured interviews

According to Kvale (1996, p. 5) “conversation is a basic mode of human interaction. Human beings talks to each other, and through conversation we get to know other people, get to learn their experiences, feelings, and hopes and the world they live in.” Within the same vein, Kvale and Brinkman (2009, p. 6) state that “conversations are an old way of obtaining systematic knowledge”. Interviews are employed when seeking qualitative, in-depth, and descriptive data that is personal to the individual (Pickard, 2017). Valenzula and Shrivastava (2002) share the same sentiment and state that interviews are particularly useful for getting the story behind an individual’s experiences. Roulston (2019) further adds that interviews are useful for producing information about research participants’ opinions, beliefs, perspectives, and experiences. According to Kvale and Brinkman (2009), an interview is a discussion between two or more persons regarding a topic of mutual interest. Interviews were deemed relevant for this study as they enabled the researcher to prompt more qualitative information as there is room for discussion and interaction between the researcher and the participants (Leedy et al., 2021; Lincoln & Guba, 1985). Furthermore, Creswell and Poth (2016) mention that interviewing is the most frequently deployed data collection method in grounded theory.

There are three types of interviews: structured, unstructured, and semi-structured interviews (Given, 2008a; Pickard, 2017). A structured interview is one in which an interviewer asks each respondent a set of predetermined questions, which are generally closed-ended questions asked in a specific order (Creswell, 2017). According to Pickard (2017), unstructured interviews have no predefined questions or specific wording; they are usually conducted in an informal manner. The semi-structured interview is a qualitative method of data collection in which the researcher asks the informants or participants a sequence of planned but open-ended questions. Semi-structured interviews, according to Phellas et al. (2011), allow respondents to address factors related to the topics. Semi-structured interviews also allow the researcher to seek clarification and follow up on ideas. Semi-structured interviewing, thus, aligns with grounded theory methodology by permitting the investigator to pose central questions consistently while permitting adaptability in question ordering and level of investigation (Creswell, 2017).

Interviews can be conducted face-to-face, online or telephonically. Authors, including Heiselberg and Stępińska (2023) and Leedy et al. (2021), hold face-to-face interviews as the gold standard of conducting interviews. However, due to the geographic dispersion of the research population, it was deemed more appropriate to conduct online interviews. According to Pickard (2017), online interviews rely on the use of the internet relay chat (IRC) software to facilitate real-time conversation between two or more people. With the comfort of the participants in mind, this study employed a range of IRC software, such as Skype, Zoom, Google Hangout, online telephonic conversations, Microsoft Teams, and Face-time calls. Furthermore Archibald et al. (2019) and Irani (2019) mention that conducting online interviewing can increase the sources available to the researcher because remote interviewing eliminates many barriers to do with accessing participants who are not proximate to the researcher. According to Given (2008a) and Roulston (2019), researchers that employ semi-structured interviews prepare a written interview guide ahead of time. The interview guide may be precise with well-crafted questions or a list of topics to be addressed.

The interview guides for this study comprised well phrased questions covering the research issues (attached as Appendix C and Appendix D). It was noted that both groups of participants might not be familiar with some concepts that are cross-disciplinary, so the study chose to create separate interview schedules for corporate librarians and competitive intelligence intermediaries. The questions stayed the same, though, with the exception of the jargon used in each schedule. The interview guides for both groups of participants are discussed below.

#### 3.2.5.2 Interview schedule for competitive intelligence and information service intermediaries

The interview schedule for competitive intelligence intermediaries is attached as Appendix C, while the interview schedule for information service intermediaries is attached as Appendix D. Both interview schedules consisted of 11 questions. Although terms and jargon used varied, each question's objective was the same for both groups of participants, with the exception of questions 7 and 10, which were more focused on the tasks completed by each group of participants. The first question asked the participants to define the concept 'intermediary' in terms of their current role. The second question focused on knowing and understanding the triggers of information and key intelligence needs. The third question asked what the participants' role is in extracting information and key intelligence needs. The fourth question asked how the participants address unrecognised and dormant information and key intelligence needs. The fifth question asked the participants which methods are effective for extracting information and key intelligence needs. The sixth question focused on the systematic methods and guides that can be used to extract clients' information and key intelligence needs. The seventh question for competitive intelligence intermediaries focused on methods that are used to confirm deliverables with clients throughout the project, while for information service intermediaries the seventh question asked how they follow up with clients to ensure that their information needs have been met. The eighth question asked the participants what the underlying causes and difficulties experienced during the extraction of information and key intelligence needs are. The ninth question asked the participants how they would overcome such challenges. The tenth question for competitive intelligence intermediaries focused on the effects of the difficulties and challenges of extracting clients' needs on subsequent phases of competitive intelligence, while for information service intermediaries, the tenth question asked their opinion on what constitutes a successful reference interview. The eleventh and last question asked the participants which skills are required to effectively extract information and key intelligence needs.

### 3.2.6 DATA ANALYSIS

As discussed in Section 3.2.2, this study follows a constructivist grounded theory approach, which is characterised by components of grounded theory elements that include the cyclic application of data collection, coding and analysing, memoing, theoretical sampling and the use of constant comparative method (Birks & Mills, 2015; Charmaz, 2014). NVivo software was used to assist with the qualitative data analysis. NVivo is designed to facilitate the organisation, coding, and analysis of unstructured data, in this case data originating from the semi-structured interviews. In line with Basit (2003), it's important to note that qualitative analysis software does not conduct the analysis for the researcher. The researcher remains responsible for creating categories, segmenting, coding, and determining what to retrieve and collate. The thesis utilised both NVivo and manual coding on the same dataset, allowing for a comparative analysis of the outcomes. While NVivo effectively managed the large dataset and facilitated systematic organisation, it occasionally missed important codes—particularly when participants expressed their responses in unique or varied ways. This limitation underscored the necessity of incorporating manual coding into the analysis. Chapter 4 (Section 4.2) provides an elaborate step-by-step description of how NVivo and manual coding were used for data analysis. The data analysis began after the first interview to facilitate simultaneous collection, coding, and analysis of the data, and to provide the focus for subsequent data collection as per grounded theory approach requirements. The sub-sections that follow (Section 3.2.6.1 to 3.2.6.7) will explain all the tenets of the constructive grounded theory method, and how they were applied to the study. The application of the tenets is more apparent throughout chapters 4 to 7.

#### 3.2.6.1 Transcribing the interview

Although transcription is not mentioned as one of the tenets of grounded theory, it is however implied in the seminal works of Strauss and Corbin (1990), Bryant and Charmaz (2007) and Charmaz (2014). Transcription is the first stage in data analysis after data collection, according to Bailey (2008). Translating recorded audio, often spoken words, into written form so that it may be utilised to analyse a specific phenomenon or event is the fundamental definition of transcription (Duranti, 2006).

Nascimento and Steinbruch (2019), in their study titled “The interviews were transcribed, but how?”, mention two types of transcription techniques: the naturalised transcription technique, where the whole sentence is captured with as many details as possible, and denaturalised transcription. Naturalised transcription represents a ‘real-world’ approach (Cameron et al., 2005). In naturalised transcription, speech is expressed as it is, without being overly filtered by transcribers (Oliver et al., 2005). Denaturalised transcription involves constant grammar correction, the removal of the existing noises in the interviews and the standardisation of non-standard speeches and accents (Oliver et al., 2005). This transcription results in ‘clean’ data, which is free of socio-cultural characteristics and information, and may even improve the study results. According to Nascimento and Steinbruch (2019), the naturalised transcription technique is followed by researchers who want to capture the essence of a discourse. It is necessary to also analyse it from the expressions that were spoken or expressed physically by the interviewee, while the denaturalised transcription technique is more suited for researchers who are more interested in explanation, systematisation and expression of speech content so that logical deductions can be made according to the context of these speeches, and to who issued them and what effects are intended (Orlandi, 2013). Guided by these explanations, this study deemed the denaturalised technique to be more appropriate. With the aim of obtaining clean data, each interview was freely transcribed by typing it into a Word document. Furthermore, there was constant grammar correction, the omission of noises in the interviews, speech repetitions and filler words such as “uhm,” “mmm”, coughing or sighing. An example of three transcripts is attached as Appendix E. Once an interview was transcribed, the next stage of the analysis was coding, which is discussed below.

#### 3.2.6.2 Initial coding (line-by-line)

According to Charmaz (2015), the process of coding is essential to the development of emergent theory, which provides an explanation for the data collected. Through coding, researchers may begin to interpret the data and explain what is happening. Constructivist grounded theory recognises that codes are created by the researcher since they are using their prior knowledge and experience to the interpretation and labelling of what they observe in the data (Charmaz, 2015; Thornberg & Charmaz, 2014).

In accordance with a fundamental principle of grounded theory, initial coding was done right away following each interview. Coding was done line by line. This required giving each data line a name (Charmaz, 2015). Each line of the interview transcript was given a brief label (code) during the first round of coding, which accounted for and summarised each piece of data. Line-by-line coding limited the application of pre-existing theories or personal opinions to the data, while also assisting with the inductive development of ideas. Therefore, rather than supposing the researcher and participants had the same world views, this method of coding helped to stay alert to the participants’ perceptions of their own realities. Line-by-line coding also provided insight early on in the research into the kind of data that needed to be collected next. Examples of initial codes generated from the analysis are included as Appendix E.

#### 3.2.6.3 Focused coding

According to Charmaz (2015), the next stage of grounded theory coding is called focused coding. Focused coding entails examining the codes that show up often during the first coding step. Focused coding also involves making a decision about which initial codes make the most analytical sense to categorise the data incisively and completely. Furthermore, focused coding expedites the analysis without sacrificing the detail contained in the data and the initial codes (Charmaz & Thornberg, 2021).

Focused coding was used to move across interviews and compare people's experiences, actions, and interpretations. According to Rieger (2019), the purpose of focused coding is to synthesise and explain larger segments of the data. For this study, this was achieved by identifying the most significant or frequent initial codes, or both, raising them to the level of focused codes, then using those focused codes to sift through large amounts of data. Furthermore, data was then compared with these focused codes to refine them. After determining the suitability of previous codes through this procedure, several of them were renamed to better reflect their intended fit. Examples of how the focused coding was conducted is attached as Appendix E. By using focused coding, the researcher was able to assess the conceptual strength and suitability of the initial codes assigned to the data, as well as identify which focused codes could build up tentative categories that would be tested against additional data using the constant comparative analysis method, which is covered in more detail in the following section.

#### 3.2.6.4 Constant comparative analysis

Constant comparative analysis is a fundamental component of the grounded theory method. Comparative analysis is used, according to Glaser and Strauss (1967), to create analytical distinctions and draw parallels at every stage of the analytical process. According to Charmaz (2015), comparative analysis entails comparing all the information gathered to identify patterns and variances.

Through comparisons, the researcher is able to do what is necessary to develop a theory more or less inductively, namely categorising, coding, delineating categories and connecting them. Throughout the analytic process of this study, constant comparative analyses were used to do the following:

a) Compare different viewpoints, experiences and understanding of participants.
b) Contrast one occurrence with another, or provide an answer for each participant's inquiry.

c) Compare codes with categories.
d) Compare categories with other categories.
e) Compare categories with memos.
f) Compare the themes, sub-themes, and categories that arose from the data of the information service intermediaries and the competitive intelligence intermediaries.

An example of how constant comparison was used is attached as Appendix E. Constant comparison goes hand in hand with theoretical sampling, which is discussed below.

**3.2.6.5 Theoretical sampling**

In accordance with the logic and intrinsic needs of grounded theory, the characteristics of the evolving categories were developed and refined by theoretical sampling. This enhanced the accuracy of the categories and simplified the analysis. Theoretical sampling refers to the process of selecting participants, while keeping a number of theoretical factors in mind (Foley et al., 2021). A sample selection that is more likely to emphasise the patterns, ideas, classifications, attributes, and dimensions of the particular phenomenon is offered by theoretical sampling (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Theoretical sampling helped to direct data collection in four main ways:

1. Widening the scope of existing interview questions
2. Rephrasing the existing questions in order to receive detailed feedback
3. Identifying questions that are redundant and do not add value of the overall objective of the study
4. Identifying suitable research participants

For each competitive intelligence intermediary that was interviewed, an information service intermediary was subsequently interviewed.

**3.2.6.6 Memo writing**

Memo writing is another core tenet of grounded theory (Charmaz, 2012). Memo writing, according to Flick (2004), is the informal act of writing down ideas, insights, comments, and thoughts on the study. Throughout the study, memo writing was done to query and explain what was coming from the data, perceive the data and codes in new ways, improve the degree of abstraction, and actively interact with the data. Following every interview, a memo was produced to reflect on the interview, and encourage introspection and critical analysis. These memos permitted comparisons across participant experiences and viewpoints, and stimulated reflection on significant recurrent statements or concepts, all of which were essential to help concentrate and drive more data collecting. As the study progressed, memos were written to describe how categories and subcategories emerged, evolved, and inter-related, and to refine conceptual categories. An example of a memo written after interviewing one of the research participants is attached as Appendix E.

#### 3.2.6.7 Theoretical saturation

In their original treatise on grounded theory, Glaser and Strauss (1967, p. 61) defined saturation as “the criterion for judging when to stop sampling the different groups pertinent to a category”. When a category reaches saturation, no new information can be discovered that would allow the researcher to define its attributes. Also, writing from a grounded theory standpoint, Wyatt (2013, p. 4) defines saturation as “the point in coding when you find that no new codes occur in the data. There are mounting instances of the same codes, but no new ones,” whilst Given (2015, p. 135), considers saturation as the point at which “additional data do not lead to any new emergent themes”. Theoretical saturation occurs when the category properties are saturated rather than the data itself. Saturation was reached after the 19$^{th}$ interview. The interviews were, however, conducted up to the 24$^{th}$ research participant.

#### 3.2.6.8 Emergence of the core theory

The theory that has been grounded from the data is presented in Chapter 6. Furthermore, a visual representation of the theory is provided, as well as how the theory is related to the competitive intelligence cycle, more specifically the articulation and defining phase.

### 3.2.7 CREDIBILITY

When considering research quality, the main proponents of grounded theory do not favour terms such as ‘validity’ and ‘reliability’ (Corbin & Strauss, 2014; Glaser & Strauss, 1967), preferring instead to use the term ‘credibility’ (Corbin & Strauss, 2014; Glaser & Strauss, 1967). Therefore, the grounded theory approach needs its own set of criteria for evaluating quality due to its unique features (Thornberg & Charmaz, 2014). Variations of grounded theory have, however, given rise to different quality criteria, as discussed by Glaser and Strauss (1976, 2014), Charmaz and Bryant (2011), Thornberg and Charmaz (2014) and Charmaz (2015). It is, however, not within the scope of this study to explain all the quality criteria within grounded theory. This study adopted the quality criteria of a constructivist grounded theory approach by Glaser and Strauss (1976), which consists of fit, workability, relevance, and modifiability. It was deemed appropriate for this study to discuss these components and how they are applied in this study once the emerging theory has been discussed, therefore a detailed discussion of the credibility criteria and their application to the study is provided in Section 6.5.

### 3.2.8 ETHICAL CONSIDERATIONS

The ethical guidelines that apply when conducting research include protecting participants from harm, informed consent, voluntary participation, right to privacy, and confidentiality regarding anything the participants might reveal about themselves (Leedy et al., 2021). Lavrakas (2008) further mentions that the acquisition of knowledge through qualitative research involves public trust. Therefore, researchers must adhere to ethical guidelines and practices involving human subjects. Furthermore, the researcher must obtain permission from the appropriate regulatory committee at their institution for any research that involves human or animal participants (Pickard, 2007).

Keeping in mind the ethical issues and practices that apply to qualitative research, the following activities were performed to maintain ethical guidelines:

- The University of Pretoria's Faculty of Engineering, Built Environment and Information Technology (EBIT) Research Ethics Committee granted permission to perform the study.
- Written informed consent was required from all participants prior to taking part in the research. This included consent to record the interviews (see Appendix A).
- Employers (where applicable) had to give consent for employee participation (see Appendix B).
- Confidentiality and anonymity were maintained by using pseudonyms.

- When participants made reference to their organisations during interviews, the organisations’ names were represented with XYZ to protect their identity.
- The collected data was protected using password-encrypted software.
- An introductory cover letter for both the questionnaire and interview schedule was written to explain the aim of the study.

## 3.3 CONCLUSION

The goal of this chapter was to present the research methodology approach that is relevant to this study. A detailed explanation of the research strategy, methodology, and approach was provided. There was also a thorough discussion of the research population and sampling procedures. A constructive grounded theory process was used to explain the data collection and analysis. The chapter also covered the ethical considerations that were upheld and adhered to. The following chapter presents the findings from the semi-structured interviews.

# CHAPTER 4: FINDINGS AND ANALYSIS

## 4.1 INTRODUCTION

The previous chapter discussed the research methodology used to conduct the study. This chapter presents the findings and data analysis from the in-depth semi-structured interviews that were conducted with the competitive intelligence and information service intermediaries. This chapter first presents a summary of the empirical research, followed by a discussion on how the data was prepared before analysis. The chapter ends by giving the findings from the qualitative analysis. The data presented in this chapter is later interpreted and discussed in Chapter 5.

## 4.2 SUMMARY OF THE EMPIRICAL RESEARCH

While the previous chapter goes into great detail about the data collection method that was employed in this study, it was nevertheless deemed relevant to give an overview of the empirical research and a more particular explanation of how the data was actually gathered. As a result, Table 4.1 offers an overview of the empirical research.

**Table 4.1. Summary of the empirical research**

| EMPIRICAL RESEARCH | |
|---|---|
| Research focus | The study focused on the challenges of intermediary information seeking. |
| Research question | What key factors should be included in the development of an information intermediary framework for competitive intelligence intermediaries? |
| Overall research objective | The study attempts to create a framework that explains the soliciting and articulation of key intelligence needs by taking into account the challenges and difficulties of acquiring intermediary information. By considering both the competitive intelligence and information service intermediaries, the study is cross-verifying information across the two disciplines and practices. The interviews and responses of the information service intermediaries' perspectives serve as a validating lens for the competitive intelligence findings, which not only deepen comprehension, but also offer a holistic viewpoint. The study intends to enhance the dependability of the research outcomes by using this dual-group interview approach, guaranteeing a well-supported interpretation of the data gathered. |

| | |
|---|---|
| Participants and sample group | Convenience and network sampling were used for this study. The sample included two groups: competitive intelligence intermediaries and information service intermediaries. To avoid skew data and perspectives, the study only considered competitive intelligence and information service intermediaries who reside and work for companies that are based in South Africa. |
| Data collection limitations | Given that every participant was affiliated with a corporate entity, it was considered morally right to request permission from the employer before beginning the interviews. Due to the sensitive nature of competitive intelligence, two potential participants were denied participation by their employers, out of fear of possibly divulging critical competitive information, also citing that it is against company policy to participate in any study. These potential participants, however, provided contact information of possible participants from their circle, which yielded a positive outcome. |
| Data analysis | Data was analysed using Charmaz's (2015) grounded theory principles, which involve the cyclic process of transcription, initial coding, focused coding, constant comparative analysis, theoretical sampling and memo writing. To create structure of the individual responses, NVivo qualitative software was used. |
| Means of data collection | All participants agreed to have the interviews online, choosing between Zoom and Teams. |
| Approximate time taken to answer | While the time allocated for each interview was 45 minutes, the interviews ranged between 35 and 75 minutes. |
| Time taken to collect data | Data was collected between 10 September and 5 November 2023. |
| Ethical clearance | Permission to conduct the study was received from the University of Pretoria's Faculty of Engineering, Built Environment and Information Technology Committee for Research Ethics and Integrity, approval number EBIT/11/2023 (See Appendix F). |
| Consent | Before each interview, each employer had to grant permission to their employee, which was followed by a signed informed consent form, stating that they voluntarily agreed to participate in the study and that they granted permission for the interview to be recorded. |
| Confidentiality | All the participants who participated in the study were assured of confidentiality. Each participant was assigned a pseudonym to ensure that anonymity was maintained when reporting findings. Furthermore, during the interviews, some participants gave elaborate examples referring to their own organisations. To protect the identity of the organisations, they will be referred to as Company XYZ. |

## 4.2 GROUNDED DATA PREPARATION

All participants provided permission and consent for their interviews to be recorded. To ensure accuracy, each recording was listened to multiple times, and the transcripts were read repeatedly. In qualitative research, greater accuracy is achieved by re-evaluating the collected data through repeated listening and review (Bailey, 2008). Every interview was manually transcribed immediately after it concluded, following the principles of grounded theory.

Although Microsoft Teams provided automated transcripts at the end of each interview, manual transcription remained necessary due to the inaccuracy of the automated transcripts, which was largely caused by accent variations. When transcribing the recordings, a denaturalised transcription approach was followed, which, according to Nascimento and Steinbruch (2019), involves correcting grammar and removing non-verbal sounds, resulting in 'clean data'. Therefore, minor corrections were made, particularly when participants used abbreviations such as CI, KINS, and KITS. Participants sometimes used other abbreviations specific to their organisations, which were also written out in full during transcription. Additionally, all paralanguage references, such as "uhm", "well", and "eh", were omitted, as well as conversational interferences like coughing, laughing, and sighing. Sandelowski (2000) points out that these fillers do not contribute meaningfully to qualitative research transcripts.

In accordance with grounded theory principles and the methodological process outlined for this study (see Figure 3.1), transcription was conducted alongside memo writing and sorting. Memos were treated as a repository of ideas generated through engagement with the data (Corbin & Strauss, 2008). Birks and Mills (2015) further state that memo writing is an essential analytical process that ensures quality in grounded theory research. An example of a memo generated from a transcript is included as Appendix E.

To make sense of and structure the individual responses from the semi-structured interviews, qualitative analysis software was used (NVivo). Welsh (2002) notes that the use of software in qualitative research is sometimes misunderstood by critics of computer analysis. However, the use of such software does not diminish the quality of the research, as the researcher is still responsible for data collection, coding decisions, and naming categories. NVivo was utilised for five main functions: data organisation, the coding process, querying, relationship mapping, and visualisation.

After transcription, each transcript was saved as a Word document. The responses in each transcript were then grouped by the corresponding interview questions and further categorised as either information service intermediaries or competitive intelligence professionals. This categorisation facilitated the comparison and identification of similarities in responses for each question across the two groups. Once the responses in a transcript were organised by question, the document was loaded into NVivo, where the coding process began. Coding was carried out by using line numbering.

For each interview transcript, I selected an excerpt and used line numbering as the coding method. The selected extract corresponded with the tree node labelled ‘identity’. I clicked on 'identity' in the node list and then clicked on 'code'. The highlighted section, which had been red, turned blue, indicating that the extract had been successfully coded. The rest of the transcripts were coded in a similar fashion. Once all 24 transcripts had been coded, I utilised NVivo's search functionality to generate useful reports, which could then be saved and printed. To ensure that no codes were excluded from the collected data, I also employed manual coding in conjunction with NVivo. In the manual coding process, each transcript was carefully reviewed by reading through the responses line by line. As responses were reviewed, I identified key themes, patterns, and recurring ideas that emerged naturally from the text. I used a systematic approach, assigning codes manually by marking significant quotes, sentences, or phrases relevant to the research questions. Each quote was physically highlighted, and the corresponding code was noted in the margins or in a separate document for later comparison. By doing this manually, I was able to catch nuanced themes or ideas that might not have been immediately obvious through automated coding. Manual coding provided an additional layer of scrutiny, allowing me to refine and verify the codes generated through NVivo, ensuring consistency and accuracy. This dual approach helped in cross-validating the findings from both methods, ensuring that no significant insights were overlooked. Ultimately, the combination of manual and software-assisted coding enhanced the robustness and depth of the qualitative analysis.

The next step was focused coding, which involved looking at which codes appear frequently in the initial coding phase. An example of how focused coding was used is attached as

Appendix E. The third step was theoretical coding, which involved using NVivo's querying tools. For instance, matrix coding was used to see the relationship between themes that emerged between competitive intelligence intermediaries and information service intermediaries. This function was also used to map out overlaps and differences in recurring themes, sub-themes and categories; furthermore, looking at how core concepts were related to each other and thereby integrating them into grounded theory by using theoretical codes. Theoretical coding gave an integrative scope and provided a broader picture of the data. An example of theoretical coding is attached as Appendix E.

The cyclic process of initial coding, focused coding, and theoretical coding was repeated throughout until the data reached theoretical saturation, whereby no new codes were emerging from the data. Theoretical saturation was noticed after interviewing the 19$^{th}$ research participant. However, the interviews were carried on until the 24$^{th}$ participant. As proposed by Charmaz (2015), four more participants – two information service intermediaries and two competitive intelligence intermediaries – were further interviewed at the end of the data analysis to confirm the themes, sub-themes and categories that emerged from the data. These participants were, however, not included in the total size of the population. It was then noted that no new issues came out of these interviews. At that point, the process of simultaneous data collection, constant comparison and analysis was stopped. Apart from data analysis, NVivo was used to develop visuals of the themes, sub-themes and categories (see Figure 6.1 and Figure 6.2), which provided direction for the development of the framework discussed in Chapter 6 (Figure 6.3).

The semi-structured interviews were conducted using theoretical sampling; hence, in order to establish alignment and comparability, an information service intermediary was interviewed following each competitive intelligence interview. Furthermore, theoretical sampling did not bring about new questions. It, however, altered the phrasing of some questions, while adhering to the question's basic idea, as it was observed that questions formulated differently would produce more insightful and interesting answers. For example, instead of asking the initial question, "Are there any systematic methods of solicitating key intelligence needs?", the question was re-phrased to "Which systematic methods do you use to solicit key intelligence needs?".

Qualitative researchers employ a variety of strategies at different phases of the research process to conceal identifying information from transcripts of interviews and discussion groups, as well as from records of observations, fieldwork, and other textual data. Participants in this study were given pseudonyms at the start of the transcription. According to Wiles et al. (2008), a 'pseudonym' is a made-up name that is different from the true name (oronym) of a person or location (toponym). The participants' pseudonyms, the length of the interview, and the date of the interview are displayed in Table 4.2. From the analysis, it was noted that participants with a very lengthy interview duration went into great detail when providing answers, such as Winter, Michael, Madison and George. Furthermore, it was found that information service professionals with more years' experience in the industry supplied more specifics, whereas younger professionals with competitive intelligence were more enthusiastic, providing more details in their replies, and included real-world examples and scenarios.

**Table 4.2: Pseudonyms of participants and interview information**

| Competitive intelligence intermediaries | | | | Information service intermediaries | | |
|---|---|---|---|---|---|---|
| **Pseudonym** | **Interview date** | **Interview duration (min)** | | **Pseudonym** | **Interview date** | **Interview duration (min)** |
| James | 10 Sept | 30 | | William | 12 Sept | 44 |
| Thomas | 13 Sept | 30 | | Oliver | 13 Sept | 67 |
| Henry | 15 Sept | 45 | | Daniel | 16 Sept | 45 |
| Michael | 16 Sept | 61 | | Alexander | 22 Sept | 60 |
| George | 20 Sept | 66 | | Joseph | 10 Oct | 43 |
| Robert | 25 Sept | 35 | | John | 15 Oct | 34 |
| Edward | 2 Oct | 30 | | Oscar | 19 Oct | 55 |
| Emma | 5 Oct | 40 | | Alice | 21 Oct | 67 |
| Emily | 11 Oct | 46 | | Brett | 25 Oct | 52 |
| Arthur | 1 Nov | 33 | | Kinsley | 27 Oct | 50 |
| Madison | 1 Nov | 67 | | Peyton | 3 Nov | 45 |
| Sutton | 2 Nov | 56 | | Winter | 3 Nov | 100 |

Table 4.3 shows the questions that were asked to each separate group of participants: competitive intelligence intermediaries and information service intermediaries. As previously mentioned, the wording used in each interview schedule varied. For presentation purposes, therefore, a 'joint question' was formed that looks at the essence and idea behind the two questions and formulates one question that encapsulates the two, also considering the main theme and idea behind the questions. Despite this, there was no joint question for questions 7 and 10 because they were task-specific and could only apply to one group.

**Table 4.3: Linking questions from the interview guides**

| Question number | Competitive intelligence intermediaries (Appendix C) | Information service intermediaries (Appendix D) | Joint question |
|---|---|---|---|
| 1 | Based on your experience and understanding, how would you define the term information intermediary, and can you give an example in the context of your current job? | Based on your experience and understanding, how would you define the term information intermediary, and can you give an example in the | How would you define the role of an intermediary in the context of your job? |

| | | | |
|---|---|---|---|
| | | context of your current job? | |
| 2 | What is the trigger of key intelligence needs? (e.g. environmental scanning, serendipity, a reaction to an environmental trigger)? | What are the triggers and motivators for information demands from clients? | What are the triggers and motivators of the clients' needs? |
| 3 | Explain the involvement the competitive intelligence intermediary has in identifying and soliciting key intelligence needs (e.g. facilitating the interactive dialogue, grouping key intelligence needs into topics). | Explain the involvement that an information service intermediary has in identifying and soliciting information needs (e.g. facilitating the interactive dialogue, question negotiation) | What involvement do you have in soliciting the client's information and key intelligence needs? |
| 4 | How do competitive intelligence intermediaries address unrecognised key intelligence needs (e.g. dormant needs)? | How do information service intermediaries address unrecognised key intelligence needs? | How do you address unrecognised and dormant client needs? |
| 5 | Is there any best practice method for soliciting information needs (e.g. face-to-face, email)? | Is there any best practice method for soliciting information needs (e.g. face-to-face, email)? | Which methods are effective for soliciting client needs? |
| 6 | Are there any systematic methods of identifying and soliciting information needs (e.g. models, frameworks)? | Are there any systematic methods of identifying and soliciting information needs (e.g. models, frameworks)? | Which systematic methods and guides can be used to solicit the client's needs? |
| 7 | Throughout the completion of a competitive intelligence project, how often does the interactive discussion occur (e.g. confirmation of deliverables)? | How do you follow up with an employee to ensure that their information need has been met? | ***Questions are specific for each group.*** |

| | | | |
|---|---|---|---|
| 8 | What are the underlying causes of the difficulties encountered when identifying and soliciting key intelligence needs? | What are the underlying causes of the difficulties encountered when identifying and soliciting information needs? | What challenges are experienced when soliciting client needs? |
| 9 | What are your thoughts on overcoming the difficulties encountered? | What are your thoughts on overcoming the difficulties encountered? | How do you overcome challenges experienced when soliciting client needs? |
| 10 | What effects do the difficulties encountered in identifying and soliciting key intelligence needs have on the subsequent competitive intelligence phases (e.g. gathering and analysing data)? | In your opinion, what constitutes a successful reference interview encounter? | ***Questions are specific for each group.*** |
| 11 | What skills sets are required from the competitive intelligence intermediary to efficiently facilitate the articulation of key intelligence needs (e.g. communication skills, interpersonal skills)? | What skills sets are required from the information service intermediary to efficiently facilitate the articulation of information needs (e.g. communication skills, interpersonal skills)? | What skills and expertise are required to successfully solicit the needs of the client? |

## 4.3. FINDINGS AND RESULTS OF THE QUALITATIVE DATA

For each question, responses by both competitive intelligence intermediaries and information service intermediaries are presented. Following this, similarities and differences among the two groups are established. For some questions, similar themes and sub-themes are given by the participants. These are underlined and highlighted in red in the tables. The objective of the qualitative results, as indicated in Table 4.1, is to provide a framework that competitive intelligence intermediaries may use as a reference to identify and define key intelligence needs by comprehending the challenges and difficulties faced by intermediaries. The study's validating lens is based on the voices, experiences, and knowledge of information service intermediaries. The themes and sub-themes that arose from the analysis are listed in table format for each question, followed by a discussion of the findings. In Chapter 5, a more thorough comparison between the two participant groups is presented, along with an analysis of the relevant literature and the development of a new theory and framework.

### 4.3.1 How would you define the intermediary role in the context of your job?

Question 1 asked the participants to provide insight and explain the role of the intermediary in the context of their profession, as either a competitive intelligence intermediary or an information service intermediary. From the responses, it was noted that the information service intermediary's role is centred on providing information to clients and they are mostly responsible for interacting with clients based on their information needs. Furthermore, the role of the information service intermediary is to guide clients to suitable sources of information such as online databases, journals and offer publication guidelines. However competitive intelligence intermediaries proved to have diverse roles, which were project dependent. Their roles ranged from understanding and interrogating clients to understand their needs, identifying areas of business improvement to providing client advisory and guidance. From the responses it was discovered that the competitive intelligence intermediaries did not elaborate that much on this question. Table 4.4 shows the themes that emerged from Question 1.

**Table 4.4: Question 1's emergent codes**

| **Question 1: How would you define the term information intermediary in the context of your job?** | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Understanding the client's needs[1]<br>(b) Information searching and retrieval | Understanding and interrogating clients in order to supply and retrieve information | *Facilitation of information seeking and client advisory* |

[1] Initial codes and focused codes that are underlined and highlighted in red show similarities between both groups of participants

| | | |
|---|---|---|
| (c) Reference interviews | | |
| (a) Research support<br>(b) Publishing advisory | Client advisory and guidance | |
| | | |
| **Competitive intelligence intermediaries** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Understanding the client's needs<br>(b) Dynamic project responsibilities<br>(c) Advisory role and guidance | Multifaceted role in competitive intelligence projects | *Information integration and organisational synergy* |

**Responses from information service intermediaries**

**4.3.1.1 Understanding and interrogating clients in order to supply and retrieve information**

There are three sub-themes that stood out in this theme: client interaction; information searching and retrieval; and reference interviews.

**a) Understanding the client's needs**

Every information service intermediary who was interviewed stated that engaging with clients and meeting their information needs constituted the majority of their work. One of the participants compared themselves to a doctor who provides assistance to their patient by stating that: "like a doctor, sign an oath that they will help those that are sick, the intermediary should also provide information when information is required." The statements that follow highlight the importance of having active interactions and conversations with clients and providing information based on their information needs. They also stress how important it is to collaborate with clients to meet their information needs.

> The role of the intermediary is to interact with the client, I supply information to their needs as to what they need and when they need it. – **William**
>
> My title is information scientist, and not information specialist, meaning that I have a specialty in my field, I only supply information to the researchers that work on

microbiology projects. You can basically say, I am supplying information to their needs. – **Daniel**

We are part of the project team, and we know what projects they're working on, so it makes it easier for us to solve their information needs. – **John**

We are sort of information specialists, we do a lot of searching for the information, retrieving it, and sending it to the client. – **Peyton**

**b) Information searching and retrieval and gatekeeper**

Every information service intermediary who was interviewed indicated that they actively search for information on behalf of the client. The degree and intensity of the information searched, however, depended on the type of organisation they work for. The following quotes suggest that information service intermediaries are involved in searching for information, which includes literature searches, market searches and reports, patent searches. The type of information that the information service intermediary searches for depends on the type of industry that they operate in:

If they cannot find information or they find it difficult to locate information, then they come to me. – **Oscar**

We do a lot of searching for the information, retrieving it, and sending it to the client. – **Daniel**

… I will do literature searches, market searches, and patent searches. – **John**

We, as sort of information specialists, we do a lot of searching for the information, retrieving it, and sending it to the client. – **Brett**

It would be safe to say that we are the middle person because we kind of have to understand the query in order to interrogate the system to get what they're wanting. – **Peyton**

### c) Reference interviews

The quotes below suggest that information service intermediaries engage in reference interviews to understand the nature of the information need, the topic and the specific requirements of the user. While only five information service intermediaries explicitly referred to this interaction as the reference interview, it was implied by all information service intermediaries:

> Helping the users get information, getting the books and acquisition meaning obtaining new information. – **Daniel**

> The role of the intermediary is to provide information, a person would come to you with an information need, then through a reference interview trying to understand more about the topic itself and the kind of information they require, such as hardcopy, softcopy, and also the amount of information that they require. – **Alexander**

#### 4.3.1.2 Client advisory and guidance

From the analysis, the theme of client advisory and support encompasses activities such as guidance on publishing and assisting in the information retrieval projects. Ten participants mentioned that, apart from looking for information on behalf of the clients, they also actively help clients in accessing and utilising information resources effectively. From this theme, two sub-themes stood out: research support and publishing advisory.

### (a) Research support

Three participants mentioned their involvement in various aspects of the client's research process, including literature searches, assisting in obtaining information and managing information centres to facilitate research activities across the organisation:

> I manage the information centre, making sure that clients have the information that they need... Furthermore, giving them information that they need. – **Kinsley**

> I further help them to seek for information for themselves. – **Oliver**

> My role is to help clients to obtain the information they need. This involves not only information retrieval, but also assisting in the acquisition of relevant resources for research purposes. – **Alice**

#### (b) Publishing advisory

This quote below shows the information service intermediaries' involvement in literature searches, market searches and crucial components of research. Additionally, they offer advisory services such as giving advice on Open Access models and the suitable journal to use:

> Both of us will do literature searches, market searches, and patent searches... We do publish advisory as well... We advise researchers on Open Access models, the transformative agreement, suitable journals to publish in, the publication equivalent guideline of company XYZ, and the criteria to be followed there. – **Alexander**

From the themes and sub-themes discussed in sections 4.3.1.1 to 4.3.1.2, the main theme to explain the role of the information service intermediary is the facilitation of information seeking and client guidance. The facilitation of information seeking, and client guidance encapsulates the information service intermediary's dynamic engagement with clients, active involvement in information retrieval and searching, and their commitment to providing comprehensive and research support. These information service intermediaries often function as information gatekeepers and facilitate reference interviews to understand the information needs of clients. The intermediaries further assist in the effective facilitation of information exchange, research support and the overall success of information use and dissemination. The next sections (sections 4.3.1.3 to 4.3.1.4) discuss the responses of the competitive intelligence intermediaries. This builds on the foundation of information service intermediaries discussed above. By understanding the intermediary's role as understood by information service intermediaries and competitive intelligence intermediaries, the aim is to draw insightful similarities and comparison with regard to their information services.

### Responses from competitive intelligence intermediaries

#### 4.3.1.3 Multifaceted role in competitive intelligence projects

While the role of the information service intermediaries above were more streamlined to information services and information seeking, the competitive intelligence intermediaries have more multifaceted roles, which encompass diverse tasks. These include identifying areas of business improvement and planned interactions with clients regarding projects. The versatility of competitive intelligence intermediaries highlights their ability to adapt to different aspects of the business environment. Three sub-themes emerged from this theme: understanding the clients' needs; dynamic project responsibilities; and advisory role and guidance.

**a) Understanding the clients' needs**

In contrast to information service intermediaries, most competitive intelligence intermediaries were very brief in their responses to this question. This could be because they saw this as a minor detail in a larger picture and felt there was no need to go into detail. Only when probed further about soliciting the needs of their clients, five of the competitive intelligence intermediaries suggested that the ability to understand and navigate through the needs of diverse clients is a crucial point:

> Before the start of any project, the competitive intelligence intermediaries have to clearly understand the clients' needs. – **James**

> When the client called us, I had some brief idea of what is that they want[...] Before we start a project, we would always have lengthy discussion regarding what they need us to do. – **Thomas**

> …we would then have a conversation in order to understand what they want. – **Henry**

> It is actually company policy for us to have real-time sessions with the clients over briefings in order to find out what they want. – **George**

> I would also ask the client to explain in simple terms what is it that they want. From this interaction I will get a rudimentary idea of what is needed. – **Arthur**

**b) Dynamic project role responsibilities**

From the interviews with the competitive intelligence intermediaries, it was noticed that their roles as intermediaries are characterised by perpetual changes and diverse challenges.

> As a competitive intelligence intermediary, you are not necessarily doing one thing or doing the same project continuously, you are not fixed to one thing. For this one project, I was also in one project where I had to be responsible for the implementation of the project, collecting all the information required, developing the blueprint. – **Michael**

> It depends, a project usually runs for a quarter of a year or even more so during the duration of the project your roles and responsibilities will change. – **Robert**

#### c) Advisory role and guidance

Three competitive intelligence intermediaries mentioned their pivotal role in both seeking areas of improvement and contributing to strategic advice:

> As competitive intelligence intermediary, my role is to look for areas of improvement and I also serve in the advisory panel. – **Emily**
>
> I provide marketing and competitive solutions to companies… – **Edward**
>
> My role is to look at what organisations are doing with their information in terms of how they share their information, store information and utilise information, I then provide advice and methods on how they can improve their information usage. – **Madison**

From the themes and sub-themes discussed above (in Section 4.3.1.3), the main theme that emerged was information integration and organisational synergy. This theme encapsulates the competitive intelligence intermediary's role in understanding the client's needs, perusing areas of business improvement and participating in advisory panels. It is evident from the data presented above that information service intermediates prioritise meeting the information needs of their clients, while competitive intelligence intermediaries have diverse job responsibilities that vary depending on the kind of project on which they are working. Furthermore, competitive intelligence intermediaries do not only serve the individual needs of their clients, but should also have an understanding of the bigger picture of what the organisation is trying to achieve. It is also observed that information service intermediaries have more defined functions, whereas the competitive intelligence intermediary's job is flexible during the project. The next section focuses on the triggers and motivators of both information and key intelligence needs.

### 4.3.2 What are the triggers of clients' information and key intelligence needs?

This section presents the data obtained from Question 2. The central question guiding this section is: "What are the triggers and motivators of clients' information and key intelligence needs?" As information service and competitive intelligence intermediaries assist clients to acquire information, understanding the information triggers ensures an effective process. The responses of both information service and competitive intelligence intermediaries presented in this section explore the nuanced perspectives and practices surrounding the disclosure of information need triggers by clients and professionals. Through the examination of responses from both competitive intelligence and information service intermediaries, the themes and sub-themes are presented in Table 4.5.

**Table 4.5 Question 2's emergent codes**

| **Question 2: What are the triggers and motivators of clients' information and key intelligence needs?** | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Clients do not share their triggers or the need for competitive intelligence requests<br>(b) Clients are not aware of the vast information that could solve their problem | Lack of client disclosure of information needs and trigger | *Client non-disclosure and streamlined information retrieval* |
| (a) Clients assume the information service intermediary already knows the purpose<br>(b) Discrepancy between the initial request and the actual information need | Assumption and communication challenges | |
| | | |
| **Competitive intelligence intermediaries** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Clients do not share their triggers or the need for competitive intelligence requests<br>(b) Clients are not aware of the vast information that could solve their problem | Lack of client disclosure of key intelligence needs triggers | *Client non-disclosure and streamlined information retrieval* |
| (a) Understanding the trigger helps to avoid project misalignments | Benefits of client disclosure of key intelligence needs | |

**Responses from information service intermediaries**

**4.3.2.1 Lack of client's disclosure of the information need trigger**

From this theme, two sub-themes emerged: clients do not share their triggers or the need for competitive intelligence requests; assumption and communication challenges.

**(a) Clients do not share their triggers or the need for competitive intelligence requests**

Three information service intermediaries mentioned that they always stress the importance of knowing what the information will be used for and what is the underlying reason or trigger of the information need as such information will help streamline the information searching process:

> I stress the significance of knowing the trigger for information before diving into the search process. This emphasis on understanding the underlying reasons behind the information need is not just about fulfilling a request; it's about delivering valuable and relevant insights. – **Alice**

> By knowing the trigger, I can anticipate the potential outcomes and nuances associated with the information, ensuring a more strategic and purposeful approach to the retrieval process. – **Kinsley**

> ...I always ask the clients what the purpose of looking for the information is and what are they needing it for, I further try to break down their information need into components... – **Peyton**

**(b) Clients are not aware of the vast information that could be used to solve their problems**

The quote below shows the vast amount of information that can be consulted to solve a problem, which it is not specific to what the client is looking for. Therefore, it is important to share one's information need trigger and the purpose of seeking information with the information intermediary as this narrows down the search process to more precise results.

> The information landscape is diverse, and different triggers can lead to varied outcomes. I often explain to clients that the information they seek can yield three to four different types of results. This awareness is crucial for them to comprehend the depth and breadth of information available. By acknowledging the potential diversity, clients are better equipped to refine their requests, making the entire information retrieval process more efficient and tailored to their specific needs. – **Winter**

#### 4.3.2.2 Assumption and communication challenges

Two sub-themes emerged from this theme: client assumes the information service intermediary already knows the purpose; discrepancy between the initial request and the actual information need.

**(a) Client assumes the information service intermediary already knows the purpose**

Since information service intermediaries are employed at organisations and work closely with employees on projects, at times, clients just assume that the information service intermediaries are already aware of the purpose behind their request:

> Usually, the client will not tell you about the trigger for information. However, I ask them what they need the information for. – **Oscar**

> Some people do give you a bit of a brief, a bit of context, but I think most cases they just give you the information they need, not even necessarily all the keywords that are relevant or pertain to the search that they want done. – **John**

> It's important to know the information trigger and use in order to search for the correct information. – **Daniel**

**(c) Discrepancy between the initial request and the actual information need**

Two information service intermediaries mentioned that, in most information requests, there are discrepancies between the initial request and the actual end goal of the information search. Therefore, knowing why the information is required forms an alignment between the information search and the ultimate goal:

> Often, when you speak to the client, you realise that the initial request was definitely not what the end goal was. – **William**

> Clients will come to you with a very cryptic email, and you have no idea what they actually want. – **Oliver**

From the themes discussed above, the main theme derived was client non-disclosure and streamlined information retrieval. Most of the information service intermediaries mentioned that clients hardly tell them the triggers of their information need until they ask them. From the responses, it was noticed that clients seeking information hardly share why they need the information, the purpose of the information search and what triggered the information need.

By initiating a transparent dialogue with the client, the information service intermediary creates a path for a more targeted and effective information retrieval process. The emphasis on knowing the triggers and motivators for information not only acknowledges the diverse potential outcomes, but also ensures a targeted information search. When asked the same question, competitive intelligence intermediaries provided responses that were similar to those of information service intermediaries. The following sections (sections 4.3.2.3 to 4.3.2.4) examine responses from the competitive intelligence intermediaries.

**Responses from the competitive intelligence intermediaries**

#### 4.3.2.3 Lack of client disclosure of key intelligence need triggers

Two sub-themes emerged from this theme: clients do not share their triggers or the need for competitive intelligence requests; and clients are not aware of the vast information that could solve their problem.

**(a) Clients do not share their triggers or the need for competitive intelligence requests**

Without providing reasons or elaborating further, two competitive intelligence intermediaries mentioned that clients often do not share the triggers of their key intelligence needs. When probed as to what could be the cause, the participants alluded to the fact that most clients do not think this it is necessary to share the trigger of the key intelligence needs as it will not have an impact on the project deliverables:

> Most clients do not tell me why they need the information. – **Robert**

> Most of the clients that I have dealt with will not explicitly mention why they need the information, I assume that they think it may not be important for the project. – **Emma**

**(b) Clients are not aware of the vast information that could solve their problem**

Three competitive intelligence intermediaries mentioned that clients may not fully comprehend the wealth of information that can be consulted. One of the competitive intelligence intermediaries mentioned that in most small companies, the triggers and motivators to clients' needs are often not visible, as they will just copy and paste project specifications from previous projects or those of bigger companies without giving it any thought:

> Clients are also not aware that there are a lot of information sources. – **Emily**

> Most small companies are less on the why, but very mature companies spell out the why. Most companies would just copy and paste the project specifications from previous initiatives or initiatives of big companies, and jump directly to the requirements of the project, without thinking about why we need this. – **Michael**

> To understand fully what the client wants I would always ask, what is it that you would like to achieve? And what would you want your final goal to be? Then if they do not have a goal then it makes it difficult to understand what they want. These questions must always be asked upfront. – **George**

#### 4.3.2.4 Benefits of client disclosure of key intelligence needs

One sub-theme stood out from this theme: understanding the trigger helps with project misalignment.

**(a) Understanding the trigger helps with project misalignment**

Two competitive intelligence intermediaries talked about how knowing the triggers of the key intelligence needs benefits the project:

> Understanding the trigger helps you to narrow down the search and avoid searching broadly. – **Emma**

> The request submission that we force our clients to submit always stipulates what is the ask and why is it needed. In my template, I always ask what is the problem? Never ask what the requirements are. Try to use simple terms as someone might interpret the term requirements differently. I also ask what are the risks? What is your proposed solution? So going into this you already know what the client expects. – **Emma**

From the themes above (Section 4.3.2.3 to 4.3.2.4), the main theme that emerged was client non-disclosure and streamlined information retrieval. Although information service and competitive intelligence intermediaries use different entry points, they share a fundamental understanding of the difficulties and significance of comprehending clients' information triggers. They also both place a strong emphasis on proactive inquiry, clarity, and the advantages of clients' information needs triggers. The next section will present Question 3.

### 4.3.3 What involvement do you have in soliciting the client's information and key intelligence needs?

The success of intermediaries hinges on their ability to bridge the gap between what the client requests and the information sought. Therefore, Question 3 asked both the information service intermediaries and the competitive intelligence intermediaries what their role was in soliciting the client's needs. This included the interactive dialogue they engage in, reference interviews and all interrogative methods and strategies. From the responses, it was evident that both competitive intelligence intermediaries and information service intermediaries mentioned that they employ a combination of strategic approaches and interactive methods to effectively solicit the needs of the clients. Table 4.6. shows the themes and sub-themes that emerged from this question.

**Table 4.6 Question 3's emergent codes**

| **Question 3: What involvement do you have in solicitating the client's information and key intelligence needs?** | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Importance of clarifying needs and identifying gaps<br>(b) Requesting a meeting to understand specific information needs | Information needs and gap analysis | *Information needs soliciting and assessment* |
| (a) Importance of being familiar with the domain of the requested information | Domain familiarity | |
| (a) Breaking down the information need into searchable pieces | Breaking down the client's request | |
| **Competitive intelligence intermediaries** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Pre-meeting knowledge<br>(b) Research before face-to-face interview | Understanding client request and preparation | *Integrated client's engagement strategy* |
| (a) Conducting a fit gap analysis | Information needs and gap analysis | |

| | | |
|---|---|---|
| (a) Importance of prototypes and examples | Building scenarios from the client's needs | |
| (a) Prioritising key intelligence needs in terms of impact and duration | Breaking down the client's request | |

**Responses from information service intermediaries**

#### 4.3.3.1 Information needs analysis and gap analysis

Following the responses of participants, this theme yielded two sub-themes: clarifying information needs before initial search; and requesting a meeting to understand specific requirements:

**a) Importance of clarifying needs and identifying gaps**

Understanding the client's needs revolves around the process of comprehending the specific requirements and objectives of clients seeking information services. This encompasses the importance of clarifying the client's needs, which goes beyond the initial request, and seeks additional information that will ensure a comprehensive understanding of the client's information needs:

> They usually send me an email or they will call me directly on Teams. The email is usually not enough. Unless you work with a researcher for a long time, then you will know more or less what it is that they want, but what I do find is that before you start searching, I would first clarify what it is that they actually want. – **Joseph**

> …I further try to break down their information need into components. – **John**

**b) Requesting a meeting to understand specific information needs**

Four information service intermediaries pointed out that most of the time they receive requests in the form of emails, which they follow up by organising in-person meetings with the client:

> They usually send me an email or they will call me directly on Teams. The email is usually not enough. Unless you work with a researcher for a long time, then you will know more or less what it is that they want, but what I do find is that before you start searching, I would first clarify what it is that they actually want." **– Alexander**

…and you know if that's not clear enough, then a meeting transpires to get the context and better understanding and then going from there. – **Kinsley**

During the meeting I ask them questions without showing them anything, for then you realise that there is a huge gap between what they asked and what is in their mind, or you notice that what they want and what they asked for is two completely different things, so you draw down to exactly what they want. – **Kinsley**

…. It depends, if it is something that is straightforward then I can search for it, but if it is more complex, then I will ask the student to come to my office to have a discussion. – **John**

#### 4.3.3.2 Domain familiarity

One sub-theme stood out from this theme: the importance of being familiar with the domain of the requested information.

**(a) Importance of being familiar with the domain of the requested information**

Four information service intermediaries explained that it is important to familiarise oneself with the domain for which the information is being requested. Understanding the domain significantly enhances the intermediary's ability to effectively assist the clients:

If I get an information request from a client, I will respond by requesting for a meeting. However, before that meeting, I will first read up on that topic. – **Oscar**

…So, as an information specialist, you first need to learn the domain of the required information. – **Kinsley**

…before setting that meeting, you must first do your homework, you must make sure that you know all the definitions of the concepts surrounding that domain. You can do some researching. – **Brett**

If it is a domain that I am not familiar with, I would ask them specific questions on the domain, e.g. explain to me how a turbine engine works or explain to me that specific formula. – **William**

#### 4.3.3.3 Breaking down the client's request

One sub-theme was highlighted under this theme: breaking down the information need into searchable pieces.

**(a) Breaking down the information need into searchable pieces**

One of the participants provided an elaborate example and description of the steps they would take to break down an information need into searchable pieces:

> …Let's take COVID-19 as an example. A client has come in seeking information regarding COVID-19. What specific information are you seeking? Are you seeking the number of persons who have tested positive for COVID-19 or the number of people who have had the virus? Or are you looking for information about the provinces with respect to the number of cases that are currently active? The client can state, "I want to find death statistics related to COVID-19." What sort of data are you trying to find? Following that, we attempt to distil the broad, general title down to the precise details that this user needs. After that, they will respond by saying, "Okay". **– Alice**

The main theme that emerged from the themes and sub-themes from Section 4.3.3.1 to 4.3.3.3 is information needs soliciting and assessment. Responses from the participants above reflect the strategic efforts to solicit information needs from clients. This entails clarifying clients' needs before the initial search. Furthermore, 'domain familiarity' highlights the importance of information service intermediaries to recognise a client's specific domain, thereby asking targeted questions to refine their requests. This does not only ensure accurate responses, but also shapes and enhances clients' understanding of their information needs. The next section explores responses by competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

#### 4.3.3.4 Understanding client's request and preparation

Two sub-themes where highlighted under this theme: pre-meeting knowledge; and research before the face-to-face interview.

**(a) Pre-meeting knowledge**

This theme underscores the proactive stance taken by competitive intelligence intermediaries to familiarise themselves with the client's needs before the initial interaction with the clients.

Furthermore, emphasis is placed on the steps taken by the competitive intelligence intermediaries to prepare themselves prior to client engagement. Four competitive intelligence intermediaries mentioned that it is crucial to learn about your client before meeting with them. This means leveraging information that is in the public domain, such as company websites, and additional research. This preliminary knowledge facilitates a more informed conversation when clients initiate contact:

> Since our services are displayed on our company website, when a client calls us, I already have some brief idea of what it is that they want, I would also ask, what is it that you want us to do, as in what do you want to achieve with this project. I would also ask the client to explain in simple terms what it is that they want. – **Madison**

> …I would have understood before we meet face-to-face, therefore having some knowledge about what is required before meeting with the client helps to ask the correct questions. – **Emma**

> Before we try to understand the needs of the client, we first look at the specification document that the client submitted. – **Robert**

> … You also want to understand every detail about their organisation. – **Emily**

**(b) Research before the face-to-face interview**

Three competitive intelligence intermediaries mentioned that one should always know who their clients are before engaging in face-to-face interviews with them. According to one participant, it helps to know what hobbies your clients are into as they form some form of relationship before they can go into specifics of what they need:

> The first phase was obviously researching the clients… – **Henry**

> Always research your clients before you go into these interviews, if you are able to prepare for a job interview, then you must also do your due diligence for these reference interviews. – **Sutton**

> …at times I always go the extent of researching what the clients actually like to do in their free time or what type of sports they are into. I will then kick off the conversation with something I know that they like. By doing this, it already creates some form of relationship

between you and the client and makes the client free. Once the client is free, they will be able to talk to you about their need without holding anything back. Although it may take time, always make sure you know something about your client that can open the floor for a smooth conversation. – **Michael**

#### 4.3.3.5 Information needs and gap analysis

One sub-theme was highlighted in this theme: conducting a fit gap analysis.

**(a) Conducting a fit gap analysis**

Four competitive intelligence intermediaries mentioned that, while trying to analyse the key intelligence needs of the clients, they will perform a fit gap analysis, which aims to evaluate the alignment or fit between the service that they offer and the specific requirements of the clients. The gap refers to areas where there is a misalignment or deficiency between what the competitive intelligence intermediaries offer and what the organisation needs. The gap is usually resolved by discussions on how best to offer alternatives that could work for the client:

> …it is also recommended that we meet more than once, sometimes not all stakeholders will be available, so you do get the ball rolling and we have to document as much as you can and we can share that information with everyone that missed the sessions, so we recommend at least two to three sessions. The first session, you put down a rough draft of what exactly the client is asking for. The second session is about polishing on the first session and trying to get through all the points that we could not discuss in the first session. Then we send a document that shows all their information needs and requirements. They have to sign off on the document clearly stating that what is written in the document is what they are asking for. The last session is there to clarify on all the outstanding information requirements, or any modifications to the initial information needs are welcome, and it’s better than what they had initially thought. – **Michael**

> If the clients’ proposal is accepted by the team, it would then go into a fit gap analysis. Once that is done, we would have a one-week workshop to discuss exactly what the client needs and that is where we would go into detail on each specific requirement. – **Michael**

> The client will first send out a request saying that they want to use our services. We will then have what we call a fit gap analysis. It is vital to know what the company wants and if it fits our services. – **Edward**

> The last session is there to clarify all the outstanding information requirements, or any modifications to the initial information needs are welcome and it's better than what they had initially thought. – **Sutton**

#### 4.3.3.6 Building scenarios and images from the client's needs

One sub-theme emerged from this theme: the importance of prototypes and examples.

**(a) Importance of prototypes and examples**

Four competitive intelligence intermediaries mentioned that offering the client a tangible representation of the outcome enhances the client's understanding of their information need. These tangible representations and visual aids ensure that the competitive intelligence intermediaries and the client have a shared vision of the information need:

> …so, coming into this meeting, I would do some research of what a dummy project would look like. – **Henry**

> Over the years with working with clients, we have never not done a prototype or an example of the final project, we would always show the client a different example of what the project would look like or what the project will deliver. – **Edward**

> It is important to first show the client what the end product will look like. Yes, it's very beneficial because, in our environment, that's what we do first. – **Arthur**

> …we will tell them that this is the general functionality of what you require, a very high level of their request. What is also important is to paint scenarios, you have to paint a picture for the client, so you ensure that you are all conceptually talking about and imagining the same thing. – **Sutton**

#### 4.3.3.7 Breaking down the client's request

From this theme, one sub-theme stood out: prioritising key intelligence needs in terms of impact and duration.

(**a) Prioritising key intelligence needs in terms of impact and duration**

Four competitive intelligence intermediaries expressed that a request for a project is usually multiphase, therefore they have to prioritise the information needs by considering the duration of the task, as well as the impact:

We rank the priorities on what should happen first, and a lot of it was also based on how long the certain thing would take. So even if this could be something of a low priority, we put it with something of a high priority so that it doesn't extend the project.

If we begin a modest project that will take three months or less to finish, and if it can be completed concurrently with another activity, we do so in order to avoid expanding the project beyond its intended scope. – **Madison**

It all goes back to the initial conversation with the client, from the initial request, you kind of know how you will engage with them. So, there is a high-level spreadsheet or checklist that touches on the specifics of the client's needs. The spreadsheet also shows what is a high priority and what is a low priority for the clients, also indicating what is a show stopper for them, so going into the workshop you already know how to get their attention based on the priorities that they have outlined in the spreadsheet, then from that you can say to the team to show the client what services we can offer. – **Michael**

In these projects, there is some form of a phased approach to discuss what is known and where we should be going. It is almost forced upon us from a project manager point of view. – **Thomas**

From the responses from the competitive intelligence and information service intermediaries, the themes and sub-themes collectively unveil a comprehensive approach undertaken by both professionals to solicit, address and understand the diverse information needs of their clients. They produced the main theme, integrated client's engagement strategy. Both the competitive intelligence intermediaries and the information service intermediaries pointed out the information needs and gap analysis, which for competitive intelligence intermediaries has to do with clarifying and identifying gaps in the client's needs, while for competitive intelligence intermediaries, the information needs and gap analysis considers the need of the client in relation to what the competitive intelligence intermediaries can offer. Furthermore, both groups of participants mentioned that they break down the client's needs into manageable pieces of information or phases. The use of visuals and scenarios was also emphasised. The themes further underscore the importance of proactive measures such as pre-meeting knowledge of the clients and conducting thorough research before the initial engagement with the client. The subsequent question asked the participants if there is any best method for soliciting information and key intelligence needs.

### 4.3.4 How do you address unrecognised and dormant client information and key intelligence needs?

Subconscious or dormant information needs refer to the fact that people do not always fully recognise the scope of their information need and, as a result, cannot fully express their information and key intelligence needs. Therefore, Question 4 asked the participants how they address unrecognised and dormant client information and key intelligence needs. The responses from the participants show that thorough probing and active engagement help to identify the true information need. The themes that emerged from this question are shown in Table 4.7.

**Table 4.7. Question 4's emergent codes**

| Question 4: How do you address unrecognised and dormant client information and key intelligence needs? | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Discrepancy between information needs and wants<br>(b) Dealing with uncertainty | Clarification of information needs | *Inquiry and adaptation of the information need* |
| (a) Adjusting the information need | Information needs revaluation after reference interview | |
| | | |
| **Competitive intelligence intermediaries** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Addressing ambiguities and avoiding misalignments<br>(b) Client engagement through whiteboarding scenarios | Clarification of key intelligence need | *Inquiry and adaptation of the information need* |

**Responses from information service intermediaries**

#### 4.3.4.1 Clarification of information needs

Two sub-themes merged from this theme: the discrepancy between information needs and wants; and dealing with uncertainty.

**(a) Discrepancy between information needs and wants**

Three information service intermediaries mentioned that they use thorough questioning to bridge the gap between the initial information need and the often nuanced subconscious information needs:

… but what I do find is that before you start searching, I would first clarify what it is that they actually want. – **John**

During the meeting I ask them questions without showing them anything, you realise that there is a huge gap between what they asked and what is in their mind, or you notice that what they want and what they asked for is two completely different things, so you draw down to exactly what they want. I further drill down on the specifics on the information need, why do you think this information is obtainable, what makes you want this information. – **Brett**

I think that initial sort of engagement with them kind of helps to establish an understanding what they want out of that search. – **William**

**(b) Dealing with uncertainty**

In the realm of information retrieval, the complexities often lie in solving ambiguous information needs. The response below shows how the information service intermediary would guide their client to the actual information need:

Some people do not know what they are looking for. They have an idea of what they are looking for. In such a case, I will ask more questions. An example can be if someone asks for information on when Mandela was in prison, I will ask what do you want to know about the timeline, are you interested in the negotiations when he was in prison? Do you want the activities when he was in prison? Or any specific event? Another example, a person can say I am hosting a heritage event, I want all the books on heritage, then I will ask question such as which culture do you want to focus on? Which province? – **Winter**

**4.3.4.2 information need revaluation after the reference interview**

One sub-theme stood out from this theme: adjusting the information need.

**(a) Adjusting the information need**

Two information service intermediaries highlighted the importance of well-executed reference interviews, and mentioned that after the reference interview, clients will often realise that what they are looking for is different from the initial information need that they had:

Trying to understand from somebody who doesn't fully understand, that's when we engage in a reference inquiry. We get clients coming in saying that I need information about this, and when we take it a step further, trying to understand the topic they are dealing with. Once you sit down with the client to discuss more specifics about the topic, they will often start saying: “Oh, I was not aware that this is actually the information I am looking for.” – **Oliver**

And then you have clients that have an idea of the information that they require, but after the reference interview, they realise that the information need has changed. – **Daniel**

Following these themes discussed in sections 4.3.4.1 to 4.3.4.2, the main theme derived was inquiry and adaptation of the information need. In order to decipher subconscious and dormant information needs, the information service intermediaries emphasised clarifying the information need and getting to the specific details of the information need. The information service intermediaries further mentioned that well-executed reference interviews will close the gap between the initial information request and the actual information need. The following section presents the responses of the competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

#### 4.3.4.3 Clarification of key intelligence needs

One sub-theme was highlighted under this theme: addressing ambiguities and avoiding misalignments.

**(a) Addressing ambiguities and avoiding misalignments**

Three competitive intelligence intermediaries mentioned the need to ask more questions regarding the information need to ensure that there are no misalignments and misunderstandings:

I always imagine the soliciting of information needs as a search and rescue meeting, because you have to get in this meeting and rescue the information from these people’s heads, because once they lock it in, they do not really open up as much as they should. – **Edward**

Basically, if you are a competitive intelligence intermediary and you do not know how to ask good follow-up questions, your life will be difficult. It is important that, for every information need that the client has, you have a follow-up question, think about all the edge cases, all the scenarios, because someone might say that they want a car that has five wheels, but what they meant to say is that they actually want a car with four wheels and one spare wheel, but how they phrase it sounded like all wheels must be operational. You have to make sure that we are picturing the same thing. – **Madison**

Sometimes because an organisation did not know what they want in the beginning, the end result is what they do not want and then everybody is unhappy. – **Edward**

**(b) Client engagement through whiteboarding and scenarios**

Two competitive intelligence intermediaries mentioned that having visuals representing the key intelligence needs can unravel a subconscious information need. Two issues were identified in this theme:

I always tell the team to rather show than to tell, or rather whiteboard, so basically you break down the problem into a flow diagram or step-by-step process. So, once you start making the information need visual, then clients can start saying “oh, we missed that, and we missed that.” **– Henry**

It is important that, for every need that the client has, you have a follow-up question, think about all the edge cases, all the scenarios. – **Robert**

From the theme and sub-themes discussed in Section 4.3.4.3, the main theme is inquiry and adaptation of the information need. In order to identify a client's subconscious and dormant information needs, it is crucial to align with their needs by following up with questions and resolving any uncertainties. A deeper comprehension of the clients' needs is facilitated by the use of scenarios and images to illustrate such needs. Both the competitive intelligence intermediaries and information service intermediaries emphasised the clarification of the client’s needs. The next section explores methods that are effective for soliciting clients’ needs.

### 4.3.5 Which methods are effective for soliciting and negotiating clients’ needs?

Question 5 asked both the competitive intelligence and the information service intermediaries which methods are effective for soliciting and negotiating clients’ needs. The methods identified by both groups of participants included face-to-face interaction and email correspondence. Both groups of participants also mentioned challenges associated with each method. Table 4.8. shows the themes and sub-themes that emerged from the responses.

**Table 4.8: Question 5's emergent codes**

<table>
<tr><th colspan="3">Question 5: Which methods are effective for soliciting and negotiating clients' needs?</th></tr>
<tr><th colspan="3">Information service intermediary</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) Email communication or online call<br>(b) Face-to-face interaction</td><td>Communication methods</td><td rowspan="2">Strategies and challenges in soliciting information needs</td></tr>
<tr><td>(a) Challenges with summarised emails</td><td>Information needs soliciting challenges</td></tr>
<tr><td colspan="3"></td></tr>
<tr><th colspan="3">Competitive intelligence intermediaries</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) Transitioning to face-to-face meetings for better understanding</td><td>Communication methods</td><td rowspan="3">Strategies and challenges in soliciting information needs</td></tr>
<tr><td>(a) Workshop sessions to discuss the need</td><td>Workshops and detailed analysis</td></tr>
<tr><td>(a) Lack of atmosphere assessment with email communication</td><td>Key intelligence needs soliciting challenges</td></tr>
</table>

**Responses from information service intermediaries**

### 4.3.5.1 Communication methods

Seven information service intermediaries mentioned that they use a combination of communication methods to solicit information needs from clients, but the preferred communication method is face-to-face interaction. Participants mentioned that communication usually starts with an email, then if the information need is complex, the next form of communication will be face-to-face communication. Two sub-themes emerged from this theme: email communication or online call; and face-to-face interaction.

**(a) Email communication or online call**

Email and virtual communication platforms have emerged as prominent ways for initiating conversation and dialogue. The quote below explains how some information requests are made through email or via a Teams call:

They usually send me an email or they will call me directly on Teams. The email is usually not sufficient. Unless you have worked with the researcher for a long time, then you will have an idea of what they want. – **John**

**(b) Face-to-face interaction**

Almost all information service intermediaries indicated that they preferred face-to-face interactions. Three information service intermediaries mentioned that when they are faced with vague and ambiguous client needs, the preference for face-to-face interactions becomes paramount to decipher the complexities of the client’s information need:

> If someone was to ask you for information on email, you must set up a meeting with that client. – **Oliver**

> Some clients will just give you vague description of their information needs, then you got to try and figure it out or have a quick meeting with them or ask for context, asking for keywords, that kind of thing. – **Joseph**

> It depends. If it is something that is straightforward then I can search for it, but if it is more complex, then I will ask the client to come to my office to have a discussion. I usually prefer a face-to-face interaction to avoid back and forth because sometimes they may not know what I am talking about. When a request is sent through email, it may not be clear, but when it’s a face-face interaction, it gives me the opportunity to ask more questions. – **Winter**

#### 4.3.5.2 Information needs soliciting challenges

One sub-theme stood out from this theme: challenges with summarised email communication.

**(a) Challenges with summarised emails**

Six information service intermediaries mentioned that information needs that come in the form of emails at times create some form of ambiguity as clients may not always articulate their information needs with precision. At times, users send summarised requests for information, which lack the depth necessary for a comprehensive understanding of the client’s needs:

…definitely, because the thing is, as I said, you know, the emails are often very summarised, you know, or an abstract, and as I say often, you look at the question and you don't actually understand where they're coming from because, you know, with us information specialists, we've got so many different clients in different fields that you know if you just get a question sort of pounced on you, you know sometimes we don't know. – **Winter**

Some people do give you a bit of a brief, a bit of context, but I think in most cases they just give you the information they need, not even necessarily all the keywords that are relevant or pertain to the search that they want done. – **Winter**

From the themes and sub-themes discussed above, the main theme, strategies and challenges in soliciting information needs, can be deduced. From the responses above, the information service intermediaries strategically merge email and face-to-face communication to create a holistic understanding of the information need. However, these efforts are not without challenges, as participants have highlighted that some clients send information requests that are limited in scope and vague. The following sections highlight the significant responses of the competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

#### 4.3.5.3 Communication methods

From this theme, one sub-theme stood out: face-to-face meetings for better understanding.

**a) Transitioning to face-to-face meetings for better understanding**

Similar to information service intermediaries, four competitive intelligence intermediaries mentioned the importance and preferences of face-to-face meetings. One competitive intelligence intermediary highlighted that the client’s needs do not necessarily come only in the form of emails, stating that:

> There are multiple ways in which communication is handled in terms of information needs. Consulting firms usually engage in conferences. Communication does not necessarily start with an email, sometimes these engagements are informal, maybe at a conference, maybe someone knows someone, therefore it is not always through email. The request and information need also rely on networking.

The responses presented below show the preferences of the competitive intelligence intermediaries:

> …that is one of the reasons the face-to-face conversation was so important to me personally, because I think that if you can sit down and talk to someone, you're already well ahead of the competition, which is only going to do all of their work by sitting and talking to people. – **Henry**

> It's much easier to gauge the mood of your clients in a face-to-face conversation. – **Arthur**

> The initial conversation was either face to face or over the phone. However, if it was over the phone, we would later have a face-to-face conversation to understand what they want and that would be written down as scope of work contract. – **Emma**

> Face-to-face conversation is so important to me personally, because I think that if you can sit down and talk to someone, you're already well ahead of the competition, which also completes half of the work required, since understanding the needs takes the majority of the project’s time. – **Sutton**

#### 4.3.5.4 Workshops and detailed analysis

From this theme, one sub-theme emerged: workshop sessions to discuss the need.

**(a) Workshop sessions to discuss the need**

Although highlighted by one competitive intelligence intermediary, conducting workshops that only focus on discussing the client’s needs fosters participation, sharing insights and enhances the understanding of the client’s needs. To fully understand clients’ needs, some competitive intelligence intermediaries and teams would host workshops, which would also include the client. The workshops serve as an arena to interactively discuss the information needs and the project:

> Once that is done, we would have a once-a-week workshop to discuss exactly what the client needs and that is where we would go into detail on each specific requirements of the project and need. – **Edward**

#### 4.3.5.5 Key intelligence needs soliciting challenges

People do not only convey information through spoken language, but also through body language, tone of voice and other non-verbal signals. These are, however, impossible to observe when communicating with a client through email. Similarly, one cannot judge the communication atmosphere through email. One sub-theme stood out: lack of atmosphere assessment with email communication.

**(a) Lack of atmosphere assessment with email communication**

> I think especially email is very hard to judge intent and atmosphere and you know that's not quite tangible, they're not quite obvious things when you email compared to when you are there with the person, it is easier to understand where the person is coming from, what they're trying to do, how they feel. It's much easier to guess this in a face-to-face conversation. And because it is easier to guess that, it is easier to tailor your responses quicker and better when you're there in person. – **Michael**

A similar main theme, strategies and challenges in soliciting key intelligence needs, can be deduced from the themes and sub-themes of the competitive intelligence intermediaries' responses. From the responses of both the information service intermediaries and the competitive intelligence intermediaries, there is a shared emphasis on the significance of face-to-face interaction because of the advantages it brings. The next question focused on the systematic guidelines used by both groups of participants in soliciting information and key intelligence needs.

### 4.3.6 What frameworks, guidelines and strategies do you use to solicit information and key intelligence needs?

Question 6 asked the participants about frameworks, methods and strategies they use to solicit clients' needs accurately. While the competitive intelligence intermediaries mentioned that they do not follow any strict strategies and guidelines that are specifically designed to facilitate the soliciting of client needs, they noted that there are policies within companies such as contracts and checklists which they adhere to when interacting with clients. It was further noted that there is an overlap with this question and the previous one in that most participants repeated what they had already said in the previous question. While the information service intermediaries mentioned that they also have no strict strategies, they however provided theoretical or mental steps that one could logically follow when trying to solicit client information needs. Two of the sub-themes that emerged from both the responses of the information service intermediaries and the competitive intelligence intermediaries are “setting up of meetings with clients to clarify any unfamiliar components or concepts of the client’s needs” and that “there are no guidelines used to solicit clients’ needs”, and both competitive intelligence intermediaries and information service intermediaries rely on flexible and adaptable methods. The themes and sub-themes that emerged from this question are displayed in Table 4.9

**Table 4.9 Question 6’s emergent codes**

<table>
<tr><th colspan="3">Question 6: Which methods, frameworks and guidelines do you use to solicit information and key intelligence needs?</th></tr>
<tr><th colspan="3">Information service intermediary</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) Meetings with clients to clarify the client’s needs<br>(b) Probing for more information in complex clients’ requests</td><td>Various information soliciting strategies</td><td rowspan="2">Non-rigid and adaptable strategies</td></tr>
<tr><td>(a) No strict guidelines</td><td>Adaptability</td></tr>
<tr><td colspan="3"></td></tr>
<tr><th colspan="3">Competitive intelligence intermediaries</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) No strict guidelines<br>(b) Meetings with clients to clarify the client’s needs</td><td>Adaptability</td><td rowspan="2">Non-rigid and adaptable strategies</td></tr>
<tr><td>(a) Contracts as a communication tool and agreement mechanism</td><td>Documentation and agreements</td></tr>
</table>

**Responses from information service intermediaries**

**4.3.6.1 Various information soliciting strategies**

Two sub-themes were highlighted from this theme: meetings with clients and clarifying unfamiliar concepts; and probing for more information in more complex requests.

**(a) Meetings with clients to clarify the client's needs**

While most information service intermediaries explained that they did not follow any strict or rigid guidelines to solicit the information needs of their clients, two information service intermediaries provided a vague conceptual framework that they would follow if they had to put the process in writing:

> If someone was to ask you for information on email, you must set up a meeting with that client, however, before setting up that meeting, you must first do your homework, you must make sure that you know all the definitions of the concepts surrounding that domain. – **Brett**

> You first do your own reading and homework and when you get to the client, you keep asking more questions. You must also ask when the deadline is, you must also negotiate when you can supply the information. – **Peyton**

**(b) Probing for more information in complex requests from clients**

The ability to probe for more information in response to trying to understand the clients' needs is a nuanced and strategic aspect of the reference interview and clients' needs soliciting. This approach does not only serve to unravel the client's needs, but also provides a solution that is aligned with the clients' expectations. Three information service intermediaries commented on the issue:

> … however, now that you ask this question, I realise that I actually have a formal system that I have created in my mind, so if the information need is precise and simple, I do not probe for more information. However, if the information need is more complex, I would then ask more questions or suggest an alternative information source that could solve the problem. – **Alexander**

> However, you must always be careful not to ask too many clarification questions as they may start to wonder why you are asking all these questions, without them realising that what they are asking can yield three different results, because they are omitting something that appears to be clear in their head. – **Joseph**

> You can do some researching. You never provide information to a client without clarifying anything that you are not familiar with. – **Brett**

#### 4.3.6.2 Adaptability

One sub-theme emerged from this theme: no strict guidelines.

**(a) No strict guidelines**

The information service intermediaries placed emphasis on having simple guidelines of soliciting the client's needs:

> There is no formal way of understanding information needs, everything that I have learned so far it was through experience. – **Kinsley**

While there were no formal strategies, methods and frameworks given by the information service intermediaries, they outlined ways in which one can navigate and solicit the client's needs. Through these themes, the study gathered that there are no strict guidelines to follow and information service intermediaries rely on meetings which they use to probe and pose follow-up questions to more complex information needs. The main theme here is non-rigid and adaptable strategies. The following sections present the responses of the competitive intelligence intermediaries.

**Responses of competitive intelligence intermediaries**

#### 4.3.6.3 Adaptability

Two sub-themes emerged from this theme: using flexible frameworks and checklists; and constant meeting with clients to clarify information needs.

**(a) No strict guidelines**

As emphasised by the participants, the diverse nature of the clients they interact with requires approaches that go beyond the rigid models and frameworks. The ability to navigate varying clients' needs depends on the ability of the competitive intelligence intermediaries to adjust their approaches. This theme discusses the importance of agile methods that ensure the approaches used align seamlessly with the unique characteristics of each client. Five competitive intelligence intermediaries mentioned that they do not have any guidelines to follow. However, they use checklists that provide structure to the soliciting of clients' needs:

> While we do not follow strict guidelines, we also make sure that we get the needs of the clients correct, so we communicate, if it's a very complicated request, then we communicate more with the client to ensure that we are on the same path. – **Thomas**

> There has to be room for flexibility because we work with a diverse group of people. So instead of a model or framework, we follow a checklist or a skeleton. We tell them that this is the general functionality of what you require, a very high level of their request. – **Thomas**

> While there is no strategy that we follow, we use checklists. However, it is still difficult to have a set checklist since each client works differently, so whatever strategy you use has to be adaptable. When you are approaching your project, you must already know that you have to adapt to your stakeholder. – **Robert**

> Keep in mind that the checklist is just to put structure to the meeting because they can easily go off tangent. – **Daniel**

> …but there is a process that I follow. When I receive a request, I get back to the client and engage with them showing them what needs to be done and obviously using and following a checklist to check if the client is happy with the checklist. – **Arthur**

**(b) Meetings with clients to clarify the clients' needs**

One of the competitive intelligence intermediaries provided a detailed explanation of how their organisation holds multiple meetings to fully understand the client's needs. The participant further stressed the need for 'signoffs' to foster accountability and ensure that both the client and competitive intelligence intermediaries are aligned in terms of their understanding of the need:

> It is actually company policy for us to have real-time sessions with the clients over briefings to find out what they want. It is also recommended that we meet more than once, sometimes not all stakeholders will be available, so you do get the ball rolling and we have to document as much as we can, and we can share that information with everyone that missed the sessions. We recommend at least two to three sessions. In the first session, you put down a rough draft of what exactly the client is asking for. The second session is about polishing on the first session and trying to get through all the points that we could not discuss in the first session, then we send a document that shows all their information needs and requirements. They have to sign off on the document clearly stating that what is written in the document is what they are asking for. The last session is there to clarify all the outstanding information requirements, or any modifications to the initial information needs are welcome, and it's better than they had initially thought. – **Michael**

#### 4.3.6.4 Documentation and agreement

One sub-theme stood out from this theme: contracts as a communication tool and agreement mechanism.

**(a) Contracts as a communication tool and agreement mechanism**

Most competitive intelligence intermediaries mentioned the importance of documenting the client's needs in a tangible record. Contracts serve as a crucial instrument that identifies the agreed-upon expectations and the scope of the client's needs:

> Secondly, there is a contract that the clients have to sign, which states that they agree with everything with regard to what we are going to do for them. There is a contract and guidelines for what needs to be done. The initial meeting and initial scope agreement or agreements usually took two to three weeks to make sure that we understand exactly what the client needs and we do not miss anything. – **Michael**

> It should have been articulated and then put in terms of a contract that both parties signed before anything goes forward. – **Henry**

Similar to information service intermediaries, the main theme here is non-rigid and adaptable strategies. From the responses above, it can be deduced that there are no existing frameworks that are used to solicit information and key intelligence needs. However, both professionals rely on strategies that are centred around communication, documentation, engagement, and adaptability. Effective communication and further probing and breaking down of the client's needs ensure clarity and alignment. Thorough documentation and agreements function as a backbone for creating expectations and mitigating uncertainties. Collectively, these themes provide a comprehensive narrative and understanding of how information service intermediaries and competitive intelligence intermediaries effectively navigate their clients' needs.

### 4.3.7 Post-information search follow-up and confirmation of information need deliverables

Question 7 was formulated differently for both groups, seeing that information service intermediaries handle short-term information requests, while competitive intelligence intermediaries' information requests span a period of time. Therefore, the information service intermediaries were asked how they follow up with clients to ensure that their information needs have been met, while the competitive intelligence intermediaries were asked how they confirm the information needs during the course of the project to ensure that they are still in line with the initial request. For competitive intelligence intermediaries, the question was motivated by the fact that, in a dynamic business context, clients' needs are subject to continuous evolution and adaptation, and can change during the course of a project. Therefore, the central and common idea behind both these questions was to discover the approaches taken by both information service intermediaries and competitive intelligence intermediaries in managing and fulfilling information needs. The themes and sub-themes are presented in Table 4.10.

**Table 4.10: Question 7's emergent codes**

<table>
<tr><th colspan="3">Question 7: How do you follow up with a client to ensure that the information need is met?</th></tr>
<tr><th colspan="3">Information service intermediary</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) Immediate response and feedback</td><td>Client follow-ups and feedback</td><td rowspan="2">Feedback and iterative communication</td></tr>
<tr><td>(a) The use of rate my service systems and evaluation forms</td><td>Automated feedback systems</td></tr>
<tr><td colspan="3"></td></tr>
<tr><th colspan="3">Question 7: Throughout the project, how often does communication occur to confirm deliverables?</th></tr>
<tr><th colspan="3">Competitive intelligence intermediaries</th></tr>
<tr><th>Initial coding (dominant codes)</th><th>Focused coding (themes)</th><th>Categories</th></tr>
<tr><td>(a) Client follow-ups and document signoffs</td><td>Regular review sessions to confirm alignment</td><td>Iterative communication for deliverable alignment</td></tr>
</table>

**Responses from information service intermediaries**

**4.3.7.1 Client follow-ups and feedback**

Solicitating feedback from clients refers to the deliberate and proactive efforts by information service intermediaries to seek input and insights from the client regarding the effectiveness and relevance of the information provided. One sub-theme emerged from this theme: immediate response and feedback solicitation.

**(a) Immediate response and feedback**

Actively asking for feedback from clients and fostering communication provides immediate responses and gives both the client and information service intermediary an opportunity to refine the information search until the requirement has been met:

> I always ask for feedback from my clients. – **Alice**

> …if it's a face-to-face, you will be able to get an immediate response because the user will be able to say this is the information that I require, or this is not the information I require. Alright there and then, you know, if it's the information that they require, fine, you leave them with the information. If it's not the information that they require, then we continue with the process of finding the information that they require. – **Winter**

#### 4.3.7.2 Automated feedback systems

Apart from getting verbal or written feedback from the client, once the information search has been concluded, some organisations have automated feedback systems, which is a structured system designed to gather insights from clients regarding the quality of the service rendered by the information service intermediary. One sub-theme was highlighted from this theme: the use of rate my service systems and evaluation forms.

**(a) The use of rate my service systems and evaluation forms**

Following the delivery of the information service, some organisations require clients to rate the service that they received from the information service intermediary using an automated 'rate my service platform' or evaluation forms. Three information service intermediaries mentioned that there is usually open dialogue between the client and the information service intermediary about how they can refine the search process before the scoring is done:

> Once the information has been sent to the client, the system will automatically send a rate my service message. From this, we will then see if the client was satisfied with the information they received or not. However, in most cases, clients will inform you if they need more information or alternative information. They will not just score you down without talking to you first. – **Oscar**

> We also have what is called the evaluation form, were you can rate the service that I gave you. – **John**

…at that point, we can also ask them for, or we ask them for feedback. – **Joseph**

> … if the search requires refining or, you know, making any changes, we can do that at that point and then, ultimately, at the end, we kind of also do an evaluation where we get rated on the search. So that also gives us an indication of how well the search went with, you know, that person. – **Kinsley**

In conclusion, the themes and sub-themes presented above give rise to the main theme, feedback and iterative approach. Actively seeking feedback from clients ensures immediate response and facilitates a collaborative effort to refine the information service. The incorporation of an automated feedback service and evaluation form provides an additional layer of structural assessment. Section 4.3.6.3 presents the responses of the competitive intelligence intermediaries who, unlike the information service intermediaries, were asked how they communicate with clients to confirm deliverables.

**Responses from competitive intelligence intermediaries**

#### 4.3.7.3 Regular review sessions to confirm alignment

Regular review sessions and document signoffs foster seamless collaboration and client satisfaction, while also ensuring the clarity of their clients' needs. One sub-theme emerged from this theme: client follow-ups and document signoffs.

**(a) Client follow-ups and document signoffs**

From the responses of the information service intermediaries, it was gathered that continuous engagement with the clients through follow-ups and feedback mechanisms is essential for continuous alignment with expectations, fostering collaboration and delivering successful projects. The competitive intelligence intermediaries highlighted the theme of client follow-ups and document signoffs as a dual approach that fosters a comprehensive understanding between the competitive intelligence intermediary and the clients. Furthermore, document signoffs ensure project transparency and minimise misunderstandings:

> I work with 'scrum', there is always iterations. So, we have what we call sprint reviews, where we show a client what we have developed and done so far and see if they are happy with the current developments. A sprint runs for two weeks. Therefore, it is very

easy to make changes, unlike producing the final project at the end. So, you are building up a product in phases and confirming each phase with the client. – **Michael**

If a project was very simple, like a simple information client request, there will be no need to keep communicating with the client. However, if the client's request is more complicated, then we will break it down into phases. After the completion of each phase, we will then present to the client to ensure that we are still on the same page, and the information need is still being met. – **Madison**

Therefore, the only thing we could do was ensure that, following each of the roughly one-phase projects we worked on, we returned and took a closer look to ensure that everything was aligned. – **Arthur**

The main theme that emerged from Section 4.3.6.3 is iterative communication for deliverable alignment. From the voices of the participants, the importance of maintaining alignment with clients' expectations, fostering transparent communication and continuously adapting project dynamics was highlighted. The next section looks at the eighth question, which asked the participants about challenges they experienced during the solicitation of clients' needs.

### 4.3.8 What challenges are experienced during the solicitation of clients' needs?

Question 8 asked participants what challenges they experienced when trying to solicit information needs from clients. Both the information service intermediaries and competitive intelligence intermediaries mentioned challenges such as limited understanding of a client's own information needs, communication hurdles and uncertainties in client expectations as the main challenges. Through the exploration of the participants' responses, the following themes and sub-themes were identified, as shown in Table 4.11.

**Table 4.11: Question 8's emergent codes**

| **Question 8: Challenges experienced during the solicitatation of clients' needs** | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Lack of clarity in information needs<br>(b) Fragmented information needs | Limited understanding of own information needs | *Client's information need understanding and communication challenges* |

| | | |
|---|---|---|
| (c) Assumption of prior knowledge<br>(d) Clients unaware of scope and limitations | | |
| (a) Clients undefined needs and preconceived ideas<br>(b) Time constrains | Misalignment of expectations and time constraints | |
| (a) Handling sensitive and high-profile information | Confidentiality and security clearance | |
| | | |
| **Competitive intelligence intermediaries** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Lack of clarity in information needs<br>(b) Leadership positions and assumed business knowledge<br>(c) Clients unaware of scope and limitations | Limited understanding of information needs | *Navigating complex information soliciting* |
| (a) Prejudice against younger professionals | Prejudice and age bias | |

**Responses from information service intermediaries**

**4.3.8.1 Limited understanding of information needs**

The theme of limited understanding of information needs unveils the intricate challenges faced by information service intermediaries. Four sub-themes stood out: lack of clarity in information needs; fragmented information needs; assumption of prior knowledge; and client unawareness of scope and limitations.

**(a) Lack of clarity in information needs**

Five information service intermediaries expressed the struggles and complexities they encountered when clients approached them with ambiguous and ill-defined information needs. While clients grapple with uncertainty or insufficient understanding of the own information needs, the intermediaries themselves have to navigate through a fog of indistinctive objectives:

…I'm going to say a lack of understanding of their own requirements. – **Oliver**

The issue is also that process of having to induct them and help them understand exactly what it is that they're trying to request from us, because these people also never know what exactly they are looking for. – **Daniel**

Some people do not know what they are looking for, they have an idea of what they are looking for and that's about it. – **Alexander**

… the other issue we have as well would be biased information, which is also tied to the lack of understanding of their own requirements. – **Daniel**

**(b) Fragmented information need**

One information service intermediary mentioned that clients often present incomplete or fragmented details and expect the information service intermediary to decipher their information requirement:

Fragmented information is the biggest challenge, someone telling a snippet of their information need and expecting you to figure it out can be difficult at times. – **Arthur**

**(c) Assumption of prior knowledge**

Clients will sometimes withhold essential details about their information need, assuming that the intermediaries possess an inherent understanding:

I also noticed that some people will not share what they do with the information intermediary because they assume you know. – **William**

**(d) Clients unaware of scope and limitations**

Two information service intermediaries mentioned that clients may lack awareness of the boundaries and capabilities of information systems, leading to misaligned expectations and potential obstacles in delivering precise information:

The clients are also not aware that there are a lot of information sources, and you cannot just search broadly. When clients tell you what triggered the information need, that actually helps you to narrow down the search. – **Joseph**

#### 4.3.8.2 Misalignment of expectations and time constraints

This theme encapsulates the disconnect between the information service intermediary and the client, where there is a divergence between the articulated and expressed information needs and the practical feasibility of meeting them. Two sub-themes emerged from this theme: client's undefined needs and preconceived ideas; and time constraints.

**a) Client's undefined needs and preconceived ideas**

Two information service intermediaries mentioned that one of the biggest challenges relate to clients with unclear information needs and preconceived ideas, which creates a misalignment between the preconceived ideas and information search expectations:

> Sometimes the client will come to me having an idea of what they want the search to look like, including the keywords to use. In other words, they want me to do a search and to sort of give them the thumbs up to say what they had in mind was actually correct. – **Brett**

> In most cases, the types of projects that we get, we are considered the subject matter experts in that field, so clients will automatically think that you know everything within the field. – **Oscar**

**b) Time constraints**

Time constraints create a major challenge for information service intermediaries. This issue explores the pressure of delivering information swiftly, which often conflicts with quality:

> I think time sometimes is a constraint. You know, having to deliver information as quickly as people need it. – **Oscar**

> Sometimes people require information fast because of the deadlines that they have and they forget that quality information is expensive. – **Alice**

#### 4.3.8.3 Confidentiality and security clearance

Clients who work in security-sensitive projects may require information assistance from the information service intermediaries. The information service intermediaries will be required to sign non-disclosure agreements (NDAs). One sub-theme stood out: handling sensitive and high-profile information.

**(a) Handling sensitive and high-profile information**

One information service intermediary mentioned that, at times, they work in high-profile projects, which requires them to sign NDAs:

> Some of the information that the clients deal with is confidential. It's considered top secret, so there has to be a signing of NDAs or whoever has to handle that information has to have some level of security clearance. – **Winter**

The main theme that emerged from sections 4.3.8.1 to 4.3.8.3 is client information need understanding and communication challenges. The challenges faced by information service intermediaries in solicitating information needs ranges from communication, time constraints, the need to clarify awareness and security issues. As intermediaries navigate through fragmented information needs, a holistic approach is essential. By addressing these challenges, information service intermediaries can enhance their efficiency to better fulfil the client's needs. The following sections will present the responses of the competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

**4.3.8.4 Limited understanding of information needs**

This theme highlights the significant challenge faced by competitive intelligence intermediaries in their efforts to solicit information from clients. The sub-themes delve into lack of clarity of information needs; leadership positions and assumed business knowledge; and client unaware of scope and limitations.

**(a) Lack of clarity in information needs**

Similar to information service intermediaries, five competitive intelligence intermediaries emphasised clients' potential lack of clarity regarding their own key intelligence needs:

> …they may have limited understanding of their own information need and they will use terms and describe things very differently; you have to able to grasp what they are getting at quickly. – **Edward**
>
> Some smaller companies that I have done some projects for will not know what is it that they are looking for. They will simply do a project or initiative just because they have seen a bigger company do it. – **George**

> I think part of the bigger problem was the brief itself, there were a lot of unknown details in it. – **Emily**

> People running the project might also not know the full scope of the project, which brings about a block and no one can answer questions when meeting with the client, which means that we have to go find someone who knows about that specific problem. – **Emma**

> … clients not being sure about the actual information need. – **Robert**

**(b) Leadership positions and assumed business knowledge**

It was brought to light that people in leadership roles at times assume extensive business knowledge, which potentially hinders effective communication and soliciting the actual needs of the client:

> Clients usually do not know exactly what they are looking for, but I think when you are dealing with people that are in certain leadership positions, they tend to think that they know a lot about a business since they've been in that role. – **George**

**(c) Clients unaware of scope and limitations**

There are instances where clients may lack a clear understanding of project boundaries, which potentially leads to unrealistic expectations. One of the competitive intelligence intermediaries mentioned issues related to project scoping:

> Sometimes the client does not even know that something is not within scope, they just assume that what they are looking for is possible. – **Emma**

#### 4.3.8.5 Prejudice and age bias

This theme unveils instances where age bias can impact the effectiveness of client needs soliciting. One sub-theme stood out: prejudice against younger professionals.

**(a) Prejudice against younger professionals**

One competitive intelligence intermediary noted that, throughout their career, they have encountered challenges, particularly related to age, whereby younger competitive intelligence intermediaries encounter prejudice during briefing sessions with clients:

> More often than not, I have observed this more in males than in women. It has come to my conclusion that most males are biased, they will inquire about your qualifications if they notice you walking into the room as a younger competitive intelligence intermediary.

> If a junior suggests a solution, he has to cite the name of a senior colleague just so that the client buys into it, it's almost as if the senior's presence or name validates everything. – **Michael**

The main theme that emerged from sections 4.3.8.4 to 4.3.8.5 is navigating complexity of information soliciting. Both groups of participants presented similar challenges of soliciting client needs. The two themes that stood out and overlapped between the two groups of participants were the limited understanding of information needs, which has the potential to create a misalignment of expectations, and clients' lack of awareness of the scope and limitations of their information needs, which can also create unrealistic expectations. The next question built on the previous question by asking the participants what their thoughts on overcoming these challenges were.

#### 4.3.9 What are your thoughts on overcoming these challenges?

Question 9 focused on ways in which challenges of identifying and soliciting information and key intelligence needs can be addressed. The emergent themes derived from the participants' voices reveal a diverse skill set and methodologies employed by professionals to overcome challenges encountered during the solicitation of client needs. However, it was noted that most participants did not go into detail when answering these questions. Instead, they rehashed answers they had provided to previous questions. Only a few participants elaborated further and brought new issues to light. Table 4.12 provides an overview of the themes and sub-themes that were derived from the analysis.

**Table 4.12: Question 9's emergent codes**

| **Question 9: What are your thoughts on overcoming these challenges?** | | |
|---|---|---|
| **Information service intermediary** | | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Clarifying ambiguities<br>(b) Pre-meeting preparation<br>(c) Detailed and thorough understanding of the client's needs | Understanding the client's need | *Synergistic information fulfilment* |
| (a) Following up with the client to see if the information need has been met | Post-information search follow up | |

| Competitive intelligence intermediaries | | |
|---|---|---|
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Briefing process involving all stakeholders | Understanding the client's need | *Clients' needs understanding and agreement* |
| (a) Contractual clarity<br>(b) Blueprint approach | Formalised agreement | |

**Responses from information service intermediaries**

#### 4.3.9.1 Understanding the client's need

Through direct communication and clarification of ambiguities, information service intermediaries ensure a clear understanding and the purpose behind the client's information needs. Three sub-themes emerged from this theme: clarifying ambiguities; pre-meeting preparation; and detailed and thorough understanding of client's needs.

**(a) Clarifying ambiguities**

Most information service intermediaries mentioned that, in order to ensure a clear understanding of clients' needs, they would set up a meeting to probe and ask questions:

> When a client asks me for information or has an information request, I first make sure that I understand exactly what it is that the client is asking. If there are any ambiguities, I set a meeting with the client so that I can probe and ask questions, which enable me to better understand what it is they are looking for. Once we both reach a unified understanding, I will only do the search. – **John**

**(b) Pre-meeting preparation**

Some of the interviewed information service intermediaries were information specialists, meaning that they have qualifications and expertise in the field they supply information to. Therefore, it was mentioned that they would first read up on the topic before meeting with the client to discuss their information need.

> If I get an information request from a client, I will respond by requesting a meeting. However, before that meeting, I will first read up on that topic. – **Oscar**

**(c) Detailed and thorough understanding of the client's needs**

Four information service intermediaries mentioned that they unpack the client's information needs and narrow down to the specifics i to clear any uncertainties:

> …I further drill down on the specifics of the information need, why do you think this information is obtainable, what makes you want this information? – **Alice**

> It is very important to know what the information is going to be used for and why the information is being requested for us to complete the project in order to meet the correct project objectives. – **Brett**

> In my approach, I make it a point to directly ask clients about the purpose behind the information they are seeking. This proactive inquiry is crucial because it sets the stage for a more targeted and effective information retrieval process. By understanding the specific objectives and context of their request, I can tailor my search to deliver results that align closely with their needs. – **Winter**

> It is very important to know what the information is going to be used for and why the information is being requested for us to complete the project in order to meet the correct project objectives. – **Winter**

#### 4.3.9.2 Post-information search and follow up

All the interviewed information service intermediaries placed great emphasis on the importance of following up with the clients to ensure that the provided information answered their information need or query. One sub-theme stood out: following up with the client to see if the information need has been met.

**(a) Following up with the client to see if the information need has been met**

> Once the information is shared with the client, I will then follow up to check if the information answered their query. While time is a huge constraint, you must still make sure that you are thorough in your step, by so doing, you are mitigating any challenges that might arise. – **Winter**

The themes and sub-themes presented above reveal a comprehensive strategy by information service intermediaries to overcome challenges of soliciting client's needs: synergistic information fulfilment. By actively engaging with clients, clarifying their needs and tailoring their information retrieval processes, intermediaries fulfil the information needs of their clients, while also mitigating any challenges and hurdles that may occur. The following section presents and discusses the responses of competitive intelligence intermediaries.

**Responses of competitive intelligence intermediaries**

#### 4.3.9.3 Understanding clients' needs

Understanding clients' needs serves as the cornerstone of any competitive intelligence project. One way in which information needs are solicited, negotiated and shared is through the briefing process. One of the competitive intelligence intermediaries mentioned that, for a successful briefing process to occur, all stakeholders should be present. One sub-theme stood out from this theme: briefing process involving all stakeholders.

**(a) Briefing process involving all stakeholders**

The quote below highlights the crucial element of stakeholder engagement in briefings. Drawing from their past experience, the participants identified missing an opportunity in uniting all stakeholders at the inception of the project:

> From the project I have been telling you about, I just think we needed to create a common understanding between all the involved stakeholders. I think everyone should have been in one room from the very beginning. And I think that would have been so much better because we met with different people at different stages of the project. But had we met with the developers, project manager, success manager, the distributors, everyone in one room when we were debriefing the clients' needs, I think that could have prevented a lot of problems that we experienced. Things would have been so much better because everyone would have been on the same page. – **George**

#### 4.3.9.4 Formalised agreement

This theme highlights the role of formalised agreements in ensuring clarity and the alignment of information needs. Two sub-themes emerged: contractual clarity; and blueprint approach.

**(a) Contractual clarity**

Two competitive intelligence intermediaries placed emphasis on contractual clarity through signed agreements:

> I think the one thing that we usually miss is not putting everything in a contract that is signed by both parties to say that they both understand what needs to be done and what will be delivered. – **Sutton**

> One way to overcome the issue of information needs misalignment is to always have a client sign off on the project and what needs to be done. – **George**

**(b) Blueprint approach**

By documenting activities, comparing them with offered solutions and providing scenarios, the blueprint enhances comprehension and also serves as a tangible agreement:

> In our company, we have a blueprint that we follow while trying to understand the needs of the client. On paper, we list all the activities that the client needs and then we match them with what we can provide. We also write down in a scenario to show the client what they are currently doing versus how they will be doing things using our product. Then someone has to sign off on the blueprint to say they understand what is going to be implemented and how it going to operate from the scenarios given. – **Madison**

From the themes and sub-themes presented in sections 4.3.9.3 to 4.3.9.4, the dominant theme emerged as clients' needs understanding and agreement. Within the competitive intelligence landscape, clients' needs understanding and agreement is paramount. The stakeholder briefing process should unite all parties involved at the inception of the project to foster a common understanding. The participants stressed the importance of documented agreements, citing their potential to rectify an information needs misalignment. In addition, the blueprint approach serves as a tangible agreement.

### 4.3.10 Successful reference interview and getting the information needs wrong impact the subsequent phases

Question 10 was framed differently for the competitive intelligence intermediaries and the information service intermediaries. For competitive intelligence intermediaries, the question asked how getting the client's needs wrong affects the subsequent competitive intelligence phases. On the other hand, information service intermediaries were asked what they thought constitutes a successful reference interview. Most competitive intelligence intermediaries mentioned that it is very difficult to get the client's needs wrong as there are guidelines and checklists in place that ensure there is alignment between the client and the competitive intelligence intermediaries. Despite this, some competitive intelligence intermediaries acknowledged that, at times, clients' needs misalignments happen. These themes are highlighted in Table 4.13.

**Table 4.13: Question 10's emergent codes**

<table>
<tr><td colspan="3">Question 10: What do you consider to be a successful reference interview</td></tr>
<tr><td colspan="3">Information service intermediary</td></tr>
<tr><td>Initial coding (dominant codes)</td><td>Focused coding (themes)</td><td>Categories</td></tr>
<tr><td>(a) Client satisfaction as an implicit measure of success<br>(b) Assistance from automated feedback systems</td><td>Outcome-oriented success</td><td>Client-centric success in the reference interview</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Competitive intelligence intermediaries</td></tr>
<tr><td colspan="3">Question 10: How does getting the client's needs wrong impact the subsequent phases?</td></tr>
<tr><td>Initial coding (dominant codes)</td><td>Focused coding (themes)</td><td>Categories</td></tr>
<tr><td>(a) Final project not getting signed off and rejected</td><td>Risk of project completion</td><td rowspan="2">Impact of inaccurate clients' needs</td></tr>
<tr><td>(b) Damage to credibility and image</td><td>Credibility and reputation</td></tr>
</table>

**Responses from information service intermediaries**

**4.3.10.1 Outcome-oriented success**

Outcome-oriented success in the reference interview underscores achieving tangible and meaningful results for the client. This is not merely defined by the execution of tasks, but by the positive impact on the client's understanding, satisfaction and the acquisition of the desired information. This theme gave rise to two sub-themes: client satisfaction as an implicit measure of success; and assistance from feedback automated systems.

**(a) Client satisfaction as an implicit measure of success**

Four competitive intelligence information service intermediaries mentioned that client satisfaction serves as an implicit and often nuanced gauge, which reflects the quality of the interaction and the extent to which the clients' needs have been met:

> For me, a successful reference encounter is obviously when the requested information has been found and shared with the client. – **Oliver**

> You can ask the client if they are happy with the search results. While us information professionals can do the searches on behalf of the client, we at times do not have the full context of the information. – **Daniel**

> The reference interview between myself and the client is only successful when both parties understand exactly what is needed. – **Joseph**

> When I am dealing with a client online, I will ask for feedback after sending them the required information in order to gauge if our interaction was successful or not, and if I managed to solve their information need. – **Brett**

**(b) Assistance from automated feedback systems**

Information service intermediaries are able to judge the success of their interaction with clients through automated feedback systems. These automated feedback systems provide a structured approach to gathering a client's sentiments:

> I usually just go off from the automated feedback responses by the clients. It is, however, unlikely that they will say they are not satisfied because we involve them in the information seeking process. – **Winter**

From the themes and sub-themes presented in section 4.3.10.1, there seems to be a connection to the main theme, client-centric success in the reference interview, which signifies an understanding of success that goes beyond information retrieval. It encompasses the importance of mutual understanding and clear communication, and creating feedback loops for continuous improvement. The following sections will present the feedback of the competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

#### 4.3.10.2 Risk to project completion

One of the competitive intelligence intermediaries mentioned that if the project is not to the client's specifics or is not aligned to the needs of the clients, then it will not get the final approval. This theme give rise to one sub-theme: final project not getting signed off.

**(a) Final project not getting signed off**

One of the competitive intelligence intermediaries mentioned the risk associated with project completion caused by a misunderstanding a client's needs. The participant touched on the potential rejection of the final project, linking the importance of tracing the misalignment back to the project blueprint:

> It depends on what has been missed, the misalignment could be negligible. So, at times, if the information needs are missed and the project gets completed on those information needs, you run the risk of the final project not being signed off. Most of these information needs misalignments should be traced back to the blueprint. – **Madison**

#### 4.3.10.3 Credibility and reputation

The theme of credibility and reputation refers to the aftermath of project inaccuracies. One sub-theme stood out from this theme: damage to credibility and image.

**(a) Damage to credibility and image**

Four competitive intelligence intermediaries mentioned that a decline in credibility and reputation serves as an immediate and tangible repercussion, which emphasises the high stakes associated with clients' needs accuracy:

> But yes, credibility obviously goes down… – **Robert**

> Your image can also be ruined if you get the information needs wrong, which affects the output of the project. Remember that you are also operating in a very competitive industry, there is another company that is also competing for what you are providing. – **Arthur**

> It is no secret that if you get the client's needs wrong, then the entire project will be wrong, or best-case scenario, certain aspects of the project will be wrong. So, if we do a good job for someone and they refer another client to us, it's perfect word of mouth marketing. – **Sutton**

> If you get the client's needs wrong or mess up a project, or if you do it wrong, then you have basically burnt that source completely. Also, remember there is a financial aspect to it as well. – **Emily**

In conclusion, the responses of competitive intelligence intermediaries highlight the interconnected consequences of inaccurately addressing clients' needs. The overarching theme, impact of inaccurate clients' needs, covers damaging credibility and reputation. The themes presented above emphasise the importance of precision in understanding and meeting the client's needs. The next section will look at the skills that information service intermediaries and competitive intelligence intermediaries should possess to effectively solicit the client's needs.

#### 4.3.11 Skills that are required for effective soliciting of information and key intelligence needs

Question 11 asked the participants about skills needed to solicit clients' needs effectively. The question aimed to understand the skills that are needed to solicit precise information from clients. From the respondents, it was picked up that participants mentioned both technical and interpersonal skills. Table 4.14 shows the themes and sub-themes that emerged.

**Table 4.14: Question 11's emergent codes**

| **Question 11: Skills required to solicit information clients' needs** | | |
|---|---|---|
| | **Information service intermediary** | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Patience and attention to detail<br>(b) Creating a supportive environment<br>(c) Honesty and communication | <u>Understanding the client's needs</u> | *Effective skills for information soliciting and retrieval* |
| (a) Understanding information retrieval platforms<br>(b) Empathy and understanding | <u>Technical skills and interpersonal skills</u> | |
| | | |
| | **Competitive intelligence intermediaries** | |
| **Initial coding (dominant codes)** | **Focused coding (themes)** | **Categories** |
| (a) Understanding and interpreting clients' needs | <u>Understanding the client's needs</u> | *Effective information soliciting* |

| | | |
|---|---|---|
| (b) Effective communication | | |
| (a) Tact and charm<br>(b) Good business acumen | Technical and interpersonal skills | |
| (a) Background knowledge and research on clients | Client knowledge and preparation research | |

**Responses from information service intermediaries**

**4.3.11.1 Understanding the client's needs**

This theme gave rise to three important skills that are crucial for information service intermediaries: patience and attention to detail; creating a supportive environment; and honesty and communication.

**(a) Patience and attention to detail**

Two information service intermediaries mentioned that when soliciting client's information needs, one must possess unwavering patience and meticulous attention to detail. This sub-theme underscores the importance of finding a balance between thoroughness and time constraints:

> …patience and attention to detail, sometimes you do not find things, you must start thinking out of the box. As an information specialist, you must never stop at "this information is good enough", you must continuously ask yourself "how can I improve this?" However, perfection comes at the price of time. – **Oliver**

> I think that as an information service intermediary, you should have patience… – **Daniel**

**(b) Creating a supportive environment**

Apart from technical skills, creating a conducive and supportive environment is crucial for clients. This sub-theme delves into the importance of non-verbal aspects of communication and places emphasis on the impact of facial expressions and tone of voice:

> But if you create space for the user just by your facial expressions and your tone of voice when you're talking to them and showing them respect and showing them that you are interested in the conversation that the two of you are having in trying to help the user, then the user will express their information need in a more constructive manner. – **John**

**(c) Honesty and communication**

Effective communication and transparency are foundational to the role of the information service intermediary. This sub-theme highlights the importance of being honest about one's understanding of the client's needs and actively seeking clarification from clients. One of the participants gave a detailed example of how they would approach a query were they do not fully understand what the client is looking for:

> Do not pretend to understand what the client needs; you need to be honest and tell the client that you do not understand what they are looking for. – **Winter**

#### 4.3.11.2 Technical skills and interpersonal skills

The information service intermediaries mentioned that both technical and interpersonal skills are important. Technical skills refer to those skills that enable the information service intermediary to successfully provide information to clients such as knowledge on information platforms such as databases. Interpersonal skills refer to skills such as emotional intelligence and the ability to handle frustration and have empathy.

**(a) Understanding information retrieval platforms**

Proficiency in using online databases and formulating effective search queries is the cornerstone of information retrieval:

> You must have the knowledge of online databases. You must have the skills to formulate search queries in a way that you listen to what the client wants and you must formulate a search query based on what the client needs. – **John**

**(b) Empathy and understanding**

One information service intermediary mentioned that it is important to not only have technical skills, but also to be able to cultivate empathy:

> Sometimes you also find that the client has a close by due date and they have to submit, and they get frustrated. When searching for information, you should also try to put yourself in that person's shoes. – **John**

The themes and sub-themes above gave rise to the main theme, effective skills for information soliciting and retrieval. The multifaceted themes explored above underscore the holistic nature of skills used by information service intermediaries. The combination of paying attention to detail, honesty and communication, creating a supporting environment, technical and interpersonal skills create a bedrock for information needs soliciting. The following sections will look at the themes derived from the responses of the competitive intelligence intermediaries.

**Responses from competitive intelligence intermediaries**

#### 4.3.12.3 Understanding the client's needs

The foundation for effective information soliciting lies in comprehending the client's needs and also recognising that clients may lack comprehensive knowledge of what is achievable or viable. The art does not only lie in decoding the clients' needs, but also guiding the client towards optimal solutions and refraining from simple provision of answers. Two sub-themes emerged from this theme: understanding and interpreting the client's needs; and effective communication.

**(a) Understanding and interpreting clients' needs**

Three competitive intelligence intermediaries commented on the importance of understanding and interpreting the client's needs:

> I think the most important thing is to understand what your client is saying. You should keep in mind that most of your clients may not necessarily have knowledge of what is possible and what is not possible. – **Robert**
>
> If it was possible, then people could give you their brain in a flash disk and then tell you to just figure it out. Unfortunately, we are human, that is not possible and we have to interact […] so tact is required and being able to play into people strengths. – **Edward**
>
> …so going into these meetings you must remember that you are there to guide them in order to get the best solution and not necessarily come up with solutions. – **Arthur**

**(b) Effective communication**

As a competitive intelligence intermediary, you need to be able to say no, when necessary, manage expectations and be able to ask insightful follow-up questions:

> Communication skills, talking is what you will be doing most of the time if you are not in the field. The level of experience also plays a role. – **Edward**

> You need to be able to say no, the temptation is to agree to as much as possible, so you would rather inform the client at the present point that this cannot be done, I can do some research to find other ways, but I do not promise anything. You would rather disappoint a client earlier on and come back and say, actually this can be done, this is how we will do it. – **Edward**

> Basically, if you are a competitive intelligence intermediary and you do not know how to ask good follow-up questions, your life will be difficult. – **Madison**

#### 4.3.12.4 Technical and functional skills

Seven competitive intelligence intermediaries stressed the importance of both technical and functional skills. These include business acumen, stakeholder management and the ability to influence clients. Two sub-themes stood out from this theme: tact and charm; and understanding departmental dynamics and good business acumen.

**(a) Tact and charm**

Tact is the ability to communicate and interact with others in a diplomatic manner, while charm refers to building a likeable character and behaviour:

> As a competitive intelligence intermediary, you definitely need to have a lot of tact and a lot of charm. People usually take time to warm up to the competitive intelligence intermediary. – **Michael**

**(b) Good business acumen**

One of the competitive intelligence intermediaries mentioned that, while they may not know everything that their client needs, they should have detailed knowledge about the industry they operate in:

> … It's a combination of both technical and functional skills. You should have a fair amount of business acumen, so you might not know everything, but you should always know who your client is, what industry they operate in. You should also have stakeholder management skills because it can get very frustrating trying to understand what the client wants, but they also do not fully know what they want. – **Michael**

#### 4.3.12.5 Client knowledge and preparation research

Competitive intelligence intermediaries need to do diligent research on clients, their industries and their companies for better and informed interactions. Thorough preparation ensures an understanding of the context within which the client operates. One sub-theme emerged from this theme: background knowledge and research on clients.

**(a) Background knowledge and research on clients**

Three competitive intelligence intermediaries mentioned that thorough research on clients ensures understanding and creates an informed interaction:

> You must also know your client. Unfortunately, different hierarchies require a different treatment or approach. Some people do not want to read an email with an attachment of four pages, they just want four bullet points in the email, so critical thinking plays a huge role. – **George**

> You also have to identify points of interest, even if its things that are not related to the work because some people want to sabotage the project on purpose. So, what I learned from my seniors is that you must always break the ice, ask people what they like to do in their free time and try to find out what their interests are. If someone says they love rugby, immediately I switch to talk about rugby. – **Emily**

> The last thing is, you must always research your clients before you go into these interviews, if you are able to prepare for a job interview, then you must also do your due diligence for these reference interviews, know the industry they work in, have a good background of their company. – **George**

The main theme revolves around effective information soliciting in competitive intelligence. Professionals must have a blend of technical and interpersonal skills. The goal is not only to successfully solicit information needs from clients, but to guide them towards optimal solutions. The themes above encompassed the understanding of clients' needs, having good business acumen and leveraging interpersonal skills such as tact and charm.

## 4.4 CONCLUSION

This chapter presented the findings of the study. The findings presented above shed light on the essential role of the intermediary in understanding and soliciting clients' needs. Through interviews with competitive intelligence and information service intermediaries, the data has revealed and explored the triggers, recognition and challenges associated with information and key intelligence needs. Furthermore, the findings have shown components that should be taken into consideration when developing a framework for competitive intelligence intermediaries. Chapter 5 will present a discussion of the findings and correlate the findings with those from the literature.

## CHAPTER 5: DATA INTERPRETATION AND DISCUSSION OF FINDINGS

The previous chapter presented the empirical findings obtained from semi-structured interviews with competitive intelligence and information service intermediaries. This chapter is a discussion and interpretation of the main findings presented in Chapter 4. Since the findings from the information service intermediaries serve a validating function, the findings will be compared with those of the competitive intelligence intermediaries. Furthermore, notable differences and similarities between the groups will be discussed, and where appropriate, they will be triangulated and correlated with the findings from other literature in the field. In order to move towards developing an emerging theory, the last section of this chapter will provide a discussion and analysis of the categories that emerged. Following this chapter, Chapter 6 will present and discuss the emerging theory.

### 5.1. Comparing the main findings from the qualitative interviews and finding relations to the subject literature

Appendix C and D show the questions that were asked to each group of participants. As shown in Chapter 4 (in Table 4.3), questions from both interview schedules had the same idea and objective in mind, therefore they were combined into one question, apart from Question 7 and 10, which were specific to each group of participants. Based on this, sections 5.1.1 to 5.1.10 follow the same combined question. At first, the findings from both groups will be compared and sketched against the subject literature where applicable.

#### 5.1.1. How would you define the intermediary role in the context of your job?

When comparing the findings from competitive intelligence and information service intermediaries regarding their roles, notable differences emerged. While information service intermediaries focus on meeting individual clients' information needs by performing information searches online, competitive intelligence intermediaries have multifaceted roles, such as understanding diverse clients' needs, performing dynamic project roles and playing an advisory role in seeking areas of business improvement. The study found that both professionals performed advisory roles. For information service intermediaries, this included providing research and publishing assistance to clients, while for competitive intelligence intermediaries, this included conducting market research and finding solutions, as well as giving advice on how to best utilise information. The study further found that information service intermediaries categorised their roles as performing ‘information searches’, while competitive intelligence intermediaries were concerned with ‘completing a project’. This is in line with Prescott and Smith (1987), who suggested that a project-based approach is often action-oriented and, consequently, operationalised the intelligence production process.

The findings of the study present more striking similarities with findings from the literature. From the literature review it is highlighted that the role of the intermediary is defined as one person searching for information on behalf of another (Bates, 2019; Buchanan et al., 2019; Case & Given, 2016; Jinkook & Jinsook, 2005). Furthermore, the literature defines the role of an intermediary as “contacting or interacting with information sources through the initiative of another agent” (McKenzie, 2003, p. 27). This resonates with the research participants’ accounts of engaging in client interactions, reference interviews and actively searching for information to meet the needs of their clients. Herring (1999) and Carr (2003) assert that competitive intelligence moves beyond traditional environmental scanning and conducting market research to solve managers’ needs, to include identifying early warning of opportunities and threats, decision-making support, competitor monitoring and strategic business support.

This aligns closely with the findings from the research participants, especially with the constant recurring theme of understanding and interrogating clients. From both groups of participants, competitive intelligence intermediaries and information service intermediaries were depicted as actively engaging with clients to discern their information and key intelligence needs to conduct information searches and gather information on their behalf.

### 5.1.2. What are the triggers of client’s information and key intelligence needs?

The question focused on the triggers of client’s information and key intelligence needs. The study discovered a common theme among both professionals, which is a lack of client disclosure of information and key intelligence needs. The study further found that clients omit the trigger to their information and key intelligence needs simply because they do not see how it will improve the outcome of the information search or project outcome. Although implicitly mentioned, the study found that the information and key intelligence needs are never personal, nor do they satisfy any personal goals. Therefore, these triggers can be attributed to information and key intelligence needs triggered by task and work roles.

According to Leckie et al. (1996), task and work roles undertaken by any professionals in the course of their daily practice prompt particular information needs, which give rise to the need to seek information. Furthermore, information needs arise from situations pertaining to specific tasks that are associated with one's work roles. Similarly, Byström (1999) elaborated on the above idea, mentioning that information needs are ultimately determined by the requirements posed by work tasks. In relation to work and task roles, Herring (1999) mentions that a development within the business environment and constant scanning of the business environment can trigger key intelligence needs. Furthermore, Muller (2002) and Strauss and Du Toit (2010) have suggested that the accidental discovery of information can trigger key intelligence needs.

Following a lack disclosure of the triggers of information and key intelligence needs, competitive intelligence and information service intermediaries mentioned that they usually ask what the client intends to do with the information. Both groups stressed that sharing the intended purpose of the information is important as it allows for a more precise information searching process. Similarly, Herring (1999) mentions that, to mitigate complexities, it is important to understand the goals and objectives of the information sought to identify specific information that is needed, and to prioritise information based on its relevance and importance.

The information service and competitive intelligence intermediaries shared commonalities and difference in their responses. A shared theme across both groups is the challenge of clients not disclosing triggers or the purpose behind their information needs. The information service intermediaries emphasised the importance of transparent dialogue, mentioning the need for clients to share their motivation to enhance the precision of the information search. Similarly competitive intelligence intermediaries agree on the benefits of clients' disclosure, emphasising that it aids in project alignment. Both groups of participants underscored proactive inquiry and transparency as essential elements for a successful information retrieval process.

### 5.1.3. What involvement do you have in solicitating the client's information and key intelligence needs?

The study found that both competitive intelligence and information service intermediaries have similar involvement in the way they solicit a client's information and key intelligence needs. Both groups place emphasis on conducting a thorough information needs analysis and gap analysis before the initiation of the information search and project. From the information service intermediaries, it was found that factors such as clarifying information needs before the initial information search, requesting to meet with the clients to discuss and understand their specific information needs, and domain familiarity collectively depict a meticulous process of soliciting the client's information needs. Similarly, Luo and Park (2013) have mentioned that knowledge of a search topic or domain knowledge improves information search performance in terms of a shorter search time and a more effective information retrieval process. Within the same vein, the study by Chen and Dhar (1991) found that a lack of domain knowledge by information service intermediaries led to the use of inappropriate search terms and misinterpretation of headings used in databases. Furthermore, Abrahamson et al. (2008) found that information service intermediaries who lacked domain knowledge of their information search had difficulties determining the quality of the retrieved information.

Although expressed in different terms, the study found that competitive intelligence intermediaries also express a parallel focus on understanding client's key intelligence needs. Factors such as pre-meeting knowledge and researching clients before the face-to-face meeting puts emphasis on the proactive stance taken by the competitive intelligence intermediaries to familiarise themselves with the client's needs before the initial interaction. Similarly, Muller (2002) mentions that competitive intelligence intermediaries should do these interviews fully prepared and should also provide guidance to managers as they are often not able to formulate and express their key intelligence needs.

Moreover, both groups have highlighted the importance of the practice of breaking down the client's needs into manageable pieces or phases. This is in line with Herring (1999), who mentions that once key intelligence needs have been identified, they must be broken down and grouped into functional categories that have been broadly accepted in the competitive intelligence literature as tactical issues, early warning signs, and knowledge of the key market players. Muller (2002) also shares insight into breaking down and prioritising key intelligence needs, mentioning that managers are at times unable to name and prioritise their needs. It is therefore the task of the competitive intelligence intermediary to provide leads and guidance, and to ask probing questions to determine what is important.

Although only mentioned by competitive intelligence intermediaries, the use of prototypes expresses the value of offering a tangible representation of the information and possible outcomes. This approach ensures a shared vision of information needs and enhances the client’s understanding.

### 5.1.4. How do you address unrecognised and dormant information and key intelligence needs?

According to Wilson (2000), at times, information needs are unrecognised or dormant, which means that people cannot fully recognise or articulate the full scope of their information needs. From a competitive intelligence perspective, Du Toit (2007) mentions that one of the biggest problems with competitive intelligence is that managers do not know what their true key intelligence needs are. This is in line with the findings by Nenzhelele (2015), who reported that the identification of clients’ key intelligence needs usually slows down the competitive intelligence process since managers, at times, struggle to express their key intelligence needs. While the literature only points to problems of unrecognised and dormant information and key intelligence needs, the study found that both information service and competitive intelligence intermediaries mentioned methods and strategies that can be employed to address such needs.

The information service intermediaries revealed a significant focus on the clarification of information needs through detailed questioning practices. Furthermore, it was found that probing questions help to guide clients to articulate their actual information needs, especially in cases where they have a broad information need. Similarly, the competitive intelligence intermediaries emphasised the clarification of key intelligence needs by probing clients more and asking follow-up questions. The study also found that by clarifying the client’s key intelligence needs, competitive intelligence intermediaries not only address unrecognised key intelligence needs and ambiguities, but also avoid misunderstanding and misalignments. Although not mentioned by information service intermediaries and not addressed in literature, the competitive intelligence intermediaries address subconscious key intelligence needs through visualisations by employing whiteboarding and scenarios to facilitate a deeper understanding of clients’ subconscious key intelligence needs.

The competitive intelligence and information service intermediaries share similarities in their emphasis on the clarification of clients’ needs through detailed questioning, follow-up inquiries and the use of visual aids. Both groups recognise the importance of adapting to clients' evolving information needs with a shared understanding, and addressing subconscious information and key intelligence needs. In addition, both groups underscored the importance of creating an environment that enables the efficient soliciting of information and key intelligence needs, which means the client can freely share and express their needs.

### 5.1.5. Which methods are effective for soliciting and negotiating clients' needs?

While the question only focused on the methods that both competitive intelligence and information service intermediaries use for the effective solicitation of information and key intelligence needs, challenges of using certain methods were also provided. The study found that communication plays a crucial role in soliciting the client's needs. Information service intermediaries highlighted their preference for a combination of communication methods, with face-to-face interaction being the most favoured. It was further noted that information needs are first initiated through email. However, complex information needs would shift towards face-to-face and virtual interaction. Similarly, the competitive intelligence intermediaries mentioned the value of direct in-person interactions, highlighting its advantages, such as gauging a client's mood and creating a comprehensive understanding of the client's needs.

The findings of the study are in line with literature, which suggest that information needs are best negotiated and shaped through linguistically mediated processes (Lundh, 2010; Sundin & Johannison, 2005; Taylor, 1968). McKenzie (2004) further proposed a positioning theory that analysed everyday talk to see how information needs emerged through negotiation processes. The precision of the reference interview, questions and language use in dialogue contributes to shaping the conceptualisation of information needs. Writing from a competitive intelligence perspective, Herring (1999) mentions that interviews are the most successful ways to solicit clients' key intelligence needs, although other methods, such as email and informal conversation, can be used. Vuori (2006) mentioned that an advantage of the interview as a method of soliciting key intelligence needs is the raising of awareness and understanding of overlooked factors, the possibility of adapting the questions to suit the key intelligence need(s) and offering the platform for further probing and the possibility of eliciting subconscious needs.

The challenges associated with email communication was evident in both groups, particularly that information needs that are communicated through email can pose a challenge associated with ambiguity and brevity. Furthermore, the summarised and, at times, abstract nature of email requests may lack the depth necessary to understand the client's needs. Moreover, the competitive intelligence intermediaries highlighted the challenges of assessing atmosphere and intent in email communication, which was a concern not explicitly stated by the information service intermediaries.

### 5.1.6 Which strategies do you use to solicit information and key intelligence needs?

The study found that both competitive intelligence and information service intermediaries acknowledged the absence of strict guidelines to solicit information and key intelligence needs in their respective fields. They instead stressed the importance of using flexible frameworks and checklists to navigate the client's information and key intelligence needs. In a similar vein, McGonagle and Vella (2002) presented a checklist, which included identifying the target, and figuring out what information is needed and how to prioritise clients' needs. Despite the information service intermediaries acknowledging the absence of strict guidelines, they mentioned the use of reference interviews several times, but they did not think of it as an actual strategy. Case and Given (2016) note that the reference interview is a method that facilitates interaction for people to share their information need with the intermediary.

It was also noted that both groups emphasised the factors that were already mentioned in responses to previous questions, such as the need for communication and engagement in understanding the client's needs. One of the methods mentioned by competitive intelligence intermediaries that stood out was the use of documentation and formal agreement mechanisms as tools in the clients' needs soliciting process.

### 5.1.7. Managing follow-up discussion to confirm information and key intelligence needs deliverables

As discussed in Chapter 4 (Section 4.3.7), both groups of participants were asked different questions while the objective of the question was maintained. The question focused on client follow-ups and feedback mechanisms. The study found that information service intermediaries actively seek feedback from clients through immediate responses and feedback soliciting. From the feedback they receive, information service intermediaries engage in face-to-face interactions with their clients to refine the information search. Furthermore, it was found that information service intermediaries use automated feedback systems, such as “rate my service” and online evaluation forms to provide a structured assessment and open dialogues for improving and refining the information search process. In order to understand and improve the service provided by information service intermediaries, Durrance (1989) created a willingness to return form, whereby clients filled in a questionnaire to rate the service they received from the information service intermediary. The participants also provided a step-by-step account of what happened.

The study found that competitive intelligence projects span longer periods of time, which means that the key intelligence needs of the clients can be altered and change slightly throughout the duration of the project. It is therefore important for competitive intelligence intermediaries to constantly communicate with their clients to ensure that their key intelligence still aligns with what was initial agreed upon. Regular client follow-ups and document signoffs were mentioned as strategies used to ensure an alignment with expectations and successful project delivery. The study by Maungwa and Fourie (2018) concluded that, due to the unstable business environment, key intelligence needs may fluctuate and impact data collection. The alignment and confirmation of key intelligence needs should thus be maintained throughout the entire competitive intelligence process. Furthermore Muller (2002) mentions that, in the business environment, what is relevant today, might not be relevant tomorrow, so key intelligence needs should regularly be updated and communicated. For Muller (2002), this should be done on a weekly basis. In addition, Du Toit (2007) found that regular updates and communication will help direct the competitive intelligence project to ensure that the final results are aligned with the needs of the clients. Du Toit (2007) further argues that such communication should include expected delays in project completion, the inability to meet deadlines and due dates, and other updates that may be relevant to the client.

Both information service and competitive intelligence intermediaries share a common goal of ensuring client satisfaction and alignment with expectations, but use different strategies to achieve these objectives.

### 5.1.8 What challenges are experienced during the soliciting of client's needs?

Facilitating, understanding and soliciting a client's information and key intelligence needs is complex. Katz (1978, p. 93), writing on these complexities, notes that this process involves "one person trying to describe for another person not something he knows, but rather something he does not know". Similar to Katz (1978), the study found that one of the common themes that emerged between competitive intelligence and information service intermediaries is the clients' limited understanding of their own information and key intelligence needs. Both competitive intelligence and information service intermediaries suggested that clients often approach them with ambiguous and ill-defined information and key intelligence needs. Another shared commonality is the assumption of prior knowledge, whereby clients withhold essential details of their information and key intelligence needs, assuming that intermediaries have a coherent understanding of these. Some competitive intelligence intermediaries reported that clients in leadership roles tend to assume extensive business knowledge, hindering the effective communication and soliciting of the actual key intelligence needs. A client's unawareness of the scope and limitations of their information needs was also expressed by both competitive intelligence and information service intermediaries. Information service intermediaries mentioned a lack of awareness of a client's boundaries and capabilities of information systems, which leads to misaligned expectations. On the other hand, competitive intelligence intermediaries noted situations where clients may lack a clear understanding of project boundaries, potentially leading to unrealistic expectations. Findings from competitive intelligence intermediaries presented a theme that was not mentioned by information service intermediaries: prejudice and age bias, which is a noteworthy challenge that impacts the effectiveness of client needs' soliciting.

### 5.1.9. What are your thoughts of overcoming these challenges?

Methods of overcoming information and key intelligence needs challenges were linked and to a great extent associated with the methods of addressing unrecognised information and key intelligence needs, effective methods for soliciting and negotiating clients' needs, and strategies used to solicit information and key intelligence needs. The study found that the information service intermediaries emphasise the importance of clarifying information needs' ambiguities, pre-meeting preparation aimed at understanding the domain of the information need, and acquainting oneself with any unfamiliar concepts, probing into specifics when faced with complex information needs to mitigate any unforeseen challenges and to ensure a targeted and effective information retrieval process. Furthermore, post-information search, involving the intermediary following up with clients to verify whether the provided information is adequate to address their queries, was also found to be important.

Similarly, the solution to overcoming key intelligence needs' soliciting challenges given by competitive intelligence intermediaries revolved around the understanding of clients' key intelligence needs and formalised written agreements. The study found that the cornerstone of effectively soliciting and understanding key intelligence needs lies in clarifying the client's needs through meetings and regular communication. This is evident in sections 4.3.4, 4.3.6, and 4.3.9. Furthermore, the participants stressed the need for a unified briefing, involving all parties that form the entire project, to ensure that everyone is on the same page regarding key intelligence needs at the inception of the project. Additionally, competitive intelligence intermediaries stressed the importance of formalised agreements to enhance contractual clarity and the blueprint approach. Signed formalised contractual agreements ensure a mutual understanding of the project and key intelligence needs, while the blueprint approach involves documenting activities, comparing them with proposed solutions, and providing scenarios that serve as a tangible agreement for all involved stakeholders.

In addition, the study found that, despite contextual difference of competitive intelligence and information service intermediaries, a common thread emerged: the principal importance of understanding the client's needs and ensuring alignment through a well-defined process. Both professionals highlighted the value of active communication, clarification, and formalised agreements to mitigate challenges of soliciting information and key intelligence needs.

### 5.1.10. Impact of inaccurate key intelligence needs and factors that contribute to a successful reference interview

The study discovered that it is extremely rare for competitive intelligence intermediaries to incorrectly solicit key intelligence needs because of the methods and techniques they put in place, such as formal contracts, document sign-off, scenarios and examples, and the use of the blueprint approach. Yet, despite all these careful efforts, methods, and techniques, it is discovered that miscommunications occasionally occur, resulting in incorrect requests for key intelligence needs leading to project rejection.

The information service intermediaries were asked what they considered to be a successful reference interview or encounter. The concept of success was not only based on task execution, but also on the positive impact of client understanding, satisfaction, and the acquisition of the desired information. Two factors were highlighted: client satisfaction as an implicit measure of success, and assistance from automated systems to measure client satisfaction. Information service intermediaries highlighted client satisfaction as a gauge of the quality of interaction and the extent to which the information need has been met. In addition, information service intermediaries use automated feedback systems to assess their interactions with clients, which provides a structural approach to gathering client feedback.

### 5.1.11 Skills that are required for effectively soliciting information and key intelligence needs

While coming from a different context, the competitive intelligence and information service intermediaries shed light on the essential skills that are required for the effective soliciting of information and key intelligence needs, which are similar. The information service intermediaries highlighted an overarching skill that aids the effective solicitation of information needs, which is the ability to create a supportive environment for the client who is in need of the information. Because clients may not be able to express their information needs, patience was highlighted as an important skill. Attention to detail was another skill that was identified. The ability to probe specific questions to fully understand the client's needs requires attention to detail. Honesty and transparent communication were also highlighted as important skills. It was acknowledged that, while information service intermediaries, especially information specialists, are subject field experts, there are instances when they are not familiar with the concepts that define the client's information needs. In such cases, it is important to ask the client to guide the intermediary around those concepts. Although not directly linked to soliciting information needs, the study also found technical skills such as proficiency in using online databases and the ability to formulate information search queries to be desirable.

On the other hand, competitive intelligence intermediaries stressed the art of not only being able to decode the client's key intelligence needs, but also the ability to guide them to a possible solution. Similar to information service intermediaries, the competitive intelligence intermediaries mentioned that the overarching skill required is the ability to understand and interpret the client's key intelligence needs. Although not explored in great detail by the research participants, the need for effective communication was also emphasised as a key skill.

The study further found that technical and functional skills, which include tact and charm, good business acumen and the ability to influence clients, are also necessary. In addition, it was found that client knowledge and preparatory research enable a precise understanding of a client's key intelligence needs. The study by Strauss and Du Toit (2010) similarly identified a list of generally accepted competitive intelligence skills, such as written and oral communication, understanding of business terminology, interviewing skills and knowledge of information systems and sources.

## 5.2. CONCLUSION

This chapter compared the findings from the competitive intelligence and information service intermediaries regarding the solicitation of information and key intelligence needs. In conclusion, the findings show the importance of communication, client engagement, and a thorough understanding of their client's needs for successful information soliciting. Both information service and competitive intelligence intermediaries face similar challenges and employ similar strategies and approaches to effectively solicit clients' information and key intelligence needs. The literature aligns with these findings, providing a theoretical foundation and supporting evidence for the strategic approaches and method employed by both groups of professions. The following chapter will present the emerging theory that was grounded from the data.

# CHAPTER 6: PRESENTING AND DISCUSSING THE EMERGENT THEORY

## 6.1. INTRODUCTION

The purpose of this grounded theory study was to identify a theory and develop a visual framework that can be used to explain the soliciting of key intelligence needs by competitive intelligence intermediaries using information service intermediaries as a validating and reference perspective. This chapter therefore presents the study's emergent theory and framework. It brings together the data codes, patterns, and categories that explain the soliciting of key intelligence needs, and focuses on what is happening in practice. A core category will be deduced from all the categories that have been presented in both Chapter 4 and 5. Relevant areas of literature identified in Chapter 2, as well as broader literature, are intertwined with the theory to increase its scope, depth, and relevance to both academics and practitioners. This chapter will first present and compare two models that show the soliciting of key intelligence and information needs by competitive intelligence and information service intermediaries, respectively. Since the latter only serves as a point of reference and validating perspective, the sections that follow will present a discussion of the theory, which will include a visualised framework of the theory, and how these can be explained within the context of competitive intelligence.

## 6.2. VISUALISING AND COMPARING CODES, CATEGORIES AND PATTERNS FROM THE DATA

In order to move towards creating a theory from the initial dominant codes and focused codes, this section will provide visual illustrations of the categories and patterns that emerged from the data. While the previous chapter has already provided a discussion of these findings, it was deemed relevant to provide visual comparisons. Therefore, Figure 6.1 and 6.2 show the comparisons between competitive intelligence and information service intermediaries, and whether we can use experiences of information service intermediaries to inform the extraction of key intelligence needs.

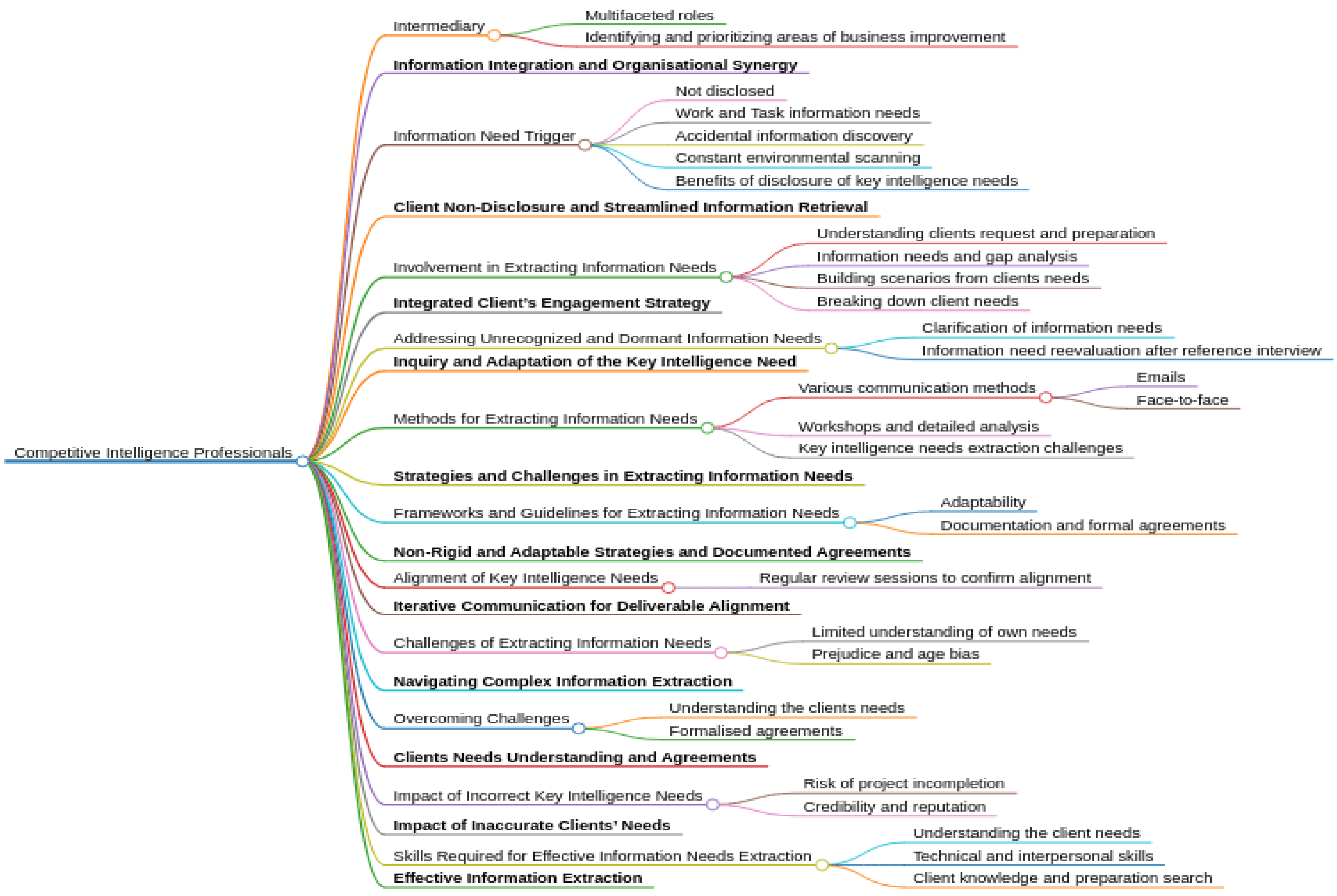


**Figure 6.1: Factors involved in the soliciting of key intelligence needs**

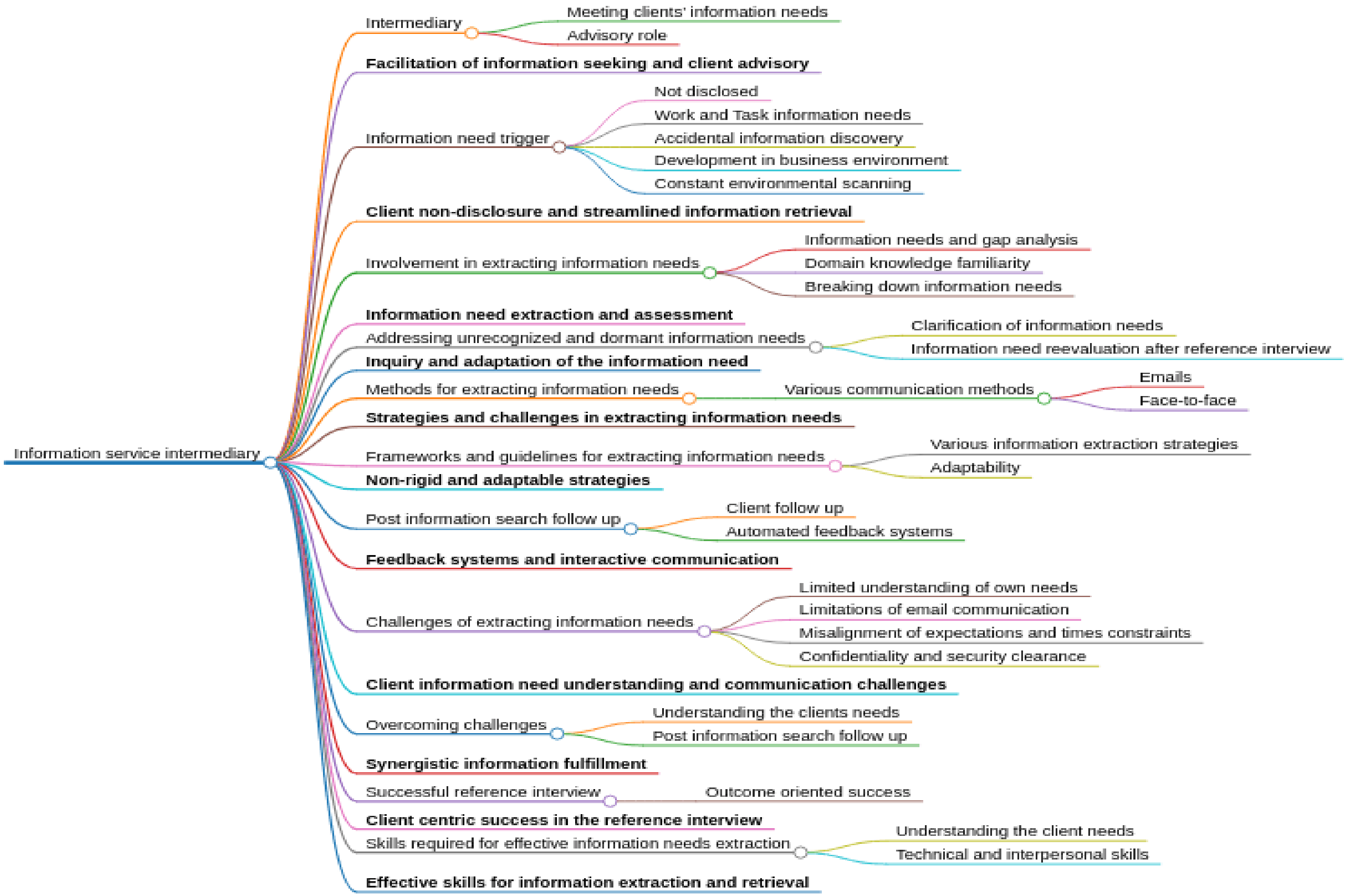


**Figure 6.2: Factors involved in the soliciting of information needs**

## 6.3. PRESENTING THE EMERGENT THEORY

From the figures presented above, the data presented in Chapter 4 and the discussions provided in Chapter 5, it is evident that both information service and competitive intelligence intermediaries share several similarities in their approaches to understanding and soliciting client information and key intelligence needs. Both groups of practitioners have emphasised the importance of effective communication skills, including the ability to create an environment that is client-centred and promotes effective information and key intelligence needs understanding, articulation and extraction. Both groups have stressed the need for attention to detail when probing specific information and key intelligence needs, and the value of honesty and transparent communication when interacting with clients.

The study thus presents the Four-phase Outline for Competitive Intelligence Soliciting (FOCIS) framework. However, in an attempt to construct and refine the theory based on the data, it was observed that the data instead yielded a sequence of phases, levels of understanding, actions, challenges, and mitigation strategies, leading to the understanding of the soliciting of key intelligence needs. Therefore, the study explains the FOCIS theory through the depiction of a framework. Charmaz (2015) similarly notes that the outcomes of grounded theory can be conceptual frameworks or theories, which are constructed and refined through inductive analysis from the data.

The FOCIS model is primarily descriptive in nature, it reflects the practices and approaches observed during interviews with competitive intelligence and information service intermediaries. Through data analysis, the framework summarises how intermediaries currently solicit key intelligence and information needs, capturing common themes, patterns, and methods used in practice. However, the framework does not prescribe specific steps or dictate a definitive process for intermediaries to follow. Rather, it serves as a framework to describe the ways in which these professionals engage with clients and manage intelligence needs. The purpose of the model is to illustrate existing strategies and processes, providing a detailed depiction of what typically occurs, rather than offering rigid guidelines for practitioners. The FOCIS framework is depicted in Figure 6.3 below. This will be followed by a discussion of the framework.

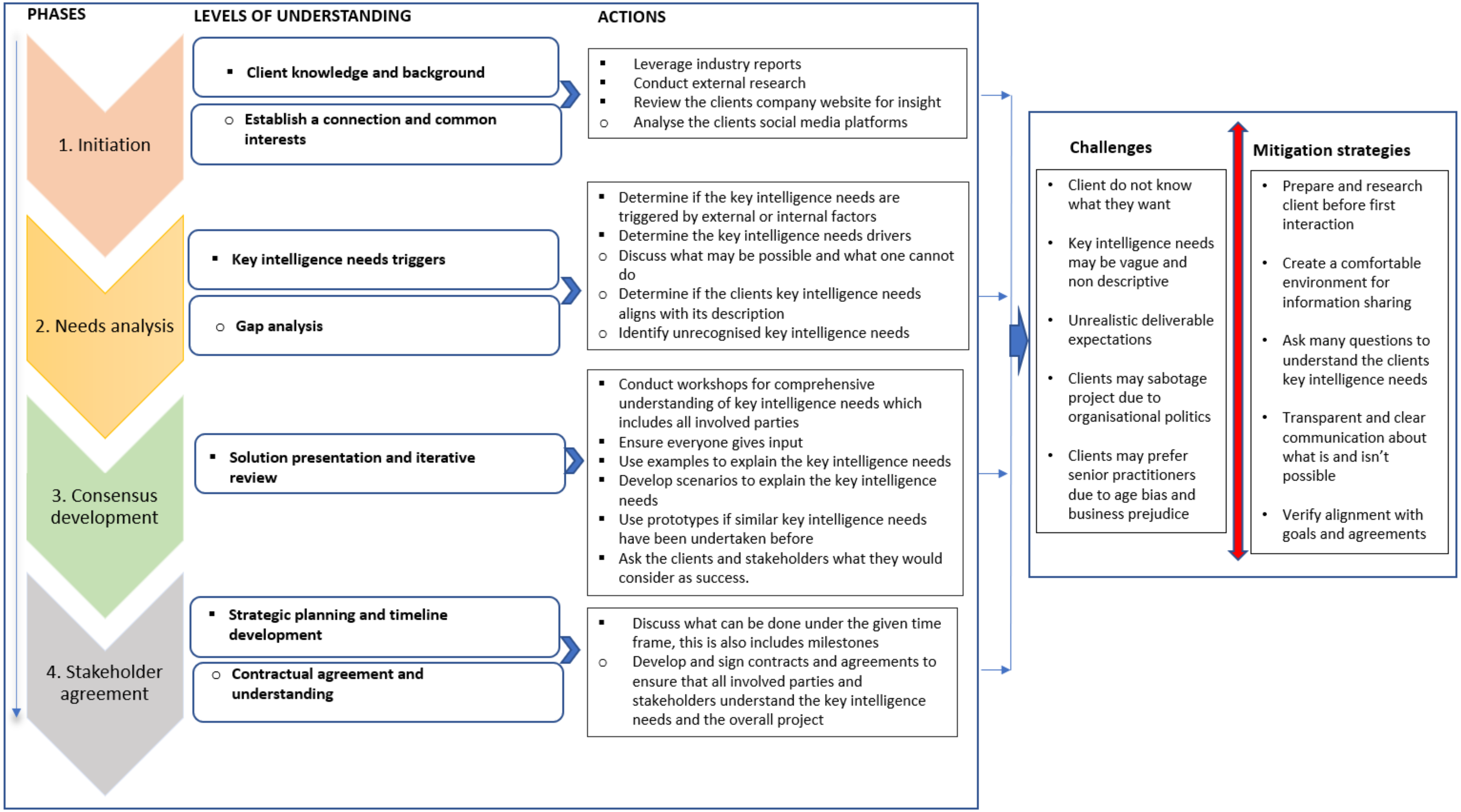


**Figure 6.3: FOCIS framework: Four-phase Outline for Competitive Intelligence Soliciting**

The FOCIS framework draws its foundation from the synthesis of empirical findings, extensive literature, and insights from information service intermediaries, all which produces an approach to enhance the effectiveness of competitive intelligence intermediaries with a specific focus on identifying and soliciting key intelligence needs. The primary objective is twofold: Firstly, to enrich the academic discourse surrounding competitive intelligence by introducing a theoretically grounded, empirically validated framework for key intelligence needs identification and soliciting. Secondly, to provide a pragmatic instrument for competitive intelligence intermediaries. This initiative stems from a literature where the mechanisms underpinning the understanding and soliciting of key intelligence needs remain insufficiently explored. The FOCIS framework has four main phases, which are discussed below:

**PHASE 1: INITIATION**

Based on the empirical findings (Section 4.3.3.4), it appears that competitive intelligence intermediaries generally emphasise the importance of having a thorough understanding of the client to facilitate a shared interest. Conducting preparatory research on the client and their industry may be closely linked to developing adequate domain knowledge, which could assist in grasping the key intelligence needs (Section 2.5.4). Thus, the initial phase of the FOCIS framework suggests that doing preparatory research and reflecting on past and current experiences with the client could be beneficial before conducting interviews to elicit key intelligence needs. This approach may help intermediaries gain a better understanding of the subject prior to their first meeting with the client. Completing this component might involve gathering information about the client, their industry, and the broader business environment they operate in. Such preparatory research could provide competitive intelligence intermediaries with insights into the client's background, objectives, and potential areas of concern. With this information, intermediaries may be better positioned to engage with clients empathetically and understandingly, potentially leading to more tailored products.

**PHASE 2: NEEDS ANALYSIS**

The second phase recognises that, even though not implicitly stated by the competitive intelligence intermediaries, clients' key intelligence needs are brought about by particular job functions and responsibilities, necessitating the intervention of an intermediary to make proactive requests for information. This aligns with the work of Leckie et al. (1996), who emphasises the professional’s work context, stating that information needs are usually brought up by tasks associated with the work role of the professional (Section 2.3).

From Chapter 4, it is noted that clients are, at times, unable to clearly state their key intelligence needs. It is thus recommended that competitive intelligence intermediaries delve deeper to clear up any confusion. One way to make the key intelligence needs clearer is to ask probing questions that elucidate the needs, collect data, and do research that can provide further insight into the key intelligence needs. The needs analysis phase also involves an assessment to confirm that the stated key intelligence needs appropriately represent the clients' circumstances and are in line with their goals, as mentioned in Chapter 4. An essential component of the needs analysis phase involves having an open and transparent conversation with the client to determine what is feasible, thus identifying any limitations upfront, and further addressing any misunderstanding and ambiguities that may create a misalignment of the key intelligence needs and deliverables.

**PHASE 3: CONSENSUS DEVELOPMENT**

In the consensus development phase, a collaborative approach may be beneficial in fostering a shared understanding of the key intelligence needs among the competitive intelligence intermediary and all relevant stakeholders. From Chapter 4, it appears that such consensus could potentially be facilitated through workshops, which might provide a platform for open discussion and allow each party to share their perspectives and insights regarding key intelligence.

Additionally, Chapter 4 suggests that competitive intelligence intermediaries may find value in explaining the client's key intelligence needs by using scenarios, illustrations, prototypes, and examples to clarify these needs. Engaging stakeholders in this manner might help in achieving a deeper understanding and in reaching a common ground. This phase of consensus development likely involves discussions aimed at defining and agreeing on what success could look like for the intelligence project.

**PHASE 4: STAKEHOLDER AGREEMENT**

The culmination of the first three phases appears to establish a critical point at which agreement can be reached and formalised between stakeholders and the competitive intelligence intermediary. To promote a shared understanding and help ensure that the intelligence project achieves its objectives, this phase involves formalising and documenting key intelligence needs. As suggested in Chapter 4, contracts are one potential method for formalising these agreements. Such contracts would likely outline the agreed-upon intelligence needs, their descriptions, and relevant details. Additionally, contractual agreements may provide timelines, including deadlines, deliverables, and milestones. Chapter 4 also highlights that, if key intelligence needs evolve during the project, having document sign-offs in place could help capture any modifications, ensuring that changes are endorsed by all relevant parties. This process may contribute to greater alignment and a shared vision among stakeholders.

**CHALLENGES AND MITIGATION STRATEGIES**

From Chapter 4, it is evident that the effectiveness of each of the four phases can be affected by several challenges, including clients not fully understanding their key intelligence needs, vague or non-descriptive key intelligence needs, unrealistic expectations, as well as organisational politics and bias towards a practitioner's age or experience. Strategies to mitigate these challenges include the following:

- Thorough preparation: Conducting extensive research on the clients before the first interaction, which helps to understand their background and potential needs.
- Create an environment for comfortable information sharing: Fostering an environment for comfortable open communication and asking numerous questions to develop a common understanding.
- Transparent dialogue: Maintaining transparent and clear communication about what is achievable, setting realistic expectations and helping to manage deliverables.
- Alignment and agreements: Regularly verifying that the key intelligence needs are still aligned with the client's goals and the agreed-upon contracts. This ensures that all stakeholders stay on course and that any misalignment is addressed promptly.

## 6.4 CREDIBILITY AND APPLICATION OF THE THEORY

According to Glaser and Strauss (1967), the credibility of a theory can be verified using four criteria: fit, workability, relevance, and modifiability. The criterion of fit aims to address the question "does the concept adequately express the pattern in the data which it purports to conceptualise?” (Glaser, 1998, p. 1). In order for grounded theory to ‘fit’, the researcher should not use codes and categories from the literature (Glaser, 2002). Workability refers to how well the theory can be used to explain and interpret behaviour in the substantive field, and predict future behaviour (Gorman & Clayton, 2015). If any observed variation cannot be explained, it must be accepted that theory does not work (Charmaz, 2000). The criterion of relevance aims to ensure that the theory will engage with the real-world concerns of those involved in the process it seeks to explain (Weed, 2017), The criterion of modifiability refers to the ability of the emergent theory to be modified with addition data. According to Glaser (1998), the aim of grounded theory is not to prove or disprove, and the end product is never wrong or right; but rather, grounded theory is flexible and fluid in nature. Therefore, researchers can modify their emerging or established analysis as more data is gathered (Charmaz, 2000). Given the description of the criteria, the following table will discuss how the emergent theory applied the credibility criteria.

**Table 6.1. Credibility of the emergent theory**

| Criterion | Assessment of how the criterion is applied to the theory |
|---|---|
| Fit | No preconceived concepts were used. The extent to which fit has been achieved for the emergent theory is evident in Chapter 4 and 5, where the empirical data is presented and explained. Every aspect is explained with the appropriate data so that it is clear that the categories have emerged directly from the empirical data. |
| Workability | In order to explain the soliciting of key intelligence needs, the theory was constructed and built from the codes and categories emerging from both information service intermediaries and competitive intelligence intermediaries. The theory that emerged consisted of four components that can be traced back to the codes and categories encompassing both data from information service intermediaries and competitive intelligence intermediaries. |
| Relevance | In this study, the emerging theory is able to explain the process and framework that can be used to efficiently extract key intelligence needs. The theory can be used by those in the academic field, as well as practitioners. |
| Modifiability | Should further variables emerge, the theory should be able to accommodate those changes. While the theory presented has fully accommodated all the components of key intelligence |

| Criterion | Assessment of how the criterion is applied to the theory |
|---|---|
| | needs extraction, the construction of the theory is done in a way that allows for subsequent variation or modification should further data require it. |

**6.6. CONCLUSION**

Chapter 6 has presented and discussed the emergent theory known as the FOCIS framework. The theory has been developed by synthesising the imperial findings, which include the findings from the information service and competitive intelligence intermediaries, with the aim of enhancing and explaining the extraction and identification of key intelligence needs. The FOCIS framework consists of interconnected components that are grounded within the data. The following chapter will address a summary of the findings, recommendations and final conclusions.

# CHAPTER 7: SUMMARY OF FINDINGS, RECOMMENDATIONS, SUGGESTIONS FOR FURTHER RESEARCH AND CONCLUSION

## 7.1 INTRODUCTION

This chapter presents the summary of the findings and recommendations of the study. The chapter presents the purpose and objectives of the study and how they are met, as well as a summary of the findings from both the empirical data and the literature. The chapter also discusses the value of the study and its contribution to the field of competitive intelligence and information behaviour. Finally, the chapter provides an overall conclusion. The study's research question was:

***What key factors should be included in the development of an information intermediary framework for competitive intelligence intermediaries?***

To answer the principal question, the following sub-questions were set:

1. How is the intermediary role conceptualised within the competitive intelligence process with specific reference to key intelligence needs and information needs?
2. How are key intelligence needs triggered, recognised, and shared?
3. How can competitive intelligence intermediaries facilitate the soliciting and negotiation of key intelligence needs as information needs?
4. What challenges do competitive intelligence intermediaries experience when soliciting key intelligence needs?
5. How can the challenge of recognising key intelligence needs and information needs that guide the collection and analysis of competitive intelligence be addressed?
6. How do competitive intelligence and information service intermediaries compare in their approach to identifying and soliciting key intelligence needs and information need?

## 7.2. MEETING THE PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of this study was to investigate factors that contribute to the understanding, articulation and solicitation of key intelligence needs. This was done in light of the lack of empirical knowledge on the complexities and understanding of key intelligence needs within the competitive intelligence literature. The information behaviour literature and information intermediaries served as a validating lens. Table 7.1 indicates the study's objectives and how they were achieved.

**Table 7.1 Meeting the study's objectives**

| The study's objectives | How the study met the objectives |
|---|---|
| To identify the intermediary's role, particularly in the soliciting of key intelligence needs | As highlighted in the literature analysis and the empirical data, the role of the intermediary encompasses several functions, depending on the context and the specific intermediary (see Section 4.3.1). The study found that the role of the intermediary includes information mediation, which means the intermediary bridges the gap by facilitating access to relevant information (see Section 4.3.1.1). The second role is understanding the client's needs, which involves engaging in dialogues with clients to ascertain their information requirements (see Section 2.5.2 and Section 4.3.1.3). Lastly, information intermediaries provide advisory and consulting services. The role of the intermediary in the extraction of key intelligence needs proactive inquiry, client interactions, the use of flexible and adaptable methods and knowledge of the subject field (see Section 4.3.1.2). |
| To explore key factors that impact the competitive intelligence intermediary's capacity to identify, solicit and negotiate key intelligence needs | The ambiguity and imprecise articulation and expression of key intelligence needs are recurring issues in both the empirical data and the literature. The assumption of prior knowledge, where clients assumed intermediaries understand their industry or context, led to potential misunderstandings (see Section 2.5.4). Unrecognised key intelligence needs also posed challenges (see Section 2.5.1 and Section 4.3.4.1 to 4.3.4.4). Furthermore, lack of disclosure and misalignment with the project scope were also identified as factors that impact the competitive intelligence intermediaries' ability to solicit and negotiate key intelligence needs (see Section 4.3.8.1 to 4.3.8.5). |
| To provide a theoretical background on the triggers, recognition and understandings of key intelligence | The literature provided a background for understanding triggers and recognition of key intelligence and information needs. It emphasised |

| The study's objectives | How the study met the objectives |
|---|---|
| needs and information needs from the subject literature on intermediary information seeking challenges | that information needs are driven by task roles and work-related requirements, as proposed by Byström and Järvelin (1995) and Leckie et al. (1996) (see Section 2.3). In this context, information needs arise when a professional engages in work tasks. Furthermore, Herring (1999) highlighted that key intelligence needs may arise as a result of environmental changes, continuous scanning of the business environment and external factors, such as market dynamics. |
| To provide a framework that shows factors that contribute to the effective extraction of key intelligence needs | The FOCIS framework was developed from the empirical data to show an effective process to solicit key intelligence needs. The theory explains the phases that contribute to the soliciting of key intelligence needs (see Sections 6.2 and 6.3). |

### 7.3 SUMMARY OF THE MAIN FINDINGS

A summary of the main findings from both the literature and the empirical component are presented in Table 7.2. References to the literature, where appropriate, are also be provided.

**Table 7.2: Summary of findings**

| **Research sub-questions** | **Summary of findings** | **Literature references linked to findings** |
|---|---|---|
| How do we conceptualise the intermediary role within the competitive intelligence process with specific reference to key intelligence needs and information needs? | The intermediary role revolves around the facilitation of effective communication, interpretation and alignment between clients and the information or intelligence required to support decision-making and business improvements (see Section 4.3.1.1 to 4.3.1.3 and Section 5.1.1). | Choo (2001), Prescott and Miller (2002), Fleisher and Bensoussan (2003), Blenkhorn and Fleisher (2005) |
| How are key intelligence needs triggered, recognised and shared? | While the triggers to needs are not disclosed, it is implied that key intelligence needs originate from the tasks and work roles of the client. Sources of key intelligence needs include the accidental discovery of information, constant scanning of the environment and a development within the business environment (see Section 2.5.1 and 2.5.2, Section 4.3.2.1 to 4.3.2.4 and Section 5.1.2). | Leckie et al. (1996), Byström (1999), Herring (1999), Muller (2002); Strauss and Du Toit (2010) |
| How can competitive intelligence intermediaries facilitate the soliciting and negotiation of key intelligence needs? | The facilitation of key intelligence needs' soliciting requires thorough analysis of the key intelligence needs, prior domain knowledge, and the ability to break down client needs into functional categories, | Chen and Dhar (1991), Muller (2002), Luo and Park (2013), Nicholas and Herman (2010), Quint (2016), Saunders (2016) |

| **Research sub-questions** | **Summary of findings** | **Literature references linked to findings** |
|---|---|---|
| | making information searching manageable. Furthermore, competitive intelligence intermediaries should create a favourable environment for probing questions in light of assisting clients and guiding clients to articulate unrecognised and dormant needs (see Section 2.5.1, Section 4.3.3 and Section 5.1.3). | |
| Which challenges do competitive intelligence intermediaries experience during the negotiation of key intelligence needs? | Clients often have a limited understanding of their own key intelligence needs. There is also an assumption of detailed prior knowledge, whereby clients assume that the competitive intelligence intermediary is aware of what they are looking for and do not fully express their key intelligence needs. Furthermore, a client's unawareness of the scope and limitation of their key intelligence needs poses a challenge, as does a lack of clarity regarding project boundaries, which lead to unrealistic expectations. Additionally, there can be instances in which age bias impacts the effectiveness of key intelligence needs soliciting (see Section 2.5, Section 4.3.8 and Section 5.1.8). | Katz (1978), Muller (2002), Du Toit (2007), Abrahamson et al. (2008) |

| Research sub-questions | Summary of findings | Literature references linked to findings |
|---|---|---|
| How can the challenge of recognising key intelligence needs and information needs that can guide the collection and analysis of competitive intelligence be addressed? | Competitive intelligence intermediaries overcome challenges by emphasising the importance of asking clarifying questions and probing for specifics to gain a deeper understanding of the client's key intelligence needs. Thorough client and key intelligence needs' research and preparation are critical in ensuring competitive intelligence intermediaries are well informed about a client's industry and context. Effective communication skills, such as active listening, are essential for addressing any misunderstandings. Visual aids, prototypes, scenarios, and whiteboarding assist in visualising clients' key intelligence needs, which improve understanding and form common ground between the competitive intelligence intermediary and the client (see Section 4.3.9 and Section 5.1.9). | Frion and Yzquierdo-Hombrecher (2009), Strauss and Du Toit (2010), Garcia-Alsina et al. (2013) |
| What are the similarities between the information intermediation of competitive intelligence intermediaries and information service intermediaries? | The intermediary process of both competitive intelligence intermediaries and information service intermediaries have striking similarities. Both professionals emphasise the importance of effective | Jinkook and Jinsook (2005), Maungwa and Fourie (2018, 2020), Bates (2019) |

| Research sub-questions | Summary of findings | Literature references linked to findings |
|---|---|---|
| | communication skills, including the ability to create an environment that can facilitate the effective soliciting of information and key intelligence needs. Both professionals stress the importance of the need for attention to detail when probing specific information and key intelligence needs, and the value of honest and transparent communication when interacting with clients. Preparatory research and understanding of the client’s context are also stressed by both professionals. Furthermore, both groups actively seek feedback to either improve their information search or maintain alignment with the evolving clients’ needs (see Section 4.3.2, 4.3.3., 4.3.4, 4.3.5, 4.3.8, 4.3.9 and 4.3.11). | |

### 7.4. VALUE OF THE STUDY AND CONTRIBUTION TO THE FIELD

The value and contribution of this study lies in several key aspects:

1. **Theoretical contribution:** The study contributes to the theoretical understanding of the role of intermediaries, particularly in the context of competitive intelligence and information service intermediaries. Through the development of the FOCIS framework, the study added to the body of knowledge on the extraction of key intelligence needs.
2. **Practical guidance:** The FOCIS framework provides a practical guide, which can be used by both competitive intelligence practitioners and academics to understand factors that contribute to the effective extraction of key intelligence needs.
3. **Comparative Insights:** The study draws parallels between the roles of competitive intelligence intermediaries and information service intermediaries, emphasising shared best practices in communication and client engagement. This comparison can inform training and development for professionals in both fields.
4. **Addressing Challenges:** By identifying common challenges faced by intermediaries—such as clients' limited understanding of their own needs—the study provides actionable recommendations for overcoming these barriers through improved communication and clarification techniques.
5. **Awareness:** Apart from the factors that contribute to the effective extraction of key intelligence needs, the study also brought to light some challenges that may hinder the process, and proffered possible solutions to these problems.

### 7.5. LIMITATIONS OF THE STUDY

While the study met its outlined objectives, the following limitations where noted:

1. **Geographical Scope:** The research is limited to South Africa, which means that the results may not be generalisable to other countries or regions. Cultural, economic, and contextual differences may influence the intermediary role and the dynamics of competitive intelligence processes in different settings.
2. **Lack of Statistical Analysis:** The study is primarily descriptive in nature, lacking quantitative data and statistical analysis. This limits the ability to draw definitive conclusions or establish

causality among the identified factors, making the findings more exploratory than conclusive.

3. **Descriptive Rather than Prescriptive:** Since the study does not provide prescriptive guidelines, the insights gained and the FOCIS framework cannot be solely relied upon by competitive intelligence intermediaries for decision-making. The findings serve as a foundation for understanding but require further validation and refinement through additional research.

## 7.6 RECOMENDATIONS

- **Implications for Consultants**

  Consultants can benefit from the FOCIS framework by incorporating a clear and structured methodology for addressing client intelligence needs, which enhances the value of their advisory services. The framework aids in better aligning recommendations with client objectives, leading to more successful project outcomes and improved client satisfaction. Moreover, it helps mitigate risks by addressing common challenges such as unrealistic expectations and unclear needs(dormant), thereby reducing the likelihood of project disputes and ensuring more predictable results.
- **Implications for Service Providers**

  For service providers, the FOCIS framework improves service delivery by enabling a better understanding and fulfillment of client needs, which enhances overall client satisfaction. It also promotes increased transparency by fostering clearer communication and reducing misunderstandings between providers and clients. Additionally, the framework helps align service offerings with client goals, fostering stronger partnerships and contributing to more successful business relationships.
- **Client-centred approach:** Competitive intelligence intermediaries should embrace the approach that is outlined in the FOCIS framework. They should prioritise and create a supportive environment that promotes effective extraction and negotiation of key intelligence needs.
- **Addressing unrecognised needs:** Equip competitive intelligence intermediaries with the ability to ask probing question, while creating an environment that encourages clients to share their needs, even if they are not well articulated.

- **Training and Development:** Given the identified challenges in understanding key intelligence needs, organisations should invest in training for competitive intelligence intermediaries. This training should focus on enhancing communication skills, active listening, and effective questioning techniques to better engage clients and elicit their needs.

## 7.7 SUGGESTIONS FOR FURTHER RESEARCH

Apart from the lack of literature on the extraction of key intelligence needs, the study identified gaps that can be addressed by further research:

Academic research on

**Validation Testing of the FOCIS**: Future studies should focus on validating the Framework for Organisational Competitive Intelligence Strategy (FOCIS) introduced in this research. Testing its applicability and effectiveness in various organisational contexts could provide empirical support and refine the framework for broader use.

**Comparative Studies of Information Intermediaries**: Extend the research to compare competitive intelligence intermediaries with other types of information intermediaries in various sectors. Such studies could uncover common practices and unique challenges across different fields.

**Client and management perspectives**: Conduct research that focuses on the clients' perspectives regarding their understanding of key intelligence needs and their experiences with intermediaries. This could help identify gaps in communication and areas for improvement in the intermediary-client relationship.

**Cross-cultural comparisons:** Conduct studies in various geographical contexts to compare the intermediary role and competitive intelligence processes across different cultures and economies. This could help identify universally applicable practices versus those that are context specific.

**Cross-Industry Comparisons:** Conduct studies across various industries to compare the role of competitive intelligence intermediaries and the processes they employ. This approach can help identify industry-specific practices and common challenges, leading to a more comprehensive understanding of the field.

## 7.8 CONCLUSION

In conclusion, this study investigated the intricate world of competitive intelligence intermediaries and information service intermediaries. It sought to understand their roles, challenges, strategies, and guidelines in understanding and extracting information and key intelligence needs. The research synthesised valuable insights from both competitive intelligence intermediaries and information service intermediaries, and supplemented their views with those of existing literature. The findings revealed the pivotal roles that these intermediaries play, while facilitating the solicitation of information and key intelligence needs, thus bridging the gap between clients and the desired information.

The study introduced the FOCIS framework, which offers a structured approach to solicit and understand key intelligence needs. The framework emphasised the importance of preparatory research, understanding the clients' needs and triggers, employing effective articulation and negotiation methods, addressing unrecognised needs, and managing follow-up discussions.

Despite the limitations of the competitive intelligence literature, this study contributes significantly to the field by offering a practical theory and visualised framework that enhances the effectiveness of competitive intelligence intermediaries in solicitating key intelligence needs. To improve the competitive intelligence literature, it is recommended that scholars apply this theory in different settings to assess its effectiveness, while competitive intelligence intermediaries can incorporate components of the theory into their practice.

"*Improvement usually means doing something that we have never done before*"

– Shigeo Shingo

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**APPENDIX A: INFORMED CONSENT**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

**INFORMED CONSENT FORM FOR PARTICIPANTS**

You are invited to participate in a study conducted by Masego Tumelo Maungwa, registered for a Doctoral degree in Information Science within the Department of Information Science at the University of Pretoria. The study is entitled: Understanding and soliciting key intelligence needs in competitive intelligence: An information intermediary perspective. Your confidentiality will be protected throughout the study (all participant's and their organisation's names will not be divulged). There are no anticipated benefits or risks to you as a participant or the employer of a participant, aside from helping the researcher to develop a better understanding of challenges of intermediary information seeking.

If at any point in the interview you do not feel comfortable answering a question, you may decline to answer and move onto another question. All answers will be kept in strict confidence, when reporting the feedback participants will be anonymous.

This research has been approved by the Engineering, Built Environment and Information Technology (EBIT) faculty ethics committee at the University of Pretoria.

I ____________________hereby willingly volunteer to part take in this study, granting permission for participation as explained to me by Tumelo Masego Maungwa. The nature and objective of this research have been explained to me and I understand them, ensuring that I willingly accept to participate in this research.

1) I understand my right to choose whether to participate in the project or understand that I can retract my consent at any time during the interview process for whatever reason. I understand that the researcher will do all in their power to ensure that information furnished will be handled confidentially. I am aware that the results of this research may be used for the purposes of publication and presentations at conferences.
2) Upon signature of this form, you will be provided with a copy.
3) I grant my permission to participate in the study (mark with "X" below)

YES ☐ NO ☐

4. I grant the researcher permission to make an audio recording of my interview (mark with "X" below) ☐ ☐

YES NO (*if No is selected, I grant the researcher permission to take notes during the interview*)

Signed: ______________________________ Date: ____________________________

Witness: _____________________________Date: ______________________________

Researcher: _______________________________Date: ____________________________

Please return a copy of the signed form to: tumelo.sebata@up.ac.za

**APPENDIX B: PERMISSION FROM EMPLOYER FORM**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

To whom it may concern:

My name is Masego Tumelo Maungwa, and I am completing my PhD through the Department of Information Science at the University of Pretoria. As part of my studies, I need to interview people who are practicing competitive intelligence, the title of my dissertation is "Understanding and soliciting key intelligence needs in competitive intelligence: An information intermediary perspective." One of your staff members has been identified as a suitable candidate to participate in this study and I would like to request permission to interview them, under the following conditions noted below.

Please note the following:

- The responses given by research participants will be treated as strictly confidential; neither the participant nor employer will be identified by name (only the research will know their identity and under no circumstances will share this information, ensuring confidentiality).
- Each willing participant will be required to attend a 45-minute interview.
- The results of the study (coming from the analysis of these interviews) will be used for academic purposes only and may, apart from the thesis, be published in article format or presented as a conference paper(s) and will guarantee confidentiality.

If you have any questions regarding the study, please contact either of the following contacts.

- Supervisor: Dr Laughton (paul.lughton@up.ac.za)
- Researcher: Masego Tumelo Maungwa (tumelo.sebata@up.ac.za)

If you have read and understood the information provided above and give permission for your employee(s) to participate, you are agreeing to the following:

- You give consent for the employee to participate in the study on a voluntary basis.
- You have the capacity to give this permission as employer/representative of the employer.

Name of participating employee: _______________________________

Name of employer (company or organisation's name): ____________________________

Name of person giving permission for participation on behalf of the employer:

__________________

Signature_____________________________ Date_____________________

**APPENDIX C: INTERVIEW SCHEDULE FOR COMPETITIVE INTELLIGENCE INTERMEDIARIES**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Dear Potential Research participant I am a Doctoral student (Masego Tumelo Maungwa) in the Department of Information Science, University of Pretoria. The purpose of my study is to determine the challenges of intermediary information seeking within the competitive intelligence process. A brief outline of the study is provided below:

The competitive intelligence literature does not provide much insight into the challenges of intermediary information seeking specifically the understanding, articulation and soliciting of key intelligence needs. The library and information science literature however provides a point of departure regarding this process. The purpose of this interview is thus to explore and understand the interactive discourse that occurs between the information the competitive intelligence intermediary and decision-makers, this includes challenges, best practices, guidelines and frameworks. Understanding how this interactive discourse is conducted, can influence the development of a framework that explain the soliciting of key intelligence needs, and how challenges can be overcome. In the interview I would like to get your opinion on a number of themes. The choice of themes was influenced by findings from a literature review on the competitive intelligence process, specifically the articulation of key intelligence needs and their translation to coherent topics used to collect data. Please feel free to elaborate on the themes and to raise additional themes you think would add to understanding the articulation of information needs and the associated challenges.

Your time and participation are highly appreciated. The interview will take between 30 and 60 minutes. I undertake not to exceed 60 minutes, except if you feel the need to extend the discussion.

If at any point in the interview you do not feel comfortable answering a question, you may decline to answer and move onto another question. All answers will be kept in strict confidence, when reporting the feedback participants will be anonymous.

This research has been approved by the Engineering, Built Environment and Information Technology (EBIT) faculty ethics committee at the University of Pretoria.

Supervisor: Dr. P. Laughton (paul.laughton@up.ac.za)
Researcher: Masego Tumelo Maungwa (tumelo.sebata@up.ac.za)

**SECTION A: Understanding the intermediary role within the organisation**

1) Based on your experience and understanding, how would you define the term information intermediary, and can you give an example in the context of your current job?

**SECTION B: Issues surrounding the triggers and complexities of key intelligence needs**

1) What are the triggers of key intelligence needs? (e.g., environmental scanning, serendipity, a reaction to an environmental trigger)
2) Explain the involvement the competitive intelligence intermediaries has in identifying and solicitating key intelligence needs (e.g., facilitating the interactive dialogue, grouping key intelligence needs into topics)
3) How does competitive intelligence intermediary recognise and address unrecognised key intelligence needs?
4) How do competitive intelligence intermediaries address unrecognised key intelligence needs? (e.g., dormant needs)
5) Is there any best practice method for soliciting key intelligence needs? (e.g., face to face, email)

**SECTION C: Best practices and methods for facilitating the solicitating of key intelligence needs**

1) Is there any best practice method for soliciting key intelligence needs? (e.g., face to face, email)
2) Are there any systematic methods of identifying and solicitating key intelligence needs? (e.g., models, frameworks)

3) Throughout the completion of a competitive intelligence project, how often does the interactive discussion occur? (e.g., confirmation of deliverables)

**SECTION D: Challenges experienced by competitive intelligence intermediaries during key intelligence needs soliciting**

1) What are the underlying causes of the difficulties encountered when solicitating key needs?
2) What are your thoughts on overcoming the difficulties encountered?
3) What effects do the difficulties encountered in identifying and solicitating key intelligence needs have on the subsequent competitive intelligence phases? (Example: gathering and analysing data
4) What skills set are required from the competitive intelligence intermediaries to in order to efficiently facilitate the soliciting of key intelligence needs? (e.g., communication skills, interpersonal skills)

**APPENDIX D: INTERVIEW SCHEDULE FOR INFORMATION SERVICE INTERMEDIARIES**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Dear Potential Research participant I am a Doctoral student in the Department of Information Science, University of Pretoria. The purpose is to develop a framework for competitive intelligence intermediaries using information service intermediaries as a perspective. A brief outline of the study is provided below:

The competitive intelligence literature does not provide much insight into the challenges of intermediary information seeking specifically the articulation of key intelligence needs. The library and information science literature however provides a point of departure regarding this process. The purpose of this interview is thus to explore and understand the interactive discourse that occurs between the information service intermediary and the information requestor, including its challenges, best practices and frameworks. Understanding how this interactive discourse is conducted, can influence the development of a framework that explain the articulation of key intelligence needs, and how challenges can be overcome. In the interview I would like to get your opinion on a number of themes. The choice of themes was influenced by findings from a literature review on the competitive intelligence process, specifically the soliciting of key intelligence needs and their translation to coherent topics used to collect data. Please feel free to elaborate on the themes and to raise additional themes you think would add to understanding the articulation of information needs and the associated challenges.

Your time and participation are highly appreciated. The interview will take between 30 and 60 minutes. I undertake not to exceed 60 minutes, except if you feel the need to extend the discussion.

If at any point in the interview you do not feel comfortable answering a question, you may decline to answer and move onto another question. All answers will be kept in strict confidence, when reporting the feedback participants will be anonymous.

This research has been approved by the Engineering, Built Environment and Information Technology (EBIT) faculty ethics committee at the University of Pretoria

Supervisor: Dr. P. Laughton (paul.laughton@up.ac.za)

Researcher: Tumelo Masego Maungwa (tumelo.sebata@up.ac.za)

**SECTION A: Understanding the intermediary role within the organisation**

2) Based on your experience and understanding, how would you define the term information intermediary, and can you give an example in the context of your current job?

**SECTION B: Issues surrounding the triggers and complexities of information needs**

6) What is the trigger of information needs? (e.g., environmental scanning, serendipity, a reaction to an environmental trigger)
7) Explain the involvement the information service intermediaries have in identifying and solicitating key intelligence needs (e.g., facilitating the interactive dialogue, grouping key intelligence needs into topics)
8) How do information service intermediaries address unrecognised key information needs?
9) How do information service intermediaries address unrecognised information intelligence needs? (e.g., dormant needs)
10) Is there any best practice method for soliciting information needs? (e.g., face to face, email)

**SECTION C: Best practices and methods for facilitating the solicitating of information needs**

4) Is there any best practice method for soliciting information needs? (e.g., face to face, email)
5) Are there any systematic methods of identifying and solicitating information needs? (e.g., models, frameworks)
6) How do you follow up with an employee to ensure that their information need has been met?

**SECTION D: Challenges experienced by information service intermediaries during information needs soliciting**

5) What are the underlying causes of the difficulties encountered when solicitating information needs?
6) What are your thoughts on overcoming the difficulties encountered?
7) In your opinion, what constitutes a successful reference interview encounter
8) What skills set are required from the information service intermediary to in order to efficiently facilitate the soliciting of information needs? (e.g., communication skills, interpersonal skills)

**APPENDIX E: THE GROUNDED THEORY CODING PROCESS EXAMPLE**

| Example of the coding process followed |
| --- |
| **Transcript:**<br><br># Question 6 Winter<br><br>Basically, if you are a competitive intelligence intermediary and you do not know how to ask good follow up questions, your life will be difficult. It is important that for every information need that the client has, you have a follow up question, think about all the edge cases, all the scenarios “Because someone might say that they want a car that has five wheels, but what they meant to say is that they actually want a care with four wheels and one spare wheel, but how they phrase it sounded like all wheels must be operational. You have to make sure that we are picturing the same thing, sometimes because an organisation did not know what they want in the beginning, the end result is what they do not want and then everybody is unhappy.<br><br>**Initial coding: (Line-by-Line Coding):**<br><br>**Importance of Follow-Up Questions**: "if you are a competitive intelligence intermediary and you do not know how to ask good follow up questions, your life will be difficult."`<br><br>**Client Information Needs:** "for every information need that the client has, you have a follow up question"<br><br>**Client Communication Clarification**: "someone might say that they want a car that has five wheels, but what they meant to say is that they actually want a car with four wheels and one spare wheel"<br><br>**Interpretation of Client's Phrasing**: "how they phrase it sounded like all wheels must be operational"<br><br>**Ensuring Mutual Understanding**: "You have to make sure that we are picturing the same thing"<br><br>**Consequences of Misunderstanding Needs**: "Sometimes because an organisation did not know what they want in the beginning, the end result is what they do not want and then everybody is unhappy.<br><br>**Focused codes:**<br><br>**Effective Communication Skills**: Combining "Importance of Follow-Up Questions," "Client Communication Clarification," and "Interpretation of Client's Phrasing." This code emphasises the need for competitive intelligence intermediaries to have strong communication skills, especially in clarifying and understanding client needs. |

**Understanding Client Requirements**: Integrating "Client Information Needs," "Ensuring Mutual Understanding," and "Consideration of Edge Cases." This code addresses the importance of fully grasping what the client requires, including all nuances and special scenarios that might impact the outcome.

**Risk of Misalignment in Expectations**: Linking "Consequences of Misunderstanding Needs" with aspects of "Ensuring Mutual Understanding." This focuses on the potential negative outcomes that arise from a mismatch between what the client wants and what is understood or delivered by the professional.

**Categories:**

**Communication in competitive intelligence**
Encompasses: Effective Communication Skills, Interpretation of Client's Phrasing

**Client insight and needs analysis**
Encompasses: Understanding Client Requirements, Consideration of Edge Cases

**Expectation management and alignment**
Encompasses: Risk of Misalignment in Expectations, Ensuring Mutual Understanding

**Main category:**

**Strategic client engagement and understanding in Competitive intelligence**

| **MEMO** |
|---|
| # Question 6 Winter<br><br>Reflecting on the interview, it becomes evident that one of the most important abilities for a competitive intelligence intermediary is the capacity to formulate insightful follow-up inquiries. Asking the correct questions that go deeper into the client's actual needs is more important than merely asking any old query. For example, a client may not always express their needs clearly; this is demonstrated by the car with "five wheels" example. This situation highlights the significance of comprehending the genuine intention behind what is being said by illuminating how simple it is to misunderstand requests.<br>Additionally, the interview highlights the need to think about all possible scenarios and edge cases. This comprehensive approach ensures that professionals are not just addressing the obvious needs but also anticipating less apparent ones. There is also a crucial point about making sure both the professional and the client are on the same page. Misalignments in understanding can lead to outcomes that leave everyone dissatisfied, especially if the organisation was not clear about what they wanted from the start.<br>From this interview, it is evident that effective communication and thorough understanding are key. As professionals, we should continually hone our questioning techniques to become better at interpreting and clarifying client needs. This might involve more focused training and possibly even developing a standard protocol for gathering client |

requirements. By doing so, we can avoid misunderstandings and ensure that the end results align with what the client actually wants.

APPENDIX F: ETHICAL CLEARENCE CERTIFICATE

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

4 September 2023

Reference number: EBIT/11/2023

Mr MT Maungwa
Department: Information Science
University of Pretoria
Pretoria
0083

Dear Mr MT Maungwa,

**FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY**

Your recent application to the EBIT Research Ethics Committee refers.

Conditional approval is granted.

This means that the research project entitled "Challenges of intermediary information seeking within the competitive intelligence process" is approved under the strict conditions indicated below. If these conditions are not met, approval is withdrawn automatically.

Conditions for approval:

No data is to be collected without first obtaining permission letter(s). The permission letter(s) from the organisation(s) must be signed by an authorized person and the name of the organisation(s) cannot be disclosed without consent. Contacts of the participants are to be sourced with compliance to POPIA

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Ethics Committee.

If action is taken beyond the approved application, approval is withdrawn automatically.

According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Kai-Yin

**Prof K.-Y. Chan**
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY