The Use of Theories in Competitive Intelligence: a Systematic Literature Review

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ABSTRACT The field of competitive intelligence is growing as organisations are looking to increase their competitive advantage in a global society. As this field grows, so does the research and academic literature on this practice. While theory that specifically focuses on competitive intelligence may be limited, theories from other popular and related fields such as management and psychology have been used to explain or guide some the popular competitive intelligence processes with the competitive intelligence cycle. This paper attempts to lay a foundation of relevant theory from previously published literature on competitive intelligence by mapping these theories against the six identified competitive intelligences processes.
The qualitative approach used to achieve this was a literature analysis, involving thematic analysis through a process of coding. The resulting consolidation and processing of these theories led to the development of a useful framework from which other current and future theories can be added, paving the way for further theory development in the field of competitive intelligence.).

1. INTRODUCTION

In highly competitive and uncertain business environments, competitive intelligence is a critical function that promotes informed decision-making and improves corporate information analysis (van den Berg et al., 2020, 2; Wu et al., 2023, 1104). Literature has presented a wide array of varying competitive intelligence definitions (Ranjan & Foropon 2021, 2; Cloutier 2013, 5; Hughes 2007, 5). The various definitions of competitive intelligence given in the literature involve various meanings and applications depending on the audience, according to Du Toit (2015,7). Fleisher and

Wright (2009) came to the conclusion that most definitions that have developed over time only differ in terms of semantics and emphasis, and those new emerging definitions are simply tweaks of previous definitions, leaving out one word, adding another, but rarely anything more substantial. Examples of competitive intelligence definitions includes those definition by McGonagle (2016), who views competitive intelligence as the gathering and use of publicly available information, which is analysed and transformed to reveal important findings about rival companies, and the overall market business environment. Cloutier (2013,5), mentions

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that, other definitions are broader and include the environment as a whole such as the definition by Hughes et al., (2013,5), who defines competitive intelligence as the conversion of unprocessed data about the external environment into actionable intelligence that supports business decisions. Similarly, Nasri (2011,63), defined competitive intelligence as a continuous process of gathering data, information and knowledge about actors (competitors, customers, suppliers, government etc) which interact with organisation in the business external environment in order to support decision making process for enhancing competitiveness of organisation.

Theoretically it is postulated that the competitive intelligence process is presented in a cycle of phases (Wright & Calof 2006; Bose 2008; Madureira et al., 2021; Cavallo & Sanasi, 2021). Since the process of competitive intelligence never stops and is always ongoing, it makes sense to express it in a cyclic manner. Additionally, the cycle is utilised to show how the phases are connected and how the output of one phase becomes the input for the following phase (Murphy 2016; Ranjan & Foropon 2020). This paper notes that similarly, to competitive intelligence definitions, there exists corpus amounts of competitive intelligence cycles in literature. The most common phases of the competitive intelligence cycle which are mostly cited in literature are; planning and direction, data collection, analysis and dissemination of the intelligence, which were proposed by Kahaner (1996). Despite the complexity, and availability of various competitive intelligence cycles, this article further notes that common elements are present in each cycle however the naming convention, and the number of phases diverge (Nenzhelele 2013; Du Toit 2015; Author 1 & Fourie 2018). Furthermore, some scholars outline more phases in the competitive intelligence process, whilst others identify fewer phases, and influential factors. Despite these variations, the premises still follows the same notion.

From the consulted literature, it is evident that the competitive intelligence literature has exhaustively discussed both the competitive intelligence cycles and definitions (Bose 2008; Gundersen 2019; Rangone 2021; Ranjan & Foropon 2021; Wu and Umair 2023). Theory usage, which is still somewhat in its infancy and is steadily rising, is one area of competitive intelligence that has not been well investigated. A few authors that have incorporated theories into their research are; Naeini (2019), who used the Bourdieu capital theory to study competitive advantage in Iranian food industry, Nemutanshela and Iyamu (2011) applied the diffusion of innovation theory for enhancing competitive intelligence system, Opait et al., (2016) used the information energy theory to explain the influences of competitive intelligence budgets on informational energy dynamics, furthermore Gatibu and Kilika (2017), used strategic balancing theory, theory of network organisation, Ansoff's growth matrix and Porter's generic strategy to explain the orientation of a firm in aspect that strategically related to competitive intelligence. Jin and Bouthiliier (2006), employed activity theory to understand information transformation process in the context of competitive intelligence specifically to the central phases of competitive intelligence; information analysis. While theory adoption in competitive intelligence is not as popular as compared to related disciplines such business management and business intelligence, this article notes that most competitive intelligence authors "borrow" or use theories that were developed in other disciplines and then apply them to competitive intelligence, similar development is however noted in other fields such as management, industrial marking and industrial engineering (Sidorchuk 2015; Hasen et al., 2016; Fox 2021). Given that competitive intelligence involves concepts such as information needs identification, decision-making, communication, data collection, information analysis. Such concepts suggest the importance of learning from disciplines that directly study these behaviours. This research paper thus explores the following research question: *How can one map theories from other disciplines to the competitive intelligence process, to extend our understanding of the competitive intelligence cycle?* In pursuing

this research question, this paper makes several contributions to the competitive intelligence literature. First, we extend our understanding of competitive intelligence by acknowledging the existence of multiple competitive intelligence cycles that are characterised by varying phases, which are analysed and categorised to form a unified understanding of the competitive intelligence process. Secondly, we identify theory utilisation and citation within competitive intelligence. Thirdly we map the identified theories against the unified competitive intelligence process, by doing so this paper helps to determine theoretical gaps and better understanding of the competitive intelligence process. The paper begins by providing a detailed discussion of the methodology followed.

2. METHODS
2.1. Design

Following Lacey et al., (2011) and Papaioannou et al., (2016) this paper developed a systematic review of literature to analyse the main academic contribution to the related topic of competitive intelligence and its related theories. Guillaume (2019,1) claims that systematic literature reviews are a method for synthesising scientific data to address a specific research issue in a transparent and replicable manner, while attempting to incorporate all available data on the subject and evaluating the quality of this data. Furthermore, Mengist et al., (2020, 2) note that systematic literature reviews aid in mapping out existing knowledge and identifying knowledge gaps on particular

issues, which will help to expand the body of knowledge. In this case, the systematic literature review aims to identify commonalities and differences in the emerging competitive intelligence processes and associated theories that can help describe the competitive intelligence process. To further confirm a guided process of conducting a systematic literature review, the paper considered the work of Tawik et al., (2019) on "A step by step guide for conducting a systematic review". To ensure unbiased research activity during document selection and analysis while conducting the systematic literature review, specific elements of the criteria are discussed below.

2.2. Literature search

For the completion of this paper, two literature searches were conducted. The first literature search was aimed at tracing publications that discuss the competitive intelligence process. Due to the number of results retrieved, it was deemed relevant to limit the search publication date restriction to (2000 - 2023). This restriction was however only applied to the first literature search and practice. The second literature search was directed at identifying publications that discuss theory use in competitive intelligence. From the literature search, it was evident that theory adoption and usage in competitive intelligence is relatively low, therefore there was no date restriction on the search key terms of the competitive intelligence theories. Table 1 provides a detailed scope of the literature search.

Table 1. detailed explanation of the literature search

Literature search component	Competitive intelligence processes	Competitive intelligence theories
Consulted key databases	Academic Search Premier, Business Premium Collection, Econlit Scopus, Emerald insight, Library and Information Science Abstracts, Web of Science, Library Information Science & Technology Abstracts	Academic Search Premier, ERIC, IEEE Xplore, Scopus, Emerald insight, Library and Information Science Abstracts, Web of Science, Library Information Science & Technology Abstracts, Ebscohost, Googlescholar
Key search terms	competitive intelligence cycle, competitive intelligence practice, competitive intelligence constructs, competitive intelligence phases, competitive intelligence process	competitive intelligence AND theory, competitive intelligence AND theories
Manual searches (citation tracking)	NONE	The reference list of all the retrieved relevant material was screened for more references that mentioned theories in competitive intelligence (citation tracking). Most of the citations in the reference list had hyperlinks, which made it easier to access
Search indexes	Subject heading, abstract, document tittle	Subject heading, abstract, document tittle

Selection criteria	Type of publication: Full text, scholarly and peer reviewed research articles; opinion pieces by experts, books Language: English	Type of publication: Full text, scholarly and peer reviewed research articles; opinion pieces by experts, book chapters. Language: English
Retrieved sources	31 journal articles 12 key expert books	49 journal articles 3 book chapters

2.3. Analysis of selected literature

The method of literature analysis was based on thematic analysis. According to Braun and Clarke (2015, 225), "thematic analysis is the process of identifying patterns or themes within qualitative data". For data on the competitive intelligence processes, the analysis commenced with first becoming familiar with the data, this meant reading the abstracts of all the articles and scanning the content of the article with particular focus on the competitive intelligence cycle and its related phases. This step allows you to take notes and scribble down thoughts, according to Charmaz (2015, 10).

Once the researchers were familiar with the data, the next step was inductive coding. Inductive coding is the process of identifying meaning units or codes that serve as labels or tags for evaluating the meaning of the descriptive or inferential data gathered during a study (Thornberg & Charmaz, 2014). The method used for inductive coding was line-by-line coding, which according to Thornberg and Charmaz (2014,153), entails naming each line of the written data. Line-by-line coding prevents personal opinions from being imposed on the data, which made it easier to begin developing ideas inductively. Each code was assessed to identify a particular competitive intelligence phase (Phase1 – Phase 6), to determine how closely various competitive intelligence phases activities are connected to particular categories, and eventually to assess the codes and categories in accordance with the unified competitive intelligence processes. The coding process for the theories used in competitive intelligence followed a similar procedure, however while familiarising ourselves with the theory used in each article, it was important to make note of the discipline that the theory emerged from and confirm if the theory is compatible with any of the competitive intelligence phases identified in the unified competitive intelligence cycle. This, provided insights into resemblances and differences between competitive intelligence and discipline origin of the identified theory (see Table 3).

3. RESULTS AND DISCUSSION
3.1. Variations of the competitive intelligence phases

The literature search on competitive intelligence processes published between (2000 – 2023) yielded 43 publications. It was noted that certain publications (12) just mentioned the competitive intelligence process without providing a thorough explanation of the phases or an example of the process; as a result, these publications were not taken into consideration during analysis. Furthermore, 17 articles made reference to the "*traditional competitive intelligence cycle*" which according to Rouach and Santi (2001, 554-555), Yap et al., (2013, 465) and Fernándes et al (2017,115) includes 4 phases; planning and direction, information collection, analysing and dissemination. Therefore, to avoid duplication, only 1 of these competitive intelligence cycles was included for analysis, which is the competitive intelligence cycle by Bose (2008). The remaining 14 publications that were analysed either provided an illustration of the competitive intelligence process or an illustration followed by a description of the phases. Some authors however mention central competitive intelligence influential factors, which are; skills development, process and structure, organisational awareness and organisational culture, these were however omitted from Table 2, as according to Wright and Calof (2002, 460) and Pellissier and Nenshelele (2015, 688), as these do not form part of the phases needed to complete the competitive intelligence process. The competitive

Table 2. Variation of the competitive intelligence phases

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)	Haddadi et al., (2010)	Bartes (2013)	Cloutier (2013)	Pellisier and Nenzhelele (2013)	Du Toit (2015)	Maungwa and Fourie (2018)	Koseoglu and Okunus (2021)	Ali (2021)
PHASE 1														
-Planning and direction	■	■					■	■		■			■	
-Planning and focus			■		■									
-Obtaining the competitive intelligence request				■										
-Task definition				■										
-Articulating key intelligence needs					■									■
-Identifying competitors			■				■							■
-Defining the competitive intelligence demand				■		■						■		
PHASE 2														
-Determining key intelligence needs												■		
PHASE 3														
-Information collection	■				■				■					
-Gathering information								■		■				
-Research and gathering	■												■	■
-Processing				■			■							
-Information sorting	■				■			■	■		■			
-Information processing		■				■								■
-Evaluation												■		
-Filtering													■	
PHASE 4														
-Information analysis	■	■	■		■				■	■	■		■	
-Intelligence analysis								■						
PHASE 5														
-Dissemination			■				■				■			
-Communicating the intelligence	■	■	■	■	■	■	■	■	■	■		■		■
-Intelligence dissemination														
-Providing the final service													■	
PHASE 6														
-Feedback			■				■							
-Decision-making	■			■	■	■								■

intelligence processes that presented varying competitive intelligence phases were then analysed. Each phase was then labelled with a number from 1-6, in an attempt to group together similar phases (these are represented by different colours in Table 2). The explanation of each grouped phase was analysed to see if the varying naming refers to the same activity under the phase. Both and Boon (2008), however had subphases for phase 1, these were grouped and treated as a single phase. Table 2 therefore shows different phases of the competitive intelligence cycle.

From the competitive intelligence processes depicted in Table 2, one can observe that there is no agreement on the naming convention and specific content of the phases comprising the competitive intelligence cycle. However, when analysing the above phases, one can find in literature some common trends from different authors as well as factors that differentiate them The authors concluded that the various competitive intelligence phases are characterised by the same or similar descriptions after analysing the descriptions of the 14 competitive intelligence processes and each of their different phases. This article suggests a unified naming convention that includes these competitive intelligence processes. This proposal is shown in figures (1-6), and it is followed by a discussion of the phase.
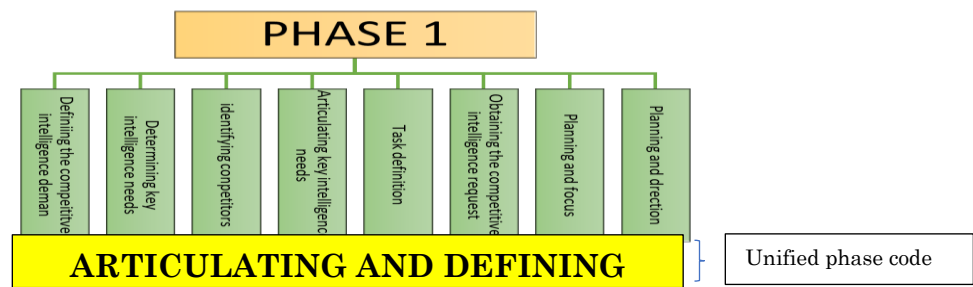
Figure 1. Articulating and defining

Key intelligence needs and topics are mentioned in the various competitive intelligence cycles, according to the literature that was consulted, but they are typically part of the first phase rather than being represented as a separate phase, as in the competitive intelligence cycles by Bose (2008) and van den Berg et al (2019). This phase's primary goal is to identify, articulate, and focus on critical intelligence themes the managers key intelligence needs (Botha & Boon, 2008:3). Adapted from the definition of Du Toit (2007) with elements from Muller (2002), Sewlal (2003) and Johnson (2006): Key intelligence needs represent all key organisational areas that influences strategic decision-making (e.g., business issues, strategic and tactical matters, early warning signs, market segmentation and other priorities) related to the internal and external business environment on which information must be collected to produce intelligence on the threats and opportunities that can affect the organisation. While key intelligence topics are questions that might be specific or discrete directly addressing the key intelligence needs of decision makers and other senior personal in a company or organisation or smaller enterprise (Bose, 2008:513). The goals of this phase are to specify the decision-makers' needs and to identify the resources needed to gather the pertinent data in order to satisfy those needs (Pellissier & Nenshelele 2013, 5; De Pelsmacker et al., 2006, 606-607).
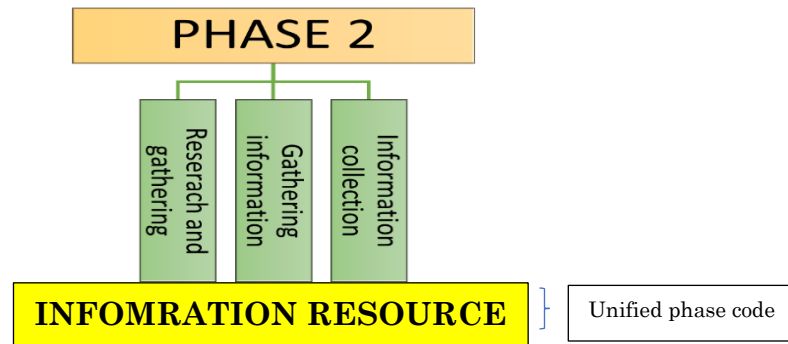
Figure 2. Information resource gathering

Once the key intelligence needs and topics have been defined, the collection resource gathering phase begins (Blenkhorn & Fleisher 2015, 105). A variety of sources, including primary and secondary sources of information, are used to obtain and compile data (Prescott & Miller, 2002:98). Primary sources of information, according to Du Toit (2014, 4), are those that acquire information directly from the targeted information source. These consist of interviews, polls, company websites, and speeches (Sandman 2000, 12; Bose 2008, 515). Analyst reports, financial reports on the company, and online sources are a few examples of secondary information sources that are acquired second-hand through the transfer of a mediator to the source (Du Toit 2014, 4).
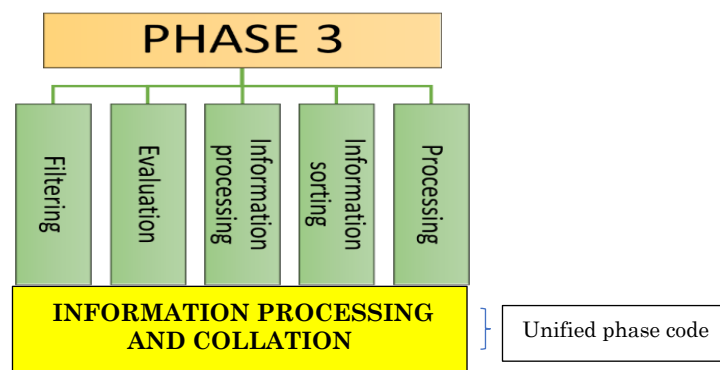
Figure 3. information processing and collation

This phase comes shortly after data has been gathered and collected, the phases entail the electronic storage of data (Blenkhorn & Fleisher 2015, 105). The information processing and collation phase involves; systematising, organising information, and providing sorting, and -storage methods. (Pellissier & Nenzhelele 2013). Although it was observed in many cases in the literature study that the processing phase of the competitive intelligence cycle had been included as part of the information gathering phase, it essentially involves separate activities than mere collection of data, and should therefore be regarded as a phase on its own.
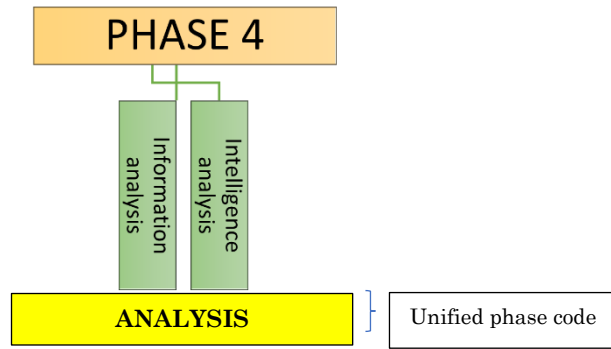
Figure 4. Analysis

Most competitive intelligence authors call this phases "analysis" which is the only phase that is not characterised by various naming conventions. According to Muller (2002:4) and Nasri and Sarai (2013:241), the analysis phase of the competitive intelligence process is referred to as "the central nervous system," where true intelligence is produced through the conversion and manipulation of data using both scientific and non-scientific methods to interpret data. The analysis phase is directed at providing answers to the key intelligence needs and topics that were identified in the first phase (Diyaolu 2019, 5). These findings have to be communicated to the decision-makers. Competitive intelligence specialists or analysts who are taught to demonstrate particular analysis skills are primarily responsible for performing the analysis. These include knowledge of research techniques, analytical skills, the capacity to use both qualitative and quantitative approaches, knowledge of the best techniques, and the capacity to communicate findings (Tej Adidam et al., 2012; Du Toit 2015). Additionally, the capabilities of a competitive intelligence analyst include familiarity with and proficiency with a variety of tools and methods of analysis that are industry-specific and benefit the firm (Freyn & Hoffman 2022, 6). The skilled analyst has to be able to use a range of analytical methods such as competitor profiling, alternative scenarios, SWOT analysis, industry analysis, critical success factor analysis as well as Porter's five forces (Nasri 2011; Tej Adidam et al., 2012; Wright & Calof, 2006).
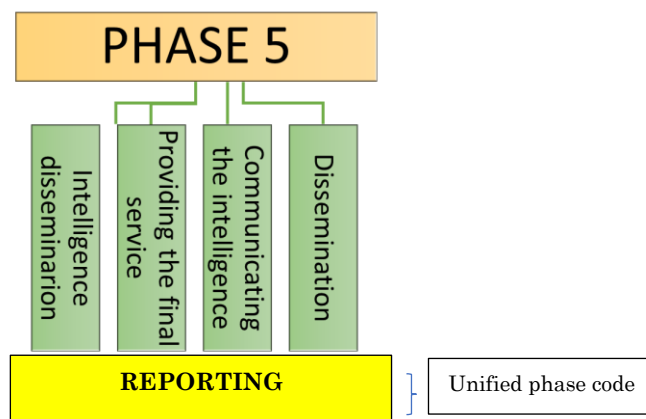

Figure 5. Reporting

The competitive intelligence reporting phase entails sharing the findings with the appropriate parties (Muller 2002, 39-40; Bose 2008, 515). Identifying the preferred format for delivering intelligence to decision-makers is crucial (Heppes 2006, 40). The intelligence should always be presented in a style that is appropriate for the audience, focusing primarily on the most important components of the findings (Muller 2000, 7).

Muller (2002, 39) claims that there are numerous ways to convey intelligence results, including alerts, newsletters, and intelligence reports. The final stage of the competitive intelligence cycle is input from

decision-makers, who offer feedback after reviewing the intelligence reports and chances for evaluating and revising the original intelligence sought.
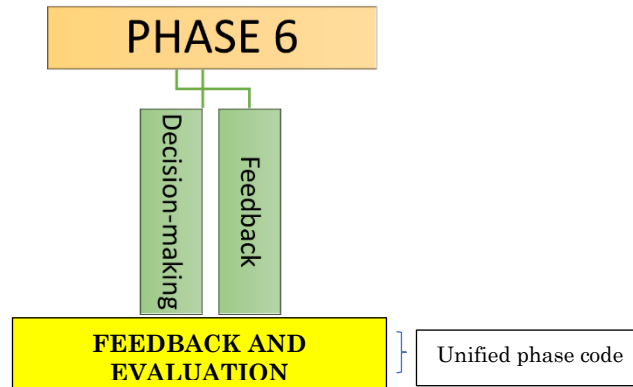
Figure 6. Feedback and evaluation

Feedback and evaluations enable course corrections and the discovery of new problems (Rapp et al., 2015, 360). The feedback allows for changes of the initial intelligence request as well as constructive criticism of the deliverable of earlier requests, promoting an environment of continual progress (Nasri 2011, 64).

The proceeding section has thus presented a unified competitive intelligence process by showing that the various named phases have similar descriptions and therefore producing the same end result. The following section attempts to map different multidisciplinary theories to the unified competitive intelligence process.

3.2. Theories identified in the competitive intelligence literature

In an attempt to map the theories against the CI phases, the researchers needed to study the 49 publications identified in the literature analysis to understand how these theories were used in the context of CI. From scrutinising and familiarising ourself with the publications, it was noted that 16 articles

only mentioned the theory without providing any context or detail on how the theory is applied to the competitive intelligence context, nor did the authors provide a discussion of the theory; as a result, these publications were excluded from the analysis. The remaining 33 publications were then analysed and summarised in Table 3. It was identified that some of the publications used multiple theories, while some publications referred to the same theory using different terms (e.g., Porter's five forces theory and competitive forces theory), such theories were standardised to a single theory. After this consolidation the next approach taken was to identify the number of unique theories in our dataset and standardise the way a theory was coded for each article. The final preparatory step was to identify the referent disciplines for each theory. In order to achieve this a search for the foundational publications for each theory was conducted to determine the referent disciplines for these theories. Table 3 also goes into detail to explained how each theory was connected by the authors to competitive intelligence.

Table 3. Multidisciplinary theories identified in competitive intelligence

Theory	Discipline	Number of CI 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 (2006)	Activity theory is used to explain the information behavior of the competitive intelligence analyst in the setting of competitive

				intelligence. This is done to determine how the analysts characterize their main daily tasks and activities, which ones are the most time-consuming, difficult, significant, and frequent, and what tools and resources do competitive intelligence professionals utilize in their analysis processes.
Archive theory	Library science	1	Nitse and Parker (2003)	The competitive intelligence systems' information gathering procedures were explained using the archive theory. According to the notion, competitive intelligence systems can put structure in place for the archiving of public documents in both printed and electronic media.
Bordieu capital theory	Sociology	2	Naeini and Mosayebi (2019); Ali and Anwar (2021)	According to Bourdieu's capital theory, people do not exist in a vacuum but rather in a variety of fields made up of elements such as economic, cultural, social, and symbolic capitals. Therefore, from the perspective of competitive intelligence, someone who is in line with such factors can get an advantage.
Contingency theory	Psychology	1	Johannesson and Palona (2010);	The contingency theory was used to propose that; In order to achieve maximum performance, managers of the various global business divisions can be urged to align their functional plans to the level of turbulence in their firms' global business environments.
Competitive intelligence theory	Management	1	Kun (2014); Mogbolu (2022)	According to the hypothesis, competitive intelligence improves business performance, creating a competitive edge. Businesses must develop an understanding of the interactions between variables in order to obtain information and direct actions toward a desired outcome.
Information theory	Mathematics	1	Fellman and Post (2008)	Competitive intelligence's information theory is used to explain why data analysis is flawed. Disinformation, which is described as incomplete or erroneous information intended to deceive the organization's competitive intelligence operations, could lead to inaccurate data being generated.
Interaction theory	Sociology	1	Prilop and Maicher (2013)	Competitive intelligence is the process of continuously and cooperatively making sense of the competitive environment by actively involving all pertinent stakeholders. The interactive theory was used to propose the use of interactive competitive intelligence systems which aims to complete competitive intelligence activities in a collaborative, non-linear manner.
Innovation theory	Management	1	Calof and Sewdass (2020)	The competitive intelligence and subjects connected to competitive intelligence were examined using the innovation theory to explore how they may be used to enhance organizational innovation.
Knowledge based view	Management	1	Hanif et al., (2022)	Data collection is defined as knowledge in the competitive intelligence perspective of a product, which is why management accumulates and safeguards it for strategic management activities. The success of strategic management within an organization is significantly influenced by the knowledge that has been gained.
Management theory	Management	1	Hoffman and Freynn (2019)	Unrealistic manager expectations are a problem that was explained using management theory. When managers want to make changes but do not want to accept the repercussions, they frequently hire consultants.
Theory	Discipline	Number of CI studies cited (count)	Authors who used theory in a competitive intelligence context	How author(s) applied the theory to competitive intelligence
Managerial cognition theory	Management	1	Hanif et al., (2022)	The main focus of managerial cognition theory is how managers observe and analyze the corporate environment to choose their course of action. Strategic activities are influenced by managerial cognition, among other things. Therefore, managerial cognition can be defined as the process through which managers observe and evaluate changes in their organizational environments. This process has a significant impact on the strategic decisions and actions of a corporation. The managerial cognition theory has been positioned to support this viewpoint.
Organisational learning theory	Management	1	Maune (2014)	The theory of organizational learning has been used to argue that in order to succeed, managers must foster a culture of competition and knowledge and idea sharing among employees and departments inside their organizations. Businesses must have the right procedures, rules, and infrastructure in place for their employees to properly contribute to the competitive intelligence system.
Open system theory	Biology	5	Moneme et al., (2017); Obonyo and Kilika (2020); Omede et al., (2020); Muritala et al., (2019); Mogbolu (2022)	Open system theory describes how organisations interact with their external environment to gather competitive intelligence data, information, and knowledge about environment actors (competitors, customers, suppliers, government, etc.) in order to create or improve goods and services that meet or even exceed the needs of customers.
Porters five forces theory	Management	1	Ahmadinia and Karim (2016) Ezenwa et al., (2018); Nte et al., (2020); Ahmadinia, and Karim (2016)	Porter's five forces theory assessed the degree of industry competition in terms of buying power, supplier power, threat of new entry, industry rivalry, and threat of substitution. According to Porter's five forces theory, attractiveness refers to overall profitability, and an unattractive industry is one in which the interaction of these five forces lowers overall profit.
Reasoned action theory	Psychology	1	Qui (2008)	As our behavioral category of interest, we are scanning for competitive intelligence. Competitive intelligence's reasoned action theory is

Theory	Discipline	Number of CI studies cited (count)	Authors who used theory in a competitive intelligence context	How author(s) applied the theory to competitive intelligence
				utilized to support the idea that an individual's attitude and normative views may be traced back to the origins of scanning behavior.
Resource based view theory	Management	5	Grant (1991); Voola et al., (2004); Taib et al., (2008); Olszak (2014); Hanif et al., (2022)	The resource-based views shows how resources and competitive advantage are related. The goal of competitive intelligence as a whole is to gather data for strategic management, the outcome of which will have a significant impact on the firms' resources. Accordingly, in accordance with this notion, businesses obtain a competitive edge by amassing significant resources and talents.
Social cognition theory	Psychology	1	Rapp, et al (2015)	Employee motivation and efforts to gather competitive information will be further increased if they feel that the work they are doing is adequately acknowledged and that the boss appreciates their contributions, according to the social cognition theory.
Theory	Discipline	Number of CI studies cited (count)	Authors who used theory in a competitive intelligence context	How author(s) applied the theory to competitive intelligence
Stewardship theory	Management	1	Jarfar (2020)	According to stewardship theory, management is dependable to act in the interests of the general public and its shareholders in particular. In theory, actions related to corporate management and competitive intelligence demonstrate how significantly competitive intelligence affects the competitiveness and performance of the organization. Corporate management focuses on operational management, executive controls, and decision-making.
Strategic balance theory	Psychology	1	Sande and Ragui (2018)	Strategic balance theory, holds that firms that are neither very conforming nor highly differentiated perform better than those that are moderately different, which explains why businesses seeking a competitive edge should be as unique as is legitimately possible, being unique reduces competition and boosts competitive advantage, but being too unique raises questions about legitimacy, which has a detrimental effect.
Theory of performance	Management	1	Nte, et al (2019); Calof and Sewdass (2020)	For organizations that practice competitive intelligence, which raises organizational performance, the theory of performance has considerable value. High quality performance results in deserving accomplishments. A manager who increases his level of accomplishments can be examined very well using the theory of performance. A manager's ability to organize people and resources more effectively and produce higher-quality outputs faster increases as his level of performance rises. According to performance theory, organizations that achieve higher levels of performance provide outcomes including higher quality goods and services, lower costs, and gains in competence, knowledge, skill, identity, and motivation.

The theories discussed above (see Table 3) indicate that competitive intelligence is increasingly adopting theories from a number of different fields and backgrounds, with the majority of publications coming between 2014 to 2022. At first glance, it was found that the majority of referenced theories originated in the management and psychology fields. However, this was expected, given that competitive intelligence has its roots in and functions within the dimensions of strategic and corporate management, according to Calof and Viviers (2001, 62) and Du Toit (2015, 16). For McKenna (2000), psychology is a critical component within the workplace, which assists managers at all levels support, motivate, and train employees, an example that aligns with McKenna (2000), can be observed in the theory of social cognition used by Rapp et al (2015). Authors like Sewdass and Calof (2020) and Hannif et al., (2022), for example, have occasionally cited multiple theories in the same publication. In these situations, the authors had a literature review where they talk about how various theories connect to the topic under investigation. Furthermore, the open system theory, resource-based theory and Porter's five forces theory were found to be the most prevalent theories in the literature consulted. Although competitive intelligence involves extensive communication between the intelligence requesters and competitive intelligence professionals, and among the competitive intelligence team itself, it was however noted that apart from the interaction theory, there was no theories stemming from the communication discipline.

Following the identified and analysis of these theories, the next step was to develop a framework which maps the different theories to phases of the competitive intelligence cycle was developed as depicted in Figure 7. The use of theories to describe the phases of competitive intelligence gives scholars and

practitioners of competitive intelligence a shared vocabulary and understanding. The objective and function of each competitive intelligence phase are further categorised by identified CI theories. The development of this framework was guided by the description of each theory from its grounding discipline, and how authors writing from a competitive intelligence perspective have explained the use and implementation of these theories. It was however noted that many theories can be used to explain activities under multiple phases, e.g., interaction theory, which can be mapped against the defining and articulation phase, the information resource gathering phase, analysis phase and the feedback and evaluation phase. The authors therefore mapped each theory to a phase that would best fit its description and activities.

ARTICULATION AND DEFINING
BORDIEU CAPITAL THEORY
CONTINGENCY THEORY
COMPETITIVE INTELLIGENCE THEORY
INTERACTION THEORY
MANAGEMENT COGNITION THEORY
PORTERS FIVE FORCES THEORY
STRATEGIC BALANCE THEORY

FEEDBACK AND EVALUATION
BORDIEU CAPITAL THEORY
CONTINGENCY THEORY
INTERACTION THEORY
INNOVATION THEORY
MANAGEMENT THEORY
THEORY OF PERFORMANCE

THEORIES MAPPED TO THE UNIFIED COMPETITIVE INTELLIGENCE CYCLE

INFORMATION RESOURCE GATHERING
OPEN SYSTEM THEORY
INTERACTION THEORY
KNOWLEDGE BASED VIEW
REASONED ACTION THEORY
RESOURCES BASED VIEW

REORTING
INNOVATION THEORY
INTERACTION THEORY

INFORMATION PROCEESING AND COLLATION
ARCHIVE THEORY
INTERACTION THEORY
INFORMATION THEORY

ANALYSIS
ACTIVITY THEORY
INFORMATION THEORY
INTERACTION THEORY
INNOVATION THEORY
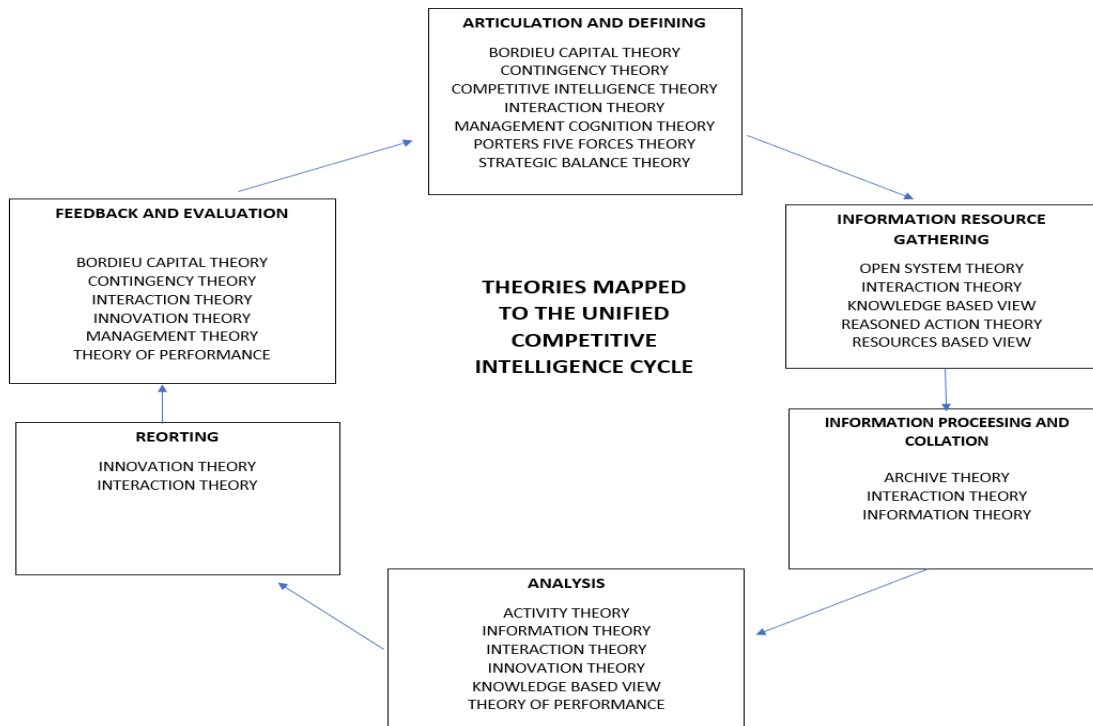KNOWLEDGE BASED VIEW
THEORY OF PERFORMANCE

Figure 7. Mapping theories to the competitive intelligence process (Author 1 and Author 2 2023)

Theories like interaction theory, management theory, and strategic balance theory can be used to describe the articulation and defining phase (see Figure 7). These theories highlight the internal and external possibilities and threats of an organisation as well as its strengths and weaknesses (Sande & Ragui 2018; Hoffman & Freynn 2019). They make it possible for businesses to identify their competitive advantages and weaknesses, assisting in the creation of successful strategies (Jin & Bouthillier 2006; Hoffman & Freynn 2019). The information resource gathering phase can be regarded as a response to the external environment, trying to successfully obtain and use information to gain a competitive edge (Bergeron & Hiller, 2002, 20). Open system theory, the resource-based view, and the knowledge-based view are a few theories that can be used to explain the information resource gathering phase (Moneme et al., 2017; Mogbolu 2022). Additionally, these theories contend that in order to acquire and utilise special assets and capabilities, competitive intelligence engages with the outside world through a variety of channels, including suppliers, consumers, and rivals (Muritala et al., 2019; Omede et al.,2020).

When considering the information processing and collation phase, the archival theory describes how data like financial reports, market research findings, consumer surveys, product specifications, and more are processed and stored (Nitse & Parker 2003). Access to competitor data is ensured via well-organised data sources. Competitive

intelligence teams may quickly access historical data and detect and analyse historical patterns, rival strategies, and market dynamics, assisting them in making informed judgments by putting into practice appropriate processing, storing, and archiving processes (Blenkhorn and Fleisher 2005, 56). In the analysis phase, the data that has been gathered and processed and stored are examined and turned into useful intelligence. Several theories, such as information theory, innovation theory, knowledge-based view, and theory of performance, can be applied at this phase. These theories aid in comprehending market dynamics, identifying threats, and forecasting upcoming developments (Nte et al., 2019; Calof & Sewdass 2020). The knowledge-based perspective can help an organisation further in utilising internal knowledge by interpreting and analysing information from diverse departments and people, which can lead to a deeper understanding of the significance of the data that has been analysed (Hanif et al., 2022). A culture that supports open communication, cooperation, and the sharing of information insights should be promoted by organisations, according to the knowledge-based view. Part of the reporting process is disseminating the intelligence to decision-makers and relevant stakeholders (Bose 2008; Murphy, 2016). This phase can be explained by theories relating to communication and knowledge management, hence the interaction theory, which provides a helpful framework for comprehending the role for communication in competitive intelligence, along with the influence of socialisation and contact on the formation of knowledge and meaning (Prilop & Maicher 2003). Finally, the feedback and assessment phase can be explained using management theory, Bourdieu capital theory, and performance theory. These theories emphasise the necessity of performance evaluation to gauge both individual and organisational effectiveness (Naeini & Mosayebi 2019; Calof & Swedass 2020; Ali & Anwar 2021). Feedback enables firms to assess the effectiveness of their intelligence collection procedures and the effects of intelligence on overall business performance in the context of competitive intelligence (Du Toit 2015; Murphy, 2016). This assessment aids in locating areas in need of development and efficiently allocating resources.

4. CONCLUSION

The results of the competitive intelligence process' thematic analysis has shown that, despite the literature's increasing divergences, the various competitive intelligence cycles are predicated on the same premises and yield the same outcomes. One of the prominent findings was the infancy of theory usage in competitive intelligence and how it is steadily growing. The proposed competitive intelligence process was mapped against theories used in academic competitive intelligence literature, laying a foundation for future research and expansion of competitive intelligence theory. The use of theories in explaining the competitive intelligence process, while enhancing the overall effectiveness of information gathering, processing, storing, analysis, disseminating and decision making. The compilation of these theories also offers an organised approach for comprehending the competitive intelligence landscape, spotting possibilities and risks, and creating plans for swaying the competition. Another notable findings from this work is the realisation that there is a lot of textbooks and academic writing from various disciplines that can help scholars learn more and generate understanding on how these theories can utilised to explain the stages and activities of competitive intelligence. Furthermore, this paper can be extended by exploring more theories especially from the management and psychology discipline, that might deepen our understanding of the competitive intelligence process.

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