UNIVERSITY OF TURKU
Turku School of Economics

How Does Competitive Intelligence Create Value for Companies?

International business,
Department of Marketing and International Business
Bachelor's thesis

Author:
Elina Huhtanen

Supervisor:
D.Sc. Johanna Raitis

17.5.2026
Turku

Student’s statement regarding the use of Artificial Intelligence (AI) for preparing and/or writing this thesis:

☐ **I have not used any AI-based tools.**

☒ **I have used AI-based tools**. Their use is documented in the Appendix. The AI tools were used in a way that complies with academic integrity guidelines.

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Bachelor's thesis

Subject: International Business
Author(s): Elina Huhtanen
Title: How Does Competitive Intelligence Create Value for Companies?
Supervisor(s): D.sc. Johanna Raitis
Number of pages: 30 pages + 1 appendix
Date: 17.5.2026

Abstract

The increased competitiveness, uncertainty and data volume have heightened the significance of competitive intelligence (CI) in current global competitive environment. Companies have known the value of competitive intelligence for a long time yet few companies have been able leverage it for success. This thesis aims to examine this contradiction by answering the research question: how does competitive intelligence create value for companies. The main research question is addressed through three sub-questions that examine how the competitive intelligence process is structured in companies, how competitive intelligence benefits companies, and what the key challenges are in implementing the CI process and utilizing competitive intelligence.

This thesis is conducted by literature review using academic articles and book chapters. To address the first sub-question, the theory section begins with introduction to the competitive intelligence process through competitive intelligence cycle theory using Bose's (2008) study with supporting articles and book chapters. To investigate the second sub-question, the thesis examines the benefits of competitive intelligence by presenting a framework that illustrates connections between the benefits. Finally, the third sub-question is examined by exploring the key challenges concerning the implementation of competitive intelligence process and utilization of competitive intelligence found in the literature.

The research findings indicate that competitive intelligence cycle is a continuous cycle that should be systematic, networked and actionable. This study identified the planning and direction and dissemination stages in the CI cycle to involve challenges the most. The challenges include difficulties in identifying, defining and articulating intelligence needs and dissemination blockages and delays in the dissemination. Additionally, certain characteristics of organizational culture were found to pose challenges to the implementation of competitive intelligence process.

Another key finding of the study was that competitive intelligence generates numerous benefits to companies. They are connected to each other forming a chain that proceeds from indirect benefits to direct benefits that are measurable. Competitive advantage, specific goals and improved or sustained performance were identified to be direct benefits. This study also distinguished key challenges in the utilization of competitive intelligence that concern organizational culture, dissemination as well as quality and reliability of the outputs.

In conclusion, this thesis suggests that competitive intelligence creates value for companies through CI cycle which generates actionable intelligence about the competitive environment. The value is formed through benefit chain where competitive advantage, specific goals and improved or sustained performance are final and direct benefits. The value of the direct benefits can be measured using quantitative and qualitative metrics. However, the implementation of the competitive intelligence process and effective utilization of competitive intelligence involve challenges which might hinder value creation.

Keywords: competitive intelligence, CI cycle, value creation

Kandidaatintutkielma

Oppiaine: Kansainvälinen liiketoiminta
Tekijä(t): Elina Huhtanen
Otsikko: Miten kilpailijatieto luo arvoa yrityksille?
Ohjaaja(t): KTT Johanna Raitis
Sivumäärä: 30 sivua + 1 sivun liite
Päivämäärä: 17.5.2026

Tiivistelmä

Kasvanut kilpailu, epävarmuus ja datan määrä ovat lisänneet kilpailijatiedon merkitystä nykyisessä globaalissa kilpailuympäristössä. Yritykset ovat jo pitkään tiedostaneet kilpailijatiedon arvon, mutta harvat yritykset ovat onnistuneet hyödyntämään sitä menestyksekkäästi. Tämä tutkielma pyrkii tarkastelemaan tätä ristiriitaa vastaamalla tutkimuskysymykseen: miten kilpailijatieto luo arvoa yrityksille. Pääkysymystä tarkastellaan kolmen alakysymyksen kautta, jotka käsittelevät sitä, miten kilpailijatiedon prosessi on rakennettu yrityksissä, miten kilpailijatieto hyödyttää yrityksiä sekä mitkä ovat keskeiset haasteet prosessin käyttöönotossa ja sen tuotosten tehokkaassa hyödyntämisessä.

Tämä tutkielma on toteutettu kirjallisuuskatsauksena hyödyntäen tieteellisiä artikkeleita ja kirjan lukuja. Ensimmäisen alakysymyksen tarkastelemiseksi teoriaosuus alkaa johdannolla kilpailijatiedon prosessiin kilpailijatiedon sykliteorian kautta, hyödyntäen Bosen (2008) tutkimusta sekä sitä tukevia artikkeleita ja kirjan lukuja. Toisen alakysymyksen tutkimiseksi työ tarkastelee kilpailijatiedon hyötyjä esittämällä viitekehyksen, joka havainnollistaa hyötyjen välisiä yhteyksiä. Lopuksi kolmatta alakysymystä tarkastellaan tutkimalla kirjallisuudessa esiin nousseita keskeisiä haasteita, jotka liittyvät kilpailijatiedon prosessin käyttöönottoon ja sen tuotosten hyödyntämiseen.

Tutkimustulokset osoittavat, että kilpailijatiedon sykli on jatkuva prosessi, jonka tulisi olla systemaattinen, verkottunut ja toimintaan ohjaava. Tutkimuksessa havaittiin, että kilpailijatiedon syklin suunnittelu- ja jakeluvaiheisiin liittyy eniten haasteita. Näihin haasteisiin kuuluvat vaikeudet tiedontarpeiden tunnistamisessa, määrittelyssä ja ilmaisemisessa sekä tiedon jakeluun liittyvät esteet ja viiveet. Lisäksi tietyt organisaatiokulttuurin ominaisuudet havaittiin kilpailijatiedon prosessin käyttöönottoa haastaviksi.

Toinen keskeinen tutkimustulos oli, että kilpailijatieto tuottaa yrityksille lukuisia hyötyjä. Nämä hyödyt ovat yhteydessä toisiinsa muodostaen ketjun, joka etenee epäsuorista hyödyistä mitattaviin suoriin hyötyihin. Kilpailuetu, tiettyjen tavoitteiden saavuttaminen sekä parantunut tai ylläpidetty suorituskyky tunnistettiin suoriksi hyödyiksi. Tutkimuksessa tunnistettiin myös keskeisiä haasteita kilpailijatiedon tuotosten hyödyntämisessä, jotka liittyvät organisaatiokulttuuriin, tiedon jakeluun sekä tuotosten laatuun ja luotettavuuteen.

Yhteenvetona tämä tutkielma esittää, että kilpailijatieto luo arvoa yrityksille kilpailijatiedon syklin kautta, joka tuottaa toimintaan ohjaavia tuotoksia kilpailuympäristöstä. Arvo muodostuu hyötyketjun kautta, jossa kilpailuetu, erityiset tavoitteet sekä parantunut tai ylläpidetty suorituskyky ovat lopullisia ja suoria hyötyjä. Näiden suorien hyötyjen arvo voidaan mitata sekä kvantitatiivisin että kvalitatiivisin mittarein. Kuitenkin kilpailijatiedon prosessin käyttöönottoon ja kilpailijatiedon tuotosten hyödyntämiseen liittyy haasteita, jotka voivat estää arvon muodostumista.

Avainsanat: kilpailijatieto, kilpailijatiedon sykli, arvonluonti

TABLE OF CONTENTS

FIGURES

1 Introduction

Global markets are characterized by intense competition (Cho 2024, 84) fast market changes and technical disruptions (Verhoef et al. 2021). That challenges companies' ability to create and maintain successful market positions (Gracanin et al. 2015, 27). Global markets are also volatile, uncertain, complex and ambiguous (VUCA) (Bennett − Lemoine 2014). As a case in point there is a lot of geopolitical turmoil like the war in Ukraine and unexpected "black swans" such as the COVID-19 pandemic (Tan 2023). The changes are quick and widespread affecting companies worldwide and hampering companies' ability to react quickly and anticipate changes (Niehaus et al. 2023).

Alongside competitiveness and uncertainty, the modern competitive environment is abundant of information. Contemporary society can be described as an information society, marked by the continuous transformation of activities and knowledge into data. That is connected to the current phenomenon of datafication (Mejias − Couldry 2019). Thus, the challenge for companies is not where and how to acquire information rather than how to gather useful information and transform it into knowledge (Ibrahim et al. 2024, 232). According to Gracanin et al. (2015, 27) knowledge is after all the most essential resource for companies in today's global competitive environment.

Competitive Intelligence (CI) allows companies to tangle the abundance of information and to navigate the increasingly competitive, complex and uncertain global competitive environment (Maluleka − Chummun, 2023). Competitive intelligence is a set of ethical and legal activities (Vedder et al. 1999, 109). It is defined as a process (see, for example, Bose 2008), practices (see, for example, Madureira et al. 2021) and a product (see, for example, Blenkhorn − Fleisher 2000, 7) or being two or all of them at the same time (see, for example, Bernhardt 1994, 13). It is used to acquire information about the competitive environment and transform the information into intelligence (see, for example, Viviers et al. 2002, 28). The acquiring and transformation of information into intelligence is defined as process. Whereas the outcome of the process, intelligence is determined as product. (Bernhardt 1994.) Practices on the other hand refer to the practical implementation of competitive intelligence (Madureira et al. 2026, 372). Additionally, CI is defined as an organizational function (Blenkhorn − Fleisher 2000, 7). This thesis uses the definition of Madureira et al. (2021)

> *CI is the process and forward-looking practices used in producing knowledge about the competitive environment to improve organizational performance.*

There are various types of competitive intelligence. There are active and defensive competitive intelligence as well formal and informal competitive intelligence. Active competitive intelligence refers to company's efforts to gather, analyse and transform information into intelligence. (Lam 2015, 46.) While defensive intelligence means company's efforts to protect its own sensitive competitive intelligence from its competitors (Barrett 2000). Formal and informal competitive intelligence implies the channels through which the intelligence passes, whether it passes through formal channels that are controlled by the company or informal networks (Lam 2015, 46). This thesis focuses on active and formal competitive intelligence.

Competitive Intelligence is vital in current global environment (Olaleye et al. 2021, 38). It is potentially beneficial for all companies in every industry (Blenkhorn − Fleisher 2000, 5−6) and it should be used as a foundation for strategy planning (Roemerman 2020) since it outperforms other planning activities (Jenster – Soilen 2013). However, only a few companies have been able to leverage CI for success although companies have recognized the importance of CI for a long time. (Soilen 2017, 37.) Thus, this thesis aims to address this contradiction by answering the main research question: *How does competitive intelligence create value for companies?*

To answer the main research question this thesis addresses three sub-questions:

SQ1: How is the competitive intelligence process built in companies?

SQ2: How does competitive intelligence benefit companies?

SQ3: What are the key challenges in implementing the competitive intelligence process and utilizing competitive intelligence?

This thesis is conducted by literature review using academic articles and book chapters. The structure of the thesis is as follows. Chapter 2.1 begins the theoretical section and studies the stages and the implementation of the competitive intelligence process. Chapter 2.2 examines the benefits of competitive intelligence to companies. Chapter 2.3 discusses the key challenges related to the implementation of competitive intelligence process and utilization of intelligence. Finally, chapter 3 concludes the thesis by answering the research questions, discussing implications of the study and suggesting new paths for future research.

2 Theoretical framework

2.1 The Competitive Intelligence Process

To comprehend the competitive intelligence process it is essential to begin by defining the difference between following key concepts: data, information, knowledge and intelligence as seen in the figure 1. Data is signals and symbols (eg. numbers) and information is processed data (Madureira et al. 2026, 361). Whereas intelligence is information which is analyzed, interpreted and utilized to draw implications (Blenkhorn − Fleisher 2000, 7). It is actionable insight – an understanding developed through intelligence analysis that can be applied into decision making (Blenkhorn − Fleisher 2000, 7; Madureira et al. 2026, 361). When intelligence is applied into decision-making, knowledge is being created. Knowledge means verified true (Madureira et al. 2026, 361).

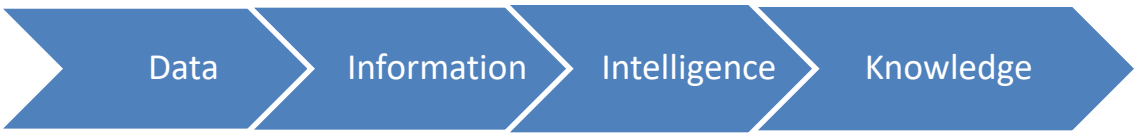

Figure 1. Key Concepts Related to the Competitive Intelligence Process

Competitive Intelligence process consists of certain activities that aim to generate intelligence. The CI process should be actionable (Bernhardt 1994, 19; Bose 2008, 523−524; Madureira et al. 2026, 373), networked (Bose 2008, 524; Madureira et al. 2026, 373) and systematic (Madureira et al. 2026, 373). Actionable indicates that the intelligence can be applied into decision-making (Madureira et al. 2026, 373) and that it is timely, useful and relevant (Gracanin et al. 2015, 29). Whereas networked means that it is a collective process encompassing the whole organization – all levels, functions and technological tools in the organization. Networked also implies that the intelligence is integrated and disseminated through the organization. Systematic in turn means that the process is an organized and planned process. (Madureira et al. 2026, 373.) Moreover, CI process ought to be continuous cycle known as the CI cycle where the output of the last stage is the input of the following stage (Pellissier − Nenzhelele 2013). The amount of stages vary depending on the definition and there are various definitions about the CI cycle (Maungwa − Laughton 2023, 44). This study uses Bose's (2008, 513) framework. As seen in the figure 2, the CI cycle involves five stages.

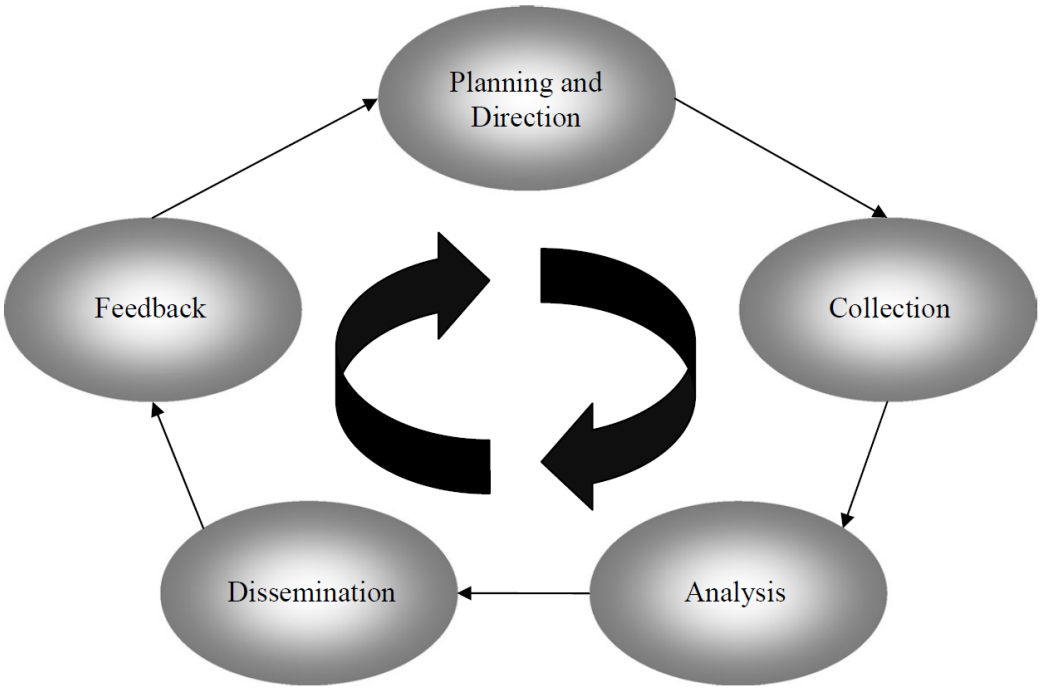

Figure 2. Competitive Intelligence Cycle (Bose 2008, 513)

The first stage of the competitive intelligence cycle is **planning and direction**. It involves the delegation of responsibilities to executives and CI analysts and allocation of resources (Bernhardt 1994, 16). The planning and direction stage begins by defining intelligence needs (Pellissier − Nenzhelele 2013, 4; Lam 2015, 47), the motivations behind the needs and the timelines for the needs (Bose, 2008, 513). CI needs can generally be divided into strategic decisions and actions, early warning signals and descriptions of the key players in the specific marketplace (Herring 1999, 4–6, according to du Plessis − Gulwa 2016). The definition of CI needs is implemented iteratively including CI analysts and decision-makers. CI analysts transform the needs into "key intelligence topics" (KITs) that are the objections of CI operations. (Bose, 2008, 513.) After determining KITs or specific questions to be answered, the evidence required to examine them is defined (Krizan 1999, according to Bose 2008, 515).

The second stage, **collection** is the actual data and information gathering phase. Then all potential sources of CI are identified (Lam 2015, 47) and the right data and information is collected from all ethical and legal sources, putted in ordered form and researched (Bose 2008, 513). For instance, the collected data is compared to the intelligence aims. The collection stage also involves evaluation sub-stage where the usefulness of data and the source is measured. (Lam 2015, 47.) The usefulness of data is measured by following criteria: accuracy, relevance, clarity, timeliness (Lam 2015, 47),

objectivity and readiness (Bose 2008, 512). Source usefulness in turn is measured by relevance, reliability, depth of coverage, uniqueness and the availability of alternate sources (Lam 2015, 48).

CI analysts use public and private sources (Vedder et al. 1999, 109). Sources can be divided into different categories: internal (ie. the company itself) and external sources, quantitative (eg. statistics) and qualitative (eg. surveys) sources as well into personal and technical sources. Technical sources, also referred as competitive technical intelligence (CTI) is highly utilized (Dishman − Calof 2008, 780). Technical sources are often secondary sources and consists for instance of internet, intranets, softwares and news groups, internet being the largest and most used source due to its speed and timely information (Bose 2008). Besides technical sources, other secondary sources involve for instance statistics, trade journals, government documents (Bernhardt 1994, 16), TV and radio (Pellissier − Nezhelele 2013, 4). Most of the collected data is gathered from secondary sources (Bernhardt 1994, 16; Begg − du Toit 2007, 11−13). Once the data is collected from secondary sources it needs to filtered into usable and useless data (Bose 2008, 525).

In comparison to secondary sources primary sources are mostly personal sources (Bernhardt 1994, 16) such as sales staff (Miree − Prescott 2001, 220), customers, staff joining from competitors, suppliers and employees in competitor organizations (Begg − du Toit 2007, 12). Primary sources also involve for instance speeches, home pages, financial reports, government documents and product circulars (ben Sassi 2015, 489). Research concerning the primary resources is when most of the time is spent unlike in secondary research but only a little information is collected (Bose 2008, 525). Primary research consists of analyzing and verifying the secondary information (Lam 2015, 52) and trying to fill in the gaps in the secondary research (Bose 2008, 525). Actionable intelligence is derived mainly from reliable primary sources (Bernhardt 1994, 16).

Text and web mining tools facilitate the identification and collection of relevant information sources by extracting useful knowledge from large volumes of unstructured web and textual data (Almatrooshi et al. 2022, 79–81). There are many data collection tools such as TextAnalyst and Brimstone. The collection tools can be divided into active and passive collection tools. Active collection tools collect information regarding some specific key intelligence topic. They include, for instance, search engines and entity extraction technologies. Passive collection tools on the other hand support prevalent intelligence needs. They involve, for example, software agents and information routing technologies. (Bose 2008, 514-518.)

The third stage, **analysis** is the sense making stage. It is the heart of the CI process (Bose 2008, 525). The analysis process is twofold. First, the gathered data and information is analyzed. The

principal forms of analysis are deductive reasoning, inductive reasoning, pattern recognition, and trend analysis. The aim is to find for example correlations, trends and exceptions among data. (Bose 2008, 519; Lam 2015, 48-49.) Second, the data is transformed into actionable intelligence that supports decision-making (Bernhardt 1994, 19). The analysis stage involves storaging the data in an organized form so that it eases the retrieval of the right data. The are multiple ways to implement the storaging. The strorage system may be technical, paper files, persons or a mix of the above-mentioned. It may be decentaralized or centralized. (Bose 2008, 513; Lam 2015, 48-49.)

Analysis is conducted using analytical models. There are countless analytical models such as SWOT, Porters Five Forces, PESTEL, competitor profiling (Viviers et al. 2005, 580), BCG growth/share portfolio matrix, the GE Business screen matrix, SATELLITE, strategic group analysis, financial ratios, and value chain analysis (Bose 2008, 519). All of these analytical models map gathered data to predetermined information groups to aid specific decisions. However, the final conclusions are drawn by CI analysts based on the models. (Bose 2008, 519.)

Analytical models are supported by analysis tools which allow the handling of a massive set of gathered data. Analysis tools involve for instance data, web and text mining, statistical analysis and business intelligence tools (Wee 2001, according to Bose 2008, 520). Data and text mining cluster and link unstructured and semi-structured data to support analytical models (Bose 2008, 520). Text mining scans vast sets of unstructured text data searching for sentence structure and word proximity to name a few techniques and places them to some common format (Fan et al. 2006; Bose 2008, 523). After which it filters or ranks the text with statistical methods (Bose 2008, 523). Text mining process uses technologies such as summarization, topic tracking and information visualization (Fan et al. 2006). Data mining on the other hand scans large structured data mass searching for hidden models, trends and predictions. Whereas, web mining refers to the systematic analysis of unstructured and structured web data. Web mining can be divided into web structure mining, web usage mining and web content mining. (Bose 2008.)

The fourth stage, **dissemination** follows analysis. In dissemination the product of CI cycle, intelligence is reported and communicated to decision-makers (Lam 2015, 49) in an easily understood manner (Bose 2008, 514). Visualization systems and tools are particularly suitable for this since they provide intelligence in a format that is relatively fast and easy to interpret. Communicated intelligence allows the implementation of further analyses like scenario planning. (Bose, 2008, 523.)

According to Lam (2015, 49) the dissemination process depends on two factors: frequency and formality. In other words, how often the intelligence is disseminated between CI analysts and decision-makers within a certain period of time and through what channels – informal or formal. Frequent dissemination is vital since it allows changes in the CI process and ensures that the results are relevant to decision-makers. Dissemination is often implemented in a form of a meeting, a report, a dashboard (Bose, 2008, 514), a news bulletin or a special intelligence briefing report (Bernhardt 1994, 20) which are referred as outputs. During the 21st century, companies have moved towards indirect dissemination, like brief reports and e-mails instead of direct dissemination such as face-to-face meetings (Lam 2015, 49-50).

The fifth stage, **feedback** is the last stage of the CI cycle. It concerns assessing the intelligence and the effects it has on decision-making (Bose 2008, 514). It is vital that feedback is reciprocal meaning that both decision-maker as well as CI analyst give and receive feedback (Pellissier − Nenzhelele 2013, 1−6). Intelligence can be evaluated for instance by determining whether the intelligence was used and if yes in what ways. Moreover, it can be evaluated by measuring the financial gains achieved by intelligence. All in all, feedback gives CI analysts insights for enhancement and further investigation which in turn enables adjusts in the CI process. (Bose 2008, 514.)

2.2 Benefits of Competitive Intelligence

Competitive intelligence can be utilized in numerous ways. Thus, it provides myriads of benefits to companies. The benefits form a chain where one benefit contributes to following benefit and so forth. This thesis presents a framework of the benefits of competitive intelligence starting from indirect benefits and proceeding towards direct benefits as seen in the figure 3. Indirect benefits include environmental scanning, insight generation, strategy formulation, decision-making and strategy implementation. Whereas direct benefits include specific goals, competitive advantage and improved or sustained performance.

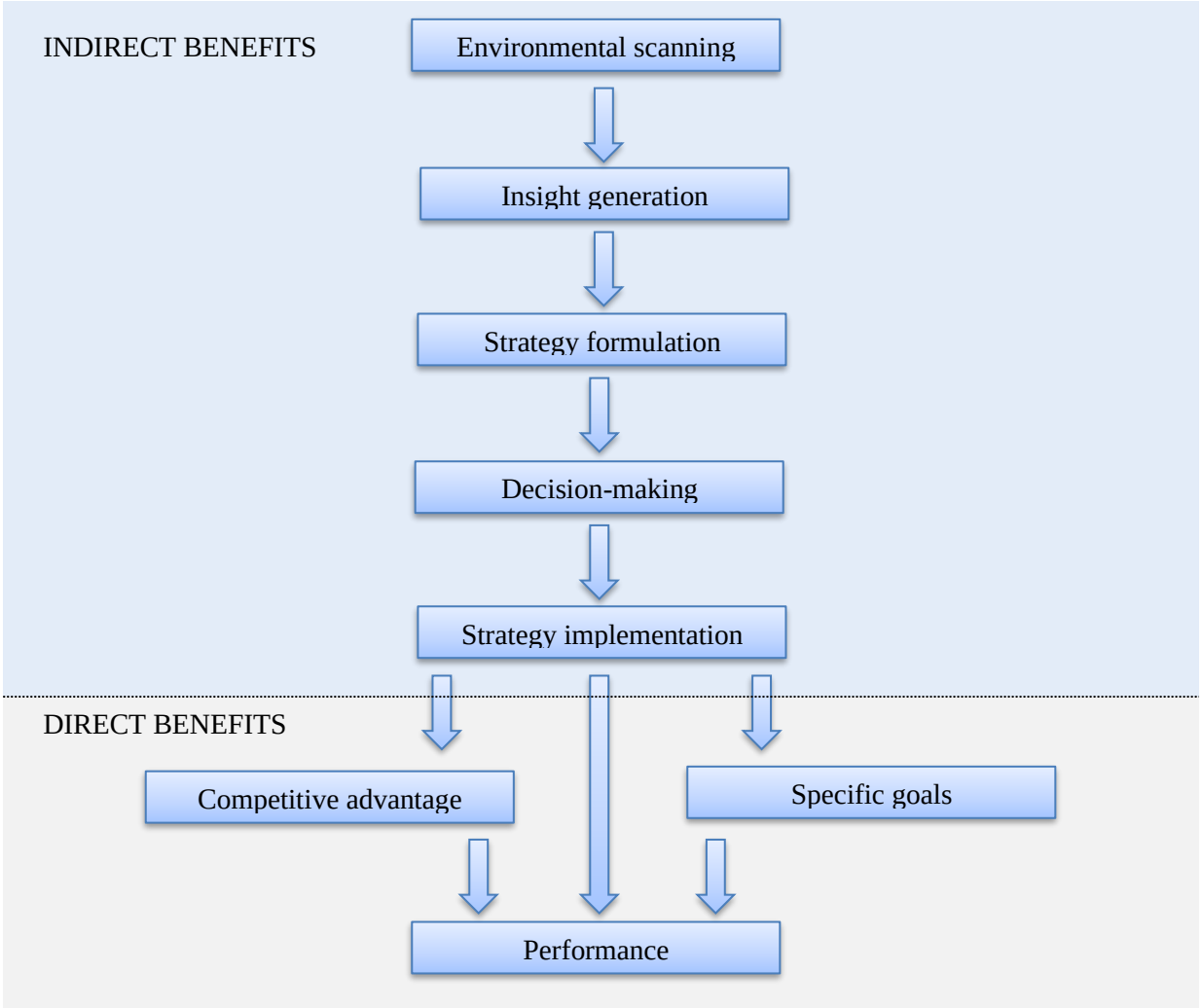

Figure 3. Framework of Competitive Intelligence Benefits

2.2.1 Indirect Benefits

The benefit chain begins with **environmental scanning**. Competitive intelligence is used for environmental scanning as it provides intelligence about competitive environment. It allows company to have improved understanding of the competitive environment and facilitates as a means to identify threats, opportunities and gaps in the market. (Olszak et al. 2023.) Vedder et al. (1999) presents that companies which utilize competitive intelligence programs, have enhanced understanding of the competitive environment. The environmental monitoring capabilities of competitive intelligence facilitates the observation of competitive environment in various levels: macro, meso and micro. Macro level comprises political, environmental, social, technological, economical and legal aspects. (Madureira et al. 2026, 372.) In macro scope competitive intelligence enhances the understanding of external influences (ben Sassi 2015, 487) and for instance lets the

company to identify and analyze political and legislative factors that have impact on company's operations (Kahaner 1996, according to Nasri 2012, 30).

Meso level refers to industry level (Madureira et al. 2026, 372). In the meso level competitive intelligence illustrates a neutral, objective picture of the market place (Wright 2010, 521) which can contribute to better market position (ben Sassi 2015, 488). It also helps in the creation of new markets (Olaleye et al. 2021, 30; Nasri 2012, 30). Whereas, micro level refers to competitors, customers and suppliers (Madureira et al. 2026, 372). In the micro level, CI for example permits the discovery of new potential competitors (Kahaner 1996, according to Nasri 2012, 30). It also facilitates the comparison of own strategy to the strategy of the current competitors of the company (ben Sassi 2015, 487). For example, with competitive intelligence one can identify and analyze competitors' events that led to either success or to failure (Kahaner 1996, according to Nasri 2012, 30). Wright (2010, 521) adds that one can also anticipate competitor moves and prepare to them with counter moves. Thus, competitive intelligence facilitates the exploitation of competitors' vulnerabilities (ben Sassi 2015, 487).

Environmental scanning is followed by **insight generation**. Identification of opportunities and threats acts as basis for insight generation. Competitive intelligence is a tool for filtering useful data and turning it into intelligence (Gracanin et al. 2015). Intelligence builds company's knowledge about the present and future state of its competitive environment by providing outputs that involve implications for action (Arcos 2016). CI enables the company to challenge and verify its assumptions (Wright 2010, 521) and prejudices as well as to identify its weaknesses (Herring 1992). This allows company to integrate knowledge into organization and create new insights or knowledge (Wright 2010, 521). Thus, CI is a tool for knowledge management (Chevallier et al. 2016).

Insight generation leads to **strategy formulation**. Competitive intelligence supports the process of strategy formulation (Vedder et al. 1999; Bose 2008, 510; Olaleye et al. 2021, 30; Maluleka − Chummun 2023) by describing and creating predictions about competitive environment that company absorbs to its knowledge base (Herring 1992). Strategy formulation requires two types of information: information about company's own capabilities and resources and information about the environment that the company operates in (Herring 1992). The strategic formulation process consists of four stages: setting objectives, generation of alternative strategies, evaluation of the strategies and monitoring results of implemented strategy (Armstrong 1982, 198−200). CI can assist in every stage of strategic formulation process and at various levels including strategic, operational

and tactical levels. However empirical evidence suggests that companies use CI mostly on tactical level focusing on short term decisions. (Cavallo et al. 2021.)

Strategy guides **decision-making** in companies. CI is utilized to assist the decision-making process (Blenkhorn – Fleisher 2000, 8; Calof et al. 2018; Madureira et al. 2026, 371−372) which is a cognitive process consisting of three phases. The first phase is called the information collection phase, where the problem is identified and the understanding of the problem structure is developed. The second phase, the design phase includes the search for possible solutions. The last phase, the choice phase concerns choosing the solution for a problem. (Simon, 1960 according to Salles, 2006.)

When it comes to decision-making, there are strategic and tactical competitive intelligence. Strategic and tactical competitive intelligence differ from one another by whether competitive intelligence is utilized on tactical or strategic decision (Lam 2015, 45−46). CI supports strategic, tactical (Gracanin et al. 2015, 27; Calof et al. 2018, 668) as well as operational decisions which is why, it helps decision-makers at all levels to make informed decisions (Madureira et al. 2026, 371; Olszak et al. 2023, 1803). CI's ability to forecast future events lays a solid foundation for strategic decision-making (Priporas et al. 2005; Bose 2008). CI can for example contribute to decisions concerning market entries and mergers and acquisitions (Egan 2001, 86). Still, strategic decisions concerning customers, innovation and competitors are the main focuses of companies (Calof et al. 2018). When it comes to tactical decisions, CI can support for instance decisions regarding pricing strategy, marketing mix, product and market developments or enhancements (Miree − Prescott 2001, 221). Regarding operational decisions, CI supports decisions such as sales tactics (Agnihotri – Rapp 2011) and more precisely developing proposals, bidding and interacting with customers (Miree − Prescott 2001, 220).

Decision-making is followed by **strategy implementation.** Competitive intelligence is defined as a strategic tool (Bernhardt 1994, 13; du Toit 2013, 30; Lam 2015, 44; du Plessis − Gulwa 2016; Maluleka − Chummun 2023, 12). It helps in the implementation of the strategy and in making adjustments according to the changing environment. That is due to enhanced decision-making where strategic intentions are translated into concrete actions. In other words, it is about company's choices to utilize its resources to obtain its aims. Competitive intelligence assists also in assessing the viability of the strategy, determining whether the strategy is still sustainable. (Herring 1992.)

2.2.2 Direct Benefits

One of the direct benefits of CI is its ability to help the company achieve **competitive advantage** (CA) (Gilad 1989; Egan 2001; Zwerenz 2020) or even sustained competitive advantage (Casado Salguero et al. 2019; Olaleye et al. 2021, 30). Barney (1991, 102) defines competitive advantage as an execution of strategy which is not being executed at the same time by any current or potential competitor. Sustained competitive advantage is otherwise the same, except competitors are not capable of copying the advantages of this strategy. Additionally, sustained competitive advantage refers to a CA that is maintained for a long period of time. Barney (1991, 102) however acknowledges the difficulty in determining the time frame.

Competitive intelligence enables the company to observe competitive environment which in turn allows company to respond to the external trends and changes through strategy planning and execution which in turn can lead to competitive advantage (Gilad 1989; Barney 1991; Olaleye et al. 2021). Bose (2008) introduces a concrete means to do that: creating information profiles that enables the company to identify, categorize and follow competitors and their behavior in an effective manner. Information profiles may include for example information about competitors' strategies, positioning, goals, strengths and weaknesses as well as reaction patterns. They allow company to compare its own capabilities and attributes with the ones of competitors, thus helping in the process of creating competitive advantage.

Competitive advantage can be obtained also though innovation (Botha − Boon 2008). Competitive intelligence can enhance innovation capabilities (Hussein et al. 2011; Calof − Sewdass 2020; Olaleye et al. 2021) and innovation performance directly (Tanev − Bailetti 2008) or indirectly (Begg − du Toit 2007, 10; Qiu 2008; Poblano-Ojinaga et al. 2019). It allows the company to identify market gaps which eventually lead to innovation (Hussein et al. 2011; Olaleye et al. 2021). In practice, competitive intelligence facilitates innovation by assisting identification and analyzation of new technologies, products and processes (Kahaner 1996, according to Nasri 2012, 30). Furthermore, it supports launching and positioning them (Olaleye et al. 2021, 30).

Strategy implementation is a means to achieve **specific goals**. It can help companies to achieve various organizational goals concerning for example competitors, customers, suppliers, products, technologies, finance, market, environment (ben Sassi 2015) and mergers and acquisitions (McGonagle − Vella 2004; Olaleye et al. 2021, 30). For example, in regard to customers, competitive intelligence allows the company to discover new potential customers (Kahaner 1996, according to Nasri 2012, 30) and better understand current customers (Olszak et al. 2023) which in

turn is beneficial for marketing since that allows the company to differentiate the marketing according the customer segment (Nasri 2012). CI acts as a tool to identify and analyze successful and unsuccessful customer journey touchpoints (Kahaner 1996, according to Nasri 2012, 30). That consequently helps to improve customer service (ben Sassi 2015, 487) which may lead to improved customer satisfaction (Nasri 2012).

Besides obtaining competitive advantage and specific goals, competitive intelligence improves the **performance** of the company (Hussein et al. 2011; Nasri 2012, 32; Jenster – Soilen 2013). Madureira et al. (2023) argue that the ultimate advantage of competitive intelligence concerns performance. Improved or sustained performance is achieved through strategy implementation directly and indirectly through achieving specific goals and competitive advantage. Aside from the overall performance, the improved or sustained performance covers operational and organizational performance.

2.2.3 Measuring the Value of Benefits

The benefits of competitive intelligence include long-term, short-term, direct, indirect, quantitative and qualitative impacts. Long-term impacts concern strategic decision-making whereas short-term impacts concern tactical decisions. Quantitative impacts refer to impacts that can be easily calculated whereas qualitative impacts are the opposite. (Kalinowski – Maag 2012.) Because of the different kinds of benefits, it is not simple to determine and quantify the benefits of competitive intelligence (Lam 2015, 50). Many CI researchers have tried to introduce a model to calculate the benefits achieved through CI (Calof 2014, 80). The models have evolved from measuring direct monetary impacts using hard numbers to involve indirect effects and qualitative metrics (Lam 2015, 50-51). Concerning the quantitative metrics, the benefits of CI can be calculated in terms of cost and time savings, cost avoidance, increase of the revenue (Herring 1996, according to Calof 2014, 80), achieved financial goals and increase of the profit (Ferringer et al. 2006, according to Calof 2014, 80). Additionally, the effectiveness of CI can be calculated by using return on investment (ROI) (Lam 2015, 50) and return on competitive intelligence investment (ROCII) (Davidson 2001, according to Calof 2014, 81). Qualitative metrics in turn include metrics such as marketing and sales metrics (eg. increase in the market share, customer satisfaction and retention, lead generation), employee metrics (eg. employee retention), innovation metrics (eg. new products developed) (Lam 2015, 50−51) and firm competitiveness (Sigalas et al. 2013).

The benefits of competitive intelligence are mostly qualitative by nature (Bose 2008) and therefore difficult to measure but the ultimate benefits – specific goals, competitive advantage and improved or sustained performance – can be measured using quantitative and qualitative metrics (Jarvis et al. 1999). Thus, these benefits are referred as direct benefits. Indirect benefits in turn cannot be measured as such but they contribute to achieving the direct benefits. The choice of the metric depends on what direct benefit is being measured. For example, achieved competitive advantage can be measured by assessing a firm's ability to achieve superior outcomes relative to its competitors using indicators such as firm competitiveness (Sigalas et al. 2013). Whereas improved or sustained performance can be assessed for instance by quantitative measures as an increase in profits, revenues (ben Sassi 2015, 488), market share and avoidance of costs (Nasri 2012) and by qualitative measures as increased customer satisfaction and customer retention (Calof 2014). The metrics used for specific goals in turn vary greatly in accordance with what specific goal is in question.

2.3 Challenges in Implementing Competitive Intelligence Process and Utilizing Competitive Intelligence

2.3.1 Integrating Competitive Intelligence into Organizational Culture

There are many aspects regarding the organizational culture that pose challenges to the effective implementation of CI process and utilization of intelligence in companies. First, there is lack of CI awareness in companies (Nenzhelele − Pellissier 2014). In other words, employees and even executives do not know what CI is and what it is used for as well as the difference between information and intelligence (Egan 2001, 85). Furthermore, executives do not necessarily address the importance of CI on strategic management (du Plessis − Gulwa 2016). Then, there is also lack of CI culture (Nenzhelele − Pellissier 2014; Olszak et al. 2023, 1804). That means that the CI process is not properly integrated to the organization hindering the participation of employees to implement CI process and utilize CI effectively (Begg − du Toit 2007, 7). For example, employees are putting their own interests before company's intentions which shows as information hoarding and sharing information that support one's own thinking (Soilen 2017, 37–38).

Besides CI awareness and culture, there are other characteristics of organizational culture that hinders the integration of CI and ultimately the effective utilization of intelligence. Some companies are reluctant to change (Ghoshal − Westney 1991, 21; Egan 2001), not committed to learning and narrowminded (Lam 2015, 45). Some companies do not have shared vision which does not only make the definition of intelligence needs more complicated but also hampers the interpretation of

the outputs among decision-makers possibly causing more disadvantages than benefits (Lam 2015, 45). There is also a tendency among companies to underestimate and ignore competitors believing in own superiority as well as lack of long-term orientation (Ghoshal − Westney 1991, 21).

The lack of trust among companies influences negatively information sharing and therefore the implementation of CI process and utilization of intelligence in companies (Maungwa − Fourie 2018, 378). For example, some CI analysts feel like it is better not to share some outputs at all than to risk making an incorrect interpretation (Ghoshal − Westney 1991, 22). Employees might have fears about someone stealing their ideas (Maungwa − Fourie 2018, 378) or the disseminated CI end up being used against them (Ghoshal − Westney 1991, 21). There is also lack of trust in the external CI analyst (Egan 2001, 86) due to not having enough time to develop trust (Ghoshal − Westney 1991, 22).

The implementation of CI process involves issues. In some companies it is unclear who and what functions should be responsible for intelligence efforts (Gibbons − Prescott 1996, according to Attaway 1998, 31) which may manifest as a lack of systematic collection and analysis of information (Olszak et al. 2023, 1804). Moreover, some companies have inadequate resources for implementing CI process. They do not have enough skilled (Ghoshal − Wetney 1991, 21; Nenzhelele − Pellissier 2014; Olszak et al. 2023, 1804) and well-trained staff (Viviers et al. 2002, 33; Muller 2007; Lam 2015, 54) who are capable of applying CI in practice (Maungwa − Fourie 2018, 377) and who have business department expertise (Tsuchimoto − Kajikawa 2022, 640−641). There is also lack of time, budgetary restrictions (Nenzhelele − Pellissier 2014) and challenges in developing and using internal knowledge effectively (Muller 2007). For example, decision-makers might be generating CI outputs that exist already somewhere in the organization (du Plessis − Gulwa 2016, 5).

2.3.2 Identifying, Defining and Articulating Intelligence Needs

Maungwa and Fourie's (2018, 372) study reveals that of all the stages of CI cycle the planning and direction stage and more specifically the intelligence needs causes difficulties the most. First, there are difficulties in identifying the intelligence needs (Muller 2007). That originates from some executives not knowing what kind intelligence they need (Ghoshal − Westney 1991, 21). Salles (2006) illustrates that it is difficult to collect decision-makers' CI needs since decision-maker seldom knows what intelligence he/she requires to make a decision.

Second, there are challenges in defining intelligence needs. The difficulties in identifying intelligence needs might be one reason why some executives do not define the competitive intelligence needs (Egan 2001) which in turn leaves the direction of the whole CI process vague (Ghoshal − Westney 1991, 21). There might also be too many intelligence needs in relation to CI resources which hinders the focus of the CI (Ghoshal − Westney, 1991, 21). As a case in point, du Plessis and Gulwa (2016, 7) found that CI analysts had difficulties in covering the core topics regarding customers proactively.

Lastly, there are difficulties in articulating intelligence needs. There is too little communication between the one with an intelligence need and the CI analyst (Maungwa − Fourie 2018). For instance, as a consequence many companies have employees who frequently gather data and information not knowing the management's intelligence needs (Dishman − Calof 2008, 779). They do not consult management whether the information they are gathering is in fact what is required and whether they are still on the same page with the project as there are often changes in the intelligence needs (Maungwa − Fourie 2018, 378). Even if there were enough communication in terms of frequency, some executives do not provide enough information and details which challenges the determination of key intelligence topics and intelligence needs (Egan 2001, 85; Maungwa − Fourie 2018, 377). Additionally, the verification of intelligence needs is sometimes overlooked and not deemed as important (Maungwa − Fourie 2018, 379). As a result of poor communication, there is a disparity between what intelligence company requires and what it is receiving (Ghoshal − Westney 1991, 19; du Plessis − Gulwa 2016, 6) which in turn hinders the effective utilization of intelligence.

2.3.3 Lack of Dissemination and Blockages and Delays in Dissemination

Besides intelligence needs, dissemination involves myriads of challenges. Dissemination challenges concern both the implementation of CI process and effective utilization of intelligence. To begin with, the employees who gather CI such as salespeople generally do not disseminate the information that they gather (Lambert et al. 1990; Agnihotri – Rapp 2011, 364; Lam 2015, 49). There are many possible reasons for this. Some people gatekeep information purposefully for example to outperform colleagues (Lam 2015, 49). Other causes include lack of time, the personality of the salesperson, the prejudice that the information is already known and absence of a formal reward or feedback system (Agnihotri – Rapp 2011, 364). As a case in point, many salespeople perceive CI as a laborious organizational process that provides them little to no immediate benefit (Agnihotri – Rapp 2011). Even if the collected information is distributed, there

are still significant gaps between the time that the intelligence is collected and distributed in the organization (Attaway 1998). That hinders the actionability of intelligence, since the output may no longer be relevant to the competitive environment (Agnihotri – Rapp 2011, 365).

There are also challenges in distributing CI across the whole organization. There are dissemination blockages (Ghoshal − Westney 1991, 21) and fragmented sharing of intelligence needs (Maungwa − Fourie 2018, 378). Some of the CI analysts intentionally fragment the key intelligence need(s) which often contributes to partial understanding of the actual needs among employees (Maungwa − Fourie 2018, 378). Moreover, implementing de-centralized CI (ie. having multiple CI units eg. in different departments) may result in intelligence not reaching the executives who require the outputs to perform strategic management duties (du Plessis − Gulwa 2016, 6). Thus, the dissemination asymmetry takes place both ways: downwards (Maungwa − Fourie 2018, 378) and upwards (Agnihotri – Rapp 2011, 364).

2.3.4 Quality and Reliability of Outputs

Hindered quality and reliability of the outputs pose challenges to the effective utilization of competitive intelligence. Concerning the quality of CI, the disseminated CI outputs are mainly perceived as mediocre and as a consequence, these outputs are not used often (Begg − du Toit 2007, 14). The outputs are criticized for not having enough continuity and being insufficient in putting oneself in competitor's place (Ghoshal − Westney 1991, 22). Many executives prefer quantitative data as traditionally executives have made decisions based on quantitative data (Bose 2008, 523). However, as competitive intelligence is often qualitative by nature executives (Ghoshal − Westney 1991, 21; Bose 2008, 523) as well as employees in all levels (Lam 2015, 45) have difficulties in applying intelligence in practice.

The perceived hindered quality and reliability of outputs are due to various reasons that stem from issues in the implementation of CI process. There might be few to no quality checks on the data and information sources (Ghoshal − Westney 1991, 22), lack of information validation (Viviers et al. 2002, 33), cognitive myopias and bias. Cognitive myopias refer to CI analysts accepting information that supports their prevalent understanding and point of view of the phenomenon. CI analysts often form their notion already during the interview which directs the CI process. (Maungwa − Fourie 2018, 381.) Dispersed CI units may also contribute to bias in the outputs resulting in incompatibility with the strategy (Tsuchimoto − Kajikawa 2022, 640−641). In addition, the CI analyst may not know the organization well enough. That can lead to outputs that are not

relevant to the context of a specific company. However, even if the CI analyst builds the outputs in the context of the company, executives might still discard them. (Maungwa − Fourie 2018, 381.)

3 Conclusions

This study aimed to answer the research question: "*how does competitive intelligence create value for companies?*". To address the main research question, first the study examined how CI process is built in companies by introducing the stages of competitive intelligence cycle. Second, the study examined how competitive intelligence benefit companies by presenting a framework of CI benefits. Lastly, this study examined what key challenges companies face in implementing competitive intelligence process and utilizing competitive intelligence.

One of the key findings of the study was that the CI cycle is an endless cycle that should be integrated to the whole organization and implemented systematically so that the intelligence is applicable to practice. This study used Bose's (2008) definition which covers the stages of planning and direction, collection, analysis, dissemination and feedback. The planning and direction as well as dissemination stages in the CI cycle were found out to involve challenges the most by this study. This study found out that the challenges regarding the planning stage concern identifying, defining and articulating intelligence needs and the challenges regarding the dissemination concern lack of dissemination, dissemination blockages and delays in the dissemination. Furthermore, integrating CI into organizational culture and certain characteristics of organizational culture such as lack of CI culture and awareness, skilled employees and trust among companies were found out to pose challenges to the implementation of the competitive intelligence process.

Another key finding of the study was that competitive intelligence provides companies a wide variety of benefits that are connected to each other forming a chain-like structure (see Figure 3). The study found out that the benefits are mostly qualitative and thus difficult to measure. However, this study identified competitive advantage, specific goals and improved or sustained performance to be direct benefits as in being measurable. This study identified also challenges in the utilization of competitive intelligence meaning the challenges in applying CI for example to decision-making or strategy planning. The key challenges involved aspects about organizational culture and dissemination. In addition, the hindered quality and reliability of the outputs were found out to pose challenges to the utilization of CI and even lead to the outputs not being used. Thus, practical implication can be derived from this study. Companies should establish formal CI units, integrate CI as part of the whole organization and develop a reward system for employees collecting information. The focus should be on building CI awareness and culture and creating a learning-oriented environment that embraces trust and open communication.

To answer the main research question, competitive intelligence creates value for companies through CI cycle that generates actionable intelligence about the competitive environment. That enables environmental scanning, insight generation and strategy formulation. Strategy formulation in turn guides decision-making that consequently manifests as strategy implementation. Strategy implementation is a means to achieve the ultimate benefits of competitive intelligence – competitive advantage, specific goals and improved or sustained performance – whose value can be measured by quantitative and qualitative metrics. Besides strategy implementation, achieving competitive advantage or specific goals contribute to improved or sustained performance which is the ultimate benefit of competitive intelligence. However, the implementation of CI process and the effective utilization of CI involves challenges that may hinder the value creation of competitive intelligence. All in all, when implemented and utilized effectively, competitive intelligence can successfully create value for companies amid current global competitive environment. Future research could examine more thoroughly challenges and especially challenges in data collection, analysis and feedback. More detailed benefits of CI in different departments as well as utilization of artificial intelligence in the competitive intelligence process offer also paths for future research.

References

Agnihotri, R. – Rapp, A. (2011) Perspectives on competitive intelligence within business: A tactical tool for sales- people to gain a competitive advantage. *Marketing review*, Vol. 11 (4), 363−380.

Almatrooshi, F. – Alhammadi, S. – Salloum, S. A. – Shaalan, K. (2022) Text and web content mining: A systematic review. In: *Proceedings of International Conference on Emerging Technologies and Intelligent Systems (ICETIS)2021*, ed. by Mostafa Al-Emran – Mohammed A. Al-Sharafi − Mohammed N. Al-Kabi, 79–87.

Arcos, R. (2016) Public relations strategic intelligence: Intelligence analysis, communication and influence. *Public relations review*, Vol. 42 (2), 264−270.

Armstrong, J. S. (1982) The value of formal planning for strategic decisions: Review of empirical research. *Strategic management journal*, Vol. 3 (3), 197−211.

Attaway, M. C. (1998) A review of issues related to gathering and assessing competitive intelligence. *American business review*, Vol. 16 (1), 25−35.

Barney, J. (1991) Firm resources and sustained competitive advantage. *Journal of management*, Vol. 17 (1), 99–120.

Barrett, P. (2000) Reducing vulnerability through counterintelligence. In: *Managing Frontiers in Competitive Intelligence*, ed. by Craig S. Fleisher, – David L. Blenkhorn, 44–50. Praeger, UK.

Begg, M. – Toit, A. S. A., du (2007) Level of importance attached to competitive intelligence at a mass import retail organization. *South African journal of information management*, Vol. 9 (4), 1−19.

Bennett, N. − Lemoine, G. J. (2014) What a difference a word makes: Understanding threats to performance in a VUCA world. *Business horizons*, Vol. 57 (3), 311−317.

Bernhardt, D. C. (1994) ‘I want it fast, factual, actionable’—tailoring competitive intelligence to executives' needs. *Long range planning*, Vol. 27 (1), 12−24.

Blenkhorn, D. L. – Fleisher, C. S. (2000) *Managing Frontiers in Competitive Intelligence*. Praeger, UK.

Bose, R. (2008) Competitive intelligence process and tools for intelligence analysis. *Industrial management + data systems*, Vol. 108 (4), 510−528.

Botha, D. F. – Boon, J. A. (2008) Competitive intelligence in support of strategic training and learning. *South African journal of information management*, Vol. 10 (3).

Calof, J. (2014) Evaluating the impact and value of competitive intelligence from the users perspective - The case of the national research council's technical intelligence unit. *Journal of intelligence studies in business*, Vol. 4 (3), 79−90.

Calof, J. − Arcos, R. − Sewdass, N. (2018) Competitive intelligence practices of European firms. *Technology analysis & strategic management*, Vol. 30 (6), 658−671.

Calof, J. − Sewdass, N. (2020) On the relationship between competitive intelligence and innovation. *Journal of Intelligence Studies in Business*, Vol. 10 (2) 32−43.

Casado Salguero, G. – Fernández Gámez, M. Á. – Aldeanueva Fernández, I. – Ruíz Palomo, D. (2019) Competitive intelligence and sustainable competitive advantage in the hotel industry. *Sustainability*, Vol. 11 (6), 1–12.

Cavallo, A. − Sanasi, S. − Ghezzi, A. − Rangone, A. (2021) Competitive intelligence and strategy formulation: connecting the dots. *Competitiveness review*, Vol. 31 (2), 250−275.

Chevallier, C. − Laarraf, Z. − Lacam, J. S. − Miloudi, A. − Salvetat, D. (2016) Competitive intelligence, knowledge management and coopetition: The case of European high-technology firms. *Business process management journal*, Vol. 22 (6), 1192−1211.

Cho, J. (2024) Thriving in the global competitive landscape: competitive dynamics and longevity of emerging market firms. *Asian Business & Management*, Vol. 23 (1), 82–109.

Dishman, P. L. − Calof, J. L. (2008) Competitive intelligence: a multiphasic precedent to marketing strategy. *European journal of marketing*, Vol. 42 (7/8), 766−785.

Egan, J. (2001) Competitive intelligence: spending is increasing, but benefits can be elusive. *The Electricity journal*, Vol. 14 (2), 84−86.

Fan, W. – Wallace, L. – Rich S. (2006) Tapping the power of text mining. *Communications of the ACM*, Vol. 49 (9), 77−82.

Ghoshal, S. − Westney, D. E. (1991) Organizing competitor analysis systems. *Strategic management journal*, Vol. 12 (1), 17−31.

Gilad, B. (1989) The role of organized competitive intelligence in corporate strategy. *The Columbia journal of world business*, Vol. 24 (4), 29–35.

Gracanin, S. - Kalac, E. - Jovanović, D. (2015) Competitive intelligence: importance and application in practice. *Review of innovation and competitiveness*, Vol. 1 (1), 25–44.

Herring, J. P. (1992) The role of intelligence in formulating strategy. *The Journal of business strategy*, Vol. 13 (5), 54−60.

Hussein, R. – Farzaneh, G. – Farham, A. (2011) Analyzing the impact of competitive intelligence on innovation at scientific research centers In Isfahan science and technology town. *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3 (5), 939–947.

Ibrahim, A. A. – Ahmad, S. Z. – Bakar, A. R. A. (2024) Impact of competitive intelligence on firm sustainable competitiveness and performance: strategic design collaboration's mediating role. *Management Research Review*, Vol. 48 (2), 231−257.

Jarvis, R. − Curran, J. − Kitching, J. − Lightfoot, G. (2000) The use of quantitative and qualitative criteria in the measurement of performance in small firms. *Journal of Small Business and Enterprise Development*. Vol. 7 (2), 123−134.

Jenster, P. – Soilen, K. S. (2013) The relationship between strategic planning and company performance – a chinese perspective. *Journal of intelligence studies in business*, Vol. 3 (1), 15–30.

Kalinowski, D. J. – Maag, G. D. (2012) ROCI ® : a framework for determining the value of competitive intelligence. *Competitive Intelligence*, Vol. 15 (1), 9–21.

Lam, S. (2015) Market sensing and competitive intelligence systems. In: *Market Sensing Today*, ed. by Melvin Prince – Constantinos − Vasilios Priporas, 43−60. Business Expert Press, New York.

Lambert, D. M. – Marmorstein, H. – Sharma, A. (1990) Industrial salespeople as a source of market information. *Industrial Marketing Management*, Vol. 19 (2), 141–149.

Madureira, L. – Popovič, A. – Castelli, M. (2021) Competitive intelligence: A unified view and modular definition. *Technological forecasting & social change*, Vol. 173 (121086), 1–17.

Madureira, L. – Popovic, A. – Castelli, M. (2026). Competitive intelligence empirical validation and application: Foundations for knowledge advancement and relevance to practice. *Journal of Information Science*, Vol. 52 (2), 359–382.

Maluleka, M. L. – Chummun, B. Z. (2023) Competitive intelligence and strategy implementation: Critical examination of present literature review. *South African Journal of Infromation Management*, Vol. 25 (1), 1−12.

Maungwa, T. − Fourie, I. (2018) Competitive intelligence failures: An information behaviour lens to key intelligence and information needs. *Aslib Journal of Information Management*, Vol. 70 (4), 367−389.

Maungwa, T. − Laughton, P. (2023) The use of theories in competitive intelligence: A systematic literature review. *Journal of intelligence studies in business*, Vol. 13 (2), 43−60.

McGonagle, J. J. – Vella, C. M. (2004) Competitive Intelligence in Action. *The information management journal*, Vol. 38 (2), 64−68.

Mejias, U. A. − Couldry, N. (2019) Datafication. *Internet policy review*, Vol. 8 (4), 1−10.

Miree, C. E. – Prescott, J. E. (2001) “Tap-in” to strategic and tactical intelligence in the sales and marketing functions. In: *Proven Strategies in Competitive Intelligence : Lessons from the Trenches*, ed. by John F. Prescott − Stephen H. Miller. Wiley, New York.

Muller, M. (2007) Competitive intelligence in business: Latin America. *South African journal of information management*, Vol. 9 (2), 1–7.

Nasri, W. (2012) Conceptual model of strategic benefits of competitive intelligence process. *International Journal of Business and Commerce*, Vol. 1 (6), 25−35.

Nenzhelele, T. E. – Pellissier R. (2014) Competitive intelligence implementation challenges of small and medium-sized enterprises. *Mediterranean Journal of Social Sciences*, Vol. 5 (6), 92−99.

Niehaus, M. − Hansen, K. − Mocan, M. − Barmayoun, D. (2023) Unraveling successful company organizations: A research design to explore strategies for thriving amid market turbulence. *Administrative sciences*, Vol. 13 (9), 1−12.

Olaleye, B. R. – Bojuwon, M. – Ibrahim, R. I. M. – Ali-Momoh, B. O. (2021) Nexus between strategic thinking, competitive intelligence and innovation capability: Managerial support as a moderator. *Journal of Intelligence Studies in Business*, Vol. 11 (3), 27–41.

Olszak, C. M. – Bartus, K. – Saczewska-Piotrowska, A. (2023) Competitive intelligence as a lever of added value. *Procedia Computer Science*, Vol. 225, 1796–1805.

Pellissier, R. − Nenzhelele, T. E. (2013) Towards a universal competitive intelligence process model. *South African journal of information management*, Vol. 15 (2), 1−7.

Plessis, T., du − Gulwa, M. (2016) Developing a competitive intelligence strategy framework supporting the competitive intelligence needs of a financial institution’s decision makers. *South African journal of information management*, Vol. 18 (2), 1−8.

Poblano-Ojinaga, E. R. − López, R. R. − Gómez, J. A. H. − Torres-Arguelles, V. (2019) Effect of competitive intelligence on innovation capability: An exploratory study in Mexican companies. *Journal of Intelligence Studies in Business*, Vol. 9 (3), 62−67.

Priporas, C. V. − Gatsoris, L. − Zacharis, V. (2005) Competitive intelligence activity: evidence from Greece. *Marketing intelligence & planning*, Vol. 23 (7), 659−669.

Qiu, T. (2008) Scanning for competitive intelligence: a managerial perspective. *European journal of marketing*, Vol. 42 (7/8), 814−835.

Roemerman, S. (2020) The importance of competitive intelligence and analysis in 2020. Forbes. < The Importance Of Competitive Intelligence And Analysis In 2020>, retrieved in 6.4.2026.

Salles, M. (2006) Decision making in SMEs and information requirements for competitive intelligence. *Production planning & control*, Vol. 17 (3), 229−237.

Sassi, D., ben − Frini, A. − Abdessalem, W., ben − Kraiem, N. (2015) Competitive intelligence: History, importance, objectives, process and issues. In: *Proceedings of the ninth International Conference on Research Challenges in Information Science (RCIS).* Athens, Greece, 486−491.

Sigalas, C. – Pekka Economou, V. – Georgopoulos, N. B. (2013) Developing a measure of competitive advantage. *Journal of strategy and management*, Vol. 6 (4), 320−342.

Soilen, K. S. (2017) Why care about competitive intelligence and market intelligence? The case of Ericsson and the Swedish Cellulose Company. *Journal of Intelligence Studies in Business*, Vol. 7 (2), 27–39.

Tan, S. (2023) Exploiting disruptive innovation in learning and teaching. In: *Learning Intelligence: Innovative and Digital Transformative Learning Strategies*, ed. by Kumaran Rajaram, 149-176. Springer, Singapore.

Tanev, S. − Bailetti, T. (2008) Competitive intelligence information and innovation in small Canadian firms. *European journal of marketing*, Vol. 42 (7/8), 786−803.

Toit, A. S. A., du (2013) Comparative study of competitive intelligence practices between two retail banks in Brazil and South Africa. *Journal of intelligence studies in business*, Vol. 3 (2), 30–39.

Tsuchimoto, I. − Kajikawa, Y. (2022) Competitive intelligence practices in Japanese companies: multicase studies. *Aslib Journal of Information Management*, Vol.74 (4), 631−649.

Vedder, R. G. − Vanecek, M. T. − Guynes, C. S. − Cappel, J. J. (1999) CEO and CIO perspectives on competitive intelligence. *Communications of the ACM*, Vol. 42 (8), 108−116.

Verhoef, P. C. − Broekhuizen, T. − Bart, Y. − Bhattacharya, A. − Qi Dong, J. − Fabian, N. − Haenlein, M. (2021) Digital transformation: A multidisciplinary reflection and research agenda. *Journal of business research*, Vol. 122 (1), 889-901.

Viviers, W. − Saayman, A. − Muller, M. L. − Calof, J. (2002) Competitive intelligence practices: A South African study. *South African journal of business management*, Vol. 33 (3), 27−37.

Viviers, W. − Saayman, A. − Muller, M. L. (2005) Enhancing a competitive intelligence culture in South Africa. *International journal of social economics*, Vol. 32 (7), 576−589.

Wright, S. (2010) Capitalising on intelligence: converting input to output to insight and competitive advantage. *Journal of strategic marketing*, Vol.18 (7), 517−521.

Zwerenz, S. (2020) The linkage between competitive intelligence and competitive advantage in emerging market business: A case in the commercial vehicle industry. *Journal of Intelligence Studies in Business*, Vol. 10 (3), 38−62.

Appendices

Appendix 1 Explanation of the use of AI

I used Microsoft copilot AI to improve my table of contents 30.1.2026. I used prompt “how to improve my table of contents”. However, the current table of contents have changed a lot from that version. The current table of contents has been structured without any help of AI.