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Competitive intelligence as a game changer for Africa's competitiveness in the global economy

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Stevan Dedijer 1911-2004

Competitive intelligence as a game changer for Africa's competitiveness in the global economy

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ABSTRACT This article presents a "competitiveness intelligence" conceptual framework developed from a literature review for adaptation by African countries to improve their competitiveness in the global economy. The role of competitive intelligence in national competitiveness has been shrouded with a lot of controversy in this era of trade liberalisation, globalisation and the fourth industrial revolution. We see Africa's poor performance in the global competitiveness rankings. Research findings, however, show a positive nexus between competitive intelligence and competitiveness, though not much is known pertaining to Africa. The presented conceptual framework will, however, act as a catalyst for the adoption of competitive intelligence by African countries to improve their performance in the global economy. This article is of great importance to policymakers, researchers and academia. Furthermore, given the history and importance of competitive intelligence in economic development, the conceptual framework has the potential to inspire many African countries through subsequent adaptions.

KEYWORDS Africa, competitive intelligence, competitiveness, global economy

1. INTRODUCTION

The role of competitive intelligence in the global economy has attracted a lot of controversy and attention from researchers, policy makers and intelligence professionals. Some have taken competitive intelligence (CI) to mean business or economic espionage. Dishman and Calof (2008) and Casado-Salguero and Jiménez-Quintero (2016) cited by Salguero et al. argue that CI is based on the environmental school of strategic management and plays a very important role in the development and deployment of both national and corporate strategies. Colakoglu (2011) argues that people must not confuse CI with economic espionage. Richardson and Luchsinger (2007) cited in Colakoglu (2011) state that "economic espionage is unlawful and unethical while CI is legal and associated with

a detailed code of ethics." To Bisson (2014), the scope of CI goes beyond entities, as new forms of territorial governance must include tools and methods of CI to optimise the creation of knowledge and intelligence. François (2008) and Moinet (2009) cited by Bisson (2014) argue that this is defined as territorial CI.

According to Barnea (2013), for many years, intelligence capabilities have been recognized as one of the basic skills of a state, while decision-makers demand quality intelligence on which they can depend. To Juhari and Stephens (2006):

"CI has become an indispensable part in strategic decision-making aspect of [companies] and nations. As history has shown, intelligence engagements have always been the forefront of military

processes, where country leaders and high ranking government officials 1180 intelligence to make crucial decisions for political sovereignty, protection of countries their people, for creating and and maintaining strategic alliances and for predicting the future of their countries. It is apparent that the purposes for intelligence use in governing a nation are parallel to managing a business, where CI has a significant role in business survival, in maintaining relationships with other businesses, counterintelligence, short-term and long-term aims and objectives."

With the advent of globalisation, a term that was introduced in the 1980s, the role of intelligence becomes more visible and is strengthened by the increase in competition among nations. To Afzal (2007), globalisation simply means growing integration of national economies, openness to trade, financial flows, foreign direct investment and the increasing interaction of people in all facets of their lives. It further implies the internationalisation of production, distribution and marketing of goods and services.

Globalisation brought with it both benefits and detriments. To Todaro and Smith (2003), globalisation presents new possibilities for eliminating global poverty and globalisation can benefit poor countries directly and indirectly through cultural, social, scientific and technological exchanges as well as trade and finance. Some very important low-income countries like India and China have used globalisation to their advantage and have succeeded in achieving enviable economic growth rates and thus reducing some international inequalities (Afzal, 2007). Dollar and Kraay (2004) note that over half of the developing countries that have embraced globalisation have benefited tremendously through increased trade and tariffs reduction. Globalisation has also played a critical role in poverty reduction through the integration of economies. It has also helped improve the competitiveness of nations.

Opponents, however, argue that globalisation has worsened inequalities both across and within countries. This has caused serious competition across and within countries with developed countries dominance establishing over poor and developing nations. The effects are seen in environmental degradation, climate change and ballooning national debts. Streeten (1998)

observes that economic liberalisation. technological changes, and competition in both labour and product markets have contributed to economic failure, weakening of institutions and social support systems, and erosion of established identities and values. To Afzal (2007), globalisation has been bad for Africa and in many parts of the world for employment as international competition is forcing both governments and firms to 'downsize' and to adopt all necessary steps to save labour costs. These negative effects of globalisation might be a result of many factors affecting governments' decision making processes, one of which includes lack of actionable intelligence critical in competitive environments. This argument is supported by authors such as Lee and Karpova (2018), who state the importance of actionable intelligence in determining a country's competitiveness in the new global arena. The lack of CI in many African countries may therefore contribute to the negative effects of globalisation as pointed out by Afzal (2007).

Organisations such as the World Economic Forum (WEF), International Institute for Management Development (IMD) and the International World Bank's Finance Corporation (IFC) have provided national economic metrics since the 1970s. For example, the WEF provided frank overviews of nations' competitiveness. These measurements have spurred robust debates among policymakers. the WEF introduced a new Recently. methodology that strengthens the importance of the role of human capital, innovation, resilience and agility. This is in context with technological changes espoused by the Fourth Industrial Revolution (FIR). Despite years of positive talk about Africa's economic growth, Africa's performance leaves much room for improvement as shown by competitiveness indexes. For example, the global competitiveness index (GCI) shows Africa's diverseness at the bottom of the rankings. Among the 148 economies covered by the WEF survey, Mauritius is 49 and South Africa 67, barely in the top half of the ranking. It is argued that the root causes of slow growth and inability to leverage on new opportunities offered by the FIR continue to be the old developmental issues such as institutions, infrastructure, culture and skills among many other factors. Much attention is required on basic factors such as health, skills, good governance and financial prudence. Africa, on average, is the worst region across all 12 pillars of competitiveness as measured by the WEF's

GCI, with major weaknesses in the basic enablers or drivers of competitiveness such as security, rule of law, red tape and corruption. Of particular concern also is the unsustainable level of public debt, with the average public debt-to-GDP ratio, for example, in sub-Saharan Africa, increasing from 32.4% in 2014 to 45.9% in 2018.

Despite these traditional weaknesses, CI can still play a critical role in the continent's future, leveraging on the continent's resource base, growing population young and technological advancement of the FIR. It is the centrality of knowledge and actionable intelligence in decision making and policy formulation that places Africa in a position that requires the embracement of CI to enhance its competitiveness in the global economy. To date, only South Africa and Nigeria have taken a serious stance in embracing the concept of CI through opening the SCIP's chapters. This is a commendable move towards competitiveness, though certain quarters feel that SCIP is an American influence. However, this can be adopted with certain amendments to suit the African context. In recent years, information and knowledge have become two important elements in decision making at both corporate and national levels. Informed decisions are critical in resource allocation, production and marketing. Theories such as competitive advantage theory (Porter, 1990), comparative advantage theory (Krugman and Obstfeld, 2000) and the new growth theory (Romer, 1986 and Krugman, 1990) will be utilized in this study as they have proved to be critical in national competitiveness. Lee and Karpova (2018) argue that, in the new global environment, knowledge becomes a central factor in determining competitiveness.

The purpose of this article is to develop a conceptual framework that enhances Africa's competitiveness as a continent in the global family of nations leveraging on its untapped natural resources, human capital intelligence, young population and vast virgin lands. To help construct this framework, CI and competitiveness indicators will be complimented by expert opinions and current research findings as explained in the methodology section below. What needs to been seen is whether embracing CI will help Africa achieve its 2063 seven aspirations for socioeconomic transformation or if there are other factors that are critical in addressing Africa's challenges at the global level. The remainder of the article is divided into four sections.

2. LITERATURE REVIEW

2.1 Definition of terms

In his article entitled, "Competitive Intelligence and Firm Competitiveness: An overview," Alexander Maune (2014) provides an in-depth analysis and definitions of the terms competitive intelligence (CI) and competitiveness. A number of definitions have been provided by a number of different authors and this article will be guided by the following definitions taken from the above-mentioned article.

Pellissier and Nenzhelele (2013) define CI "as a process or practice that produces and disseminates actionable intelligence by planning, ethnically and legally collecting, processing and analyzing information from and about the internal and external or competitive environment in order to help decision-makers decision-making and to provide in ล competitive advantage." This definition is in line with Casado-Salguero and Jiménez-Quintero (2016) cited by Salguero et al. (2017) who define CI as "a set of practices aimed at gathering information from the business environment ethically and legally, in order to transform it into intelligent information useful for strategic decision-making and, therefore, leading to business success and survival." To Barnea (2013) CI has its roots from national intelligence that involves secret state activities to understand or influence foreign entities. Barnea (2013)further argues that, governmental decision-makers are aware that intelligence is an important and often critical tool to the national decision-making process. To him CI is based on the "intelligence cycle" (www.cia.gov, 2013 and Omand, 2010).

CI adopted the discipline of national intelligence and applies it to its needs, with necessary modifications. According to Field Manual [FM] 34-3 (1990), CI operations follow a four-phase process known as the intelligence cycle. The intelligence cycle is oriented to the mission (FM 34-3, 1990); this can be for the country or organisation. The FM 34-3 (1990) reports that, "Supervising and planning are inherent in all phases of the cycle. The intelligence cycle is continuous. Even though the four phases are conducted in sequence, all are conducted concurrently. While available information is processed, additional information is collected, and the intelligence

staff is planning and directing the collection effort to meet new demands. Previously collected and processed information (intelligence) is disseminated as soon as it is available or needed."

Competitiveness is defined in Maune (2014a) as the abilities of individual firms, or whole sectors, regions and even countries to successfully assert themselves in the domestic and global market. It is not only a result of entrepreneurial activity of individual firms, but also a result of an appropriate structural policy, functioning competitive policy and adequate infrastructure. Competitiveness is also seen a multidimensional concept that refers to the ability by nations, industries, and firms to create sustainable competitive advantages in the global market. Globalization of markets has created the need to enhance companies' and countries' competitiveness more rapidly hence the call for the adoption of CI. This is in line with arguments by Romer (1986) and Krugman (1990) who in the new growth theory propose that knowledge significantly increases production output in an industry, even with the same amount of traditional inputs, such as labour and capital. Subsequently, the industry competitiveness increases substantially, especially in highly sophisticated sectors. However, since CI is about how to gather and analyse information and this is predominantly done through the internet with the help of software, Africa is at a great disadvantage due to poor or lacking internet access and connectivity.

2.2 Global overview of the role of competitive intelligence on competitiveness

Theoretical debates have generally focused on the increasing roles and functions of CI on competitiveness. CI plays an intermediation role between economic development and its factors. According to Rouach and Santi (2001), "CI's benefits were long understood in the states of pre-modern Germany." Rouach and Santi (2001) further argue that "more modern German intelligence grew in the 18th century, and by scouting the European Continent the Germans discovered they could compete with British and French firms by applying foreign scientific advances to their own industrial processes." Because of that, the Germans rapidly developed their own base of education and research that was used as a foundation for technological innovation (Rouach and Santi, 2001).

Rouach and Santi (2001) state that "Japan was also early endowed with a grasp of the importance of CI." To Rouach and Santi (2001), Japan and intelligence have grown hand-inhand. Information serves as the axis and central structural support of the nation's companies." Herring (1992) in Fleisher and Wright (2009) comments "that Japanese corporate CI capabilities are well developed, benefiting both commercial and governmental programs, which in turn support Japan's international competitiveness." To Fleisher and Wright (2009), Kahaner (1996) observes that "CI has had a significant influence in the country's prosperity and claims; 'it is their absolute and unbending belief in CI as a strategic corporate tool to make the best decision possible. CI is the secret to their continued success." Søilen (2017) argues that "Japan and Sweden are mentioned as examples of countries that do take this discipline seriously."

Kahaner (1996) cited by Global Intelligence Alliance [GIA] (2004) provides the following arguments regarding the impact of intelligence:

"The impact of intelligence operations is indirect, just like in advertising, when the decision-maker does not know which part of the budget is actually responsible for the profit. Similarly, there is usually no direct causal relationship between revenues and the money spent on a particular piece of intelligence. Therefore, it may be difficult to justify intelligence expenditures to top management. One way of looking at the gains is to evaluate how much money the company has lost by not having effective intelligence. Even so, it is difficult to prove that a lost deal or a late product launch was in fact due to inaccurate information about the competitors' actions or customer preferences."

According to Prescott and Bhardwaj (ref. Herring, 1999) cited in GIA (2004) argue that, "the benefits of CI are directly identifiable, although there are no quantitative measures to support this. An improved market position and improved revenue/profits are not directly identifiable since they are 'uncertain effects." These benefits fall into the category of bottomline measures, which are usually the most commonly requested.

Fleisher and Wright (2009) cite Chao (1998) and Tao and Prescott (2000) who state that "...Chinese leaders have considered intelligence as a useful means of helping the country to overcome its relative isolation from other economic and global trading systems." Fleisher and Wright (2009) further state that "Tzu made the case for intelligence as a key element of warfare when he wrote, 'know the enemy and know yourself; in a hundred battles you will never be in peril. When you are ignorant of the enemy but know yourself, your chances of winning or losing are equal. If you are ignorant of both your enemy and yourself, you are certain in every battle to be in peril".

Du Toit and Strauss (2010) cite Viviers et al. (2005)that who argue the business environment in Africa is highly complex thereby affecting the competitiveness of the continent. Trade liberalisation and globalisation have exposed Africa to foreign competition. Du Toit and Strauss (2010) opine that "trade liberalization and globalisation together with the problems posed by fluctuating financial markets and unstable political conditions call for effective CI practices." To Du Toit and Strauss (2010), no nation can develop and compete without adequately organizing its CI. Du Toit and Strauss (2010) further state that, "CI as a business discipline has formed an integral part of efforts to enhance the competitive behavior of African companies and society as a whole. Entry into the global economy requires highgrade CI." Du Toit and Strauss (2010) state that "CI has long been acknowledged as a strategic management means to improve competitiveness." CI becomes critical in decision processes and making policy formulation. According to Sewdass and Toit (2014), "CI has a positive impact on economies and on the quality of lives of citizens."

The current information/knowledge generation has placed CI at the centre stage for competitiveness and economic growth. Previously, factors such as capital, labour and natural resources were traditionally considered as the only factors that matter for economic growth. Maune (2014b) argues that, the emergence of the internet and online databases have offered an almost inexhaustible supply of information that has caused information overload in many instances.

Calof and Skinner (1999) in Maune (2014c) argue that a country is likely to underperform without an appropriate CI infrastructure. They further state in Sewdass and Toit (2014) that, "countries such as France, Sweden, Japan and

Canada have recognized the value of government and industry working jointly in the development of an intelligence culture." According to Sewdass and Toit (2014), "the new paradigm in development economics is based on self-analysis, self-reliance and self-renewal, would which seem to necessitate ล development-orientated intelligence policy in a country." Pellissier and Kruger (2011) cited in Sewdass and Toit (2014), opine that "utilising CI enables companies in developing countries to gain a greater market share and to compete successfully against international competitors." The implementation of CI contributes to the generation of FDIs in developing countries through value addition and beneficiation given the natural resources that are in abundance. Maune (2014a) and Maune (2015) state that "reliable global information has become central to national success, whether the need is for knowledge of an industry, a market, a product or a competitor." CI is now at the cutting edge of competition, survival and growth of economies (Maune, 2014b).

Degerstedt (2015) argues that "the objective of CI is to understand how the surrounding competitive environment will impact an organization – by monitoring events, actors, trends, research breakthroughs, and so forth – in order to be able to make relevant strategic decisions." A major trend in the world today is the increasing competition in global and digitalized markets where the speed of change and innovation is becoming faster than ever before due to developments in information technology (Degerstedt, 2015). CI provides a better understanding of the dynamic global world. However, Søilen (2017) argues that new technology is also a threat to companies as today, when every individual is a potential spy. He further argues that corporate espionage has also become a big problem with its consequences still underestimated.

2.3 Competitive intelligence and competitiveness in Africa

Literature shows that limited research has been conducted on CI and competitiveness in Africa. The state of CI remains fragmented in Africa. With the exception of South Africa and Nigeria that have managed to establish SCIPs chapters, nothing much is taking place in other domains in the African continent regarding CI. A SCIP chapter was launched in SA in the mid-1990s and, albeit slowly, companies are becoming increasingly competitive minded. Until that time, research into CI in South Africa had also been limited. The first comprehensive research projects [in Africa] were launched in the beginning of the century in South Africa. Before that, only a few papers were written on CI (Viviers and Muller, 2004 in Viviers et al., 2005). Du Toit and Strauss (2010) in Maune (2015) state that as a result of factors such as history, culture, diversity, geography, and political and institutional landscape, the business environment in Africa is highly complex, and this has affected its competitiveness in the global economy.

Maune (2015) argues that, for CI to flourish in Africa and for the discipline to be implemented and used optimally, there has to be an appropriate awareness of CI and a culture of competitiveness. Du Toit and Strauss (2010) point out that African society also tends to favour collectivist. Collectivism, in contrast with individualism, refers to a society, in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty (Mersha, 2000). Without proper empirical evidence of CI as a source of competitiveness, awareness and attitudes that favour both CI and information sharing, it is difficult to develop CI programmes within the African continent (Du Toit and Strauss, 2010). Research shows that South Africa and Morocco have taken greater strides in in designing national competitive intelligence systems. There has been a number of studies that have been carried out in South Africa, in particular on CI practices, showing how the concept has been developed in that country in comparison with other African countries.

Table 1 shows the poor performance of global African countries in terms of competitiveness rankings as given by the literature. This table helps in building a case the need to adopt competitiveness for strategies by African countries, through embracing CI. These figures are important for decision making and policy formulation as well as policy targeting by African countries to achieve sustainable growth and compete meaningfully in the global economy.

3. METHODOLOGY

The purpose of this article is to construct a 'competitiveness intelligence' conceptual framework that can be adopted by African economies. This article offers a conceptual framework based on a literature review. It uses grounded theory rather than description of data as stressed by Strauss and Corbin (1990). This is important for research in order to establish the exact focus of the study and its potential contribution. One of the aims of science is theory testing or building, as without thorough literature reviews it would be impossible to achieve this. The authors identified two major differences between theory and descriptions. This article was also informed by the procedures expounded by Jabareen (2009) in his study entitled, "Building conceptual framework: philosophy, This article definitions, and procedure." adopted the Wilsonian methods of concept analysis (Wilson, 1963, 1987). These are based on a philosophical design, a literature study and intellectual analysis without empirical (qualitative or quantitative) methods.

A literature review was conducted on some of the peer-reviewed and published journal articles on CI in Africa. To identify relevant literature and journals, academic databases and search engines were used. A review of references in related studies led to more relevant sources, the references of which were further reviewed and analysed. Keywords including 'competitive intelligence,' 'business intelligence,' 'tactical intelligence,' 'market intelligence,' *corporate* intelligence,' 'competitor intelligence,' 'social competitive intelligence,' 'technological intelligence," 'product intelligence,' and *'strategic* intelligence' were used in search engines to find relevant sources. To ensure reliability, peer-reviewed articles were manually reviewed. The researcher skimmed through the text of the journal articles first, checking whether it was relevant for the purpose of this research article. Reviewing data of existing journal articles was necessary to enhance the generalisability of the findings (Morse, 1999). The purpose of this review was to identify the contributions of research in advancing the understanding of the concepts that make CI. Criteria for inclusion of articles in the review included the following:

- Written in English
- Published in a peer-reviewed journal
- Cited CI concepts

In developing this conceptual framework, the researcher did not simply review and summarised some body of theoretical or empirical publications but also considered other conceptual resources for current knowledge, such as unpublished papers, dissertations in progress, and grant applications, as well as in the heads of researchers working in the field of CI as suggested by Locke et al. (2007). The researcher worked closely with advisors in the field of CI. The researcher also brought in ideas from outside the traditionally defined field of CI and integrated different approaches, lines of investigation, or theories that had no previous connections. The researcher's purpose was not only descriptive, but also critical. The researcher used literature not as an authority to be deferred to, but as useful but fallible sources of ideas about developments in CI. The researcher developed the framework to serve as the basis for understanding the causal or correlational patterns of interconnections across events, ideas, observations, concepts, knowledge, interpretations and other components of CI.

 $Table \ 1 \ {\rm Global \ competitiveness \ ranking, \ 2012-2019 \ for \ African \ countries. \ Source: \ Author's \ own \ compilation, \ constructed \ from \ literature \ specifically \ for \ this \ study.}$

Country	GCI 2019	GCI	GCI	GCI	GCI	GCI	GCI
	Rank /141	2018 Rank /140	2016/17 Rank /138	2015/16 Rank /140	2014/15 Rank /144	2013/14 Rank /148	2012/13 Rank /144
Morocco	75	75	70	72	72	77	70
Algeria	89	92	87	87	79	100	110
Tunisia	87	87	95	92	87	83	-
Egypt	93	94	115	116	119	118	107
Mauritius	52	49	45	46	39	45	54
South Africa	60	67	47	49	56	53	52
Rwanda	100	108	52	58	62	66	63
Botswana	91	90	64	71	74	74	79
Namibia	94	100	84	85	88	90	92
Kenya	95	93	96	99	90	96	106
Côte d'Ivoire	118	114	99	91	115	126	131
Gabon	119	-	108	103	106	112	99
Ethiopia	126	122	109	109	118	127	121
Cape Verde	112	111	110	112	114	122	122
Senegal	114	113	112	110	112	113	117
Uganda	115	117	113	115	122	129	123
Ghana	111	106	114	119	111	114	103
Tanzania	117	116	116	120	121	125	120
Zambia	120	118	118	96	96	93	102
Cameroon	123	121	119	114	116	115	112
Lesotho	131	130	120	113	107	123	137
Gambia, The	124	119	123	123	125	116	98
Benin	125	123	124	122	-	130	119
Mali	129	125	125	127	128	135	128
Zimbabwe	127	128	126	125	124	131	132
Nigeria	116	115	127	124	127	120	115
Madagascar	132		128	130	130	132	130
Congo, DRC	139	135	129	-	-	-	-
Liberia	-	-	131	129	_	128	111
Sierra Leone	-	-	132	137	138	144	143
Mozambique	137	133	133	133	133	137	138
Malawi	128	129	134	135	132	136	129
Burundi	135	136	135	136	139	146	144
Chad	141	140	136	139	143	148	139
Mauritania	134	131	137	138	141	141	134
Seychelles	76	74	-	-	-	-	-
Eswatini	121	120	-	-	-	-	-
Guinea	121	126	-	-	-	-	-
Burkina Faso	130	120	-	-	-	-	-
Angola	136	137	-	-	-	-	-

4. DEVELOPING THE "COMPETITIVENESS INTELLIGENCE" CONCEPTUAL FRAMEWORK

Trade liberalization and globalisation have exposed Africa to serious global competition. This has been a wakeup call for Africa to increase its competitiveness. Many suggestions have been tabled on how Africa can improve its competitiveness globally. This study has, however, resulted in the construction of a conceptual framework as a result of the confluence of CI and competitiveness. The conceptual framework in Figure 1 was developed out of this confluence and Figure 2 shows a more refined and straight-forward framework. CI is defined as a process or cycle in the literature section above and competitiveness is defined as the ability of a country (region, location) to deliver the beyond-GDP goals for its citizens today and tomorrow.

Although there are different theoretical approaches to the measurement of competitiveness, three well known indices include the Global Competitiveness Report prepared by the WEF, The World Competitiveness Yearbook prepared by the IMD and Business Competitiveness - Ease of Doing Business Report prepared by the IFC. These are all prominent and have been used to construct the "competitiveness intelligence" conceptual framework described herein. Owing to different definitions, indices and data sources these approaches use, rankings of competitiveness of countries are different, hence countries are encouraged to follow either one approach or to follow them concurrently. These approaches use a multitude of indicators-partly hard data, partly survey results-to assess the competitiveness of countries. This has the advantage of measuring a wide range of economic aspects, which potentially reduces measurement error and help cope with the complexity of the problem, such as differences in countries' starting position and socio-economic systems. Α disadvantage of "large indicator approaches" is that they sometimes lack a clear concept.

The reason why African countries must embrace CI is that very few seem to know themselves. For example, very few countries in Africa can quantify the amount of mineral resources they have. Very few keep up to date statistics that are critical for decision making and negotiating deals, for example, with investors. Investment in CI should be a starting point for many African countries and this should be embraced at a grassroots level. Educational programs need to address competitive intelligence issues especially in this era of big data analytics, artificial intelligence and connectivity. Calof and Viviers (2001) indicate that appropriate education about intelligence is the only way to develop correct attitudes towards CI, and that awareness of CI can be enhanced through responsible reporting of intelligence results by the media, associations and other opinion leaders, as was the case in Canada and the USA. They add that the most successful technique for stimulating CI within organisations is to conduct training sessions for each industry.

To cement the centrality of CI in achieving national competitiveness Lee and Karpova definition (2018)reformulate the of competitiveness. To Lee and Karpova (2018), "Competitiveness is an ability to achieve a high standard of living through productivity growth in the new global environment, where knowledge [CI] becomes a critical factor." Although macroeconomic fundamentals have been considered critical in explaining economic development trends, CI has long been acknowledged as a strategic management means to improve competitiveness (Viviers and Muller, 2004 and De Pelsmacker et al., 2005).

The Space Age, electronic, global village and the FIR era have seen the phantasmagoria of events, ideas, and images, exploding worldwide. This era has marked the dawn of a new reality, that is, truly global in its nature, snowballing with the enormity of its ideas and the velocity of its changes. The present era is even more accelerative, so much that countries need to embrace CI to remain competitive in the global economy. CI touches a number of fields and areas, including:

- Market intelligence,
- Competitor intelligence,
- Technological intelligence,
- Operational intelligence,
- Strategic intelligence,
- Product intelligence and
- Social competitive intelligence (Degerstedt, 2015)

Degerstedt (2015) states that a new term called "social CI" will be used to refer to any CI process, method or tool that is adapted for the

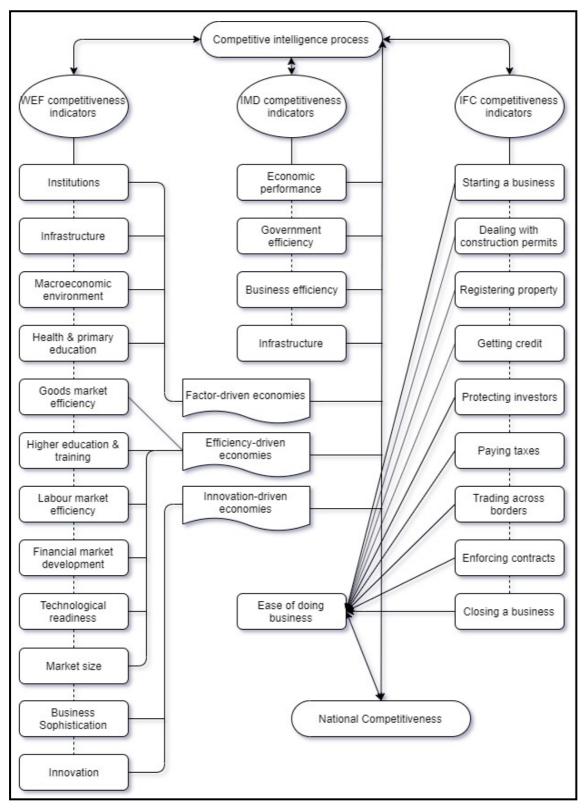


Figure 1 Competitiveness Intelligence conceptual framework. Created for this study from a literature review.

networking organization. Social CI relies on notions of enterprise 2.0 and wikinomics, using systemic principles such as openness, participation, individual freedom, democracy, self-organization, sharing and co-creation.

CI programs are generally project-oriented, going after knowledge to address or answer a specific question. Facilitators and teams are formed around key issues, and then let loose to find the key information that leads to the best strategic or tactical decision. CI identifies knowledge gaps and then goes out and fills them. CI has also been identified as critical in designing economic policy and programs (Calof, et al., 2015).

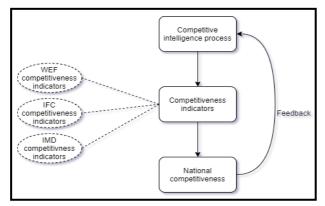


Figure 2 Simplified "competitiveness intelligence" conceptual framework. Created for this study from a literature review.

There is need for the continent to fully embrace CI so as to achieve meaningful and sustainable growth rates given the abundant natural resources as well as the intellectual capacity. CI must be the focal point in policy formulation and strategic planning within government structures. CI provides the foundation or starting point in policy direction and this is critical as it identifies the countries' strengths, weaknesses, opportunities and threats. The effort is worth investing as it gives government direction in resource allocation. The role of information in this technological era cannot be over emphasized, hence the need for governments to join hands with academia and the private sector to fully embrace CI towards economic growth and development. CI will help governments formulate sustainable policies that are growth oriented by providing the much-needed intelligentsia. Governments can make use of the available national and military intelligence resources or refocusing them towards economic development and growth. These institutions are well established and resourced with intellectual capabilities in a number of economic areas such as cyber technology, agriculture technology, artificial intelligence, FinTech and medicine. Innovative ideas and technologies must be seen emanating from these institutions. These institutions must be the source of start-up companies as well as spillovers to the corporate sector, and creating synergies with academia and the private sector.

A well-designed system of CI can help nations in the strategic planning process, as well as in determining the intent and ability of their competitors in the global economy, and also determine the extent of the risks to which they may be exposed to. Although organisations and countries are well aware of the methodologies and tools of CI, it is not possible to transpose them directly to a developing country, as careful analysis of the CI cultural context must be undertaken to understand the existing business culture. This was the conclusion by Dou and Manullang (2004) in a research study on CI and regional development in Indonesia.

African countries must emulate innovative approaches from countries such as Israel to grow their economies in a sustainable manner. There must be a confluence between private sector, government and academia for African countries to develop and compete meaningfully in the global economy. Africa must also create an environment that promotes innovation and creativity through establishing technological hubs, venture capital markets and tolerance to failure. CI growth in Africa must be promoted through academic development (courses and research), corporate activity (exporting firms) and government activities.

For example, the Canadian government has come up with three broad programs to develop CI (Calof, 2016). A program aimed at enhancing its own ability to develop CI, a program for industry and others to develop CI as well as a program to help communities develop CI for local economic development. A review of these programs shows the positive economic impact of CI. The following are some of the programs that can promote CI:

- Training initiatives and creating intelligence units,
- Sponsoring industry and others to develop CI (joint projects between government, academia and business working together to develop CI),
- Sponsoring communities to develop CI or local economic development,
- Joint intelligence assistance. for example, French government CI assistance companies to and associations through the chamber of commerce (Bisson, 2014) and in Israel where military, academia and business have come together in the Negev desert to develop a cyber-city (Nakashima and Booth, 2016).

Another example is Sweden, which for the last several decades has shown a great increase in the interest in intelligence as a topic. Hedin (2004) argues that this interest has come from the government, from associations, from universities and from companies and organizations that have seen a greater need for CI. These developments in modern Swedish CI

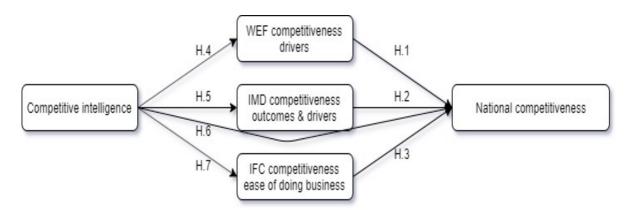


Figure 3 Proposed research model and hypotheses. Created for this study from a literature review.

have led to a mature and competitive CI industry in comparison to that of other European countries. As of 2004, intelligence education and training was offered by no less than nine universities, five colleges, four private companies and five governmental institutions (Hedin, 2004). In Sweden, all men are required to participate in military service for a period of 9-18 months. Intelligence and communication were then two topics that were taught. Since it is obvious from a military perspective that it is virtually impossible to act properly without good intelligence, this lesson has been learned by many that later continued with a career in business (Hedin, 2004). This has helped shape the CI industry in Sweden in a greater way.

Information or intelligence has proven to be a critical factor in economic growth the world over. Hughes (2005) argues that in order for an organization or country to be competitive, a successful strategy to locate itself in the market is vital. He further argues that CI is a tool to increase competitiveness hence the arguments by Viviers et al. (2005), that countries must inculcate cultures that value information and intelligence, in their response to why Europe and Asia are the leaders in CI. To Du Toit and Strauss (2010), hardly any nation can develop and compete without organizing its adequately information infrastructure and Africa suffers from poor institutional infrastructure-physical, and procedural.

Intelligence had been in use since the Exodus of Egypt when Moses sent the 12 spies to the Land of Canaan, the Promised Land (Torah, Numbers Chapter 13). Many countries made use of intelligence during and after World War II to industrialize through economic espionage, which has been proven to be illegal. Since then, CI has been developed to gather critical intelligences in a legal and more

"competitiveness The acceptable way. intelligence" conceptual framework will be critical in influencing policy formulation, implementation, as well as policy targeting through provision of the much-needed critical intelligentsia. This conceptual framework will also help trigger debate and further future research on the role of CI in national competitiveness, especially in Africa. Although theoretically CI is argued to influence competitiveness, very few empirical studies have been done to test and determine the direction of this relationship. Therefore, as much as there is theoretical evidence supporting the positive relationship between CI and competitiveness there is need to test empirically this relationship. The proposed hypotheses will go a long way in providing such evidence.

The researcher proposes to follow a simplified research model and hypotheses (Figure 3), derived from the literature review, for the purposes of future research:

Hypothesis 1 (H1). WEF competitiveness drivers have a positive effect on national competitiveness.

Hypothesis 2 (H2). *IMD outcomes and drivers have a positive effect on national competitiveness.*

Hypothesis 3 (H3). *IFC ease of doing business has a positive effect on national competitiveness.*

Hypothesis 4 (H4). CI has a positive effect on WEF competitiveness drivers.

Hypothesis 5 (H5). CI has a positive effect on IMD competitiveness outcomes and drivers.

Hypothesis 6 (H6). *CI* has a positive effect on national competitiveness.

Hypothesis 7 (H7). *CI has a positive effect on IFC ease of doing business.*

A model constructed on the basis of the variables and hypotheses described above is expressed in Figure 3. This model will help identify the factors that influence national competitiveness through CI, in addition to analyzing how these factors are interrelated. This relationship can be analysed through structural equation modelling in R.

5. CONCLUSION

In this article the researcher started with a brief background of CI and competitiveness as well as defining these two concepts. The influence of trade liberalization, globalisation and the FIR was also assessed in the context of competitiveness. Measurements of competitiveness as given by institutions such as the WEF, IFC and IMD were also taken into consideration as these were critical in tracing Africa's performance globally. Theories such as the new growth theory by Romer (1986) and Krugman (1990) were also looked at and their role in influencing CI adoption. Lee and Karpova's (2018) argument on the centrality of knowledge in national competitiveness formed the backbone of this article. Research also shows that CI adopted the discipline of national intelligence and applies it to its needs, with necessary modifications.

CI The global overview of and competitiveness was also taken into consideration, tracking it back to the Chinese fighting their isolation from other economic and global trading systems as provided by Chao (1998) and Tao and Prescott (2000). Japan and some European countries were also analysed in the theoretical review. Arguments by researchers such as Calof and Skinner (1999), Rouach and Santi (2001), Fleisher and Wright (2009), Sewdas and Toit (2014), Degerstedt (2015) and Soilen (2017), among others, were considered in building the case for the development of the conceptual framework for adoption by African countries. Reasons as to why countries need CI now more than ever were also given.

The article also provided a brief background analysis of CI and competitiveness in Africa with Table 1 denoting the GCI for African countries performance rankings from 2012 to 2019, taken from WEF's global competitiveness reports. Arguments by Viviers and Muller (2004), Du Toit and Strauss (2010) and Maune (2015) that the business landscape in Africa is highly complex due to its historical, cultural, diversity and political factors were noted as these had seriously affected Africa's competitiveness globally.

A brief methodology informed by a literature review was presented and data was gathered for the construction of the "competitiveness intelligence" conceptual framework as presented in Figure 1 and Figure 2. Section four of the article presents the development of the conceptual framework and some analysis.

The researcher recommends the adoption of other research methods to measure the impact of CI on competitiveness in Africa as the field of CI has proved critical in influencing economic growth and development in developing countries. Commentators, knowledge management experts and intelligence researchers, that is, business and competitive intelligence alike, are always looking for better ways of doing things through intelligence. The following will be areas that can stimulate future academic research: the impact of CI on economic growth in Africa, big data and CI in developing countries, CI, AI and unstructured data (social media intelligence) in Africa, intelligence and policy – the evolving relationship and intelligence community and policy-maker integration. Also crucial to the adoption and implementation of CI is the three-legged approach to the embracement of CI towards economic growth and development, that is, the confluence of government, academia and the private sector. CI is critical as was stated in literature in providing economic solutions to challenges facing Africa as it moves ahead with its Agenda 2063. Some of these challenges, if not all, are due to lack of actionable intelligence.

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