


## Chapter 5

# Analyzing the Evolution From Intellectual Capital to Green Intellectual Capital: A Literature Review

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### ABSTRACT

*Knowledge plays a fundamental role in the achievement of business success. This has led to the intensification of the study of the set of intangible assets of the organization called intellectual capital (IC) as well as its impact on the achievement of sustainable competitive advantages over time. Moreover, IC that incorporates sustainable aspects (i.e., green intellectual capital [GIC]) was only recently introduced in the academic literature and has since become an emerging field of study. The lack of consistency in the terminologies used has made it difficult to establish clear measurements of intangibles, especially of the dimensions of IC, which have posed an additional difficulty in advancing this area of knowledge. To overcome this research problem, the authors analyze the origins and conceptualization of IC and GIC, trying to shed light on the field of study by answering the following questions: (1) What are the origins of IC? (2) How is IC defined? (3) What are the origins of GIC? (4) How is GIC defined?*

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## **INTRODUCTION**

In this new millennium, information and knowledge play a preponderant role in society. This has led to substantial changes in the way we understand reality. Strategic management is also facing the challenge of managing knowledge in organizations, which is why research in this area has taken an important turn towards the study of intangibles and their impact on obtaining sustained competitive advantage, because although it has long been recognized that economic prosperity rests on knowledge and its useful application, the emphasis on the latter is relatively new (Alvino et al., 2020).

The interest in studying intangibles, also known as Intellectual Capital (IC), arises from their strategic value, which has been emphasized in the work of various academics. This recognition of intangibles is not new, if we consider that Penrose (1959) had already pointed out that the capacity to make assets perform better (he refers to management capacity) is the cause of a better competitive position and this capacity is an intangible resource. The fact of calling it “capital” refers to its economic roots, as it was described in 1969 by the economist Galbraith, as a process of value creation and an asset at the same time; a definition that highlights the dynamic aspect of IC, as he refers to it as a “process” (Galbraith, 1969).

In general terms, IC reflects intangible assets, such as: a company’s ability to learn and adapt to new trends in market economics and management, with an emphasis on Knowledge Management (KM) as the most significant act of value creation. This fact has had a special impact on economic organizations, as their success is increasingly related to the investment and management of their IC; hence the need to specify the specific role of knowledge and skills in the value creation process (Martín-de Castro et al., 2019). Additionally, IC that incorporates environmental aspects, Green Intellectual Capital (GIC), was introduced by Chen (2008), becoming an emerging field of study today (Yong et al., 2019). This concept emerged in the academic literature with the aim of emphasizing the importance of the environmental intangibles possessed by the organization in order to improve the organization’s competitive position.

However, as this is a relatively new field of research, there are still diverse views and no accepted or agreed position within the scientific and business community has yet been identified (Bellucci et al., 2020). Correspondingly, interest in these issues is growing in the business community and definitions of IC and GIC have been developed to serve as a basis for future research related to their identification and measurement (Demartini & Beretta, 2020). Two of the most important problems in intangibles research are the lack of a common terminology and the underdevelopment of measurement scales for the constructs associated with intangibles (Garanina et al., 2021). It is quite common for each author to try to build a theory of intangibles from scratch, creating new definitions, introducing new dimensions of intangibles and intellectual capital, and trying to impose their own terminology (Bontis, 2001). This fact hinders the accumulation of knowledge, and justifies the little progress that has been made in the last twenty years in building a theory of intangibles in organizations (Gallego et al., 2020). The lack of consistency in the terminologies used has made it difficult to establish clear measurements of intangibles, especially of the dimensions of intellectual capital, which has posed an additional difficulty to progress in this area of knowledge. The objective of the present research is therefore to analyze the origin and conceptualization of IC and GIC, trying to answer the following four research questions: (1) What are the origins of IC? (2) How is IC defined? (3) What are the origins of GIC? (4) How is GIC defined?

In order to answer the following research questions, the study is structured as follows. After this brief introduction, Section 2 presents the research methodology, Section 3 the results, and finally, Section 4 the main conclusions, limitations and future lines of research.

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