

## SUSTAINABILITY AND KNOWLEDGE MANAGEMENT: AUTHORSHIP PROFILE AND THEMATIC ANALYSIS OF THE KM BRASIL PUBLICATIONS FROM 2002 TO 2016

SUSTENTABILIDADE E GESTÃO DO CONHECIMENTO: PERFIL DE AUTORIA E ANÁLISE  
TEMÁTICA DAS PUBLICAÇÕES DO KM BRASIL NO PERÍODO DE 2002 A 2016

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**ABSTRACT**

The documents published in the electronic records of KM Brasil, corresponding to the thirteen editions of the event, from 2002 to 2016, are analyzed with a focus on sustainability. The objective is to identify the breadth of the sustainability theme, the authorship profile and the thematic diversity, within the framework of the discussions related to knowledge management, from the historical basis of KM Brazil, the biggest event of the theme in Latin America. The theoretical foundation presents a brief characterization about knowledge management and sustainability. The descriptive study is characterized by a quantitative-qualitative approach, using bibliometric techniques, mainly through descriptive statistics, complemented by a content analysis. The quantitative analysis initially covered 605 documents, focusing later on the 18 articles that presented the theme sustainability in the title and / or keywords, and the qualitative analysis is restricted to these 18 articles. Among the results, we highlight the occurrence of 54 authors who published on the subject of sustainability, with prevalence of authorship of the masculine gender, collective, with academic link and performance in the public sector; in addition to 42 subjects and 18 foci related to sustainability and knowledge management. It is concluded that, despite the large number of participants in the business market, there is a considerable predominance of the academy in the studies on sustainability, and that the number of 18 documents on sustainability is not very representative in relation to the total of the 605 publications that make part of the historical basis of KM Brazil.

**KEYWORDS**

Bibliometry. Knowledge management. Sustainability. Scientific production.

**RESUMO**

Analisam-se, com foco no tema sustentabilidade, os documentos publicados nos anais eletrônicos do KM Brasil, correspondente às treze edições do evento, no período de 2002 a 2016. Tem-se por objetivo identificar a amplitude do tema sustentabilidade, o perfil de autoria e a diversidade temática, no âmbito das discussões relacionadas à gestão do conhecimento, a partir da base histórica do KM Brasil, o maior evento do tema na América Latina. A fundamentação teórica apresenta breve caracterização sobre gestão do conhecimento e sustentabilidade. O estudo descritivo caracteriza-se por uma abordagem quanti-qualitativa, com utilização das técnicas da bibliometria, sobretudo, por meio de estatística descritiva, complementada por uma análise de conteúdo. A análise quantitativa abrangeu, inicialmente, 605 documentos, concentrando-se, posteriormente, nos 18 artigos que apresentaram o tema sustentabilidade no título e/ou nas palavras-chave, sendo a análise qualitativa restrita somente a estes 18 artigos. Dentre os resultados, destaca-se a ocorrência de 54 autores que publicaram sobre o tema sustentabilidade, com prevalência de autoria do gênero masculino, coletiva, com vínculo acadêmico e atuação no setor público; além de terem sido identificados 42 assuntos e 18 focos relacionados à sustentabilidade e à gestão do conhecimento. Conclui-se se evidenciando que, apesar do grande número de participantes atuantes no mercado empresarial, há uma considerável predominância da academia na realização dos estudos sobre sustentabilidade e que a quantidade de 18 documentos sobre sustentabilidade é pouco representativa diante do total das 605 publicações que fazem parte da base histórica do KM Brasil.

**PALAVRAS-CHAVE**

Bibliometria. Gestão do Conhecimento. Sustentabilidade. Produção científica.

## 1 Introduction

Discussions on sustainability have been gaining more and more reach in business and government, society, and academia.

Companies are improving their management models in order to improve its practices in all aspects of sustainability - environmental, social and economic, adopting mechanisms that demonstrate a high level of ethics and transparency in their business, is the awareness of entrepreneurs, market reasons, regulatory impositions or consumer requirements.

Governments around the world are called upon to formulate legislation, public policies and development models that allow for progress in the present without compromising the future of the planet.

The society here more represented by NGOs, directs his reflections on the social and environmental impacts of economic growth, above all, the exploitation of human labor and degradation of natural resources, putting into question the quality of life of mankind and their own survival.

On the other hand, the academy acts in the development of studies of theoretical, technical and behavioral nature, related to the economic, environmental and social aspects of sustainability. It is proper for the academic environment to be a link between discussions of business and governmental interest and those of social interest. It is in this context that we sought to understand "How has the sustainability theme been addressed throughout the 13 editions of the Brazilian Congress of Knowledge Management (KM Brazil), considered the biggest event in Latin America?".

The event itself is presented as a locus conducive to the discussion of sustainability, since it is organized by the Brazilian Society of Knowledge Management (SBGC), a Civil Society Organization of Public Interest (OSCIP) engaged in the practice promotion and the development of knowledge management (KM), through the integration of private and public organizations, the third sector and academia.

It is based on the premise that there is a synergy between sustainability and knowledge management, since both deal with aspects related to the strategy of value creation and the development of organizations. The objective of this study is to identify the breadth of the

theme of sustainability, the profile of authorship and thematic diversity, within the framework of the discussions related to knowledge management, based on the historical basis of KM Brazil, a brief theoretical knowledge management and sustainability, a description of the method, results and conclusions.

## 2 Theoretical Reference

### 2.1 Knowledge Management

Knowledge management can be considered from different perspectives: focus on knowledge (tacit or explicit), capital (human, organizational, relationship), practices or strategy.

As this study seeks to understand the relationship between knowledge management and sustainability, the conceptual approach on knowledge management will also follow this relationship, focusing on strategy and, for this, using the resource-based view of the company (RBV, from the English resource-based view) and more specifically from the knowledge-based view (KBV).

The concept of knowledge management with a focus on resource management addresses the organization's ability to productively employ the resources it possesses in order to generate wealth and ensure its sustainability.

This capacity can be understood as "organizational competence," defined by Fernandes, Fleury and Mills (2006, p.49) as "a set of coordinated resources that generate value to the organization, are difficult to imitate, can be transferred to other areas, products or services of the organization, and impact organizational performance as a key factor to their success."

For Bierly and Chakrabarty (1996) the different performances between companies result from different bases of their knowledge and different capacities in the development and unfolding of this knowledge.

According to Sveiby (2001) a knowledge-based strategy formulation must begin with the competence of the people, understood by it as the primary intangible resource.

Knowledge is a primary resource for building the essential capabilities for generating sustainable competitive advantage. Organizations have already realized the need to manage

knowledge to stay competitive. Numerous benefits can be gained by a company that has an effective knowledge management process: share best management practices, accelerate innovation, organize available information, map individual competencies, retain talent, and facilitate the individual contribution of employees. (ROSA, 2012, p. 132).

Thus, the understanding of knowledge management is adopted from the concept of the APQC (2018), which defines it as "a systematic effort to allow information and knowledge to grow, flow and create value" that knowledge management "deals with the creation and management of processes to get the right knowledge, to the right people at the right time, and to help people share and act on information in order to improve organizational performance."

In this context, it reinforces the understanding that there is an interface between knowledge management and sustainability and that its study can contribute to the development of both themes.

## *2.2 Sustainability*

Sustainability is a term that expresses concern about the quality of the system that integrates man and nature and evaluates its properties and characteristics, covering the environmental, social and economic aspects (FEIL; SCHREIBER, 2017). Although this theme has been echoed in recent decades, we can say that it is not a recent movement, but an idea that has been maturing for at least three centuries (GROBER, 2007).

It relates to a long-standing issue in society: the scarcity of natural resources and their uncertain use. Around 1700, in Saxony, the mining industry kept thousands of people who were threatened, not by the exhaustion of the mines, but by the scarcity of wood. The ores smelter had consumed the surrounding forests and there was no effort to restore them. Wood prices have risen, leading to bankruptcy part of the mining industry.

Later on, as the progress of Western civilization reached its peak and the harmful effects of the Industrial Revolution emerged, the debate gained momentum in the face of the abusive use of natural resources and the growing perception that the pattern of production and consumption in the world could not last (NASCIMENTO, 2012). From 1713 to 1987, the idea of sustainability appears in several publications and discussions, although lacking consistent conceptualization.

There is no consensus in the literature about the origin and concept of sustainability in the context of development. According to Kidd (1992), the term sustainability was used associated with the development, for the first time, in 1974, in conferences on forest issues. For Barbosa, Drach and Corbella (2014) the origin and the concept of sustainability in this context are unknown. However, they point out that one of the first definitions emerged in World War I, as described by Lester Brown in the mid-1980s.

Shrivastava and Hart (1994) argue that the concept of sustainable development originates from Carson's 1962 *Silent Spring*. Officially, the most widespread version of the concept that integrates sustainability and development was inaugurated in the Brundtland Report in 1987: sustainable development is one that meets the needs of the present without compromising the possibilities of future generations to meet their own needs (CMMAD 1991).

But Feil and Schreiber (2017) warn that although this concept is the most cited in literature and has been credited to the World Commission on Environment and Development, the original idea is Evelyn (1664), who had the same essence, but with more emphasis on natural resources. They start from the term sustainable, as a kind of "umbrella", which shelters the idea of sustainability and sustainable development, based on the concern with the future existence of natural resources to enable the continuation of human life on the planet. However, they explain that the terms are not synonymous, since their attributes have different meanings and each one is related to a specific praxis. However, they converge towards the same goal and cannot be considered as isolated practices. "The attainment of the attributes of sustainability is a combination of the attributes of sustainability and sustainable development" (FEEL; SCHREIBER, 2017, p. 681). Hove (2004) clarifies the difference between the two concepts: sustainable development is access to achieve sustainability, which is the long-term goal.

It should be noted that sustainability is not a recent phenomenon and has its concept in constant reformulation, having derived or is related to several other concepts (BACHA, SANTOS; SCHAUN, 2010).

In addition to lack of consensus, there is a diversity of concepts, currents of thought, approaches and approaches in the literature. But there is also convergence, especially with regard to the quest to integrate economic viability, ecological prudence and social justice into the three dimensions of the Tripple Bottom Line, designed by Elkington (1999). The sustainability tripod, as it is also known, brings the idea that the three dimensions (economic,

social and environmental) must interact, holistically, so that the results of the organizations' actions are indeed sustainable (ALMEIDA, 2002).

Thus, this is an effort that must be made by the union of all stakeholders - society, market, academia, public power among others - locally, regionally, nationally and internationally.

### 3 Method

This is a descriptive study with a quantitative-qualitative approach. Quantitative research is characterized by bibliometric analysis, based on the documents published in the electronic records of KM Brazil, available on the SBGC website, except for the year 2006, whose documents were not available, and were obtained from the CD -ROM of the corresponding year. The analysis base was generated from February 2017 to May 2018.

We tried to identify the occurrence of a certain event and its frequency (considering the repetitions), adopting the data analysis analysis using descriptive statistics.

The general analysis consisted of the evaluation of all the documents published in the electronic records in the period from 2002 to 2016 and the specific analysis only of those related to the sustainability theme. Although the sustainability section is part of the KM Brasil programming grid structure, the specific analysis adopted the criterion of relevance, thus considering the documents that presented the term sustainability in the title or in the keywords, regardless of the section in which they were framed in the programming.

To analyze the documents, the following analysis model was adopted:

**Table 1.** Model of bibliometric analysis of Publications in KM Brazil (2002 - 2016)

TITLE	KEY WORD	YEAR	CATEGORY Article / Poster / Report)	RELATED TO SUSTAINABILITY (Yes/Not)	AUTHORS (Not identified, where applicable	AUTHORITY(In dividual / Collective / Unidentified) "	GENRE(Male / Female / Unidentified)	SCHOOLING(Inc omplete Undergraduate / Undergraduate / Graduate / Incomplete Master's Degree / Master's Degree / Incomplete Doctoral Degree / PhD / Post Doctoral Degree / Unidentified)	INSTITUTION NAME(Not identified where applicable	BOND(Mark et / Academy / Both /Not identified)	SECTOR(Public / Private / Third Sector / Unidentified)
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Source: own elaboration

Each document, included in the Electronic Proceedings of KM Brazil, from 2002 to 2016, was analyzed according to the categories in Figure 1. In cases in which it was not possible to identify the information, it was adopted "Not identified". As for the consistency of the data, the content divergence between the electronic records of the SBGC website and the CD-ROMs stands out.

Thus, we opted to analyze the documents made available from the SBGC website, institution responsible for the organization of KM Brazil. However, still in relation to the electronic records of the SBGC website, it is important to report other inconsistencies such as: variation in the identification of the same author, lack of identification of authorship, lack of identification of institutional link, lack of identification of schooling; identification of the authorship in the site other than the identification of the authorship in the document file, unavailability of files of documents listed on the site and absence of documents of the event of the year 2006.

Finally, in relation to the articles on sustainability, it was complemented by a qualitative research based on content analysis, in order to identify subjects related to sustainability and the specific focus of the documents, through thematic analysis, accompanied by a descriptive synthesis.

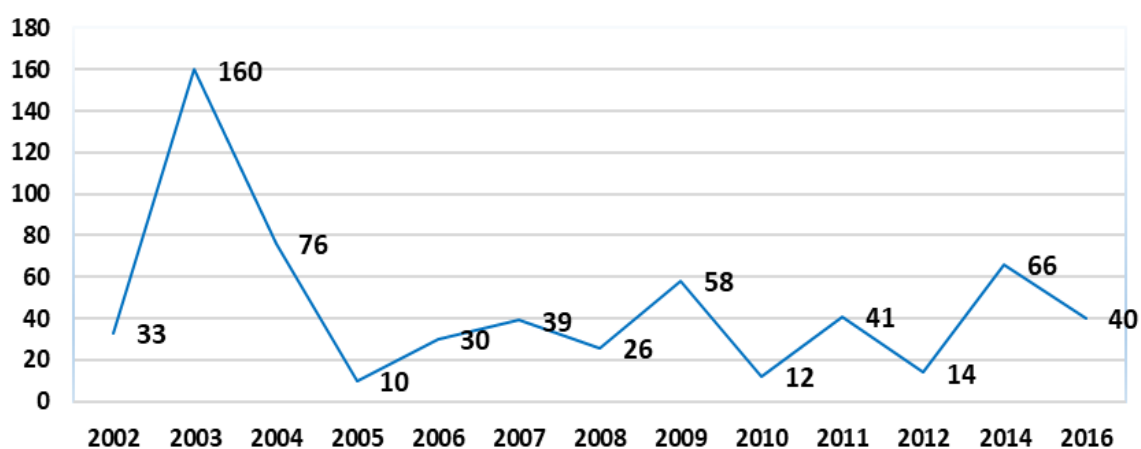


## 4 Results

### 4.1 General analysis

In the period from 2002 to 2016, 605 documents were published in the electronic records of KM Brazil: 574 articles, 17 posters, 7 technical reports and 7 unidentified articles, since the files are not available on the website. The highest point of publications occurred in 2003, when 160 articles were published.

**Graph 1.** Quantitative Evolution of Publications in KM Brazil (2002 - 2016)



Source: own elaboration

The general profile of the authors, considering all the publications, corresponds to the occurrence of 1,136 authors and a frequency of 1,619 (counting the repetitions), with prevalence of authorship of the masculine gender, collective, with academic link and performance in the public sector. An attempt was made to analyze the schooling of the authors, in an aggregated way, but due to the rare availability of the information in the analyzed documents, it was not possible to carry out such an analysis.

Of the 25 authors who published the most in KM Brazil in the period from 2002 to 2016 (those who had 5 to 14 publications) six dealt with sustainability. The 25 published collectively, one of which published both collectively and individually.

All 25 authors are linked to academia, 20 linked to public institutions (UFSC, CEFET-PR, UFPR, UTFPR, UNICENTRO-PR, UFES, UFRJ, UFCG, UFPB) and 5 linked to private institutions (UCB and PUC-PR and PUC-SP). The institutions that most published are predominantly from the Southern Region of Brazil.

The author who published the most in KM Brazil in the period from 2002 to 2016 was Faimara do Rocio Strauhs, with 14 publications, all collective, with a doctorate level of education and linked to CEFET-PR and UTFPR. None of its 14 publications addressed sustainability.

Of the 25 most published authors, 17 are male and 8 females; 17 have a doctoral degree, one doctorate incomplete and 7 have not had their education levels identified.

**Table 2.** Most published authors in KM Brasil from 2002 to 2016

AUTHORS	NUMBER OF PUBLICATIONS	NUMBER OF PUBLICATIONS ON SUSTAINABILITY
Faimara do Rocio Strauhs	14	0
Helena de Fátima Nunes Silva / Helena Nunes	13	0
Hélio Gomes de Carvalho	13	0
João Artur de Souza	11	1
Gertrudes Aparecida Dandolini	10	1
Aline França de Abreu	9	0
Gregório Jean Varvakis Rados	9	1
Neri dos Santos	9	1
Patrícia de Sá Freire	9	0
Cristiano José Castro de Almeida Cunha	7	0
Dálcio Roberto dos Reis	7	0
Edilson Fereda	7	0
Fernando José Spanhol	7	0
Paulo Maurício Selig	7	3
Roquemar de Lima Baldam	7	0
Denise Fukumi Tsunoda	6	0
Gesinaldo Ataíde Cândido	6	0
Neusa Maria Bastos / Neusa Maria Bastos F. Santos / Neusa Maria Bastos Fernandes Santos / Neusa Santos	6	0
Antonio Costa Gomes Filho	5	1
Carlos Olavo Quandt	5	0
Édis Lapolli/Edis Mafra Lapolli/ Edis	5	0

AUTHORS	NUMBER OF PUBLICATIONS	NUMBER OF PUBLICATIONS ON SUSTAINABILITY
Mafra Lapolli		
Eduardo Amadeu Dutra Moresi	5	0
Jano Moreira de Souza	5	0
Marcelo A. de Barros/Marcelo Alves de Barros	5	0
Renato de S. Oliveira/Renato de Salles Oliveira/ Renato S. Oliveira	5	0

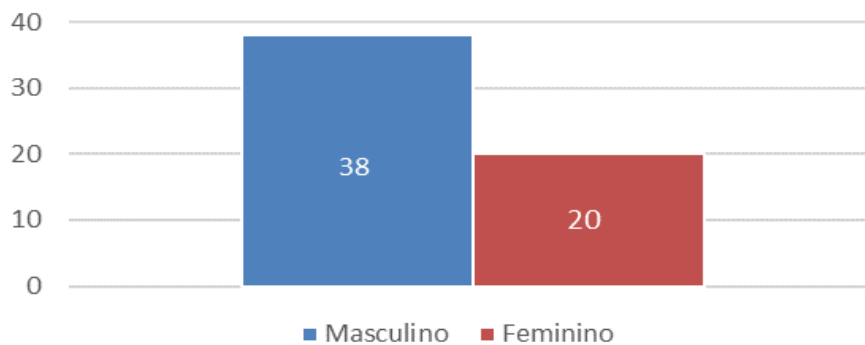
Source: own elaboration

#### 4.1 Analysis of sustainability articles

Specifically, in relation to the theme of sustainability, 18 articles addressed the theme, with 54 authors and a frequency of 58 (considering the repetitions). At the end of the analyzes, the frequency data will be considered next.

Regarding gender, there is a predominance of male authors.

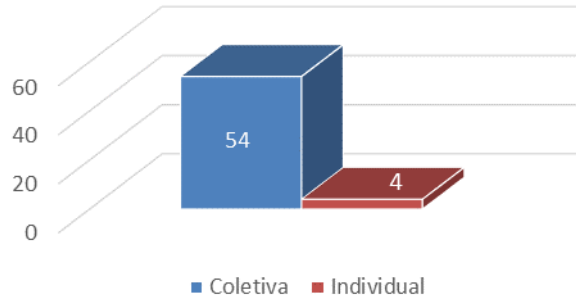
**Graph 2.** Gênero dos autores que publicaram sobre sustentabilidade no KM Brasil (2002 - 2016)



Source: own elaboration

As for the type of authorship, the predominance is in relation to collective authorship

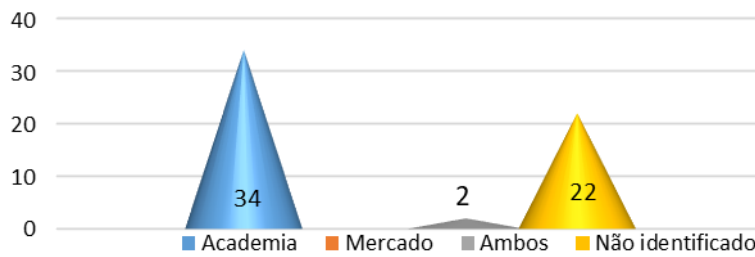
**Graph 3.** Type of authorship of sustainability articles in KM Brazil (2002 - 2016)



Source: Own elaboration

Most of the authors are linked to the Academy.

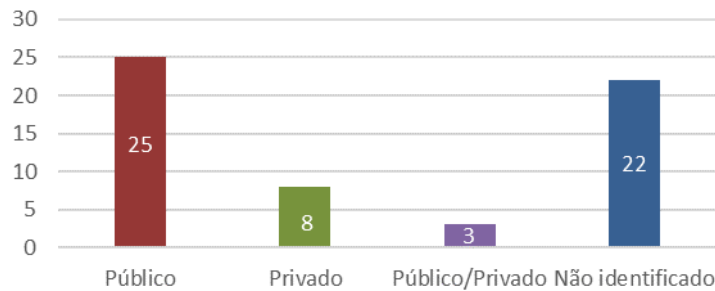
**Graph 4.** Link of the authors of sustainability articles in KM Brazil (2002 - 2016)



Source: Own elaboration

In relation to the sector of activity, there is the predominance of the public sector.

**Graph 5.** Sector of the authors of articles on sustainability in KM Brazil (2002 - 2016)



Source: own elaboration

As in the case of the general analysis, it was not possible to make the analysis of schooling, since 56 authors did not have their education levels identified. With three articles,

Paulo Mauricio Selig, with unidentified level of education and linked to UFSC, is the most published author on sustainability in the period (2002 to 2016). It should be noted that the articles he prepared on sustainability were presented in 2007, 2009 and 2010. In 2016, this author presented a poster in KM Brasil, not related to sustainability, and it is possible to identify the doctoral degree on this occasion.

Regarding the thematic universe, considering the keywords of the articles, 42 themes were identified, including the theme of sustainability.

**Table 3.** Issues related to sustainability articles in KM Brazil (2002 - 2016)

N.	SUBJECT	N.	SUBJECT
1	SUINOCULTURE CHAIN	22	INFORMATION
2	COLLABORATIVE VALUE CHAIN	23	INNOVATION
3	KONDRATIEFF CYCLES	24	SYSTEMATIC INNOVATION
4	CITIZENSHIP	25	TECNOLOGIC INNOVATION
5	ORGANIZATIONAL KNOWLEDGE	26	BANKING INSTITUTIONS
6	COOPERATIVE	27	COMPETITIVE INTELLIGENCE
7	SUSTAINABLE GROWTH	28	MAPPING AND TOPOGRAPHY OF KNOWLEDGE
8	DEVELOPMENT	29	INTEGRATED MODEL
9	LOCAL DEVELOPMENT	30	SOCIAL MOBILIZATION
10	SUSTAINABLE DEVELOPMENT	31	BUSINESS MODELS
11	SUSTAINABLE TERRITORIAL DEVELOPMENT	32	SERVICE OPERATIONS
12	KNOWLEDGE-BASED ECONOMY	33	PUBLIC AGENCIES
13	ECONOMY OF INNOVATION	34	TECHNOLOGICAL SCIENTIFIC PARKS
14	EDUCATION	35	QUALIFICATION
15	FLOW OF KNOWLEDGE	36	TECHNOLOGICAL RESIDUES
16	GENERATION OF KNOWLEDGE	37	SUSTAINABILITY
17	MANAGEMENT OF SOCIAL RESPONSIBILITY	38	ENVIRONMENTAL SUSTAINABILITY
18	RISK MANAGEMENT	39	INFORMATION AND COMMUNICATION TECHNOLOGIES
19	KNOWLEDGE MANAGEMENT	40	INFORMATION TECHNOLOGY
20	STRATEGIC MANAGEMENT	41	GREEN IT
21	INDICATORS	42	TRIZ

Source: own elaboration

**Table 4.** Analysis of the articles on sustainability in KM Brazil (2002 - 2016)

Article	Year	Focus	Summary of the study
<i>An Integrative Knowledge management approach to Sustainable Competitive</i>	2003	Relationship between GC and competitive advantage	It presents an integrated model that establishes the connection between Knowledge Management and Sustainable Competitive Advantage. The model presents four groups of attributes, in concentric circles: in the center circle is the objective; in the second circle, learning scenarios and competitive intelligence activities; in the third circle activities aimed at the creation of resources and skills and activities to protect sources of value; in the outer circle, actions of culture, information technology, management systems and organizational design.
Knowledge Management as a basis for innovation and sustainable growth: a study on the productive arrangement of footwear in Campina Grande	2006	Relationship between GC, innovation and sustainable growth	It presents the results of a study carried out in footwear companies in Campina Grande, showing how they use their knowledge to generate competitive advantage in the market. Using a model proposed by Von Krogh (2001), the paper classifies companies according to their potential to create knowledge through information on the types of knowledge utilization processes and how companies exploit their knowledge to solve daily.
Analysis of the Kondratieff Cycle Theory from the perspective of the knowledge-based economy and sustainable development	2007	Theory of Cycles in the perspective of the knowledge-based economy and sustainable development	It analyzes Kondratieff 's economic theory of Cycles to contextualize the rise of paradigms of knowledge management and sustainable development. It starts with a presentation of this Theory, evaluating the possible framework of knowledge management and sustainable development in this approach. The study reveals that in the era of knowledge and sustainability, a set of innovations, among them knowledge management, consolidate to form a set of elements, which will respond for a new long cycle of economic development in the world economy, or the V Kondratieff. This new long cycle has as a promoting element the economy based on knowledge.
The importance of competitive intelligence information for innovation and sustainability of	2007	The relationship between competitive intelligence, innovation and sustainability	It seeks to demonstrate the importance of information generated by competitive intelligence for innovation and sustainability in service companies. It is based on cases studied in the cities of João Pessoa, Fortaleza and Florianópolis, linked to the Graduate Programs in Production Engineering of UFPB and in Engineering and Knowledge Management of UFSC, considering also the

Article	Year	Focus	Summary of the study
service companies			involvement of workers in the sector. It shows from a comparison of data from a mid-sized hotel, an exclusive office furniture store and a software development company, how competitive intelligence information can spur innovation in services.
Green IT - Technology Allied to Environmental Sustainability	2008	The use of IT as a strategy for environmental sustainability	It addresses the impacts of IT on the environment, technological waste and its recycling potential. It refers to knowledge management as a strategy in the pursuit of environmental sustainability, clarifying that it involves not only the environment, but a set of processes that brings together organizations, people, change of values and attitudes. It underscores the importance of IT as a provider of strategic resources in the generation and dissemination of knowledge.
Technology parks as a potential for development and innovation facing the challenges of knowledge and sustainability	2008	Technological Parks as promoters of sustainable local development	Demonstrates the importance of Science and Technology Parks in the knowledge society and the creation of a model in Florianópolis, Sapiens Park. From the study it was observed that the creation of Science Technology Parks integrates different scenarios based on projects mobilizing educational institutions, non-profit organizations in the areas of health, socio-environmental, safety, culture and tourism, local representative entities, public sector, the private sector and the investor partners as priority dialogues. Focuses on local development and adding economic value to the locality, attracting diverse stakeholders in a sustainable and sustainable way.
TBL, ecoefficiency and TRIZ in the sustainability of the banking sector: test of the Method for Sustainable Business Design - MCNS-TRIZ	2009	TRIZ's contribution to the evolution of the management system	It highlights how the Theory for the Resolution of Inventive Problems (TRIZ) contributes to the evolution of a management system applied to banking institutions. Uses a case study for the initial inferences of a developing model. The results lead to the conclusion that the TRIZ Inventive Principles Method is an adequate working tool to solve the problem.
Knowledge management system for sustainability	2009	Knowledge management for sustainability	It deals with the application of a knowledge management model for sustainability indicators in the textile sector. A case study was carried out at the Cooperativa de Produção Têxtil y Ains de do Algodão, in the State of

Article	Year	Focus	Summary of the study
indicators: a case study at Coopnatural		indicators	Paraíba, based on the model proposed by Lira (2008). The proposed model presents five stages: the recognition of the problem; the diagnosis of sustainability; the search for solutions based on knowledge management; the evaluation of knowledge management practices and the implementation of new sustainable development actions.
Can we still learn from Nonaka and Takeuchi?	2010	Contribution of the Theory of the Creation of the Knowledge in the actuality	Revisit "The Knowledge-Creating Company" by Nonaka and Takeuchi. It seeks to show that creating knowledge is the true nature of the firm in today's post-industrial society and that "The Knowledge-Creating Company," since well analyzed and read, not as a miracle formula, but as part of a theory under construction, can contribute to the improvement of the economy of innovation, especially the theory of the firm, and to the understanding that tacit knowledge is the basis of differentiation between companies, enabling them to innovate, understood as the necessary adaptations to sustainability.
The flow of knowledge in rural areas and the role of extension	2010	Flow of specialized knowledge in rural areas	It analyzes the flow of specialized knowledge in rural areas and the role and specific role of rural extension in this flow. It was verified that the flow of knowledge underwent a significant change from a diffusionist model typical of the Green Revolution to a model called multifunctional, where the actions of generation and transmission of knowledge are now carried out by the three segments. In this new scenario, the role of rural extension as an agent for the collective construction of knowledge is highlighted, reconciling the explicit knowledge of the technical agents with the tacit knowledge of the producer.
Sustainability depends on knowledge management? An analysis of knowledge-intensive service operations in the IT sector in RS	2010	Relationship between knowledge management and organizational performance	It seeks to understand the relationship between knowledge management and organizational performance, using the theoretical apparatus of Resource Based View and the analysis of conceptual models. A case study was conducted with two IT companies from RS. The results indicated that the development of knowledge management contributes to the organization's sustainability and that the level of maturity of the KM is related to the company's growth capacity.



Article	Year	Focus	Summary of the study
Indicators of knowledge management for Sustainability in buildings	2010	Indicators of knowledge management for sustainability in buildings	It analyzes a set of performance indicators for sustainability in buildings based on the integration of the Environmental Management System (EMS) and knowledge management. The results of the application of the proposal indicate that the integration of EMS with knowledge management can contribute to leverage sustainability in buildings.
The implementation of risk management to social responsibility as structuring for sustainability and knowledge management	2011	Systematics for social responsibility management	It presents the elements and the process of risk management of ISO 31000 as a systematic to implement the management of social responsibility, based on the guidelines of ISO 26000, with the purpose of contributing to the organizational sustainability and to facilitate the management of knowledge of a organization of any kind.
Knowledge management and sustainable territorial development in public bodies: the contribution of ICTs, communication strategies and the information system	2011	Sustainable territorial development	It shows which tools and activities will drive the advancement of sustainable territorial development. It concluded that the implementation of sustainable territorial development requires the production of scientific knowledge and experimental laboratories and other research organizations that produce information and knowledge that must be incorporated by the public sector so that it can overcome emerging socio-environmental challenges.
Information and participation: an alliance for sustainable local development	2011	Local Development	It presents the Regional Observatory of Sustainability Indicators (ORBIS), a methodology for information management disseminated by the Movement We May Paraná, a network of voluntary mobilization in support of the Millennium Development Goals in the State.
Education for sustainable local development: experience in Santa Cruz Capibaribe - PE	2012	Education for sustainable local development	It addresses education as a preponderant factor for social inclusion and for the promotion of sustainable local development. He argues that one of the bases for competitiveness lies in prepared people, structured companies, product quality and people's participation in shaping social policies.

Article	Year	Focus	Summary of the study
Knowledge management in the collaborative value chain for the sustainable development of land transportation in Brazil	2012	Knowledge management applied to the road sector	It discusses one of the methods used in the construction of the Iterative Method for Modeling and Knowledge Management applied to the Collaborative Value Chain of the Process of Exploitation of Road Infrastructure. The work was developed in the Laboratory of Management in Information and Communication Technology of UFF in cooperation with the Brazilian Agency for Regulation of Land Transport.
Innovation, sustainability and knowledge generation as competitive differentials for organizations	2014	Innovation, sustainability and knowledge generation as competitive advantages	It analyzes how the generation of knowledge, in the context of innovation and sustainability, is characterized as a competitive differential for organizations, especially because sustainable innovation has its source in the individual, in their values, and thrives among groups by means of exchanging tacit and explicit information of common interest and in a sustainable way, as well as making organizations even more competitive in the face of competition.

Source: Own elaboration

Regarding the variation of terms related to sustainability, the following titles were identified in the titles and keywords of the publications: sustainability of service companies, sustainability of the banking sector, sustainability in buildings, environmental sustainability, sustainable competitiveness, sustainable growth, development sustainable development, sustainable development of land transport in Brazil, sustainable local development and sustainable development.

It should be noted that the sustainability category, in the electronic records of KM Brazil, emerged from 2007, among the thematic areas of the event. However, it should be noted that despite the existence of the thematic area, it is possible to find articles related to sustainability (considering the title and / or keywords) in other categories, such as: Intangible Assets, intellectual and human capital; IT and support tools applied to GC; Innovation and strategic aspects of KM; Social networks, teaching and learning focused on KM; and New knowledge and interdisciplinary approaches related to GC.

Finally, there are articles listed in the sustainability category that do not present the theme in their titles or keywords, which suggests that although the theme may be addressed throughout the text, it tends to have little relevance to the sustainability category.

## 5 Conclusions

The limitations of the study are:

a) Adoption of the criterion of relevance, restricting the analysis only to documents that presented the term sustainability in the title and / or keywords;

b) Difference of content of electronic records on the SBGC website for electronic records on CD;

c) Lack of standardization of information, above all, the absence of a large number of documents from schooling information; and multiple identifications of the name of the same author;

d) There were also cases of non-authoritative documents and names that can be used for the male or female gender, which interferes with the accuracy of the analysis.

In this context, the following recommendations are made to the SBGC and the academic public:

a) In order to make possible future studies on the scientific production of KM Brazil, define the reference source for such studies (whether the annals made available on the SBGC website or those published on CD-ROM);

b) Considering the great participation in KM Brasil of researchers of the academic environment, SBGC establishes a partnership with some academic institution with the objective of generating a database of KM Brazil's records, structured with metadata, that allows the search of the documents and export of the records of the base, for analysis. It is important for the SBGC to publicize the academic community in the event of adoption of this recommendation in order to avoid duplication of efforts;

c) In the guidelines for submitting documents for the event, the guidelines on the identification of the author (preferably, that such recommendation be the name in extenso, in order to facilitate the crossing of data), schooling and link institution. Such information is important for the characterization of the authors' profile; and

d) That complementary studies be carried out, expanding the fields of analysis for summary and full text, to define the documents related to sustainability.

It should be noted that KM Brasil is an event that has a large number of participants in the business market, but at the same time, there is a considerable predominance of the academy in carrying out sustainability studies, as well as other themes.

Finally, it is considered that the number of documents on sustainability is small compared to the total of 605 publications that are part of the historical basis of KM Brazil, which demonstrates great opportunity for the development of studies on the subject.

## References

ALMEIDA, Fernando. O bom negócio da sustentabilidade. Rio de Janeiro: Nova Fronteira, 2002.

APQC (AMERICAN PRODUCTIVITY & QUALITY CENTER). APQC Among 100 'Companies That Matter' in Knowledge Management. Houston, 2018. Disponível em: <https://www.apqc.org/node/308096>. Acesso em 13 maio 2018.

BACHA, Maria de Lourdes; SANTOS, Jorgina; SCHAUN, Angela. Considerações teóricas sobre o conceito de sustentabilidade. *In.*: Simpósio de Excelência em Gestão e Tecnologia, 7., 2010. Anais eletrônicos. Disponível em: [https://www.aedb.br/seget/arquivos/artigos10/31\\_cons%20teor%20bacha.pdf](https://www.aedb.br/seget/arquivos/artigos10/31_cons%20teor%20bacha.pdf). Acesso em: 3 de maio de 2018.

BARBOSA, Gisele Silva; DRACH, Patrícia Regina; CORBELLA, Oscar Daniel. A conceptual review of the terms sustainable development and sustainability. *International Journal of Social Sciences*, v. 3, n. 2, 2014. Disponível em: [http://www.iises.net/download/Soubory/soubory-puvodni/pp-01-15\\_ijossV3N2.pdf](http://www.iises.net/download/Soubory/soubory-puvodni/pp-01-15_ijossV3N2.pdf). Acesso em: 3 de maio de 2018.

BIERLY, P.; CHAKRABARTY, A. Generic knowledge strategies in the U.S. pharmaceutical industry. *Strategic Management Journal*, v. 17, p.123-35, Winter 1996.

CMMAD – Comissão Mundial sobre Meio Ambiente e Desenvolvimento. Nosso futuro comum. 2. ed. Rio de Janeiro: Editora da Fundação Getúlio Vargas, 1991.

ELKINGTON, John. Cannibals with Forks - The Tipple Bottom Line of 21st Century Business. Capstone,1999.

FEIL, Alexandre André; SCHREIBER, Dusan. Sustentabilidade e desenvolvimento sustentável: desvendando as sobreposições e alcances de seus significados. Cad. EBAPE.BR, v. 14, n. 3, Artigo 7, Rio de Janeiro, jul./set.2017. Disponível em: <http://www.scielo.br/pdf/cebape/v15n3/1679-3951-cebape-15-03-00667.pdf>. Acesso em: 3 de maio de 2018.

FERNANDES, Bruno Henrique Rocha; FLEURY, Maria Tereza Leme; MILLS, John. Construindo o diálogo entre competência, recursos e desempenho organizacional. Revista de Administração de Empresas, São Paulo, v. 46, n. 4, p. 1-18, out./dez. 2006.

GROBER, U. Deep Roots: A Conceptual History of “sustain-able Development” (Nachhaltigkeit). Discussion papers, Wissenschaftszentrum Berlin für Sozialforschung. Berlin: WZB, 2007. Disponível em: <https://bibliothek.wzb.eu/pdf/2007/p07-002.pdf>. Acesso em 3 de maio de 2018.

HOVE, Hilary. Critiquing sustainable development: a meaningful way of mediating the development impasse? Undercurrent, v. 1, n. 1, p. 48-54, 2004. Disponível em: <http://connection.ebscohost.com/c/articles/18428191/critiquing-sustainable-development-meaningful-way-mediating-development-impasse>. Acesso em: 3 de maio de 2018.

KIDD, Charles V. The evolution of sustainability. Journal of Agricultural and Environmental Ethics, v. 5, n. 1, p. 1-26, 1992. Disponível em: [https://www.researchgate.net/publication/227128571\\_The\\_evolution\\_of\\_sustainability](https://www.researchgate.net/publication/227128571_The_evolution_of_sustainability). Acesso em: 3 de maio de 2018.

NASCIMENTO, Elimar Pinheiro do. Trajetória da sustentabilidade: do ambiental ao social, do social ao econômico. Estudos Avançados, v. 26, n. 74, 2012. Disponível em: [http://www.scielo.br/scielo.php?pid=S0103-0142012000100005&script=sci\\_abstract&tlng=pt](http://www.scielo.br/scielo.php?pid=S0103-0142012000100005&script=sci_abstract&tlng=pt). Acesso em: 3 de maio de 2018.

ROSA, Fabiana Pereira. Visão baseada em recursos: a gestão do conhecimento como estratégia competitiva sustentável. *Revista Trajetória, Multicursos, Faculdade Cenecista de Osório*, v. 5, n. 6, p. 118-136, jul. 2012.

SHRIVASTAVA, Paul; HART, Stuart. Greening Organisations – 2000. *International Journal of Public Administration*, v. 17, n. 3-4, p. 607-35, 1994. Disponível em: <https://www.tandfonline.com/doi/abs/10.1080/01900699408524910>. Acesso em: 3 de maio de 2018.

SVEIBY, K.E. A Knowledge-based theory of the firm to guide in strategy formulation. *Journal of Intellectual Capital*, v. 2, n. 4, p. 344-58, 2001.

