



Sam PD Anantadjaya <samuel.anantadjaya@ipmi.ac.id>

Invitation to review for Heliyon

1 message

Heliyon <em@editorialmanager.com>

Tue, Feb 28, 2023 at 12:35 PM

Reply-To: Heliyon <info@heliyon.com>

To: Samuel PD Anantadjaya <samuel.anantadjaya@ipmi.ac.id>

Intellectual Capital in SMEs/Construction Companies: A Systematic Literature Review

Manuscript Number: HELIYON-D-23-05777

Dear Dr. Anantadjaya,

We are considering a new submission for publication in Heliyon, an open-access journal from Cell Press. Your expertise seems appropriate to give feedback on this article. Would you be willing to review?

Abstract:

- Purpose - The present study aims to provide an overview of the topic incident on intellectual capital in SMEs in the construction industry. The identification of the different research paths, based on a systematic literature review, will allow effective knowledge of the topics under study and the definition of a research agenda for the future.
- Design/methodology/approach – This Systematic literature review considers articles collected from Web of Science (WoS) database, a total of 105 scientific articles published in various reference journals without a defined time interval, with the use of two analyses. A co-citation analysis allowing the identification of the most influential authors and references cited within the theme, and a bibliographic coupling analysis, allowing the identification of the most referenced thematic clusters.
- Findings – The systematization of the available literature through the bibliographic coupling analysis identified four clusters, namely cluster (1) Intellectual Capital and Organizational Performance, cluster (2) Knowledge Management, cluster (3) Innovation, and cluster (4) Strategic Partnerships.
- Originality - This study adds to the research area an overview of the topic, where the steps that have already been taken are analyzed, and the way forward is indicated through a future research agenda, to strengthen a poorly explored area.

Heliyon publishes scientifically accurate and valuable research across the entire spectrum of science and medicine. Heliyon received its first Impact Factor (3.776) in June 2022 and we are indexed in the Science Citation Index Expanded (SCIE).

Please click the following link to accept this invitation and view the manuscript. To encourage you to submit your review in a timely manner, we are offering [publication discounts for reviewers](#). Upon completion of valuable and timely review reports, you will be eligible to publish with Heliyon at a reduced rate.

[Agree to Review and View Reviewer PDF](#)

By agreeing to review this manuscript, you are declaring that you have no conflict of interest.

Please click the following link to decline the manuscript. We would very much appreciate if you could suggest an appropriate alternate reviewer. Please do keep diversity of gender, career stage, and geography in mind as you make these suggestions.

[Decline to Review](#)

If, for any reason, the above links do not work, please log in as a reviewer: <https://www.editorialmanager.com/heliyon/default.aspx>.

If you accept this invitation, I would be very grateful if you would return your review within 21 days of accepting this invitation. We understand that the global COVID-19 situation may well be causing disruption for you and your colleagues. If that is the case for you and you would need more time than usual to be able to complete this review, please let us know so we can agree on a time frame that works for you.

Please note that you should treat this invitation, the manuscript, and your review as confidential. You must not share your review or information about the review process with anyone without the agreement of the editors and authors involved, even after publication. This also applies to other reviewers' comments to author which are shared with you after a decision (and vice versa).

If you need more time than usual to be able to complete this review, please let us know so we can agree on a time frame that works for you.

We look forward to receiving your response to this review request and thank you in advance for your contribution and time.

Kind regards,

Massimiliano Matteo Pellegrini, Ph.D.

Associate Editor - Business & Economics

Heliyon

As a reviewer you are entitled to complimentary access to references, abstracts, and full-text articles on ScienceDirect and Scopus for 30 days. Full details on how to claim your access via [Reviewer Hub](#) will be provided upon your acceptance of this invitation to review.

Please visit the Elsevier Reviewer Hub to manage all your refereeing activities for this and other Elsevier journals on Editorial Manager.

More information and support

FAQ: How do I respond to an invitation to review in Editorial Manager?

https://service.elsevier.com/app/answers/detail/a_id/28524/supporthub/publishing/

You will find guidance and support on reviewing, as well as information including details of how Elsevier recognizes reviewers, on [Elsevier's Reviewer Hub](#).

FAQ: [How can I reset a forgotten password?](#)

For further assistance, please visit our [customer service site](#). Here you can search for solutions on a range of topics, find answers to frequently asked questions, and learn more about Editorial Manager via interactive tutorials. You can also talk 24/7 to our customer support team by phone and 24/7 by live chat and email

#REV_HELIYON#

To ensure this email reaches the intended recipient, please do not delete the above code

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. ([Remove my information/details](#)). Please contact the publication office if you have any questions.

Reviewer Recommendation and Comments for Manuscript Number HELIYON-D-23-05777**Intellectual Capital in SMEs/Construction Companies: A Systematic Literature Review**

Original Submission
Samuel PD Anantadjaya

[Back](#)

[Edit Review](#)

[Print](#)

[Submit Review to Editorial Office](#)

Recommendation: Accept

Overall Manuscript Rating (1 - 100): 80

Custom Review Question(s):

Note: In order to effectively convey your recommendations for improvement to the author(s), and help editors make well-informed and efficient decisions, we ask you to answer the following specific questions about the manuscript and provide additional suggestions where appropriate.

1. Do the authors explain the reason for writing a review article in this field?

Please provide suggestions to the author(s) on how to better justify their reasons. Please number each suggestion so that the author(s) can more easily respond.

2. Does the review article provide a good overview of the development of the field while providing insights on its future development?

Please list the historical developments of likely future scenarios that the author(s) should add or emphasize more. Please number each suggestion so that the author(s) can more easily respond.

3. Do the authors adequately represent the most relevant and recent advances in the field?

Please provide suggestions to the author(s) on how to improve their reference list to include the relevant topics and cover both historical references and recent developments. Please number each suggestion so that the author(s) can more easily respond.

4. Is the review reported in sufficient detail to allow for its replicability and/or reproducibility (e.g., search strategies disclosed, inclusion criteria and risk of bias assessment for individual studies stated, summary methods specified)?

Please provide suggestions to the author(s) on how to improve the replicability/reproducibility of their review. Please number each suggestion so that the author(s) can more easily respond.

5. Is the statistical summary method (e.g., meta-analysis, meta-regressions) and its reporting (e.g., P-values, 95% CIs, etc.) appropriate and well described?

Please clearly indicate if the review requires additional peer review by a statistician. Kindly provide suggestions to the author(s) on how to improve the statistical analyses, controls, sampling mechanism, or statistical reporting. Please number each suggestion so that the author(s) can more easily respond.

6. Is the review structured and/or flow of writing is acceptable for publication? (Think for example of the addition of subheadings, shortening of text, reorganizing of sections, or moving details from one section to another, following PRISMA guidelines)?

Please provide suggestions to authors on how to improve the review structure and flow. Please number each suggestion so that the author(s) can more easily respond.

7. Could the manuscript benefit from language editing?

Response

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
lots of various info to be put in

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
yes, there are lots of extra effort

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
sufficiently

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
have lots of non-replicability

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
no more of the statistical data were present previously

Mark as appropriate with an X:
Not Applicable No and here is how they should be improved [X] Yes, there is no need for improvement
Provide further comments here:
no need to have extra inputs or any structure

Yes

Reviewer Comments to Author

look for editors to search for your mistakes

Transfer Authorization

If this submission is transferred to another publication, do we have your consent to include your identifying information?

If this submission is transferred to another publication, do we have your consent to include your review?

Response

Yes

No

[Back](#)

[Edit Review](#)

[Print](#)

[Submit Review to Editorial Office](#)



Heliyon

Intellectual Capital in SMEs/Construction Companies: A Systematic Literature Review --Manuscript Draft--

Manuscript Number:	HELIYON-D-23-05777
Article Type:	Review article
Section/Category:	Social Sciences
Keywords:	Intellectual Capital; Organizational Performance; SME; Construction Sector; Knowledge Management; Strategic Partnerships
Abstract:	<ul style="list-style-type: none">• Purpose - The present study aims to provide an overview of the topic incident on intellectual capital in SMEs in the construction industry. The identification of the different research paths, based on a systematic literature review, will allow effective knowledge of the topics under study and the definition of a research agenda for the future.• Design/methodology/approach – This Systematic literature review considers articles collected from Web of Science (WoS) database, a total of 105 scientific articles published in various reference journals without a defined time interval, with the use of two analyses. A co-citation analysis allowing the identification of the most influential authors and references cited within the theme, and a bibliographic coupling analysis, allowing the identification of the most referenced thematic clusters.• Findings – The systematization of the available literature through the bibliographic coupling analysis identified four clusters, namely cluster (1) Intellectual Capital and Organizational Performance, cluster (2) Knowledge Management, cluster (3) Innovation, and cluster (4) Strategic Partnerships.• Originality - This study adds to the research area an overview of the topic, where the steps that have already been taken are analyzed, and the way forward is indicated through a future research agenda, to strengthen a poorly explored area.

Heliyon

Thank you for agreeing
to review this manuscript



Intellectual Capital in SMEs/Construction Companies: A Systematic Literature Review

André Sucena¹, Florinda Matos², António Nunes¹

¹NECE- Research Center for Business Sciences, Department of Management and Economics, University of Beira Interior (UBI), Covilhã, Portugal

²DINÂMIA'CET-IUL - Centre for Socioeconomic Change and Territorial Studies, Iscte - University Institute of Lisbon, Lisboa, Portugal

andre.sucena@ubi.pt

florinda.matos@iscte-iul.pt

anunes@ubi.pt

Abstract

- **Purpose** - The present study aims to provide an overview of the topic incident on intellectual capital in SMEs in the construction industry. The identification of the different research paths, based on a systematic literature review, will allow effective knowledge of the topics under study and the definition of a research agenda for the future.
- **Design/methodology/approach** – This Systematic literature review considers articles collected from Web of Science (WoS) database, a total of 105 scientific articles published in various reference journals without a defined time interval, with the use of two analyses. A co-citation analysis allowing the identification of the most influential authors and references cited within the theme, and a bibliographic coupling analysis, allowing the identification of the most referenced thematic clusters.
- **Findings** – The systematization of the available literature through the bibliographic coupling analysis identified four clusters, namely cluster (1) Intellectual Capital and Organizational Performance, cluster (2) Knowledge Management, cluster (3) Innovation, and cluster (4) Strategic Partnerships.
- **Originality** - This study adds to the research area an overview of the topic, where the steps that have already been taken are analyzed, and the way forward is indicated through a future research agenda, to strengthen a poorly explored area.

Keywords: Intellectual Capital, Organizational Performance, SME, Construction Sector, Knowledge Management, Strategic Partnerships.

1. Introduction

The strength of the relationship between intellectual capital and SMEs (Small and Medium-Sized Enterprises) enables the ability of organisations to adjust in a dynamic way, enabling internal learning (Pigola *et al.*, 2021). The authors Mehralian *et al.* (2018) report the importance of organisations in practising actions towards developing intellectual capital. This is because, it is only through this investment that there is an increase in the competitive advantage of organisations, and where organisational performance plays its key role.

1 Nevertheless, in the last two decades, the relationship between intellectual capital
2 and SMEs has suffered the addition of the component organisational performance. This
3 component has been gaining more prominence in the business area, where the synergy
4 between the components is discussed and compared to the competitive advantage that can
5 be achieved (Asiaei and Jusoh, 2017).

6 In general, the definitions of intellectual capital do not converge to only one
7 statement that makes this concept clear. The dependence on this concept being associated
8 with a scale force it to have different interpretations, which despite not always being the
9 same, converge towards the benefit that organisations can derive from it. Always with the
10 aim of improving the knowledge and skills of the set of individuals that make up an
11 organisation, intellectual capital must necessarily be exploited (Ali *et al.*, 2021).

12 On the other hand, organisational performance implies SMEs' ability to effectively
13 implement strategies that enhance the organisation itself and its results (Kengatharan,
14 2019). That is, organisational performance is directly linked to leadership skills which
15 means that the ability to motivate employees and promote knowledge sharing depends on
16 this type of strategy (Bhatti *et al.*, 2020). In this article, when organisational performance
17 is referred to, it can be considered the ability of organisations to increase their productivity
18 and consequently increase competitive advantage when compared to competitors.

19 By imposition of the existing literature, the breadth of this topic required a more
20 comprehensive investigation where the focus of construction companies is complemented
21 by SMEs. Thus, the following research question is posed - what are the impacts of
22 intellectual capital on SMEs/construction firms?

23 In addition to this research question, this systematic literature review seeks to
24 provide a holistic static picture of state of the art at the time of its completion and also
25 aims to answer a set of guiding questions:

- 26 - Which are the most influential authors, and which journals have the largest
27 number of publications?
- 28 - What are the dominant sub-themes in the knowledge under review, and what
29 relationships are established between them?

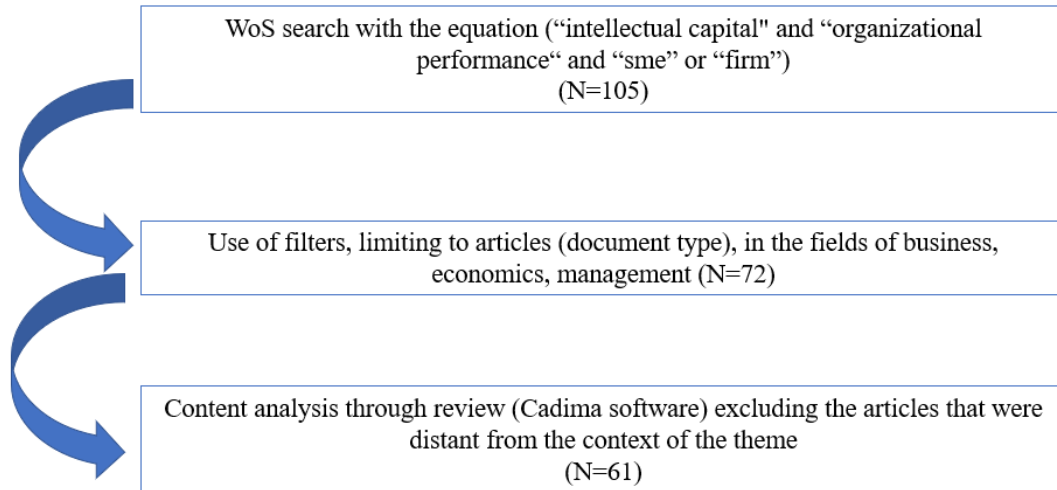
30 2. Methodology

31 The purpose of the literature review is to create a comprehensive understanding
32 of the subject, identify knowledge gaps, suggest new research avenues, and express plans
33 to take on a contributing role in the field of study (Donthu *et al.*, 2021).

34 Web of Science (WoS) was the database used to collect the references. This
35 database was chosen due to its quality and scientific rigour (Zha *et al.* 2020), which is
36 widely recognised in academia. The equation ("intellectual capital" and "organisational
37 performance" and "SME" or "firm") was applied (Topic), and the following search
38 yielded a database of 105 documents. In order to ensure greater homogeneity of the
39 sample, two filters were applied, such as the limitation to articles in the fields of Business,
40 Economics and Management, without any time restriction. This narrowing search resulted
41 in a database of 72 documents. Next, it was performed a review using the Cadima
42 software (www.cadima.info), resulting in the exclusion of 11 documents for not fitting
43 the theme to be explored for the following reasons: (i) the organisational performance as
44 an analysis element (3); (ii) the intellectual capital and the organisational performance as
45 elements without any connection (3), and (iii) the intellectual capital as a future line of
46 research in the organisational context (5) (see Figure 1). After this review, the final
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1 database was analysed through the Cadima software to check for repeated
2 documents/authors, which did not occur.

3 For the creation of the bibliographic constellations, as well as further analysis, the
4 VOSviewer and Bibliometrix R software were used.



25 *Figure 1 Article selection process for the database.*

27 **3. Characterisation of the sample**

28 The database consists of 61 articles focusing on SME intellectual capital and
29 organisational performance, arranged in the time interval between 1999 and 2022. The
30 database is spread over 26 journals, 172 authors, 4138 references, and 199 keywords with
31 an average of 38.84 citations per document.

32 The boom in the number of publications on the relationship between intellectual
33 capital and organisational performance emerged in 2017, and this number has been
34 increasing over the years, except for 2018 and 2019. The number of citations registered a
35 more exponential behaviour (see Figure 2). The highest peak regarding publications was
36 in 2020, with 13 articles, while the year with the highest number of citations was in 2021,
37 with 737 citations, showing that this is a topic of current interest.

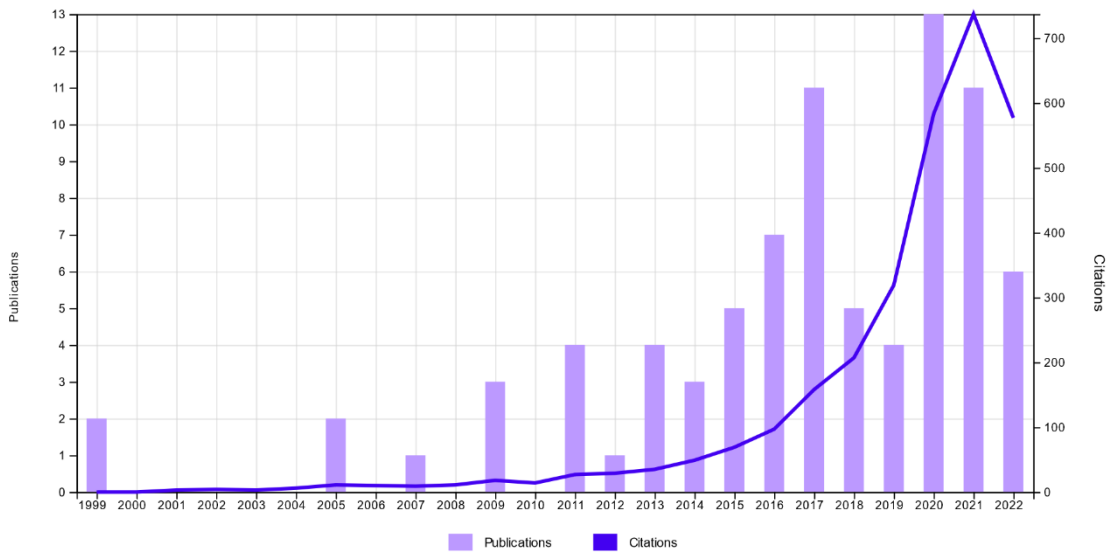


Figure 2. Evolution of the number of articles and citations in the theme "Relationship between Intellectual Capital and Organizational Performance", between 1999 and 2022. Source: Bibliometrix.

Based on the temporal space in which the bibliographic database is inserted, a graph demonstrating the dynamics and evolution of a set of Keywords on the temporal axis was prepared (see Figure 3). In this graph, it is possible to analyse all the words present since the genesis of the database. However, the words with the highest growth dynamics are "organisational performance", "innovation" and "capabilities".

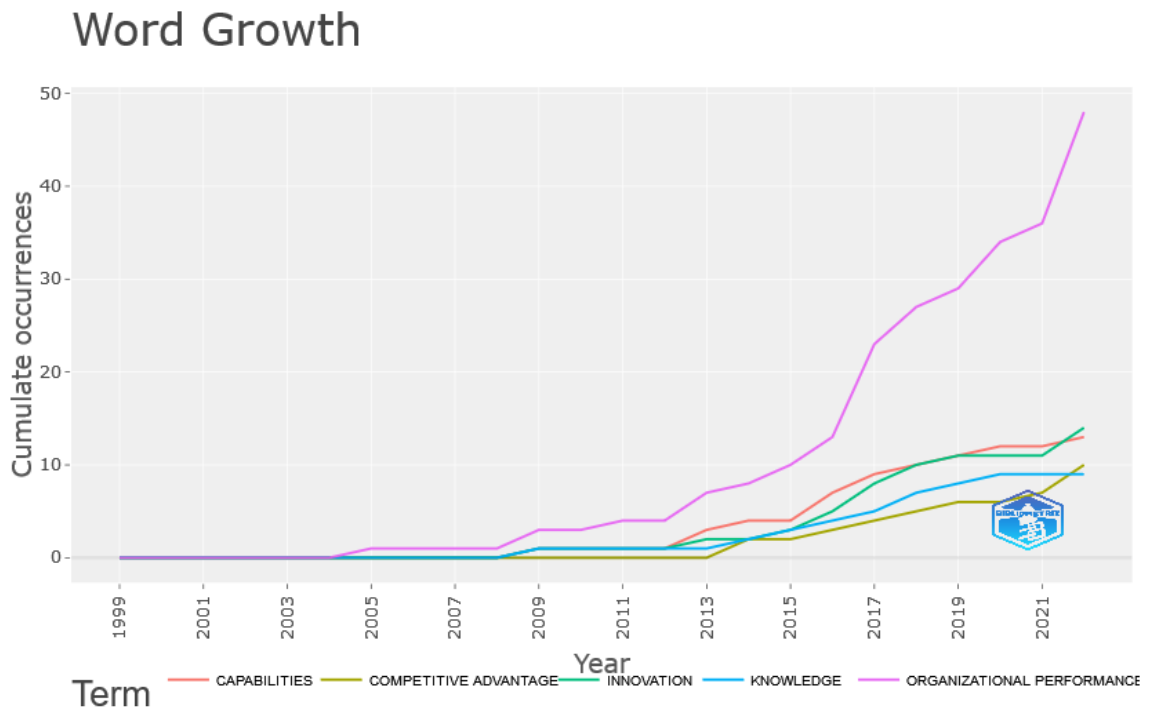


Figure 3. Dynamics and evolution on the use of keywords.

Source: Bibliometrix.

The Sankey chart (see Figure 4) was elaborated with a central focus on three pillars (countries, authors, and keywords) to understand and to identify on what theme there is a greater focus on research carried out by the most influential authors within each country. It was possible to ascertain that the countries that produce scientific research on this theme are Malaysia, China, and the USA, with most of the research focused, as expected, on intellectual capital, performance, and innovation.

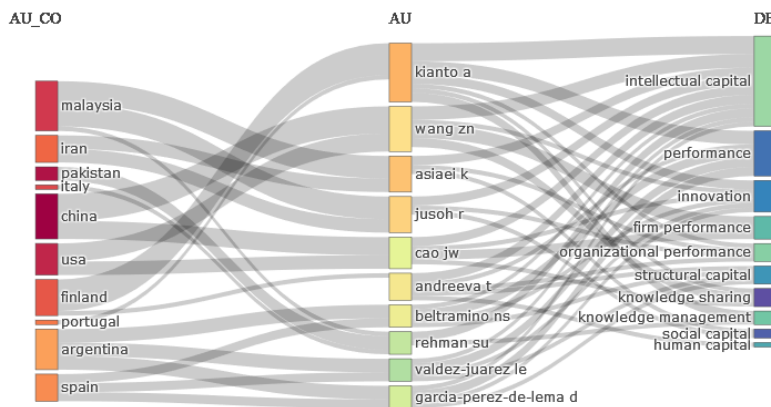


Figure 4. Sankey chart centered on three pillars: country-authors-keywords.

Source: Bibliometrix.

A co-citation analysis and a bibliographic coupling are performed on the current study. Co-citation analysis seeks to reveal both the intellectual framework of a study topic and the common theme of a particular set of bibliographic constructions (clusters) (Hjrlund, 2013; Rossetto et al., 2018). It also allows identifying which authors, journals, and articles are the most influential in the area of knowledge under study (Donthu *et al.*, 2021). Bibliographic coupling analysis complements co-citation analysis and reveals a broad spectrum of topics and all their most recent developments, providing a snapshot of the current state of research. Since bibliographic linkage is more future-oriented and co-citation analysis is more past-oriented (Garfield, 2002), the complementary nature of the two enables a cross-sectional view over time, allowing for a greater understanding and the potential to define future lines of research. It is on this basic principle that the decision to adopt these two analysis techniques is based.

4. Co-citation analysis

Based on the number of publications, the three most relevant sources are the Journal of Intellectual Capital, with 18 publications, the Journal of Knowledge Management with 6 and Management Decision with 5 publications (see Figure 5).

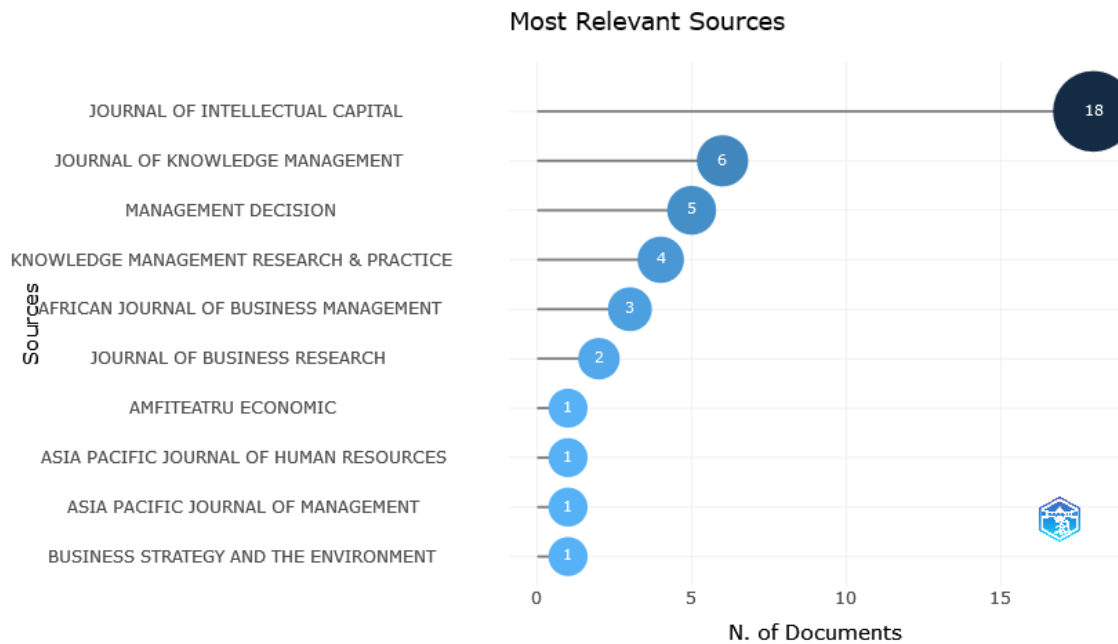


Figure 5. Most Relevant Sources.
Source: Bibliometrix.

Regarding the source of co-citation analysis, with a restriction to the minimum number of 20 source citations, a total of 42 sources distributed by 3 clusters were found (see Figure 6). The influence of the sources remains unchanged since the sources presented in Figure 5 maintain their prominent role. Cluster 1 (in red) has as a most influential source, precisely the Journal of Intellectual Capital with 586 citations, 41 connections with a total strength of 19190. In cluster 2 (in green) the Journal of Knowledge Management is the most influential source with 142 citations, 41 connections with a total strength of 7163. Regarding cluster 3 (blue), it is the source with the least influence of the 3 clusters, Management Decision, with 117 citations, 41 connections and a total strength of 8187.

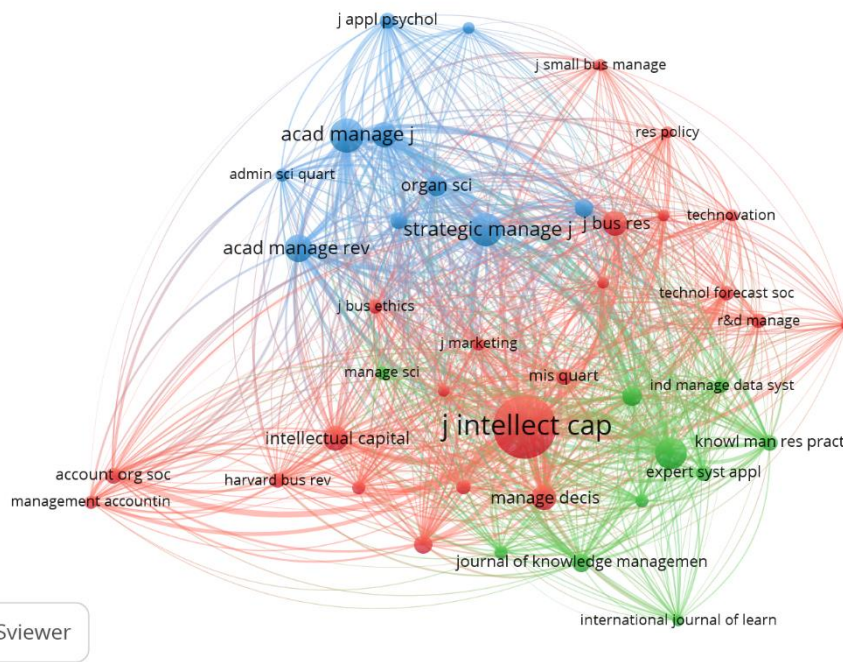


Figure 6. Co-citation analysis of cited sources.
Source: VOSviewer.

Performing an author co-citation analysis allows for identifying the most influential authors in the area of knowledge under study. To this end, an author co-citation analysis was carried out based on the database of 3151 authors, limited to a minimum of 10 citations, reducing the spectrum of the sample to 65 authors. The constellation shown in Figure 7 comprises three clusters with the most cited authors. In cluster 1 (in red) the most cited author is Wang with 26 citations. Regarding cluster 2 (in green), Bontis Hair Jr. stands out with 89 and 37 citations, respectively. Finally, in cluster 3 (in blue) the dominant author is Kaplan, with 32 citations.

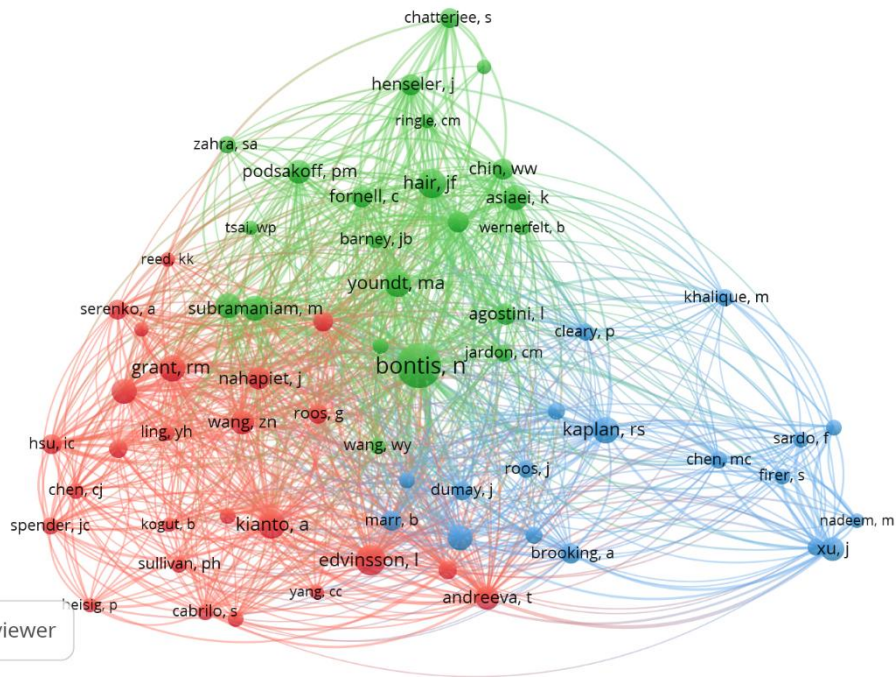


Figure 7. Co-citation analysis of cited authors.
Source: VOSviewer.

In the bibliographic reference co-citation analysis, the database is composed of 4128 articles applying the limitation of a minimum of 6 citations per document, resulting in 92 documents. From this final output, resulted the cloud visible in Figure 8, giving rise to 4 clusters.

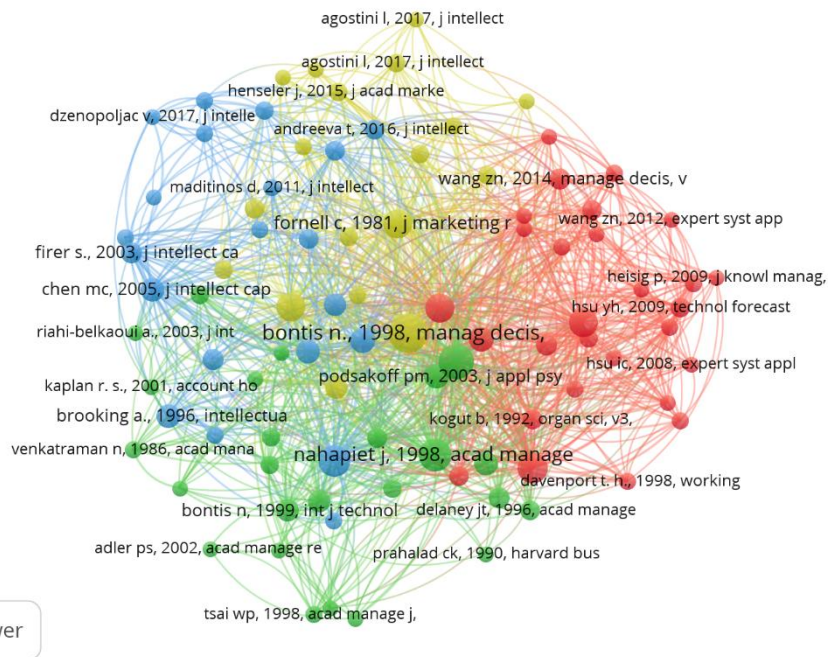


Figure 8. Co-citation analysis of cited references.
Source: VOSviewer.

5. Bibliographic coupling analysis

To ascertain the main research themes on the relationship between intellectual capital and organisational performance in SMEs, bibliographic coupling was performed. It can be concluded that a minimum number of citations per article should not be defined since the entire database is quite recent. Finally, with a total of 61 articles selected, the number of minimum articles per cluster was limited to 10, resulting in an output of 4 clusters.

From the analysis of the 61 articles, separated by 4 clusters, resulted the cluster network exposed in detail in Figure 9. The composition of each cluster represents a different approach to the theme under study – cluster (1) Intellectual Capital and Organizational Performance, cluster (2) Knowledge Management, cluster (3) Innovation, and cluster (4) Strategic Partnerships.

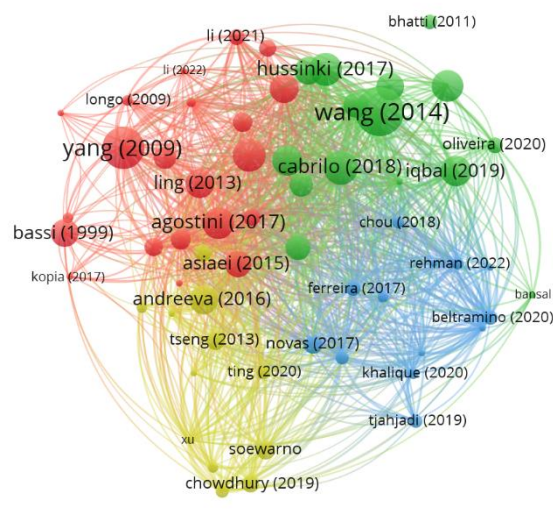


Figure 9. Bibliographic coupling analysis.
Source: VOSviewer.

Cluster 1 | Intellectual Capital and Organizational Performance (N=21)

Bassi *et al.* (1999) clarify the importance of organisations correctly assessing the importance of intellectual capital in organisational performance. The correct planning and investment in these components ease the achievement of competitive advantage. The problem lies in the organisations that, besides not knowing what provides them with the advance and growth, they do not understand how and where to invest in order for this can happen. As such, and to solve this chronic problem in organisations, the authors Carriere and Barrette (2009) stress the importance for organisations to define, in a clear way, what their medium-long term intentions are. In other words, stipulating the investment in training, development and career progression of their employees will allow them to bring unquantifiable added value to the organisation. However, there is another fundamental premise: the choice of the right candidates. For this reason, it is crucial that there is also greater investment in this area. The consistency of these investments will allow the promotion of important organisational messages, such as vision, mission, and values, which will trigger the promotion of organisational culture (Carriere *et al.*, 2009).

1 Organisational culture is presented as the foundation that provides the development
2 of the relationship between intellectual capital and organisational performance in SMEs
3 (Asiaei and Jusoh, 2015). This phenomenon also enables the development of some
4 constructs of intellectual capital, such as structural capital and relational capital. That is,
5 the relationship between intellectual capital and organisational performance is not only
6 one-way but two-way. The authors reinforce the importance of leadership in this
7 relationship since good leadership motivates and eases knowledge sharing. Bhatti *et al.*
8 (2020) corroborates this idea and add human capital as a fundamental construct for
9 leveraging organisational performance. According to Li *et al.* (2021) and Nagwan (2021),
10 with the correct use of human capital in conjunction with the emotional capabilities of
11 organisations, it is possible to continue improving SMEs' performance. Thus, for this
12 resource to have a more significant impact on organisations, it is necessary to create
13 investment mechanisms that allow its development (Chen *et al.*, 2020).

14 The development of intellectual capital also facilitates the mediation of the
15 relationship between knowledge management and organisational performance (Daud and
16 Yusoff, 2011). Knowledge management is characterised as one of the key elements that
17 help SMEs improve their performance. Another way to justify this result is to consider
18 what Ling (2013) highlights in his research. Thus, Agostini *et al.* (2017) present two ways
19 to achieve this goal. Intellectual capital is present in all organisations. However, we can
20 either consider it and invest in it or not. This is where organisations are divided into two
21 sets. The first set is where intellectual capital is not invested in and ends up being
22 underutilised. The second one is where investment and maintenance of intellectual capital
23 are considered, which boosts organisational performance. This also benefits from the
24 improvement in the internal organisation of SMEs, which has a direct relationship with
25 their performance but is not directly linked to their economic success (Jardon and Martos,
26 2014).

27 Therefore, it is safer to say that good organisational planning benefits the achievement
28 of better performance through the right use of intellectual capital (Asiaei and Jusoh, 2017)
29 and allows to make strides towards organisational sustainability (Kopia *et al.*, 2017).
30 Other authors, such as Han and Li (2015) reinforce the importance of intellectual capital
31 by emphasising that organisational performance depends on the ability of organisations
32 to make correct and timely decisions through their perception of opportunities and threats
33 they face. Only in this way is it possible, in an efficient way, to improve SMEs
34 productivity, an element directly related to the performance of organisations
35 (Kengatharan, 2019).

36 **Cluster 2 | Knowledge Management (N=15)**

37 The productivity of an organisation, besides being dependent on the productive
38 capacity of the employees, is linked to the performance of the intellectual capital that, in
39 turn, eases organisational performance (Ahangar, 2011). In this way, it becomes essential
40 that SMEs become increasingly aware of the strategic asset, that is, knowledge
41 management (Bhatti *et al.*, 2011). Some organisations' underlying problem is the inability
42 to apply knowledge management policies appropriate to their contexts and environments.
43 Authors like Mehralian *et al.* (2018) reiterate the importance of developing and investing
44 in intellectual capital and knowledge management concepts from the very beginning of
45 organisations' lives and throughout their time in business. Only in this way is it possible
46 to positively impact organisational environments thus improving the outlook for future
47 generations of professionals (Pigola *et al.*, 2021).

1 For knowledge management to play a key role in the relationship between intellectual
2 capital and organisational performance in SMEs, they must strategically plan their social
3 decisions (Brown and Kietzmann, 2018). That is, the increasing preponderance of SMEs
4 in the social environment forces them to respond to these issues seriously, as the
5 advantages they can enjoy are pending their social action. Strategic knowledge
6 management directly affects the components of the intellectual capital of the relational
7 capital, the structural capital (Heisig *et al.*, 2016; Cabilo and Dahms, 2018) and
8 knowledge sharing (Oliveira *et al.*, 2020) stand out.

9 Knowledge management emerges as a mediator of the relationship between
10 intellectual capital and organisational performance, where it starts to register a positive
11 variation, improving all operational dynamics of SMEs (Hussinki *et al.*, 2017) due to the
12 ability of employees to share knowledge (Wang *et al.*, 2015; Wang *et al.*, 2016).
13 Knowledge management can reproduce positive effects on organisational performance
14 due to its direct and indirect interactions with intellectual capital (Iqbal *et al.*, 2018).
15 Later, the authors Bansal *et al.* (2022) went further and strengthened the theory by
16 presenting more objective findings. They concluded that when high levels of intellectual
17 capital and knowledge management exist in each organisation, it tends to perform well
18 above its competitors.

19 However, Kianto *et al.* (2013) warn against conducting an analysis too direct. The
20 author recalls that, despite the positive mediation of knowledge management in the
21 relationship between intellectual capital and organisational performance, the latter is
22 dependent on good intellectual capital management policies. That is, if SMEs, as
23 mentioned above, do not invest in the management of intellectual capital and do not adapt
24 their policies, the possibility of positively affecting their performance is drastically
25 reduced (Wang *et al.*, 2016).

31 **Cluster 3 | Innovation (N=13)**

32 A good organisational structure allows the creation of better conditions for the
33 performance of SMEs. The articulation of intellectual capital with knowledge
34 management allows for improving organisational performance through the impact of
35 innovation (Beltramino *et al.*, 2022). Although process innovation is directly affected by
36 an organisation's communication style, it allows for the improvement of intangible
37 components of organisations, such as culture and organisational capital (Tjahjadi *et al.*,
38 2019). Depending on the technology embedded in an organisation, the level of employee
39 engagement can vary, facilitating the consumer experience (Chou *et al.*, 2018). Customer
40 acquisition is a fundamental step in the life of organisations. In essence, their performance
41 depends on consumer behaviour and the ease with which they accept and interact with
42 innovations, in this case, technological innovations, implemented by organisations.

43 Thereby, if we consider that organisations plan and seek to improve their
44 organisational performance, the investment in technology-based innovations represent a
45 strong link to the basic constructs of intellectual capital (Novas *et al.*, 2017). The strategy
46 of each organisation is intrinsic to each one of them. However, the constructs of
47 intellectual capital and strategic partnerships are mainly responsible for improving
48 performance (Ferreira and Franco, 2017). That is, the correct investment in innovation
49 and the use of resources, such as intellectual capital and strategic partnerships, will
50 enhance SMEs' resources and dynamics, eliminating some gaps and clearly improving
51 their performance (Khalique *et al.*, 2020).

52 More recently, authors like Asiaei *et al.* (2015) and Beltramino *et al.* (2022) have
53 demonstrated the importance of investing in innovation and the impact of this action on
54 some of the components of intellectual capital. Human capital and structural capital are
55
56
57
58
59
60
61
62
63
64
65

1 the two constructs most affected by investment in innovation; it is possible to associate
2 this investment with a more sustainable environmental performance (Chatterjee *et al.*,
3 2022). In other words, for SMEs to reap the maximum benefits associated with green
4 resources, it is necessary to synchronise adequate organisational control with intellectual
5 capital valences (Rehman *et al.*, 2022b). Thus, it is possible to state that organisational
6 performance and competitive advantage are directly affected by innovation and the
7 repercussions it has on intellectual capital and knowledge management (Rehman *et al.*,
8 2022a).
9

10 **Cluster 4 | Strategic Partnerships (N=12)**

11
12 Considering an approach that began to gain momentum in the early 10s XXI century
13 (Yitmen, 2015), strategic partnerships come to the forefront where the scrutiny of this
14 construct has been gaining increasing importance. According to Andreeva and Garanina
15 (2016), organisational performance tends to suffer a more significant impact when there
16 is a greater bet on intellectual capital, mainly structural and relational capital. It is this bet
17 that will allow the creation of better opportunities for the development of bilateral
18 relationships (Ge and Xu, 2020). The ability to unite the human capital of two or more
19 organisations for the sake of organisational efficiency turns out to be scarce (Chowdhury
20 *et al.*, 2019). That is, some SMEs still need to internalise how much better their
21 organisational performance could be if they worked together with several organisations
22 (Chowdhury *et al.*, 2019).
23

24
25 The better the access to information, the greater the ability of SMEs to achieve better
26 organisational performance through intellectual capital investment and strategic
27 partnerships (Gravili *et al.*, 2020). Although investment in intellectual capital points to
28 the various constructs, structural and relational capital will stand out the most (Ozer *et*
29 *al.*, 2015). Thus, the possibility of leveraging strategic partnerships becomes a reality with
30 grounds to happen; that is, the relationship between intellectual capital and organisational
31 performance in SMEs exists, and both constructs influence each other (Soewarno and
32 Tjahjadi, 2020).
33

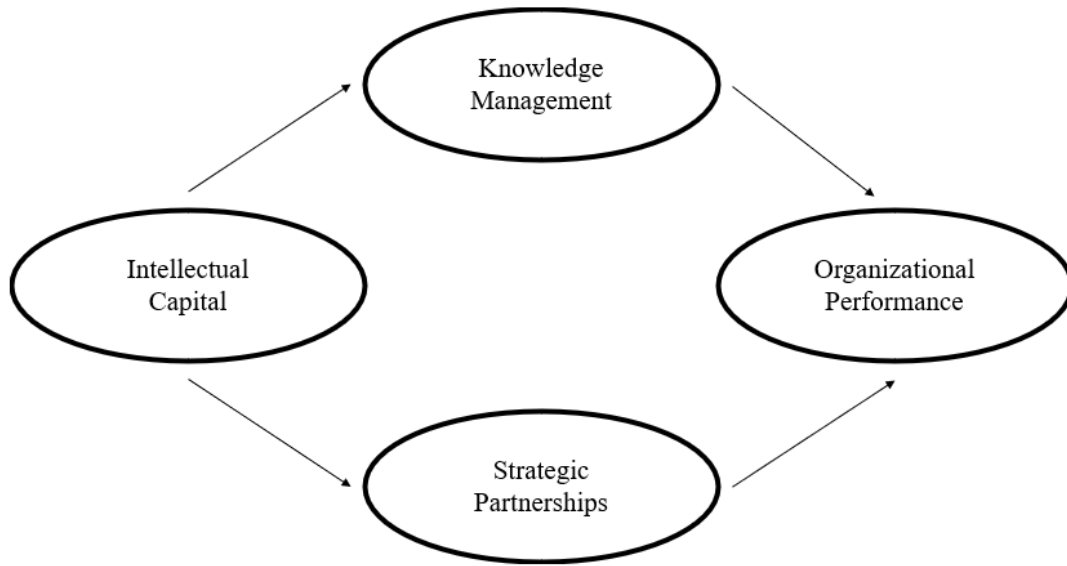
34
35 However, strategic partnerships should emerge as moderators of this relationship,
36 developing organisations both structurally and economically, as well as creating a greater
37 competitive advantage that will allow for greater longevity and growth of SMEs (Tseng
38 *et al.*, 2013; Ting *et al.*, 2020). By using strategic partnerships as a moderator of the
39 relationship between intellectual capital and organisational performance, it is possible to
40 leverage both constructs and improve organisations' results in the medium to long term
41 (Xu and Li, 2019; Xu *et al.*, 2022).
42
43
44
45

46 **Framework - Intellectual Capital and Organizational Performance in** 47 **the construction sector** 48

49
50 Considering the clusters identified through the bibliographic coupling of the 61
51 articles, Figure 10 shows the proposed framework for the theme “Intellectual Capital and
52 Organizational Performance in SMEs/Construction Companies”. In general, the
53 relationship between intellectual capital and organisational performance has positive
54 aspects for organisations. The correct investment in intellectual capital always enhances
55 organisational performance, which can benefit from the correct knowledge management
56 that requires applying policies that allow development. In this way, knowledge
57 management can mediate the relationship between intellectual capital and organisational
58 performance. On the other hand, strategic partnerships emerge as a differentiating
59
60
61
62
63
64
65

1 element where their ability to moderate the relationship described above allows for
 2 improving organisational performance and creating a greater competitive advantage.

3 These two processes of mediation and moderation can be analysed independently, that
 4 is, the model represented in Figure 10 can be divided into two distinct models. The first
 5 model, where knowledge management mediates the relationship between intellectual
 6 capital and organisational performance and the second one, where strategic partnerships
 7 moderate this same relationship. However, it should be noted that in both models,
 8 innovation is a constant that influences the relationship described. This obtains greater
 9 benefit if the two models merge into one, as it is presented in Figure 10.
 10



11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33 *Figure 10. General Framework.*

34 35 36 37 **Future Lines of Research**

38 Based on the clusters ascertained and previously analysed, it is possible to identify
 39 gaps in the different lines of research and present several research questions. With the
 40 intent of leveraging scientific knowledge and contributing to advancing the different
 41 ramifications inherent to the basilar theme of intellectual capital and organisational
 42 performance in SMEs, the gaps identified and the research questions proposed are
 43 presented in Table 1.
 44
45
46
47
48
49
50
51
52
53

54
55 *Table 1. Future Lines of Research.*

Cluster	Gap	Research Question
---------	-----	-------------------

<p>1 Cluster 1 Intellectual Capital 2 and Organizational 3 Performance</p>	<ul style="list-style-type: none"> • The study of intellectual capital dimensions and how these affect organisational performance. • To understand whether intellectual capital has the same influence on organisational performance if it plays a mediating or moderating role. 	<ul style="list-style-type: none"> • What are the impacts and indirect advantages for SMEs that benefits of the relationship between intellectual capital and organisational performance?
<p>13 Cluster 2 Knowledge 14 Management</p>	<ul style="list-style-type: none"> • The promotion of organisational performance through different combinations between intellectual capital and knowledge management. • Incorporating strategic models to improve knowledge sharing. 	<ul style="list-style-type: none"> • How does knowledge management interfere with behaviour in the organisational sphere?
<p>24 Cluster 3 Innovation</p>	<ul style="list-style-type: none"> • Understand how increased investment in innovation can promote changes within organisations and their decision-making. 	<ul style="list-style-type: none"> • How can innovation influence the decisions to be made in SMEs?
<p>31 Cluster 4 Strategic 32 Partnerships</p>	<ul style="list-style-type: none"> • Study the hypothesis that strategic partnerships play a role other than moderating the relationship between intellectual capital and organisational performance. • Analysis of partnerships based on cultural contexts. 	<ul style="list-style-type: none"> • What will be the impacts and advantages of making different strategic partnerships?

42 Conclusions

44 The need for SMEs to view the future with a more critical eye has revealed the
45 need to change investment strategies and policies. Still needs to be considered, within
46 SMEs (mainly family-owned ones), intellectual capital stands out as the key to easing
47 organisations' growth and maturity (Chen *et al.*, 2020). In this sense, intellectual capital
48 and organisational performance appear related to one construct forcing the other to grow,
49 improving the environment for employees, customers, and the economy (Li *et al.*, 2021).

51 Research on the topic under review in this article is recent, with research reaching
52 a peak in 2020. The considerable increase in research on the topic from the beginning of
53 the century to the present day is due to the need for organisations to compete and leverage
54 their progress through the strategic application of investments and policies (Han and Li,
55 2014).

57 As far as could be ascertained, no systematic literature review was identified that
58 addressed the topic. Thus, this study contributes to a holistic view of the relationship
59 between intellectual capital and organisational performance in SMEs. An identification
60

61
62
63
64
65

of the sub-themes present in the research area is also defined, allowing the identification of some gaps in the state of the art and, thereby, suggesting possible lines of research.

The bibliometric analysis allowed the identification of sets of constructs with strong links between them. The bibliographic coupling allowed the identification of 4 clusters – cluster (1) Intellectual Capital and Organizational Performance, cluster (2) Knowledge Management, cluster (3) Innovation, and cluster (4) Strategic Partnerships, allowing to answer the question "What are the dominant sub-themes in the knowledge area under analysis?"

The co-citation analysis allowed to ascertain the most cited/influential authors - Wang *et al.* (2014), Yang and Lin (2014), Cabrilo and Dahms (2018), Hussinki *et al.* (2017), Han and Li (2015) – and the journals with the largest number of publications on the theme under analysis – Journal of Intellectual Capital, the Journal of Knowledge Management and Management Decision, in descending order. This research allowed answering the following questions "Which are the most influential authors?" and "Which journals have the most publications?"

To answer the research question of the study conducted, "what are the impacts of intellectual capital on SMEs/construction firms?" the bibliometric analysis allowed to ascertain the impacts of intellectual capital on SMEs but did not make a clear statement about construction firms due to the lack of literature. In this way, it was verified that when there is a coherent line of investment in intellectual capital, its constructs are strengthened and, in turn, through a two-way relationship, allow for a better organisational performance that, in the opposite direction, stimulates the development of intellectual capital. Nevertheless, knowledge management and strategic partnerships play a key role in this relationship. This role can be played individually or jointly, as shown in the model present in the "Framework" chapter. In other words, through the mediation of the relationship between intellectual capital and organisational performance, knowledge management can enhance the performance and productivity of SMEs while strategic partnerships facilitate, through the moderation of the same relationship, the leverage of both constructs. Regarding innovation, although playing a key role in the advancement and growth of organisations, it does not play a pivotal role in improving organisational performance. In short, if an organisation is not aware of the ability of these constructs to work together, it may be undervaluing and underutilising all its competencies, while an organisation that understands how to put all these strengths to work together achieves better results through improved performance.

Like any research, this RSL (Systematic Review of the Literature) is not immune to limitations in its process. The fact that it only uses one database (Web of Science) restricts the search spectrum, and also that documents of relevance and interest have not been considered. The different filters that were used to narrow and focus the research have a double face in the sense that they provide a focus within the theme but inhibit the holistic view of the theme. Finally, there is a lack of studies applied to various economic areas, including the area of construction especially in the Portuguese context, which forced us to broaden our field of investigation to SMEs.

As for future lines of research, some studies are suggested in order to understand (i) what are the adjacent advantages of the relationship between intellectual capital and organisational performance in SMEs/construction companies; (ii) what is the weight of knowledge management in the organisational atmosphere, as well as in its performance; (iii) how innovation can influence the decision making of organisations; and (iv) to analyse the impact of strategic partnerships in the performance of SMEs.

Bibliography

- 1
2 Afroz, L., Chowdhury, M., and Rana, T. (2019). Intellectual capital efficiency and
3 organisational performance In the context of the pharmaceutical industry in
4 Bangladesh. *Journal of Intellectual Capital*, 20(6), 784–806.
5 <https://doi.org/10.1108/JIC-10-2018-0171>
6
- 7 Ahangar, Reza. (2011). The relationship between intellectual capital and financial
8 performance: An empirical investigation in an Iranian company. *African Journal of*
9 *Business Management*. 5. 88-95. 10.5897/AJBM10.712
10
- 11 Ali, M. A., Hussin, N., Haddad, H., Al-Araj, R., and Abed, I. A. (2021). Intellectual
12 capital and innovation performance: systematic literature review. In *Risks* (Vol. 9,
13 Issue 9). MDPI. <https://doi.org/10.3390/risks9090170>
14
- 15 Amjad Iqbal, Fawad Latif, Frederic Marimon, Umar Farooq Sahibzada, S. H. (2019).
16 From knowledge management to organisational performance. *Journal of*
17 *Enterprise Information Management*, 32(1), 36–59. [https://doi.org/10.1108/JEIM-](https://doi.org/10.1108/JEIM-04-2018-0083)
18 [04-2018-0083](https://doi.org/10.1108/JEIM-04-2018-0083)
19
- 20 António Ferreira, and Franco, M. (2017). The Mediating Effect of Intellectual Capital in
21 The Relationship Between Strategic Alliances and Organisational Performance in
22 Portuguese Technology-Based SMEs. *European Management Review*.
23 <https://doi.org/10.1111/emre.12107>
24
- 25 Archer-brown, C., Kietzmann, J., Archer-brown, C., and Kietzmann, J. (2018). Strategic
26 knowledge management and enterprise social media Strategic knowledge
27 management and enterprise social media. *Journal of Knowledge Management*.
28 <https://doi.org/10.1108/JKM-08-2017-0359>
29
- 30 Asiaei, K., and Jusoh, R. (2017). Using a robust performance measurement system to
31 illuminate intellectual capital. *International Journal of Accounting Information*
32 *Systems*, 26, 1–19. doi:10.1016/j.accinf.2017.06.003
33
- 34 Asiaei, K., Jusoh, R., Asiaei, K., Jusoh, R., Han, Y., and Li, D. (2015). A
35 multidimensional view of intellectual capital: the impact on organisational
36 performance. *Management Decision*, 53(3), 668–697.
37 <https://doi.org/http://dx.doi.org/10.1108/MD-05-2014-0300>
38
- 39 Bansal, S., Garg, I., Jain, M. and Yadav, A. (2022), "Improving the
40 performance/competency of small and medium enterprises through intellectual
41 capital", *Journal of Intellectual Capital*, Vol. ahead-of-print No. ahead-of-print.
42 <https://doi.org/10.1108/JIC-07-2021-0189>
43
- 44 Bassi, L. J., and Buren, M. E. Van. (1999). Valuing investments in intellectual capital.
45 *Int. J. Technology Management*, 18, 414–433.
46
- 47 Beltramino, N.S., Garcia-Perez-de-Lema, D. and Valdez-Juarez, L.E. (2022), "The role
48 of intellectual capital on process and products innovation. Empirical study in
49 SMEs in an emerging country", *Journal of Intellectual Capital*, Vol. 23 No. 4, pp.
50 741-764. <https://doi.org/10.1108/JIC-07-2020-0234>
51
- 52 Bhatti, S. H., and Christofi, M. (2020). Social capital, knowledge sharing, work
53 meaningfulness and creativity: evidence from the Pakistani pharmaceutical
54 industry. *Journal of Intellectual Capita*. <https://doi.org/10.1108/JIC-02-2020-0065>
55
- 56 Bhatti, Waheed Akbar and Zaheer, Arshad and ur Rehman, Kashif. (2011). The Effect
57 of Knowledge Management Practices on Organisational Performance: A
58 Conceptual Study. *African journal of business management*. 5. 2847-2853.
59
- 60 Cabrilo, S., Dahms, S., Cabrilo, S., and Dahms, S. (2018). How strategic knowledge
61 management drives intellectual capital to superior innovation and market
62
63
64
65

- performance. *Journal of Knowledge Management*. <https://doi.org/10.1108/JKM-07-2017-0309>
- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Carriere, J. (2009). Gestion des ressources humaines et performance de la firme a capital intellectuel eleve : une application des perspectives de contingence et de configuration. *Canadian Journal of Administrative Sciences*, 2, 302–315.
- Chatterjee, S., Chaudhuri, R., Thrassou, A. and Sakka, G. (2022), "Impact of firm's intellectual capital on firm performance: a study of Indian firms and the moderating effects of age and gender", *Journal of Intellectual Capital*, Vol. 23 No. 1, pp. 103-126. <https://doi.org/10.1108/JIC-12-2020-0378>
- Chen, M. Y., and Zhu, J. N. Y. (2020). *Should companies invest in human resource development practices ? The role of intellectual capital and organisational performance improvements*. <https://doi.org/10.1108/PR-04-2019-0179>
- Chou, C. Y., Huang, C. H., and Lin, T.-A. (2018). Organisational intellectual capital and its relation to frontline service employee innovative behavior: consumer value co-creation behavior as a moderator. *Service Business*. doi:10.1007/s11628-018-0387-4
- Daud, S., Fadzilah, W., and Yusoff, W. (2011). How intellectual capital mediates the relationship between knowledge management processes and organisational performance ? *African Journal of Business Management*, 5(7), 2607–2617. <https://doi.org/10.5897/AJBM10.806>
- Dennys Eduardo Rossetto, Roberto Carlos Bernardes, Felipe Mendes Borini, C. C. G. (2018). Structure and evolution of innovation research in the last 60 years: review and future trends in the field of business through the citations and co-citations analysis. *Scientometrics*. <https://doi.org/10.1007/s11192-018-2709-7>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., and Marc, W. (2021). How to conduct a bibliometric analysis : An overview and guidelines. *Journal of Business Research*, 133(April), 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Garfield, E. (2002). *Eugene Garfield*.
- Ge, F., and Xu, J. (2020). Does intellectual capital investment enhance firm performance ? Evidence from pharmaceutical sector in China. *Technology Analysis and Strategic Management*, 0(0), 1–16. <https://doi.org/10.1080/09537325.2020.1862414>
- Gravili, G., Manta, F., Degli, U., Magna, S., and Toma, P. (2020). Value that matters : intellectual capital and big data to assess performance in healthcare . An empirical analysis on the European context. *Journal of Intellectual Capital*. <https://doi.org/10.1108/JIC-02-2020-0067>
- Han, Y., and Li, D. (2015). Effects of intellectual capital on innovative performance: The role of knowledge-based dynamic capability. *Management Decision*, 53(1), 40–56. <https://doi.org/10.1108/MD-08-2013-0411>
- Heisig, P., Suraj, O.A., Kianto, A., Kemboi, C., Perez Arrau, G. and Fathi Easa, N. (2016), "Knowledge management and business performance: global experts' views on future research needs", *Journal of Knowledge Management*, Vol. 20 No. 6, pp. 1169-1198. <https://doi.org/10.1108/JKM-12-2015-0521>
- Henri Hussinki, Paavo Ritala, Mika Vanhala, A. K. (2017). Intellectual capital, knowledge management practices and firm performance. *Journal of Intellectual Capital*, 18(4), 904–922. <https://doi.org/10.1108/JIC-11-2016-0116>
- Hjørland, B. (2013). Facet analysis : The logical approach to knowledge organisation. *Information Processing and Management*, 49, 545–557. <https://doi.org/10.1016/j.ipm.2012.10.001>

- 1 Hussinki, H., Ritala, P., Vanhala, M. and Kianto, A. (2017), "Intellectual capital,
2 knowledge management practices and firm performance", *Journal of Intellectual*
3 *Capital*, Vol. 18 No. 4, pp. 904-922. <https://doi.org/10.1108/JIC-11-2016-0116>
- 4 Jardon, Carlos; Martos, María Susana (2014). Capital intelectual y competencias
5 distintivas en pymes madereras de argentina. *RAE-Revista de Administração de*
6 *Empresas*, 634–646. [https://doi.org/http://dx.doi.org/10.1590/S0034-](https://doi.org/http://dx.doi.org/10.1590/S0034-759020140604)
7 [759020140604](https://doi.org/http://dx.doi.org/10.1590/S0034-759020140604)
- 8 Jorge Casas Novas, M. do C. G. A., and Sousa, A. (2017). The role of management
9 accounting systems in the development of intellectual capital. *Journal of*
10 *Intellectual Capital*, 18(2). [https://doi.org/http://dx.doi.org/10.1108/JIC-08-2016-](https://doi.org/http://dx.doi.org/10.1108/JIC-08-2016-0079)
11 [0079](https://doi.org/http://dx.doi.org/10.1108/JIC-08-2016-0079)
- 12 Kengatharan, N. (2019). A knowledge-based theory of the firm Nexus of intellectual
13 capital , productivity and firms' performance. *International Journal of Manpower*.
14 <https://doi.org/10.1108/IJM-03-2018-0096>
- 15 Khalique, M., and Abdul, J. (2020). Intellectual capital in tourism SMEs in Azad
16 Jammu and Kashmir, Pakistan. *Journal of Intellectual Capital*, 21(3), 333–355.
17 <https://doi.org/10.1108/JIC-11-2018-0206>
- 18 Kianto, A., Andreeva, T., and Pavlov, Y. (2013). The impact of intellectual capital
19 management on company competitiveness and financial performance. *Knowledge*
20 *Management Research and Practice*, 11(2), 112–122.
21 <https://doi.org/10.1057/kmrp.2013.9>
- 22 Kopia, S. C. (2017). Performance measurement of management system standards using
23 the balanced scorecard. *Amfiteatru Economic Journal*, 19(11), 981–1002.
24 <https://doi.org/http://hdl.handle.net/10419/196405> Standard-
25 Nutzungsbedingungen:
- 26 Lara Agostini, Anna Nosella, R. F. (2017). Does intellectual capital allow improving
27 innovation performance? A quantitative analysis in the SME context. *Journal of*
28 *Intellectual Capital*, 18(2), 400–418. [https://doi.org/https://doi.org/10.1108/JIC-05-](https://doi.org/https://doi.org/10.1108/JIC-05-2016-0056)
29 [2016-0056](https://doi.org/https://doi.org/10.1108/JIC-05-2016-0056) Permanent
- 30 Li, S. (2021). The impact of ability- , motivation- and opportunity-enhancing strategic
31 human resource management on performance : the mediating roles of emotional
32 capability and intellectual capital. *Journal of Human Resources*, 4800.
33 <https://doi.org/10.1111/1744-7941.12293>
- 34 Li, Y., Gong, Y., Burmeister, A., Wang, M., Alterman, V., Alonso, A., and Robinson,
35 S. (2021). Leveraging age diversity for organisational performance: An intellectual
36 capital perspective. *Journal of Applied Psychology*, 106(1), 71–91.
37 <https://doi.org/10.1037/apl0000497>
- 38 Ling, Y. (2013). The influence of intellectual capital on organisational performance —
39 Knowledge management as moderator. *Journal of Human Resources*, 1, 937–964.
40 <https://doi.org/10.1007/s10490-011-9257-5>
- 41 Mehralian, G., Nazari, J. A., Ghasemzadeh, P., Mehralian, G., Nazari, J. A., and
42 Ghasemzadeh, P. (2018). The effects of knowledge creation process on
43 organisational performance using the BSC approach : the mediating role of
44 intellectual capital. *Journal of Knowledge Management*.
45 <https://doi.org/10.1108/JKM-10-2016-0457>
- 46 Nagwan, A., Tun, U., & Onn, H. (2021). Investigating The Influence Of Intellectual
47 Capital Dimensions Practices On SMEs Performance. November 2020.
- 48 Oliveira, M., Curado, C., Balle, A.R. and Kianto, A. (2020), "Knowledge sharing,
49 intellectual capital and organisational results in SMES: are they related?", *Journal*
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

of Intellectual Capital, Vol. 21 No. 6, pp. 893-911. <https://doi.org/10.1108/JIC-04-2019-0077>

- 1
2 Özer, G., and Ergun, E. (2015). Effects Of Intellectual Capital On Qualitative And
3 Quantitative Performance: Evidence From Turkey. *Sajems Ns*, 18(1), 143–154.
4 <https://doi.org/http://dx.doi.org/10.17159/2222-3436/2015/v18n2a1>
5
6 Pigola, A., De Santi, P.V., da Costa, P.R. and Storopoli, J. (2022), "Intellectual capital
7 on performance: a meta-analysis study enhancing a new perspective of the
8 components", *Journal of Intellectual Capital*, Vol. 23 No. 6, pp. 1379-1403.
9 <https://doi.org/10.1108/JIC-01-2021-0025>
10
11 Rehman, S.U., Bresciani, S., Ashfaq, K. and Alam, G.M. (2022), "Intellectual capital,
12 knowledge management and competitive advantage: a resource orchestration
13 perspective", *Journal of Knowledge Management*, Vol. 26 No. 7, pp. 1705-1731.
14 <https://doi.org/10.1108/JKM-06-2021-0453>
15
16 Soewarno, N., and Tjahjadi, B. (2020). Measures that matter : an empirical investigation
17 of intellectual capital and financial performance of banking firms in Indonesia.
18 *Journal of Intellectual Capital*, 2014. <https://doi.org/10.1108/JIC-09-2019-0225>
19
20 Tatiana Andreeva, T. G. (2016). Do all elements of intellectual capital matter for
21 organisational performance? Evidence from Russian context. *Journal of*
22 *Intellectual Capital*, 17(2). <https://doi.org/http://dx.doi.org/10.1108/JIC-07-2015-0062>
23
24 Ting, I.W.K., Ren, C., Chen, F.-C. and Kweh, Q.L. (2020), "Interpreting the dynamic
25 performance effect of intellectual capital through a value-added-based
26 perspective", *Journal of Intellectual Capital*, Vol. 21 No. 3, pp. 381-401.
27 <https://doi.org/10.1108/JIC-05-2019-0098>
28
29 Tjahjadi, B., Soewarno, N., and Astri, E. (2019). Does intellectual capital matter in
30 performance management performance relationship ? Experience of higher
31 education institutions in Indonesia. *Journal of Intellectual Capital*, 20(4), 533–554.
32 <https://doi.org/10.1108/JIC-12-2018-0209>
33
34 Tseng, K.-A., Lan, Y.-W., Lu, H.-C. and Chen, P.-Y. (2013), "Mediation of strategy on
35 intellectual capital and performance", *Management Decision*, Vol. 51 No. 7, pp.
36 1488-1509. <https://doi.org/10.1108/MD-03-2012-0143>
37
38 Ur Rehman, S., Elrehail, H., Alsaad, A. and Bhatti, A. (2022), "Intellectual capital and
39 innovative performance: a mediation-moderation perspective", *Journal of*
40 *Intellectual Capital*, Vol. 23 No. 5, pp. 998-1024. <https://doi.org/10.1108/JIC-04-2020-0109>
41
42 Wang, Z., Nidhi, P., and Cao, J. (2016). From knowledge sharing to firm performance :
43 A predictive model comparison. *Journal of Business Research*.
44 <https://doi.org/10.1016/j.jbusres.2016.03.055>
45
46 Wang, Z., Wang, N., Liang, H., Wang, Z., and Wang, N. (2015). Knowledge sharing ,
47 intellectual capital and firm performance. *Management Decision*, 52(2), 230–258.
48 <https://doi.org/10.1108/MD-02-2013-0064>
49
50 Wei, I., Ting, K., Ren, C., and Chen, F. (2020). Interpreting the dynamic performance
51 effect of intellectual capital through a value-added- based perspective. *Journal of*
52 *Intellectual Capital*, 21(3), 381–401. <https://doi.org/10.1108/JIC-05-2019-0098>
53
54 Xu, J., and Li, J. (2019). The interrelationship between intellectual capital and firm
55 performance : evidence from China ' s manufacturing sector. *Journal of*
56 *Intellectual Capital*. <https://doi.org/10.1108/JIC-08-2019-0189>
57
58 Xu, J., Haris, M. and Liu, F. (2022), "Intellectual capital efficiency and firms' financial
59 performance based on business life cycle", *Journal of Intellectual Capital*, Vol.
60 ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JIC-12-2020-0383>
61
62
63
64
65

- 1 Yang, C., and Lin, C. Y. (2014). Does intellectual capital mediate the relationship
2 between HRM and organisational performance ? Perspective of a healthcare
3 industry in Taiwan. *The International Journal of Human Resource Management*,
4 *February 2014*, 37–41. <https://doi.org/10.1080/09585190903142415>
- 5 Yitmen, I. (2015). Intellectual Capital: A Competitive Asset for Driving Innovation in
6 Engineering Design Firms. *Engineering Management Journal ISSN:*, 23(2), 3–19.
7 <https://doi.org/10.1080/10429247.2011.11431891>
- 8 Yunhsin, C., Chin, C., Huang, H., and An, T. (2018). Organisational intellectual capital
9 and its relation to frontline service employee innovative behavior : consumer value
10 co - creation behavior as a moderator. *Service Business*, 12(4), 663–684.
11 <https://doi.org/10.1007/s11628-018-0387-4>
- 12 Zha, D., Melewar, T. C., and Foroudi, P. (2020). An Assessment of Brand Experience
13 Knowledge Literature : Using Bibliometric Data to Identify Future Research
14 Direction. *International Journal OfManagement Reviews*, 0, 1–31.
15 <https://doi.org/10.1111/ijmr.12226>
- 16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65