



**Assessing Competitiveness through Intellectual Capital
Research: A Systematic Literature Review and Agenda for
Future Research**

Journal:	<i>Competitiveness Review</i>
Manuscript ID	CR-10-2023-0262.R1
Manuscript Type:	Conceptual Research Paper
Keywords:	Intellectual Capital, Value Creation, Research Limitations, Emerging Economies, Systematic Literature Review

SCHOLARONE™
Manuscripts

Assessing Competitiveness through Intellectual Capital Research: A Systematic Literature Review and Agenda for Future Research

Abstract

Purpose: This study undertakes a systematic literature review (SLR) on intellectual capital disclosure (ICD), focusing on its role in fostering competitive advantage.

Design/methodology/approach: Following the SLR process, the study identified 84 articles published in high-ranking journals over a 19-year span, providing insights into descriptive outcomes, research limitations, and future research directions.

Findings. The results show that ICD research peaked in 2022, with the Journal of Intellectual Capital leading with the highest number of ICD publications. Resource-based theory was found to be the most applied theoretical framework, with developed country-specific research receiving the most attention. The use of small sample size, a lack of longitudinal studies, reliance on a single source of data, unsuitability of control variables, and a lack of comparative studies with firms operating in developing countries are the main limitations that have been noted.

Research limitations/implications: Our study faces constraints, primarily stemming from the selective keyword utilization and exclusive Scopus database reliance. It omits non-English articles, conference proceedings, and books, potentially overlooking relevant insights.

Practical implications: The findings offer valuable insight for researchers, emphasizing the need for research on intellectual capital (IC) across diverse industries. Furthermore, our findings urge regulators to mandate global IC reporting to mitigate information asymmetry, while also prompting managers to enhance IC-related practices and reporting for more stakeholders' trust.

Originality/value: This study provides a comprehensive overview of over two decades of ICD literature, synthesizing previous studies, identifying gaps, and outlining potential directions for scholars and industry professionals in the context of competitiveness.

Keywords: Intellectual Capital, Competitiveness, Research Limitations, Systematic Literature Review, Disclosure

1. Introduction

Intellectual capital (IC) is a crucial success factor for organizations (Chahal and Bakshi, 2015). When effectively leveraged by firms, it can empower them to gain a competitive advantage in the market over their rivals (Naseem et al., 2024). The origin of IC can be traced back to mid-twentieth century. At that time, the business landscape experienced a transformative shift, specifically during the 1960s, moving from conventional economic models to knowledge-based paradigms. This evolution highlighted the imperative for enterprises to realign operational strategies for competitive advantage, leveraging emerging information and communication tools (Dalwai et al., 2022; Erickson and Rothberg, 2000; Haines and Sharif, 2006). In 1969, Galbraith made a significant contribution by introducing the concept of 'intellectual capital'. His work emphasized that IC is not merely a repository for knowledge but is the outcome of "intellectual action" adding tangible competitive value to organizations (Flamholtz, 1971).

However, it was not until the 1990s that the IC field began to gain popularity. As demonstrated by Quintero-Quintero et al. (2021) and reinforced by the work of scholars such

1
2
3 as Bergman and Roos (2007), who reported that firms eagerly adopted voluntary intellectual
4 capital disclosure (ICD) during this period. This can be justified by many factors, such as
5 growing importance of IC, the need for transparency within the fast-changing business
6 environment, and the increase recognition of the role of intangible assets in value generation.
7 Thus, the adoption of ICD practices was influenced by the dynamic corporate environment of
8 that era (Abeysekera and Guthrie, 2005; Burgman and Roos, 2007; Vandemaele et al., 2005).
9 This is illustrated by the gradual intensification of ICD in the European region, especially
10 Scandinavia, that showed an increasing trend (Vergauwen et al., 2007). This concentration of
11 enhanced ICD practices geographically highlighted a wider recognition of the value inherent
12 in IC across sectors and businesses.
13
14

15 IC research is a rapidly evolving field with numerous literature reviews (for instance,
16 Abeysekera, 2006; Cuzzo et al., 2017; Dumay and Cai, 2014, 2015; Goebel, 2015; Ienciu,
17 2014; Pedro et al., 2018; Petty and Guthrie, 2000; Serenko et al., 2010). However, there is a
18 noticeable fragmentation of knowledge in the ICD field. Some focus on specific journal, such
19 as Serenko and Bontis, 2004. Others have limited comprehension of the ICD due to reviewing
20 a small number of articles and/or an out-of-date time period, like Pedro et al. (2018), and
21 Serenko et al. (2010). Additionally, some studies overlooked investigating research limitations,
22 for instance, Vanini and Rieg (2019). Addressing such fragmented research base would help
23 pinpoint gaps in the existing research and offer valuable insights for the on-going evolution of
24 IC field. Specifically, based on the above discussion, we can conclude that, to date there is no
25 literature review exclusively dedicated to the field of ICD for the period from 2005 till 2023
26 with the aim of content analysis of several themes' frequency of publication, geographical
27 spread, methods, theoretical focus. This study consequently addresses this gap in literature,
28 which motivates the current study. In this context, the study aims at providing a comprehensive
29 overview of over two decades of ICD literature, synthesizing previous studies, identifying gaps,
30 and outlining potential future directions for scholars. The study is led by three main research
31 questions:
32
33
34

35 RQ1: How has the concept of IC disclosure evolved over years, including its development
36 across countries, researched methods, and theories used?
37

38 RQ2: What are the limitations related to the field of IC disclosure?
39

40 RQ3: What are the potential future research opportunities related to the field of IC
41 disclosure?
42

43 To answer our research questions, we followed the systematic literature review (SLR)
44 approach. Data is obtained through mining the Scopus database. Data was gathered in May
45 2023, and 84 documents published between 2005 and 2023 were found using the search term.
46 We synthesise and classify papers then analyse them by journal, year, country, research
47 techniques, and theoretical framework. We identified several limitations, including sample
48 characteristics, data source, single-sector focus, and distinctions between developed and
49 developing countries. Addressing those limitations can allow for the shift in research focus
50 and change in the relevance of different IC topics through time, yielding incredibly insightful
51 information about the field's future research frontiers and directions.
52
53

54 Our study makes significant contributions to ICD literature stream. First, to the best of our
55 knowledge—there is no SLR available in this strand that addresses ICD limitation, a topic often
56 overlooked in other reviews. Hence, our study distinguishes itself from previous SLR studies
57 (For instance, Abeysekera, 2006; Cuzzo et al., 2017; Dumay and Cai, 2014; Goebel, 2015;
58 Ienciu, 2014; Pedro et al., 2018; Petty and Guthrie, 2000; Serenko et al., 2010) by focusing on
59 the content analysis of limitations of prior ICD research. Our SLR contributes to knowledge,
60

1
2
3 by broadly outlining the reasons (theories), ways (methodological techniques), and information
4 (empirical evidence) we know in the field of ICD. Finally, the study offers direction for future
5 research that can represent a reference point for scholars interested in ICD.
6

7 The study is organized as follows: Section 2 presents the literature review. Section 3
8 explains the SLR process, selection, and categorization of publications. Section 4 presents
9 descriptive results of the review followed by a critical analysis of limitations. Section 5
10 discusses the main findings and provides opportunities for future research. Section 6 provides
11 the conclusion.
12
13

14 15 16 **2. Literature Review** 17

18 IC is the "ability of a company to generate new knowledge, disseminate it among the
19 organization members, and materialize it in products, services, and systems" (Nonaka and
20 Takeuchi, 1995). The field of IC attracted extensive academic attention (Aslam et al., 2023;
21 Vitolla et al., 2022). Since, scholars highlighted its pivotal role in organizational survival,
22 growth (Kogut and Zander, 1996), performance enhancement (Davenport, 1999), competitive
23 dynamics, and innovation (Porter and Millar, 1985). Nonaka and Takeuchi (1995) explained
24 IC's multidimensional nature, encompassing knowledge generation, dissemination, and
25 materialization across five dimensions: human, structural, organizational, process, and
26 customer or relational capital. The discourse underscores the collaborative contributions of
27 "human assets" to organizational value creation (Flamholtz, 1971). This academic exploration
28 reflects the evolving significance of IC in shaping organizational strategies and
29 competitiveness.
30
31

32
33 Voluntary disclosure in Grossman (1981) and Milgrom's (1981) classical literature
34 argues that to satisfy stakeholder demands and maintain a competitive market position,
35 companies should frequently release non-obligatory information. Since the adoption of IFRS,
36 the percentage of intangible assets on the balance sheets of companies has increased (Sahut et
37 al., 2011). However, in terms of IC, annual financial reports are deemed inadequate (Brüggen
38 et al., 2009; Mouritsen et al., 2005). Research has shown that the mandatory disclosure of IC
39 has a deteriorating value and significance (Basu and Waymire, 2008; Ciftei et al., 2014).
40 Companies willingly include IC information in financial statements, through disclosures
41 related to events and issues, and in structures like value creation contexts to reduce information
42 asymmetries (Holland, 2003)
43
44

45
46 The literature on ICD has been shaped by many theories; the most prominent ones are
47 resource-based theory (RBT), agency theory, and resource dependence theory (RDT). RBT
48 emerged in the 1980s as a model for effective management of firms' resources, diversification
49 strategies, and productive opportunities. It posits that firms possess unique bundles of
50 resources, including tangible and intangible assets, and organizational capabilities. These
51 resources develop competencies, which contribute to a firm's competitive advantages. IC,
52 consisting of intangible assets and organizational capabilities, is considered a strategic resource
53 within RBT and can generate value when managed properly. According to Barney (1991), RBV
54 theory assumes that mixed resources such as valuable, rare, inimitable, and non-substitutable
55 (VRIN) play a significant role in achieving competitive advantage. Jafari-Sadeghi et al. (2021)
56 found that RBV theory plays a vital role in organizational success by reinforcing the
57 relationship between corporate resources and dynamic capabilities.
58
59
60

1
2
3 RBT has been utilized in many IC studies, such as Anifowose et al. (2018), Clarke et
4 al. (2011), Ur Rehman et al. (2022), Smriti and Das (2018), and Rehman et al. (2023). Clarke
5 et al. (2011) found a direct relationship between value-added intellectual capital (VAIC) and
6 performance of Australian publicly listed firms, particularly with capital-employed efficiency
7 (CEE) and to a lesser extent with human capital efficiency (HCE). Ur Rehman et al. (2022)
8 provided evidence that the performance of Islamic banks (IBs) is driven primarily by
9 investment in IC efficiency and the SCE and relational capital efficiency (RCE) are the
10 essential drivers of value in achieving high performance at IBs. Smriti and Das (2018) found
11 that Indian listed firms appear to be performing well and efficiently utilizing their IC. Overall,
12 human capital had a major impact on firm productivity during the study period. Furthermore,
13 the empirical analysis showed that SCE and CEE were equally important contributors to firm's
14 sales growth and market value. There is still some debate over whether the term resource-based
15 theory (RBT) or resource-based view (RBV) is the more appropriate one to use when referring
16 to the theory. The IC literature that relied on RBV used it to explore topics such as performance
17 (Lestari and Adhariani 2022; Nkambule et al. 2022; Tjahjadi et al. 2022), innovation (Rehman
18 et al. 2023), firm value (Tseng and Goo 2005).

22 Agency theory is another widely used theory in the IC literature, as it accurately
23 captures the relationship between financial reporting, information asymmetry, and agency costs
24 (Ibrahim et al. 2022). The creation of value is dependent on how managers use financial and
25 physical capital, as well as how they manage organizational IC (Keenan and Aggestam 2001).
26 Disclosure of IC reduces information asymmetry between principal(s) and agent(s), thereby
27 reducing agency costs (An et al. 2011). This can lower the cost of capital by enhancing
28 investors' confidence through displaying the contribution of IC to the value creation process of
29 firms (Singh et al. 2008). These results confirm that the measurement and reporting of IC are
30 crucial for economic success and value creation. Research has shown that productivity, board
31 size, board meetings, board diversity (Vitolla et al. 2020), CEO duality, board composition,
32 and audit committee composition (Appuhami and Bhuyan 2015) are positively related to share
33 price and operational and financial performance.

36 Finally, the resource dependence theory (RDT) has been also the theoretical foundation
37 used in many IC studies (e.g., Dalwai and Mohammadi 2020; Farooq and Ahmad 2023; Li et
38 al. 2008; Nadeem 2020; Prencipe et al. 2023; Shahwan and Fathalla 2020; Smriti and Das
39 2022). The corporation is described by RDT as an open system that is reliant on external
40 environmental contingencies (Pfeffer and Salancik 1978). Li and Liu (2018) examined, while
41 controlling for other firm-specific features, the link between ICD and corporate governance
42 variables for a sample of 100 UK listed corporations and reported that board composition,
43 ownership structure, audit committee size and frequency of audit committee meetings have a
44 significant association with IC disclosure. Smriti and Das (2022) and Nadeem (2020) found
45 that board gender diversity on boards has a significant impact on IC. Farooq and Ahmad (2023)
46 further demonstrate that the board independence and diversity are significantly inversely
47 related to IC. Shahwan and Fathalla (2020) reported that the IC had both partial and full
48 mediation effects in the relationship between corporate governance sub-dimensions and
49 company performance. Prencipe et al. (2023) found that the benefits of human capital for firm
50 innovation emerge with increased female representation. While the effectiveness of Oman's
51 financial sector is intellectual capital is significantly correlated with the size of the board of
52 directors and the frequency of audit committee meetings (Dalwai and Mohammadi 2020).

57 IC research is a dynamic and evolving field with numerous literature reviews. Some
58 studies provide an overview of the quantitative and qualitative development of ICD research,
59 while others focus on determinants or methodological shortcomings. However, there is a
60

noticeable fragmentation of knowledge in IC research (Martín-de Castro et al., 2019). Serenko and Bontis (2004) conducted studies on the current state of IC as an academic field, but their focus on one journal may not fully reflect the evolving landscape. Inkinen (2015) assessed the growth of IC research and its impact on firm performance, but this may not fully convey the wider implications of IC. Buenechea-Elberdin (2017) reviewed literature on the connection between IC and innovation, but its limited period and number of articles may limit the comprehensive understanding of the interplay between IC and innovation. Pedro et al. (2018) and Serenko et al. (2010) conducted a SLR of ICD, but their findings may not accurately reflect the current state of the field as it stands today. Vanini and Rieg (2019) discussed voluntary ICD in capital markets, but their review did not consider factors such as publication frequency, theoretical focus, limitations, and future research directions.

Addressing the fragmented research base would help pinpoint gaps in the existing research and offer valuable insights for the on-going evolution of IC field.

3. Methodology

3.1. Selection Approach

Systematic Literature Reviews (SLRs) aim to offer a comprehensive overview of existing knowledge on a research topic and trace its development (Khan et al., 2020; Khlif and Chalmers, 2015). According to Rafi-UI-Shan et al. (2018), SLRs involve an evidence-based selection of pertinent information, identifying research gaps and providing a comprehensive summary of knowledge (Khan et al., 2020). To ensure quality, only peer-reviewed journals are considered, aligning with Rafi-UI-Shan et al.'s (2018) criteria for robust exploration of the research topic. Data collection was conducted in May 2023 from the Scopus database. Numerous similar research in a variety of disciplines, including management, have been carried out solely employing the Scopus database (see Drago and Aliberti 2019). A wide range of topics are covered by Scopus data, which is also the most important citation and abstract database and the most frequently used search engine (Amrutha and Geetha 2020; Md Khudzari et al. 2018). This database has the benefit of enabling researchers to import a bibliography database for all findings, including citation matrix, publication, affiliation, references, etc., in an excel (.CSV) file.

After reviewing the similar publication, definitions, and categories of IC, the search query made after applying filters to fulfil the objectives and obtain optimal results. This search query includes the following keywords “intellectual capital disclosure”, “intellectual capital efficiency”, “intellectual capital antecedent”, “intellectual capital consequences”, “intellectual capital determinants”, “intellectual capital factors”. The initial search in the Scopus database yielded 368 documents spanning from 2005 to 2023. Six documents were excluded due to their publication in non-English languages (Spanish, Ukrainian, Russian, Portuguese, and Polish), aligning with the focus on a single language for this SLR analysis (Dharmani et al., 2021). After excluding 52 articles based on publication type and limiting the search to the subject area of Business, Management, and Accounting, 262 research articles remained. Further refinement involved excluding 92 irrelevant documents based on titles and abstracts, resulting in a final sample of 170 papers. To ensure high quality and consistent with Vrontis and Christofi (2019), only studies published in Q1 journals, as indicated by the Scimago Journal & Country Rank (SJR), were considered, reducing the sample to 84 results.

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

Insert Figure 1 about here.

3.2. Selection of Articles

In total, 84 journal publications were identified that met the inclusion criteria. The main source for papers comes from the Journal of Intellectual Capital, which has published 34 articles (see Table 1) on IC. Such journal has led the way in paving interest from scholars in this research topic. As shown in Table 1, other journals have published only one, two, or three papers contributing to the literature. Thus, Accounting and Business Research, British Accounting Review, Corporate Governance (Bingley), and Management Decision published three papers. While Borsa Istanbul Review, Journal of Applied Accounting Research, Meditari Accountancy Research, Quality and Quantity, Technological Forecasting and Social Change, and TQM Journal published two papers.

Insert Table 1 here

While each of the aforementioned journals only publishes one paper: Academy of Management journal, Accounting, Auditing & Accountability Journal, Business Strategy and Development, Corporate Governance: An International Review, Business Strategy and the Environment, Corporate Social Responsibility and Environmental Management, European Accounting Review, Current Issues in Tourism, Financial Innovation, European Research on Management and Business Economics, International Journal of Ethics and Systems, European Management Journal, International Transactions in Operational Research, International Review of Economics and Finance, International Journal of Hospitality Management, Managerial Auditing Journal, Journal of Asia Business Studies, Journal of Business Ethics, Journal of Economics, Finance and Administrative Science, Journal of Hospitality Marketing and Management, Journal of Innovation and Entrepreneurship, Journal of Open Innovation: Technology, Market, and Complexity, Journal of Public Affairs, R&D Management, Review of Managerial Science, and Social Responsibility Journal.

3.3. Categorization of Publications

For analysis of the SLR, we follow (Adhikariparajuli and Hassan 2020; Khan et al. 2020) and classify the publications (see Figure 2). This is done to identify potential future research. Firstly, the articles are classified by their frequency of publication. This is to examine if the topic is gaining attention in academia. Second, we categorise by geographical spread, firstly by country, and refine into a developed or developing country. Third, we analysis research methods. Furthermore, the selected publications are classified into their theoretical focus. Finally, the review analyses the main research limitations within the literature and outline potential future research in this emerging field. These themes were chosen because they have a proven ability to facilitate fully exhaustive reviews.

Insert Figure 2 here

4. Results

4.1. Descriptive Analysis

The SLR outcomes are categorized into annual publication rates and geographical focus, modelling approaches, and theoretical frameworks.

Annual Publication Rate and Geographical Focus

1
2
3
4 Figure 3 displays the annual production of articles related to ICD. The analysis reveals
5 that the peak occurred in year 2022, with 19 publications. In year 2020, there was the second-
6 highest number of publications, with an additional 15 contributions. Furthermore, nine research
7 papers were published in the first half of year 2023. As interest in this subject grows among
8 academics and professionals, it is anticipated that the number of publications would increase.
9 According to Raimo et al. (2019), Vitolla and Raimo (2018), and Vitolla et al. (2018), the
10 recent emergence of integrated reporting, created by the International Integrated Reporting
11 Council (IIRC), has provided firms with a cutting-edge tool for the dissemination of knowledge
12 about IC which would encourage firms to increase their ICD practices. Moreover, the growth
13 in IC literature can be attributed to a combination of the increasing recognition of the critical
14 role of IC in organizational value and competitiveness, which raised the interest of scholars
15 and practitioners.

16
17
18 *Insert Figure 3 here*

19
20
21 Examining Table 2's breakdown of IC research across developed and developing
22 countries, based on the classification provided by the 2019 World Economic Outlook Report,
23 reveals distinct patterns. Developed countries witness 37 occurrences of IC exploration across
24 8 nations, while developing countries engage in 30 studies spanning 15 nations. Notably, Italy
25 and the UK emerge as dominant players in developed markets, collectively constituting 36%
26 of IC research. Italy's contribution includes 8 articles, with the UK following closely with six.
27 The US, Taiwan, Spain, Australia, France, and Singapore present varying publication counts.
28 In developing nations, India and China stand out, as shown in Table 2, accounting for 23% and
29 13% of IC research, respectively, totalling 36%. The remaining 64% is dispersed among 13
30 developing countries, each studied once to three times. Examples include Pakistan, Indonesia,
31 Vietnam, Egypt, Albania, the Dominican Republic, Iran, Jordan, Malaysia, Mauritius, Mexico,
32 Oman, Nigeria, and Singapore. This comprehensive distribution emphasizes the need for a
33 diversified geographic lens in future ICD research to capture a more global perspective.

34
35
36 *Insert Table 2 here*

37
38
39
40 Our results align with previous studies (Qadri and Waheed, 2013; Vo et al., 2022). The
41 increase in ICD publications, mostly by developed countries, can be justified by several factors.
42 Firstly, developed nations are often at the forefront of the global knowledge economy,
43 recognizing the strategic importance of IC in fostering innovation, productivity, and economic
44 growth. The emphasis on research and development in these countries drives a continual stream
45 of insights into IC management (Sardadvar and Vakulenko, 2021). Additionally, the robust
46 institutional frameworks and corporate governance practices prevalent in developed economies
47 create an environment conducive to ICD. The sophisticated research infrastructure, including
48 well-established academic institutions and advanced research methodologies, facilitates in-
49 depth investigations into the complexities of IC (Inkinen et al., 2017). Furthermore, the
50 heightened competition among organizations in developed nations for sustainable competitive
51 advantages compels scholars to delve into the intricate dynamics of IC to uncover novel
52 strategies for value creation.

53
54
55 Hence, we can conclude that based on the previous results, that while global interest in
56 IC is growing, research remains predominantly focused on single-country studies, particularly
57 from developed nations like Italy and the UK. Consequently, generalizing results from earlier
58 single-country IC research becomes challenging since results are based on data from specific
59 country. Moreover, the underrepresentation of developing countries presents difficulties in
60

1
2
3 generalizing findings from earlier IC research, which predominantly relies on data from
4 developed countries.
5

6 *Modelling Tree*

7
8 Table 3 categorizes research methods in earlier ICD studies into four groups:
9 quantitative, qualitative, mixed methods, and systematic review articles. Of the 74 quantitative
10 empirical research papers, 60 rely on secondary (archival) data, showcasing a predominant
11 interest in utilizing data from companies listed on various stock exchanges. Eleven articles
12 employ primary data through questionnaires, while three use a combination of primary and
13 secondary data. This emphasizes a scarcity of research employing primary data like interviews
14 and questionnaires compared to secondary data. Furthermore, Table 3 indicates limited
15 attention to the qualitative research, with only three articles using interviews as a primary data
16 source. Additionally, six articles adopt the systematic review method, highlighting a relatively
17 few focus on this approach. Notably, only one article employs mixed methods, revealing a
18 noteworthy gap in studies utilizing a combination of quantitative and qualitative approaches
19 compared to other methods.
20
21

22 ***Insert Table 3 here***

23
24 Figure 4 reveals that a significant number of articles, around thirty, delved into sample
25 periods of one to five years. In contrast, nineteen articles opted for a six to ten-year span, while
26 only two articles each extended their focus to sixteen to twenty and twenty-six to thirty years.
27 Notably, there was an obvious absence of studies covering a sample period of twenty-one to
28 twenty-five years. Results indicate dearth of longitudinal studies on IC, pointing a need for
29 such type of studies.
30
31

32 ***Insert Figure 4 here***

33 *Theoretical underpinning*

34
35 IC research primarily employs single theoretical framework, with 33% of studies using
36 one theory, showing focused exploration within IC. Some studies (24%) combine two theories,
37 fewer (8%) integrate three, and only 2% use four theories. Notably, 32% of articles lack explicit
38 theoretical grounding, possibly indicating empirical or pragmatic approaches as presented in
39 Figure 5.
40
41

42 ***Insert Figure 5 here***

43
44 The Resource-Based Theory (RBT) is the most prevalent, used in 25 studies to analyse
45 IC as a strategic resource contributing to competitive advantage. Studies like Anifowose et al.
46 (2018) and Clarke et al. (2011) investigate IC's impact on firm performance, with some debate
47 on terminology between RBT and Resource-Based View (RBV). Agency Theory, the second
48 most frequent, applies to 22 studies, highlighting IC's role in reducing information asymmetry
49 and agency costs, as explored in works like Keenan and Aggestam (2001). The RDT is used in
50 seven studies, examining how firms interact with external entities for essential resources, with
51 research like Li and Liu (2018) linking it to corporate governance. RDT underscores the
52 importance of board diversity and committee characteristics in acquiring resources. The
53 absence of theoretical underpinning in many studies suggests a limitation and an opportunity
54 for future research to apply theoretical lenses to IC studies for deeper insights.
55
56
57

58 Interestingly, 27 Intellectual Capital (IC) studies did not employ a theoretical
59 framework in their evaluation. It is crucial to recognize that understanding the findings of
60

1
2
3 studies not grounded in theory can be challenging (Nerantzidis et al., 2022). Beck and
4 Stolterman (2016) assert that studies lacking theoretical foundations may be inadequate in
5 offering insights into the subject matter. This constitutes one of the limitations of the previous
6 studies under scrutiny, highlighting the importance of considering this aspect in future research.
7

8 9 4.2. Critical Analysis of Limitations

10
11 To identify potential areas for future IC research, the researchers conducted a critical
12 analysis of limitations in previous studies. The typical limitations in the existing literature are
13 detailed in Table 4, providing valuable guidance for future investigations. This section serves
14 as a beneficial starting point for scholars anticipating numerous contributions in the coming
15 years. The limitations, derived from published works and a thorough examination of this SLR,
16 are discussed concerning sample characteristics, data source, single-sector focus, and
17 distinctions between developed and developing countries.
18

19
20 *Insert Table 4 here*

21 22 4.2.1. Sample characteristics

23
24 In the exploration of sample characteristics within ICD studies, a quarter of the 84 reviewed
25 papers, constituting 21 studies, demonstrated a small sample size. Notable instances include
26 Dalwai and Mohammadi (2020), focusing on 31 Oman-based firms, and Vidyarthi and Tiwari
27 investigating 37 Indian banks in 2020. The authors acknowledge this limitation, advocating for
28 future IC studies to employ larger datasets to enhance the validity and robustness of the
29 literature. Additionally, approximately 32% of the studies (27 out of 84) utilized limited sample
30 periods, often analysing data over short-term periods, as seen in Massaro et al. (2020), Salvi et
31 al. (2020), and Zéghal and Maaloul (2010). Recognizing this limitation, the authors encourage
32 future ICD research to adopt longer sample periods for more longitudinal analyses. Another
33 significant observation reveals that 23% (19 out of 84) of IC studies focused on a single
34 industry, ranging from high-tech and non-financial sectors to universities, service firms, hotels,
35 and more. Recognizing the need to explore the significance of industry sectors and their impact
36 on IC, the authors suggest a comprehensive examination of both IC-intensive and non-IC-
37 intensive industries, encompassing diverse sectors and enterprises of varying sizes. The
38 discussion on sample characteristics underscores a prevalent emphasis on single-country
39 studies from developed nations, prompting a call for increased research on firms from
40 developing countries. Emphasizing the importance of IC for global economic and social
41 development, the authors advocate for more studies examining firms from developing countries
42 and comparing IC practices between developed and developing nations to enrich the IC
43 literature.
44
45
46
47

48 4.2.2. Source of data

49
50 Companies disclose information related to IC in different documents, such as annual
51 reports, integrated reporting, corporate social responsibility reports, IC statements,
52 environmental reports, and initial public offering (IPO) prospectuses. These are the documents
53 most analysed by the academic researchers interested in IC (Beretta et al. 2019; Dharni and
54 Jameel 2021; Salvi et al. 2022). Our analysis reveals that Ten out of a total of 84 studies, or
55 12%, are recognised to depend on one source of data, such as websites and CSR reports.
56 Evidence shows that comments made by organisations can be biased and used to manipulate
57 perceptions (Boiral and Heras-Saizarbitoria 2017; Solomon et al. 2013). Instead of transparent,
58 sincere reporting, firms essentially deliver rhetoric on what stakeholders want to hear.
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
Future research in the field of ICD should expand its horizon by incorporating diverse data sources, notably leveraging social media platforms. Li et al. (2012) and Nicol et al. (2021) endorse this approach, suggesting an exploration of social networking sites such as Facebook and Twitter for understanding voluntary ICD practices. This presents a notable opportunity for future research to adopt a more robust methodology, aggregating information from various channels, including websites, standalone reports, social media, and other relevant documents (Fifka 2013; Piekkari et al. 2009). Such an inclusive approach would not only enhance the reliability of findings but also provide a comprehensive perspective on the landscape of voluntary ICD.

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 4.2.3. *Methodology Limitations*

Our analysis reveals methodological limitations in existing IC research, particularly regarding data sources and methodology choices. Among the 84 studies reviewed, a notable reliance on secondary data is identified, with only 11 studies utilizing primary data through questionnaires and merely 3 studies employing mixed data sources. This trend is evident in works by Smriti and Das (2022) and Javaid et al. (2023), emphasizing the omission of crucial control variables such as innovation and R&D expenses. Furthermore, studies like Nadeem (2020), Salvi et al. (2020), and Salvi et al. (2022) raise concerns about the quantity-focused scoring measure of IC, while Nadeem et al. (2019) highlight the exclusion of relational capital in the VAIC model. Methodological limitations extend to the measurement of variables, as identified by studies of Tejedo-Romero and Araujo (2022), Mardini and Lahyani (2022), and Vishnu and Gupta (2014). These findings underscore the need for future IC research to address these methodological gaps, advocating for diverse data sources and more comprehensive methodologies that incorporate both primary and secondary data to enhance the overall validity and reliability of research in this domain.

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 4.2.4. *Theoretical framework*

Several studies lack clear theoretical contributions, with 15 studies, including Chatterji and Kiran (2023) and Vidyarthi and Tiwari (2020), avoiding direct use of theory. A multidisciplinary approach, advocated by Dumay and Guthrie (2019), suggests collaboration between accountants and specialists from other disciplines to enhance knowledge. Departing from conventional IC theories, future research may explore diverse theoretical frameworks from academic social sciences. Gaia and Jones (2020) stress the inadequacy of a single theoretical application, calling for the triangulation of theories to support research finding. Hence, the absence of a clear theoretical framework in many IC studies limits their depth. The field may benefit from a multidisciplinary approach, incorporating perspectives beyond traditional accounting to enrich the understanding of IC. This opens opportunities for future research to apply diverse theoretical lenses from across social sciences to provide richer insights.

5. Discussion

This section aims to present the primary findings and identify opportunities for future research by addressing the study's three main research questions, as follows:

RQ1: How has the concept of IC disclosure evolved over years, including its development across countries, researched methods, and theories used?

1
2
3
4 Through an examination of research methodologies, applied theories, and national
5 developments, our SLR investigates the evolution of the concept of IC. Findings are
6 categorised according to research methods, theoretical frameworks, geographic emphasis, and
7 yearly publishing rates. According to our findings, there was a noticeable increase in IC
8 publications in 2022, with integrated reporting playing a significant role in this growth.
9 Moreover, our results indicate that IC studies originate from both developed and developing
10 countries and that India and China are gaining attention, but researchers from Italy and the UK
11 remain the most contributors. A major limitation on generalizability is the review's
12 identification of the dominance of single-country research, particularly those from developed
13 countries. Very few studies use primary data in their research methodologies, which highlights
14 the necessity for a variety of techniques. There are significant gaps and possibilities in the
15 theoretical foundation, which is mostly based on resource-based theory and agency theory.

16
17
18 **RQ2. What are the limitations related to the field of IC disclosure?**

19
20 We conducted a critical analysis of limitations of previous ICD research to identify
21 potential areas for future investigations. We identified several limitations, including sample
22 characteristics, data source, single-sector focus, and distinctions between developed and
23 developing countries. Sample characteristics include a small sample size, with approximately
24 32% of the studies using limited sample periods. Additionally, 23% of IC studies focused on a
25 single industry. Additionally, many studies rely on a single data source. Moreover,
26 methodological limitations in existing IC research include a notable reliance on secondary data,
27 with only 11 studies using primary data through questionnaires and merely 3 studies employing
28 mixed data sources. This trend is evident in works by Smriti and Das (2022) and Javaid et al.
29 (2023), emphasizing the omission of crucial control variables such as innovation and R&D
30 expenses. Methodological limitations extend to the measurement of variables, as identified by
31 studies like Tejedo-Romero and Araujo (2022), Mardini and Lahyani (2022), and Vishnu and
32 Gupta (2014). Theoretical frameworks also lack clear contributions, with 15 studies avoiding
33 direct use of theory. A multidisciplinary approach, advocated by Dumay and Guthrie (2019),
34 suggests collaboration between accountants and specialists from other disciplines to enhance
35 knowledge.

36
37
38 **RQ3. What are the potential future research opportunities related to the field of IC disclosure?**

39
40
41 The authors address the third research question by providing a roadmap for future
42 studies using three strategies. The first strategy involves presenting future directions based on
43 gaps in the identified through our analysis of limitations. The second strategy uses Google
44 Scholar citation data to suggest potential research areas based on the most noticeable research
45 articles. The third strategy explores future research directions using the most recent articles.

46
47 *Future directions using the previous assessment.*

48
49 Regarding the sample characteristics of research, we would expect future ICD studies
50 to consider larger data samples to improve the validity and robustness of findings which would
51 enhance current literature. Also, we would expect future ICD studies to employ longitudinal
52 analysis in a more systematic way. Our results show that eight countries accounted for over
53 44% of all research, suggesting that more research is needed in developing countries. To enrich
54 the literature, future studies should compare firms from both developed and developing
55 countries and consider data from other countries.

56
57
58 Furthermore, considering the absence of a theoretical basis in the prior studies,
59 comprehending the findings of these studies may prove challenging. Hence, future research is
60 encouraged not only to employ theoretical frameworks that could significantly aid in

1
2
3 explaining ICD, but also to depart from traditional ICD theoretical frameworks and instead
4 draw upon theoretical frameworks from broader academic social science disciplines.
5 Moreover, employing a triangulation of theories to support research is necessary, as advocated
6 by Gaia and Jones (2020), who argue that relying solely on one theoretical approach is
7 insufficient for providing explanations. This presents opportunities for academics to develop
8 theoretical frameworks that describe the application of IC.
9

10
11 In terms of research quality and data collection methods, future research should
12 investigate a wide scope of organizations across various industry contexts. For instance, to
13 analyze both IC-intensive and non-IC-intensive industries, financial and non-financial
14 industries, service, merchandising, and manufacturing companies, as well as small, medium,
15 and large enterprises. The qualitative method (interviews) is recommended for examining
16 opinions, perceptions, and experiences related to sensitive IC practices. Future studies may also
17 investigate social media platforms like Facebook and Twitter for voluntary ICD practices. A
18 more robust approach by collecting data from multiple sources, such as websites, standalone
19 reports, social media, and other documents, could provide a more comprehensive picture of
20 firms' efforts in IC.
21
22

23 *Future directions based on the highly cited IC studies.*

24

25
26 Next, we analysed the 84 studies and identified 10 influential ones based on their
27 Google Scholar citation. Both Tseng and Goo (2005) and Subramania and Youndt (2005) stress
28 the value of longitudinal research in determining how different factors affect IC and innovative
29 capabilities over time. To increase the validity of empirical testing, Zéghal and Maaloul (2010)
30 and Cerbioni and Parbonetti (2007) advocate for methodological improvements. They
31 recommend reevaluating current measuring techniques of IC and adding more control
32 variables. While Li et al. (2008) and Li et al. (2012) both emphasize the necessity of using
33 more comprehensive data gathering techniques, such as looking into media sources outside of
34 annual reports and considering factors like company culture and engagement with outside
35 auditors. Researchers like Clarke et al. (2011) and Brügger et al. (2009) emphasize the value
36 of using larger sample sizes and more advanced statistical methods when examining the
37 connections between various forms of IC and organisational success. Finally, Beattie and Smith
38 (2013) and Tayles et al. (2007) support using longitudinal case studies to investigate the causes
39 and effects of business model reporting and IC intensity. Together, these results point to
40 directions for further investigation to broaden our knowledge of IC and how it affects
41 organisational effectiveness.
42
43

44 *Future directions based on the suggestion of most recent IC articles.*

45

46
47 This section discusses future research directions based on the recommendations of the 84
48 studies included in our analysis. Al-Omouh et al. (2022) recommend focusing on how SMEs
49 use IC, collaborative knowledge generation, and supply chain flexibility to maintain
50 sustainability. Battisti et al. (2022) suggest examining CEO characteristics and top
51 management-specific factors and incentives that affect IC performance. Hsieh et al. (2020)
52 propose studying controlling shareholders who play a significant role in increasing IC levels.
53 Mardini and Lahyani (2022) suggest investigating competitive disadvantage and innovation
54 tools related to IC disclosure. Ndou et al. (2018) recommend comparing differences between
55 IC disclosure in public and private universities. Ur Rehman et al. (2022) call for more variables
56 in the relationship between IC efficiency and bank performance, such as corporate governance
57 and other productivity components. Shahwan and Fathalla (2020) suggest examining
58 competitive advantage as a mediating variable on the association between firm performance,
59 corporate governance, and IC. Shahzad et al. (2022) suggest investigating moderating factors
60

1
2
3 on the nexus of corporate governance and IC and evaluating the relationship of corporate
4 governance with firm's green growth. Tran et al. (2020) highlight the need to extend the sample
5 and compare differences between manufacturing enterprises and financial institutions or
6 countries. Vitolla et al. (2020) propose the effect of board characteristics on IC practices. Vo
7 et al. (2022) discuss the role of corporate governance in intellectual capital and corporate social
8 responsibility.
9

10
11 This agenda sets a clear path for upcoming research in ICD, highlighting the need for
12 greater diversity in samples, methodologies, and theoretical approaches, aiming for a more
13 holistic understanding of IC's role across various business contexts and cultures.
14

15 6. Conclusion

16
17 This study presents a SLR on ICD to address the growing interest in its role in creating
18 value and enhancing firms' competitive edge. The review synthesizes 84 IC studies, providing
19 descriptive results and critically analysing limitations in current research. The study contributes
20 to the existing IC literature by providing the first SLR covering IC publications from 2005 to
21 2023. The aim is to evaluate the IC field regarding geographical spread, research methods, and
22 theoretical focus. The review examines three research questions: RQ1 focuses on the evolution
23 of IC concept over years and among countries, the type of research methods adopted, and the
24 theories used in the ICD literature. Our findings report that IC qualitative research has received
25 less attention and that most studies are quantitative based. The country analysis shows that IC
26 research is primarily conducted in developed countries, with potential for future expansion in
27 emerging economies. There is also a dearth of longitudinal studies on the IC. Resource-based
28 theory dominates most of IC studies, followed by agency and resource dependency theories.
29 RQ2 discusses the main limitations related to IC research, including limited sample size,
30 examination of a single institutional setting or sector, reliance on secondary data, inadequacy
31 of control variables, limited IC studies in developing countries, and rare comparative studies
32 with developing firms, as provided in Section 4. RQ3 identifies future research areas, provided
33 in Section 5, based on critical limitation analysis and content analysis of recent research
34 articles.
35
36
37
38

39 The systematic review has many implications for the various parties involved. *First*,
40 the analysis draws attention to the dearth of research conducted in various contexts, giving
41 scholars a chance to investigate ICD in both IC-intensive and non-IC-intensive industries,
42 different sectors, and organizations of varying sizes. Research indicates that business strategies
43 differ according to the size and life cycle of the organization (Hassan et al., 2023; Amin et al.,
44 2021). This can greatly advance our understanding of IC functions in diverse industrial settings,
45 sizes, and life cycles. Scholars may improve our understanding of how IC can increase
46 organizations' competitiveness in various settings. Such could increase IC's worth in the
47 business sector. For instance, in sectors where intangible assets are essential, companies that
48 are able to promptly recognize and react to changes in the competitive environment have a
49 higher chance of gaining or retaining a competitive advantage (Hitt, 1998). *Second*, the review
50 emphasizes the optional nature of IC disclosures under IFRS and suggests the potential benefits
51 of mandatory IC reporting, such as reduced information asymmetry and agency costs. It
52 proposes the development of a global IC accounting standard to meet stakeholder needs and
53 suggests that future research could determine its necessity and potential economic impacts. *By*
54 *providing a clear framework for recognizing and reporting on intangibles, companies can focus*
55 *on IC, ultimately enhancing their long-term competitiveness.* *Third*, managers should
56 recognize the benefits of transparently disclosing IC information. IC disclosures can improve
57 investor confidence, improve risk management, facilitate comparative analysis and
58
59
60

1
2
3 benchmarking, encourage innovation and value creation, and enhance adaptability to changing
4 market conditions. Our review suggests that managers should emphasize IC in their annual
5 reports and effectively communicate how IC is managed, which can inform stakeholders about
6 the company's value-creation processes. Investors frequently look for specific information to
7 make well-informed choices regarding the use of their wealth. Investors may have a better
8 understanding of a company's intangible assets if mandatory IC reporting is implemented. This
9 enhanced understanding can raise investor confidence, attract funds, raise the company's value,
10 and improve its competitiveness. Fourth, the findings suggest that governance regulators
11 should implement mandatory guidelines for IC disclosure within corporate governance codes.
12 Moreover, it is recommended that the board's strategy committee should oversee IC disclosure
13 in narrative sections of annual reports, ensuring high-quality information for stakeholders'
14 decision-making processes. This comprehensive review underlines the significant impact that
15 IC disclosure has on transparency, stakeholder trust, and the potential to influence financial
16 markets and corporate strategies. Effective IC disclosures can help businesses manage
17 intangible asset risks more effectively. Management may allocate resources more wisely,
18 develop more effective business plans, and reduce risk when they are aware of the value,
19 dangers, and strategic significance of intangible assets. Thus, the organization may be more
20 equipped to stay competitive and manage a changing business climate. The identification of
21 these implications serves as a call to action for each of these groups to take steps toward
22 enhancing the practices and reporting of IC.
23
24
25
26

27 This study has the following limitations. First, it is possible that we did not include all
28 relevant research in our sample because the keywords used in the research might not be
29 thorough. We exclusively reviewed research articles, excluding publications like research
30 conferences and relevant books, and we further discarded articles in languages other than
31 English. Hence, relevant knowledge may also originate from studies that are not on the chosen
32 list. Second, we limited our review to just the articles in the Scopus database. To widen the
33 range of their systematic review, future studies may employ a larger number of keywords and
34 different research databases, such as Web of Science, PubMed, and Dimensions. Third, our study
35 did not include a review of data analysis methods, which could have been a valuable addition.
36
37

38 Finally, more investigation into the causes and effects of ICD is required. Future research
39 should also address policy issues and involve more practitioners to reflect the true perspective
40 of businesses. Two strategies are suggested to increase and improve the implications for
41 business practitioners: applying qualitative research methods that bring together academics and
42 practitioners; and including practitioners as co-authors of the articles analysing the causes and
43 effects of intellectual capital disclosure. This second strategy will also be helpful for
44 broadening our interpretive comprehension of the truth of the IC disclosure and for getting
45 fresh perspectives that go beyond those offered by the positivistic strategy. Future researchers
46 may find some of the findings to be useful in that regard.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

References

- Abeysekera, I. (2006), "The project of intellectual capital disclosure: researching the research", edited by O'Donnell, D. *Journal of Intellectual Capital*, Vol. 7 No. 1, pp. 61–77.
- Abeysekera, I. and Guthrie, J. (2005), "An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka", *Critical Perspectives on Accounting*, Vol. 16 No. 3, pp. 151–163.
- Adhikariparajuli, M., Hassan, A. and Siboni, B. (2020), "CSR Implication and Disclosure in Higher Education: Uncovered Points. Results from a Systematic Literature Review and Agenda for Future Research", *Sustainability*, Vol. 13 No. 2, p. 525.
- Ahmed Haji, A., & Mubaraq, S. (2012), "The trends of intellectual capital disclosures: evidence from the Nigerian banking sector", *Journal of Human Resource Costing & Accounting*, Vol. 16 No. 3, pp. 184–209.
- Al-Omouh, K.S., Palacios-Marqués, D. and Ulrich, K. (2022), "The impact of intellectual capital on supply chain agility and collaborative knowledge creation in responding to unprecedented pandemic crises", *Technological Forecasting and Social Change*, Vol. 178, pp. 1–22.
- Amrutha, V.N. and Geetha, S.N. (2020), "A systematic review on green human resource management: Implications for social sustainability", *Journal of Cleaner Production*, Vol. 247 No. 1, p. 119-131.
- An, Y., Davey, H. and Eggleton, I.R.C. (2011), "Towards a comprehensive theoretical framework for voluntary IC disclosure", *Journal of Intellectual Capital*, Vol. 12 No. 4, pp. 571–585.
- Anifowose, M., Abdul Rashid, H.M., Annuar, H.A. and Ibrahim, H. (2018), "Intellectual capital efficiency and corporate book value: evidence from Nigerian economy", *Journal of Intellectual Capital*, Vol. 19 No. 3, pp. 644–668.
- Appuhami, R. and Bhuyan, M. (2015), "Examining the influence of corporate governance on intellectual capital efficiency", *Managerial Auditing Journal*, Vol. 30 No. 4/5, pp. 347–372.
- Aslam, E., Ur Rehman, A. and Iqbal, A. (2023), "The mediating role of intellectual capital in corporate governance and financial efficiency of Islamic banks", *Corporate Governance (Bingley)*, Vol. ahead-of-print.
- Barney, J. (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99–120.
- Basu, S., & Waymire, G. (2008), "Has the importance of intangibles really grown? And if so, why?", *Accounting and business research*, Vol. 38 No. 3, pp. 171–190.
- Battisti, E., Nirino, N., Christofi, M. and Vrontis, D. (2022), "Intellectual capital and dividend policy: the effect of CEO characteristics", *Journal of Intellectual Capital*, Vol. 23 No. 1, pp. 127–143.
- Beattie, V. and Smith, S.J. (2013), "Value creation and business models: Refocusing the intellectual capital debate", *The British Accounting Review*, Vol. 45 No. 4, pp. 243–254.
- Beck, J. and Stolterman, E. (2016), "Examining Practical, Everyday Theory Use in Design Research", *She Ji: The Journal of Design, Economics, and Innovation*, Vol. 2 No. 2, pp. 125–140.
- Beretta, V., Demartini, C. and Trucco, S. (2019), "Does environmental, social and governance performance influence intellectual capital disclosure tone in integrated reporting?", *Journal of Intellectual Capital*, Vol. 20 No. 1, pp. 100–124.
- Boiral, O. and Heras-Saizarbitoria, I. (2017), "Managing Biodiversity Through Stakeholder Involvement: Why, Who, and for What Initiatives?", *Journal of Business Ethics*, Vol. 140 No. 3, pp. 403–421.
- Brüggen, A., Vergauwen, P. and Dao, M. (2009), "Determinants of intellectual capital disclosure: evidence from Australia", *Management Decision*, Vol. 47 No. 2, pp. 233–245.

- 1
2
3 Buenechea-Elberdin, M. (2017), “Structured literature review about intellectual capital and innovation”, *Journal*
4 *of Intellectual Capital*, Vol. 18 No. 2, pp. 262–285.
5
6 Burgman, R. and Roos, G.. (2007), “The importance of intellectual capital reporting: evidence and implications”,
7 *Journal of Intellectual capital*, Vol. 8 No. 1, pp. 7–51.
8
9 Cerbioni, F. and Parbonetti, A. (2007), “Exploring the Effects of Corporate Governance on Intellectual Capital
10 Disclosure: An Analysis of European Biotechnology Companies”, *European Accounting Review*, Vol.
11 16 No. 4, pp. 791–826.
12
13 Chahal, H. and Bakshi, P. (2015), “Examining intellectual capital and competitive advantage relationship”,
14 *International Journal of Bank Marketing*, Vol. 33 No. 3, pp. 376–399.
15
16 Chatterji, N. and Kiran, R. (2023), “The influence of human, organizational and relational capital of universities
17 on their performance: a developing economy perspective”, *Journal of Intellectual Capital*, Vol. 24 No.
18 3, pp. 799–829.
19
20 Ciftci M, Darrough M, Mashruwala R (2014), “Value relevance of accounting information for intangible-intensive
21 industries and the impact of scale: the US evidence”, *European Account Review*, Vol. 23, pp. 199–226.
22
23 Clarke, M., Seng, D. and Whiting, R.H. (2011), “Intellectual capital and firm performance in Australia”, *Journal*
24 *of Intellectual Capital*, Vol. 12 No. 4, pp. 505–530.
25
26 Cuzzo, B., Dumay, J., Palmaccio, M. and Lombardi, R. (2017), “Intellectual capital disclosure: a structured
27 literature review”, *Journal of Intellectual Capital*, Vol. 18 No. 1, pp. 9–28.
28
29 Dalwai, T. and Mohammadi, S.S. (2020), “Intellectual capital and corporate governance: an evaluation of Oman’s
30 financial sector companies”, *Journal of Intellectual Capital*, Vol. 21 No. 6, pp. 1125–1152.
31
32 Dalwai, T., Singh, D. and Ananda, S. (2022), “Intellectual capital, bank stability, and risk-taking: evidence from
33 Asian emerging markets”, *Competitiveness Review*, Vol. 32 No. 6, pp. 995–1024.
34
35 Davenport, T.O. (1999), *Human Capital: What It Is and Why People Invest It*, Jossey-Bass, available
36 at:<https://doi.org/10.1604/9780787940157>.
37
38 Dharmani, P., Das, S. and Prashar, S. (2021), “A bibliometric analysis of creative industries: Current trends and
39 future directions”, *Journal of Business Research*, Vol. 135, pp. 252–267.
40
41 Dharni, K. and Jameel, S. (2021), “Trends and relationship among intellectual capital disclosures, patent statistics
42 and firm performance in the Indian manufacturing sector”, *Journal of Intellectual Capital*, Vol. 23 No.
43 4, pp. 936–956.
44
45 Drago, C. and Aliberti Amidani, L. (2019), “Interlocking directorship networks and gender: a bibliometric
46 analysis”, *In Springer Proceedings in Business and Economics*, pp. 115–136.
47
48 Dumay, J. and Cai, L. (2014), “A review and critique of content analysis as a methodology for inquiring into IC
49 disclosure”, *Journal of Intellectual Capital*, Vol. 15 No. 2, pp. 264–290.
50
51 Dumay, J., & Guthrie, J. (2019), “Reflections on interdisciplinary critical intellectual capital accounting research:
52 Multidisciplinary propositions for a new future”, *Accounting, Auditing & Accountability Journal*, Vol.
53 32 No. 8, pp. 2282–2306.
54
55 Erickson, G.S. and Rothberg, H.N. (2000), “Intellectual capital and Competitiveness: Guidelines for Policy”,
56 *Competitiveness Review*, Vol. 10 No. 2, pp. 192–198.
57
58 Farooq, M. and Ahmad, N. (2023), “Nexus between board characteristics, firm performance, and intellectual
59 capital: an emerging market evidence”, *Corporate Governance: The International Journal of Business*
60 *in Society*, available at: <https://doi.org/10.1108/cg-08-2022-0355>.
Fifka, M.S. (2013), “Corporate Responsibility Reporting and its Determinants in Comparative Perspective - a

- 1
2
3 Review of the Empirical Literature and a Meta-analysis”, *Business Strategy and the Environment*, Wiley,
4 Vol. 22 No. 1, pp. 1–35.
5
- 6 Flamholtz, E. (1971), “A model for human resource valuation: A stochastic process with service rewards”, *The*
7 *Accounting Review*, Vol. 46 No. 2, pp. 253–267.
8
- 9 Gaia, S. and Jones, M.J. (2020), “Biodiversity reporting for governmental organizations: Evidence from English
10 local councils”, *Accounting, Auditing & Accountability Journal*, Vol. 33 No. 1, pp. 1–31.
11
- 12 Goebel, V. (2015), “Is the literature on content analysis of intellectual capital reporting heading towards a dead
13 end?”, *Journal of Intellectual Capital*, Vol. 16 No. 3, pp. 681–699.
14
- 15 Grossman, S. J. (1981), “The informational role of warranties and private disclosure about product quality”, *The*
16 *Journal of law and Economics*, Vol. 24 No. 3, pp. 461–483.
17
- 18 Haines, J.D. and Sharif, N.M. (2006), “A framework for managing the sophistication of the components of
19 technology for global competition”, *Competitiveness Review*, Vol. 16 No. 2, pp. 106–121.
20
- 21 Holland, J. (2003), “Intellectual capital and the capital market - organization and competence”, *Accounting,*
22 *Auditing and Accountability Journal*, Vol. 16 No. 1, pp. 39–48.
23
- 24 Hsieh, C.-H., Ting, I.W.K., Asif, J. and Le, H.T.M. (2020), “The role of controlling shareholders in determining
25 investments of intellectual capital among Taiwanese semiconductor companies”, *Journal of Intellectual*
26 *Capital*, Vol. 21 No. 1, pp. 62–86.
27
- 28 Ibrahim, A.E.A., Hussainey, K., Nawaz, T., Ntim, C. and Elamer, A. (2022), “A systematic literature review on
29 risk disclosure research: State-of-the-art and future research agenda”, *International Review of Financial*
30 *Analysis*, Vol. 82, p. 102217.
31
- 32 Ienciu, N.M. (2014), “Intellectual capital disclosure from literature perspective”, *International Journal of*
33 *Learning and Intellectual Capital*, Vol. 11 No. 2, p. 166.
34
- 35 Inkinen, H. (2015), “Review of empirical research on intellectual capital and firm performance”, *Journal of*
36 *Intellectual Capital*, Vol. 16 No. 3, pp. 518–565.
37
- 38 Inkinen, H., Kianto, A., Vanhala, M., & Ritala, P. (2017), “Structure of intellectual capital—an international
39 comparison”, *Accounting, Auditing & Accountability Journal*, Vol. 30 No. 5, pp. 1160–1183.
40
- 41 Jafari-Sadeghi, V., Amoozad Mahdiraji, H., Bresciani, S. and Pellicelli, A.C. (2021), “Context-specific micro-
42 foundations and successful SME internationalization in emerging markets: A mixed-method analysis of
43 managerial resources and dynamic capabilities”, *Journal of Business Research*, Vol. 134, pp. 352–364.
44
- 45 Javaid, H.M., Ain, Q.U. and D’Ecclesia, R. (2023), “Female directors in the boardroom and intellectual capital
46 performance: Does the ‘critical mass’ matter?”, *Financial Innovation*, Vol. 9 No. 1.
47
- 48 Keenan, J. and Aggestam, M. (2001), “Corporate Governance and Intellectual Capital: some conceptualizations”,
49 *Corporate Governance*, Wiley, Vol. 9 No. 4, pp. 259–275.
50
- 51 Khan, M., Hassan, A., Harrison, C. and Tarbert, H. (2020), “CSR reporting: a review of research and agenda for
52 future research”, *Management Research Review*, Vol. 43 No. 11, pp. 1395–1419.
53
- 54 Khlif, H. and Chalmers, K. (2015), “A review of meta-analytic research in accounting”, *Journal of Accounting*
55 *Literature*, Vol. 35 No. 1, pp. 1–27.
56
- 57 Kogut, B. and Zander, U. (1996), “What Firms Do? Coordination, Identity, and Learning”, *Organization Science*,
58 Institute for Operations Research and the Management Sciences (INFORMS), Vol. 7 No. 5, pp. 502–
59 518.
60
- 61 Lestari, N.I.G. and Adhariani, D. (2022), “Can intellectual capital contribute to financial and non-financial
62 performances during normal and crisis situations?”, *Business Strategy & Development*, Wiley, Vol. 5

- No. 4, pp. 390–404.
- Li, J., Mangena, M. and Pike, R. (2012), “The effect of audit committee characteristics on intellectual capital disclosure”, *The British Accounting Review*, Vol. 44 No. 2, pp. 98–110.
- Li, J., Pike, R. and Haniffa, R. (2008), “Intellectual capital disclosure and corporate governance structure in UK firms”, *Accounting and Business Research*, Vol. 38 No. 2, pp. 137–159.
- Li, Y.-Q. and Liu, C.-H.S. (2018), “The role of problem identification and intellectual capital in the management of hotels’ competitive advantage-an integrated framework”, *International Journal of Hospitality Management*, Vol. 75, pp. 160–170.
- Mardini, G.H. and Lahyani, F.E. (2022), “Impact of firm performance and corporate governance mechanisms on intellectual capital disclosures in CEO statements”, *Journal of Intellectual Capital*, Vol. 23 No. 2, pp. 290–312.
- Martín-de Castro, G., Díez-Vial, I. and Delgado-Verde, M. (2019), “Intellectual capital and the firm: evolution and research trends”, *Journal of Intellectual Capital*, Vol. 20 No. 4, pp. 555–580.
- Massaro, M., Mas, F.D., Bontis, N. and Gerrard, B. (2020), “Intellectual capital and performance in temporary teams”, *Management Decision*, Vol. 58 No. 3, pp. 410–427.
- Md Khudzari, J., Kurian, J., Tartakovsky, B. and Raghavan, G.S.V. (2018), “Bibliometric analysis of global research trends on microbial fuel cells using Scopus database”, *Biochemical Engineering Journal*, Vol. 136, pp. 51–60.
- Milgrom, P. R. (1981), “Good news and bad news: Representation theorems and applications”, *The Bell Journal of Economics*, pp. 380–391.
- Mouritsen, J., Bukh, P. N., & Bang, H. K. (2005), “Understanding intellectual capital in an innovative medium-sized firm: the case of Maxon Telecom”, *Australian Accounting Review*, Vol. 15 No. 3, pp. 30–39.
- Nadeem, M. (2020), “Does board gender diversity influence voluntary disclosure of intellectual capital in initial public offering prospectuses? Evidence from China”, *Corporate Governance: An International Review*, Wiley, Vol. 28 No. 2, pp. 100–118.
- Nadeem, M., Farooq, M.B. and Ahmed, A. (2019), “Does female representation on corporate boards improve intellectual capital efficiency?”, *Journal of Intellectual Capital*, Vol. 20 No. 5, pp. 680–700.
- Naseem, M.A., Battisti, E., Salvi, A. and Ahmad, M.I. (2024), “Green intellectual capital and competitive advantage: the moderating role of corporate philanthropy during COVID-19”, *Journal of Intellectual Capital*, Vol. 25 No. 1, pp. 92–118.
- Ndou, V., Secundo, G., Dumay, J. and Gjevari, E. (2018), “Understanding intellectual capital disclosure in online media Big Data: An exploratory case study in a university”, *Meditari Accountancy Research*, Vol. 26 No. 3, pp. 499–530.
- Nerantzidis, M., Pazarskis, M., Drogalas, G. and Galanis, S. (2022), “Internal auditing in the public sector: a systematic literature review and future research agenda”, *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 34 No. 2, pp. 189–209.
- Nicolò, G., Aversano, N., Sannino, G. and Tartaglia Polcini, P. (2021), “ICD corporate communication and its determinants: evidence from Italian listed companies’ websites”, *Meditari Accountancy Research*, Vol. 29 No. 5, pp. 1209–1232.
- Nkambule, N.A., Wang, W.-K., Ting, I.W.K. and Lu, W.-M. (2022), “Intellectual capital and firm efficiency of US multinational software firms”, *Journal of Intellectual Capital*, Vol. 23 No. 6, pp. 1404–1434.

- 1
2
3 Nonaka, I. and Takeuchi, H. (1995), *The Knowledge-Creating Company: How Japanese Companies Create the*
4 *Dynamics of Innovation*, available at:<https://doi.org/10.1604/9780195092691>.
5
- 6 Pedro, E., Leitão, J. and Alves, H. (2018), “Intellectual capital and performance”, *Journal of Intellectual Capital*,
7 Vol. 19 No. 2, pp. 407–452.
8
- 9 Petty, R. and Guthrie, J. (2000), “Intellectual capital literature review: measurement, reporting and management”,
10 *Journal of Intellectual Capital*, Vol. 1 No. 2, pp. 155–176.
11
- 12 Pfeffer, J. and Salancik, G.R. (1978), *The External Control of Organizations: A Resource Dependence*
13 *Perspective*, Stanford Business Books, available at:<https://doi.org/10.1604/9780804747899>.
14
- 15 Piekkari, R., Welch, C. and Paavilainen, E. (2009), “The case study as disciplinary convention: Evidence from
16 international business journals”, *Organizational Research Methods*, Vol. 12 No. 3, pp. 567–589.
17
- 18 Porter, M.E. and Millar, V.A. (1985), “How information gives you competitive advantage”, *Harvard Business*
19 *Review*, Vol. 63 No. 4, pp. 149-160.
20
- 21 Prencipe, A., Boffa, D., Papa, A., Corsi, C. and Mueller, J. (2023), “Unmasking intellectual capital from gender
22 and nationality diversity on university spin-offs’ boards: a study on non-linear effects upon firm
23 innovation”, *Journal of Intellectual Capital*, Vol. 24 No. 1, pp. 257–282.
24
- 25 Qadri, F. S., & Waheed, A. (2013), “Human capital and economic growth: Cross-country evidence from low-,
26 middle-and high-income countries”, *Progress in Development Studies*, Vol. 13 No. 2, pp. 89–104.
27
- 28 Quintero-Quintero, W., Blanco-Ariza, A.B. and Garzón-Castrillón, M.A. (2021), “Intellectual Capital: A Review
29 and Bibliometric Analysis”, *Publications*, Vol. 9 No. 4, p. 46.
30
- 31 Rafi-Ul-Shan, P.M., Grant, D.B., Perry, P. and Ahmed, S. (2018), “Relationship between sustainability and risk
32 management in fashion supply chains: A systematic literature review”, *International Journal of Retail &*
33 *Distribution Management*, Vol. 46 No. 5, pp. 466–486.
34
- 35 Raimo, N., Zito, M. and Caragnano, A. (2019), “Does national culture affect integrated reporting quality? A focus
36 on GLOBE dimensions” in *9th International Symposium on Natural Resources Management*, May 31st,
37 2019, Zaječar, Serbia (pp. 383-392). Belgrade: Megatrend University.
38
- 39 Rehman, S.U., Ashfaq, K., Bresciani, S., Giacosa, E. and Mueller, J., (2023), “Nexus among intellectual capital,
40 inter-organizational learning, industrial Internet of things technology and innovation performance: a
41 resource-based perspective”, *Journal of intellectual capital*, Vol. 24 No. 2, pp. 509–534.
42
- 43 Sahut, J. M., Boulerne, S., & Teulon, F. (2011), “Do IFRS provide better information about intangibles in
44 Europe?”, *Review of Accounting and Finance*, Vol. 10 No. 3, pp. 267–290.
45
- 46 Salvi, A., Raimo, N., Petruzzella, F. and Vitolla, F. (2022), “The financial consequences of human capital
47 disclosure as part of integrated reporting”, *Journal of Intellectual Capital*, Vol. 23 No. 6, pp. 1221–1245.
48
- 49 Salvi, A., Vitolla, F., Giakoumelou, A., Raimo, N. and Rubino, M. (2020a), “Intellectual capital disclosure in
50 integrated reports: The effect on firm value”, *Technological Forecasting and Social Change*, Vol. 160,
51 p. 120228.
52
- 53 Sardadvar, S., & Vakulenko, E. (2021), “Does migration depress regional human capital accumulation in the EU’s
54 new member states? Theoretical and empirical evidence”, *Review of Regional Research*, Vol. 41 No. 1,
55 pp. 95–122.
56
- 57 Serenko, A. and Bontis, N. (2004), “Meta-review of knowledge management and intellectual capital literature:
58 citation impact and research productivity rankings”, *Knowledge and Process Management*, Vol. 11 No.
59 3, pp. 185–198.
60
- Serenko, A., Bontis, N., Booker, L., Sadeddin, K. and Hardie, T. (2010), “A scientometric analysis of knowledge

- management and intellectual capital academic literature (1994-2008)", *Journal of Knowledge Management*, Vol. 14 No. 1, pp. 3–23.
- Shahwan, T.M. and Fathalla, M.M. (2020), "The mediating role of intellectual capital in corporate governance and the corporate performance relationship", *International Journal of Ethics and Systems*, Vol. 36 No. 4, pp. 531–561.
- Shahzad, K., Shah, S.Q.A., Lai, F.-W., Jan, A.A., Shah, S.A.A. and Shad, M.K. (2022b), "Exploring the nexus of corporate governance and intellectual capital efficiency: from the lens of profitability", *Quality & Quantity*, Vol. 57 No. 3, pp. 2447–2468.
- Singh, I., & Mitchell Van der Zahn, J. L. W. (2008), "Determinants of intellectual capital disclosure in prospectuses of initial public offerings", *Accounting and Business Research*, Vol. 38 No. 5, pp. 409–431.
- Smriti, N. and Das, N. (2018), "The impact of intellectual capital on firm performance: a study of Indian firms listed in COSPI", *Journal of Intellectual Capital*, Vol. 19 No. 5, pp. 935–964.
- Smriti, N. and Das, N. (2022), "Do female directors drive intellectual capital performance? Evidence from Indian listed firms", *Journal of Intellectual Capital*, Vol. 23 No. 5, pp. 1052–1080.
- Solomon, J.F., Solomon, A., Joseph, N.L. and Norton, S.D. (2013), "Impression management, myth creation and fabrication in private social and environmental reporting: Insights from Erving Goffman", *Accounting, Organizations and Society*, Vol. 38 No. 3, pp. 195–213.
- Subramaniam, M. and Youndt, M.A. (2005), "The Influence of Intellectual Capital on the Types of Innovative Capabilities", *Academy of Management Journal*, Academy of Management, Vol. 48 No. 3, pp. 450–463.
- Suleiman Yahaya, I., Amat Senin, A.B., M.B Yusuf, M., Khatib, S.F.A. and Sabo, A.U. (2020), "Bibliometric analysis trend on business model innovation", *J Critic Rev*, Vol. 7 No. 9, pp. 2391–2407.
- Tayles, M., Pike, R.H. and Sofian, S. (2007), "Intellectual capital, management accounting practices, and corporate performance: Perceptions of managers. Accounting", *Accounting, Auditing & Accountability Journal*, Vol. 20 No. 4, pp. 522–548.
- Tejedo-Romero, F. and Araujo, J.F.F.E. (2022), "The influence of corporate governance characteristics on human capital disclosure: the moderating role of managerial ownership", *Journal of Intellectual Capital*, Vol. 23 No. 2, pp. 342–374.
- Tjahjadi, B., Soewarno, N., Jermias, J., Hariyati, H., Fairuzi, A. and Anwar, D.N. (2022), "Does Engaging in Global Market Orientation Strategy Affect HEIs' Performance? The Mediating Roles of Intellectual Capital Readiness and Open Innovation", *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 8 No. 1, p. 29.
- Tran, N.P., Van, L.T.-H. and Vo, D.H. (2020), "The nexus between corporate governance and intellectual capital in Vietnam", *Journal of Asia Business Studies*, Vol. 14 No. 5, pp. 637–650.
- Tseng, C.-Y. and James Goo, Y.-J. (2005), "Intellectual capital and corporate value in an emerging economy: empirical study of Taiwanese manufacturers", *R and D Management*, Vol. 35 No. 2, pp. 187–201.
- Ur Rehman, A., Aslam, E. and Iqbal, A. (2022), "Intellectual capital efficiency and bank performance: Evidence from islamic banks", *Borsa Istanbul Review*, Vol. 22 No. 1, pp. 113–121.
- Vandemaele, S.N., Vergauwen, P.G.M.C. and Smits, A.J. (2005), "Intellectual capital disclosure in The Netherlands, Sweden and the UK: A longitudinal and comparative study", *Journal of Intellectual Capital*, Vol. 6 No. 3, pp. 417–426.
- Vanini, U. and Rieg, R. (2019), "Effects of voluntary intellectual capital disclosure for disclosing firms: A structured literature review", *Journal of Applied Accounting Research*, Vol. 20 No. 3, pp. 349–364.

- 1
2
3 Vergauwen, P., Bollen, L. and Oirbans, E. (2007), “Intellectual capital disclosure and intangible value drivers: an
4 empirical study”, *Management Decision*, Vol. 45 No. 7, pp. 1163–1180.
5
6 Vidyarathi, H. and Tiwari, R. (2020), “Cost, revenue, and profit efficiency characteristics, and intellectual capital
7 in Indian Banks”, *Journal of Intellectual Capital*, Vol. 21 No. 1, pp. 1–22.
8
9 Vishnu, S. and Kumar Gupta, V. (2014), “Intellectual capital and performance of pharmaceutical firms in India”,
10 *Journal of Intellectual Capital*, Vol. 15 No. 1, pp. 83–99.
11
12 Vitolla, F. and Raimo, N. (2018), “Adoption of Integrated Reporting: Reasons and Benefits—A Case Study
13 Analysis”, *International Journal of Business and Management*, Vol. 13 No. 12, p. 244.
14
15 Vitolla, F., Raimo, N. and De Nuccio, E. (2018), “Integrated Reporting: Development and State of Art —The
16 Italian Case in the International Context”, *International Journal of Business and Management*, Vol. 13
17 No. 11, p. 233.
18
19 Vitolla, F., Raimo, N., Marrone, A. and Rubino, M. (2020), “The role of board of directors in intellectual capital
20 disclosure after the advent of integrated reporting”, *Corporate Social Responsibility and Environmental
21 Management*, Vol. 27 No. 5, pp. 2188–2200.
22
23 Vitolla, F., Raimo, N., Rubino, M. and Garzoni, A. (2022), “Broadening the horizons of intellectual capital
24 disclosure to the sports industry: evidence from top UEFA clubs”, *Meditari Accountancy Research*, Vol.
25 30 No. 1, pp. 142–162.
26
27 Vo, D.H., Van, L.T.H., Hoang, H.T.T. and Tran, N.P. (2022), “The interrelationship between intellectual capital,
28 corporate governance, and corporate social responsibility”, *Social Responsibility Journal*, Vol. 19 No. 6,
29 pp. 1023–1036.
30
31 Vrontis, D. and Christofi, M. (2019), “R&D internationalization and innovation: A systematic review, integrative
32 framework, and future research directions”, *Journal of Business Research*, Vol. 128, pp. 812–823.
33
34 Zéghal, D. and Maaloul, A. (2010), “Analyzing value added as an indicator of intellectual capital and its
35 consequences on company performance”, *Journal of Intellectual Capital*, Vol. 11 No. 1, pp. 39–60.
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

1
2
3 **Tables**
4

5 **Table 1:** Top Ten- journals in ICD Literature (Source: Authors' own work)
6

7

Journal	NP
Journal of Intellectual Capital	34
Accounting and Business Research	3
British Accounting Review	3
Corporate Governance (Bingley)	3
Management Decision	3
Borsa Istanbul Review	2
Journal of Applied Accounting Research	2
Meditari Accountancy Research	2
Quality and Quantity	2
Technological Forecasting and Social Change	2
TQM Journal	2

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

Table 2: Representation of Developed and Developing Countries* (Source: Authors' own work)

Country level of Development	Country	Count of Geographic Focus	Total
Developed	Italy	8	
	The UK	6	
	Spain	5	
	Australia	5	
	Taiwan**	5	
	The USA	5	
	France	2	
	Singapore	1	
<i>Total</i>			37
Developing	India	7	
	China	4	
	Indonesia	3	
	Pakistan	3	
	Vietnam	2	
	Egypt	2	
	Albania	1	
	Nigeria	1	
	Mexico	1	
	Oman	1	
	Dominican Republic	1	
	Malaysia	1	
	Jordan	1	
	Iran	1	
Mauritius	1		
<i>Total</i>			30
<i>Cross countries</i>			11
<i>NA (REVIEW)</i>			6
<i>Total Studies on ICD</i>			84

*The classification of countries is based on the 2019 World Economic Outlook Report.

** In 1997, the IMF upgraded Taiwan from a developing to a developed country.

Table 3: Number of IC Articles by Research Methods (Source: Authors' own work)

Method		
	Quantitative	74
	Qualitative	3
	Mixed (Quantitative and Qualitative)	1
	Systematic Review	6
	Total	84
Data type		
	Secondary Data	60
	Primary Data (Questionnaire)	11
	Primary Data (Interview)	3
	Primary Data (Questionnaire and Interviews)	1
	Primary and Secondary Data	3
	Articles	6
Total		84

Table 4: Limitation reported in IC studies (Source: Authors' own work)

Limitation No	Limitation reported	Number	%
1. Sample characteristics	Small sample selected, e.g., small number of companies	21	27
	Short Sample period	27	35
	Single industry or governmental organization	19	24
	Specific to one country of study	67	86
2. Source of data	Investigated using one source of data, e.g., annual reports, websites	10	13
	Need for primary data in the form of interviews	60	77
3. Methodological limitation	Variable measurement	35	45
	Need for control variables	8	10
4. Theoretical framework	Application of the varied theoretical framework	15	19

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

Figures

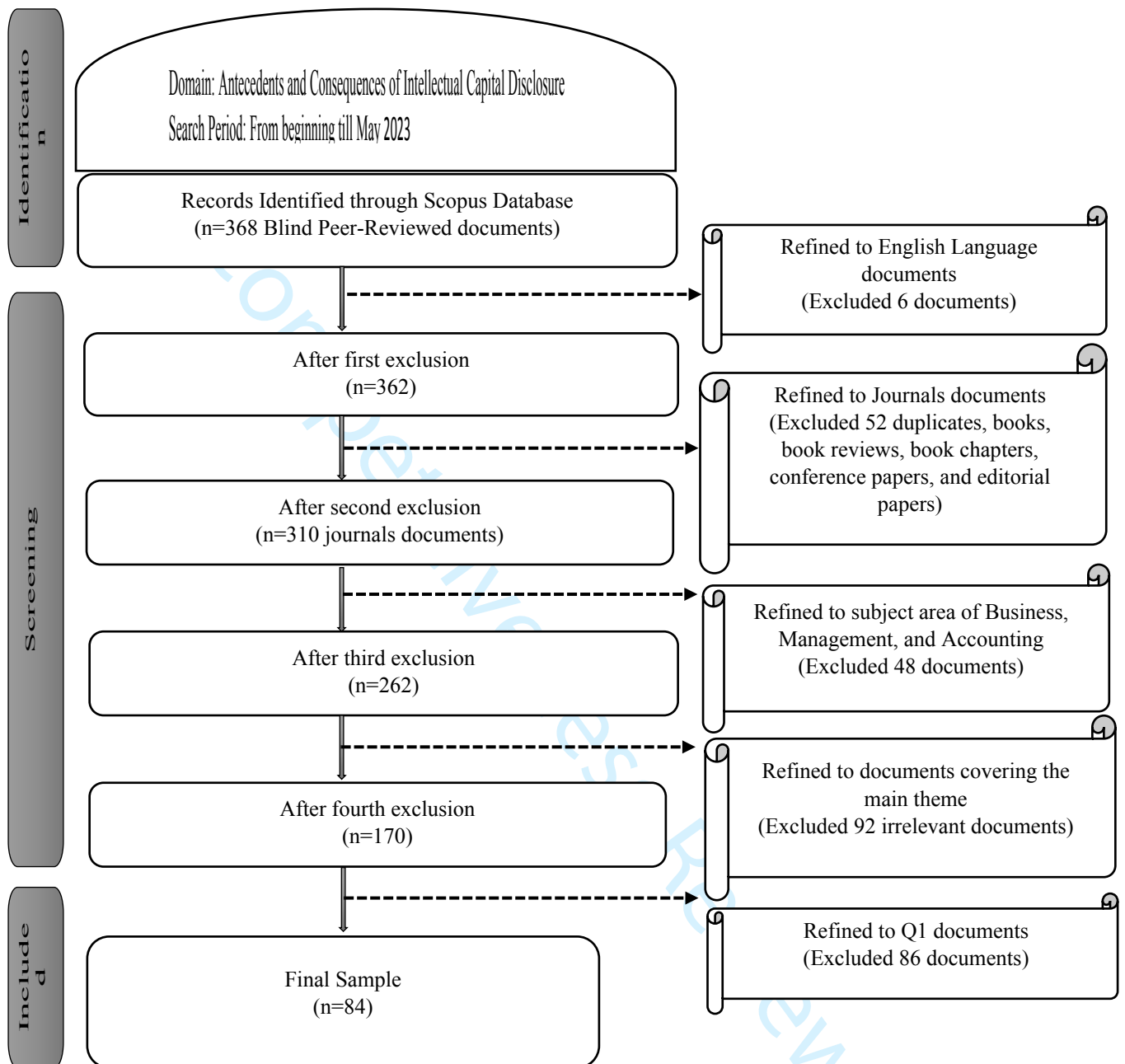


Figure 1: Flowchart of searching strategy and data collection process (Source: Authors' own work)

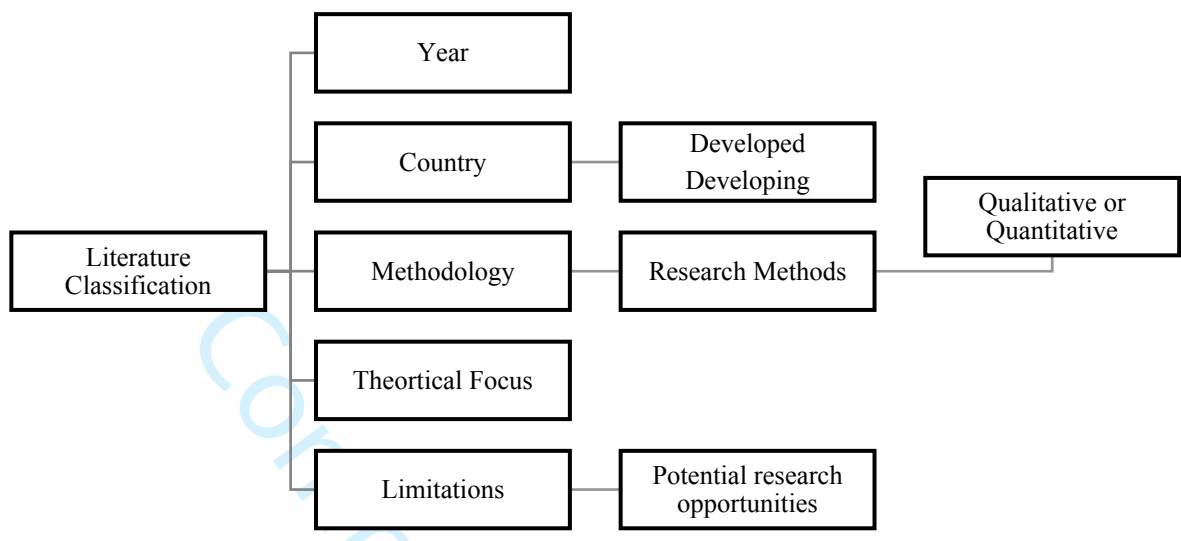


Figure 2: Analysis of Articles (Source: Authors' own work)

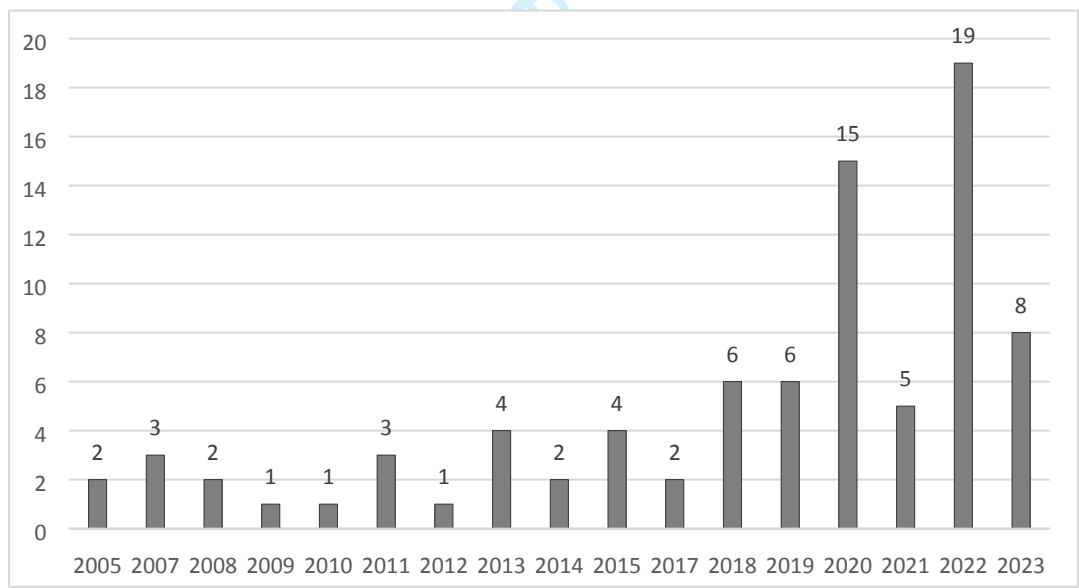


Figure 3: The Production of ICD-related Publication every year (Source: Authors' own work)

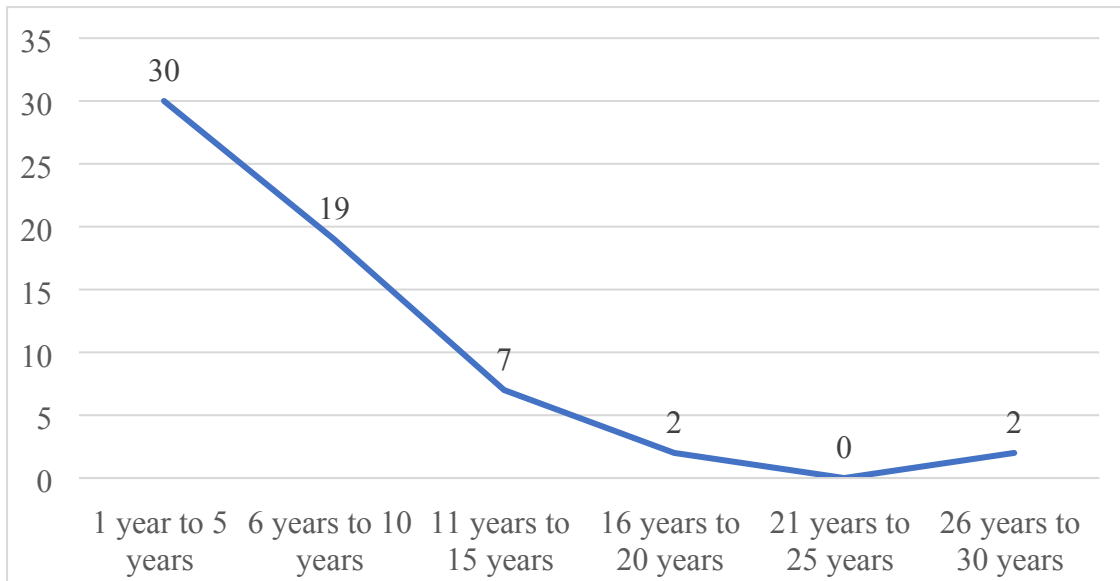
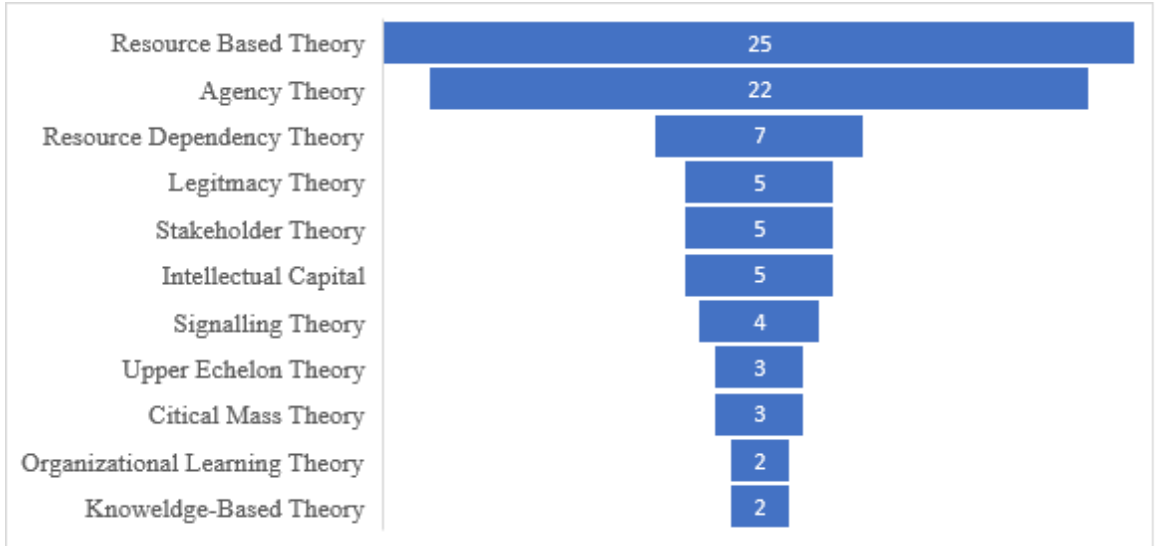


Figure 4: Articles by the duration of the sample periods (Source: Authors' own work)

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



*Other theories used only once including Institutional, Impression Management, Critical Mass, Theory of Financial Ratios, Entrenchment, Social Impact, Fraud, Human Capital, and Economic Theory

Figure 5: The frequency of theories in the IC articles (Source: Authors' own work)

Competitiveness Review

APPENDIX A.

Year	Author	Title	Journal	Theory	Country	Method
2005	Subramaniam and Youndt	The influence of intellectual capital on the types of innovative capabilities.	Academy of Management journal	NA	USA	Survey
2005	Tseng and Goo	Intellectual capital and corporate value in an emerging economy: Empirical study of Taiwanese manufacturers	R&D Management	Resource-based view	Taiwan	Survey & Secondary data
2007	Tayles et al.	Intellectual capital, management accounting practices and corporate performance: Perceptions of managers.	Accounting, Auditing & Accountability Journal	Intellectual capital	Malaysia	Survey & Interviews)
2007	Cerbioni and Parbonetti	Exploring the Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of European Biotechnology Companies	European Accounting Review	Agency	European	Secondary data
2007	White et al.	Drivers of voluntary intellectual capital disclosure in listed biotechnology companies	Journal of Intellectual Capital	Agency	Australia	Secondary data
2008	Li et al.	Intellectual capital disclosure and corporate governance structure in UK firms	Accounting and Business Research	Agency, Resource-dependency	UK	Secondary data
2008	Singh and Mitchell Van der Zahn	Determinants of intellectual capital disclosure in prospectuses of initial public offerings	Accounting and Business Research	Signalling	Singapore	Secondary data
2009	Brüggen et al.	Determinants of intellectual capital disclosure: evidence from Australia	Management Decision	NA	Australia	Secondary data
2010	Zéghal and Maaloul	Analyzing value added as an indicator of intellectual capital and its consequences on company performance	Journal of Intellectual Capital	Resource-based theory, Intellectual capital, Stakeholder	UK	Secondary data
2011	Vafaei et al.	The value relevance of intellectual capital disclosures	Journal of Intellectual Capital	NA	Multi-countries	Survey
2011	Hidalgo et al.	Corporate Governance and Intellectual Capital Disclosure	Journal of Business Ethics	Agency	Mexico	Secondary data
2011	Clarke et al.	Intellectual capital and firm performance in Australia	Journal of Intellectual Capital	Resource-based theory	Australia	Secondary data

Year	Author	Title	Journal	Theory	Country	Method
2012	Li et al.	The effect of audit committee characteristics on intellectual capital disclosure	British Accounting Review	Agency, Signaling	UK	Secondary data
2013	Beattie and Smith	Value creation and business models: Refocusing the intellectual capital debate.	British Accounting Review	Resource-based theory, Economic theory	UK	Interview
2013	Bellora and Guenther	Drivers of innovation capital disclosure in intellectual capital statements: Evidence from Europe	British Accounting Review	Legitimacy, Agency	Multi-countries	Secondary data
2013	Boujelbene and Affes	The impact of intellectual capital disclosure on cost of equity capital: A case of French firms	Journal of Economics, Finance and Administrative Science	NA	France	Secondary data
2013	Wang	Value relevance on intellectual capital valuation methods: the role of corporate governance	Quality & Quantity	NA	Taiwan	Secondary data
2014	Li and Mangena	Capital market pressures and the format of intellectual capital disclosure in intellectual capital-intensive firms	Journal of Applied Accounting Research	NA	UK	Secondary data
2014	Vishnu and Gupta	Intellectual capital and performance of pharmaceutical firms in India	Journal of Intellectual Capital	NA	India	Secondary data
2015	Inkinen	Review of empirical research on intellectual capital and firm performance.	Journal of Intellectual capital	NA	NA	articles
2015	Díaz-Fernández et al.	Top management team's intellectual capital and firm performance	European Management Journal	Upper Echelon, Resource-based view	Spain	Survey & Secondary data
2015	Abhayawansa et al.	The use of intellectual capital information by sell-side analysts in company valuation	Accounting and Business Research	NA	Australia	Interview
2015	Appuhami and Bhuyan	Examining the influence of corporate governance on intellectual capital efficiency evidence from top service firms in Australia	Managerial Auditing Journal	Agency	Australia	Secondary data
2017	Buenechea-Elberdin	Structured literature review about intellectual capital and innovation.	Journal of Intellectual capital	NA	NA	articles
2017	Tejedo-Romero et al.	Women directors and disclosure of intellectual capital information	European Research on Management and Business Economics	Resource-based theory	Spain	Secondary data

Year	Author	Title	Journal	Theory	Country	Method
2018	Ndou et al.	Understanding intellectual capital disclosure in online media Big Data: An exploratory case study in a university.	Meditari Accountancy Research.	NA	Albania	Multiple data sources
2018	Li and Liu	The role of problem identification and intellectual capital in the management of hotels' competitive advantage-an integrated framework	International Journal of Hospitality Management	Intellectual capital	China	Survey
2018	Anifowose et al.	Intellectual capital efficiency and corporate book value: evidence from Nigerian economy	Journal of Intellectual Capital	Resource-based theory	Nigeria	Secondary data
2018	Ginesti et al.	Exploring the impact of intellectual capital on company reputation and performance	Journal of Intellectual Capital	NA	Italy	Secondary data
2018	Manes Rossi et al.	New trends in intellectual capital reporting Exploring online intellectual capital disclosure in Italian universities	Journal of Intellectual Capital	Stakeholder, legitimacy	Italy	Secondary data
2018	Smriti and Das	The impact of intellectual capital on firm performance: a study of Indian firms listed in COSPI	Journal of Intellectual Capital.	Resource dependency	India	Secondary data
2019	Vanini and Rieg	Effects of voluntary intellectual capital disclosure for disclosing firms: A structured literature review	Journal of Applied Accounting Research	NA	NA	articles
2019	Albertini and Berger-Remy	Intellectual capital and financial performance: A meta-analysis and research agenda	Management Decision	NA	France	articles
2019	Tjahjadi et al.	Does intellectual capital matter in performance management system-organizational performance relationship? Experience of higher education institutions in Indonesia	Journal of Intellectual Capital	Intellectual capital	Indonesia	Survey
2019	Ginesti	Top management characteristics and intellectual capital performance in small Italian companies	Corporate Governance (Bingley)	NA	Italy	Secondary data
2019	Beretta et al.	Does environmental, social and governance performance influence intellectual capital disclosure tone in integrated reporting?	Journal of Intellectual Capital	Signaling	Europe	Secondary data
2019	Nadeem et al.	Does female representation on corporate boards improve intellectual capital efficiency?	Journal of Intellectual Capital	Upper Echelon	UK	Secondary data
2020	Torre et al.	Technology usage, intellectual capital, firm performance, and employee satisfaction: the accountants' idea	TQM Journal	Resource-based theory, stakeholder,	Italy	Survey

Year	Author	Title	Journal	Theory	Country	Method
				Knowledge View		
2020	Nadeem	Does board gender diversity influence voluntary disclosure of intellectual capital in initial public offering prospectuses? Evidence from China	Corporate Governance: An International Review	Resource-dependency, Agency, critical mass	China	Secondary data
2020	Vitolla et al.	The role of board of directors in intellectual capital disclosure after the advent of integrated reporting	Corporate Social Responsibility and Environmental Management	Agency	Multi-countries	Secondary data
2020	Shahwan and Fathalla	The mediating role of intellectual capital in corporate governance and the corporate performance relationship	International Journal of Ethics and Systems	Resource-dependency, stewardship theory	Egypt	Secondary data
2020	Tran et al.	The nexus between corporate governance and intellectual capital in Vietnam	Journal of Asia Business Studies	Agency	Vietnam	Secondary data
2020	Babajee et al.	The determinants of hotel financial performance: an intellectual capital perspective	Journal of Hospitality Marketing and Management	Resource-based theory, knowledge-based	Mauritius	Secondary data
2020	Dalwai and Mohammadi	Intellectual capital and corporate governance: an evaluation of Oman's financial sector companies	Journal of Intellectual Capital	Agency, Resource dependency	Oman	Secondary data
2020	Hsieh et al.	The role of controlling shareholders in determining investments of intellectual capital among Taiwanese semiconductor companies	Journal of Intellectual Capital	Agency, Entrenchment	Taiwan	Secondary data
2020	Ni et al.	Do intellectual capitals matter to firm value enhancement? Evidence from Taiwan	Journal of Intellectual Capital	NA	Taiwan	Secondary data
2020	Salvi et al.	Does intellectual capital disclosure affect the cost of equity capital? An empirical analysis in the integrated reporting context.	Journal of Intellectual Capital	Signaling, legitimacy	Multi-countries	Secondary data
2020	Shahwan and Habib	Does the efficiency of corporate governance and intellectual capital affect a firm's financial distress? Evidence from Egypt	Journal of Intellectual Capital	Resource-based theory	Egypt	Secondary data

Year	Author	Title	Journal	Theory	Country	Method
2020	Shahzad et al.	What drives the impact of women directors on firm performance? Evidence from intellectual capital efficiency of US listed firms	Journal of Intellectual Capital	Resource-based view, organizational learning	US	Secondary data
2020	Vidyarthi and Tiwari	Cost, revenue, and profit efficiency characteristics, and intellectual capital in Indian Banks	Journal of Intellectual Capital	NA	India	Secondary data
2020	Massaro et al.	Intellectual capital and performance in temporary teams	Management Decision	Resource-based view	NA	Secondary data
2020	Salvi et al.	Intellectual capital disclosure in integrated reports: The effect on firm value	Technological Forecasting and Social Change	Agency, the pecking order	Italy	Secondary data
2021	Wang and Juo	An environmental policy of green intellectual capital: green innovation strategy for performance sustainability	Business Strategy and the Environment	Institutional, Stakeholder, Relational exchange, resource-based theory	Taiwan	Survey
2021	Aslam and Haron	Corporate governance and banking performance: the mediating role of intellectual capital among OIC countries	Corporate Governance (Bingley)	Resource-based theory, Agency	Multi-countries	Secondary data
2021	Nadeem et al.	CEO ability, career concerns, firms' lifecycle, and investments in intellectual capital	International Review of Economics and Finance	Resource-based theory	US	Secondary data
2021	Dharni and Jameel	Trends and relationship among intellectual capital disclosures, patent statistics and firm performance in Indian manufacturing sector.	Journal of Intellectual Capital	NA	India	Secondary data
2021	Nicolò et al.	ICD corporate communication and its determinants: evidence from Italian listed companies' websites	Meditari Accountancy Research	Stakeholder	Italy	Secondary data
2022	Gómez-Valenzuela	Intellectual capital factors at work in Dominican firms: understanding their influence	Journal of Innovation and Entrepreneurship	NA	the Dominican Republic	Survey
2022	Tjahjadi et al.	Does Engaging in Global Market Orientation Strategy Affect HEIs' Performance? The Mediating Roles of Intellectual Capital Readiness and Open Innovation	Journal of Open Innovation: Technology, Market, and Complexity	Resource-based view	Indonesia	Survey

Year	Author	Title	Journal	Theory	Country	Method
2022	Al-Omoush et al.	The impact of intellectual capital on supply chain agility and collaborative knowledge creation in responding to unprecedented pandemic crises	Technological Forecasting and Social Change	NA	Jordan	Survey
2022	Shahzad et al.	Does intellectual capital efficiency explain corporate social responsibility engagement-firm performance relationship? Evidence from environmental, social and governance performance of US listed firms	Borsa Istanbul Review	Social impact, Resource-based view, organizational learning	USA	Secondary data
2022	Ur Rehman et al.	Intellectual capital efficiency and bank performance: Evidence from Islamic banks	Borsa Istanbul Review	Resource-based theory	Multi-countries	Secondary data
2022	Lestari and Adhariani	Can intellectual capital contribute to financial and non-financial performances during normal and crisis situations?	Business Strategy and Development	Resource-based view	Multi-countries	Secondary data
2022	Battisti et al.	Intellectual capital and dividend policy: the effect of CEO characteristics	Journal of Intellectual Capital	Agency	China	Secondary data
2022	Mardini and Lahyani	Impact of firm performance and corporate governance mechanisms on intellectual capital disclosures in CEO statements	Journal of Intellectual Capital	Agency, impression management	France	Secondary data
2022	Nkambule et al.	Intellectual capital and firm efficiency of US multinational software firms	Journal of Intellectual Capital	Resource-based view	USA	Secondary data
2022	Probohudono et al.	Does intellectual capital have any influence on stock price crash risk?	Journal of Intellectual Capital	NA	Indonesia	Secondary data
2022	Ramirez et al.	Determinants of online intellectual capital disclosure by Spanish local governments	Journal of Intellectual Capital	Agency, legitimacy	Spain	Secondary data
2022	Salvi et al.	The financial consequences of human capital disclosure as part of integrated reporting.	Journal of Intellectual Capital	NA	Multi-countries	Secondary data
2022	Smriti and Das	Do female directors drive intellectual capital performance? Evidence from Indian listed firms	Journal of Intellectual Capital	Resource-based theory, Agency	India	Secondary data
2022	Tejedo-Romero and Araujo	The influence of corporate governance characteristics on human capital disclosure: the moderating role of managerial ownership	Journal of Intellectual Capital	Legitimacy, Resource-based theory, Agency	Spain	Secondary data
2022	Tiwari	Nexus between intellectual capital and profitability with interaction effects: panel data evidence from the Indian healthcare industry	Journal of Intellectual Capital	Resource-based theory	India	Secondary data

Year	Author	Title	Journal	Theory	Country	Method
2022	Nicolò et al.	Gender diversity and online intellectual capital disclosure: Evidence from Italian-listed firms	Journal of Public Affairs	Intellectual capital	Italy	Secondary data
2022	Shahzad et al.	Exploring the nexus of corporate governance and intellectual capital efficiency: from the lens of profitability	Quality and Quantity	Resource-based view, Agency, financial ratios	Pakistan	Secondary data
2022	Vo et al.	The interrelationship between intellectual capital, corporate governance, and corporate social responsibility	Social Responsibility Journal	Agency	Vietnam	Secondary data
2022	Lotfi et al.	The effect of intellectual capital on fraud in financial statements	TQM Journal	Fraud, human capital	Iran	Secondary data
2023	Daraio et al.	DEA, balanced scorecard, and intellectual capital including the gender dimension: A comprehensive list of indicators	International Transactions in Operational Research	NA	NA	articles
2023	Rieg and Vanini	Value relevance of voluntary intellectual capital disclosure: a meta-analysis	Review of Managerial Science	NA	NA	articles
2023	Ruiz-Fernández et al.	The U-shaped relationship between intellectual capital and hotel performance. The moderating effect of managerial gender	Current Issues in Tourism	NA	Spain	Survey
2023	Chatterji and Kiran	The influence of human, organizational and relational capital of universities on their performance: a developing economy perspective.	Journal of Intellectual Capital	NA	India	Survey
2023	Rehman et al.	Nexus among intellectual capital, interorganizational learning, industrial Internet of things technology and innovation performance: a Resource dependence perspective	Journal of Intellectual Capital	Resource-based view	Pakistan	Survey
2023	Farooq and Ahmad	Nexus between board characteristics, firm performance, and intellectual capital: an emerging market evidence	Corporate Governance (Bingley)	Agency, Resource dependency	Pakistan	Secondary data
2023	Javaid et al.	Female directors in the boardroom and intellectual capital performance: Does the “critical mass” matter?	Financial Innovation	Critical mass	China	Secondary data
2023	Prencipe et al.	Unmasking intellectual capital from gender and nationality diversity on university spin-offs’ boards: a study on non-linear effects upon firm innovation	Journal of Intellectual Capital	Resource dependency, upper echelons, critical mass	Italy	Secondary data

- 1
2
3
4 Abhayawansa, S., Aleksanyan, M. and Bahtsevanoglou, J. (2015), “The use of intellectual capital information
5 by sell-side analysts in company valuation”, *Accounting and Business Research*, Informa UK
6 Limited, Vol. 45 No. 3, pp. 279–306.
- 7
8 Albertini, E. and Berger-Remy, F. (2019), “Intellectual capital and financial performance: A meta-analysis
9 and research agenda”, *Management*, 22(2), pp.216-249.
- 10
11 Al-Omoush, K.S., Palacios-Marqués, D. and Ulrich, K. (2022), “The impact of intellectual capital on supply
12 chain agility and collaborative knowledge creation in responding to unprecedented pandemic
13 crises”, *Technological Forecasting and Social Change*, Vol. 178, pp. 1–22, doi:
14 <https://doi.org/10.1016/j.techfore.2022.121603>.
- 15
16 Anifowose, M., Abdul Rashid, H.M., Annuar, H.A. and Ibrahim, H. (2018), “Intellectual capital efficiency
17 and corporate book value: evidence from Nigerian economy”, *Journal of Intellectual Capital*,
18 Emerald, Vol. 19 No. 3, pp. 644–668.
- 19
20 Appuhami, R. and Bhuyan, M. (2015), “Examining the influence of corporate governance on intellectual
21 capital efficiency”, *Managerial Auditing Journal*, Vol. 30 No. 4/5, pp. 347–372, doi:
22 <https://doi.org/10.1108/maj-04-2014-1022>.
- 23
24 Aslam, E. and Haron, R. (2021), “Corporate governance and banking performance: the mediating role of
25 intellectual capital among OIC countries”, *Corporate Governance: The International Journal of*
26 *Business in Society*, Vol. 21 No. 1, pp. 111–136, doi: <https://doi.org/10.1108/cg-08-2020-0312>.
- 27
28 Babajee, R.B., Seetanah, B. and Nunkoo, R. (2020), “The determinants of hotel financial performance: an
29 intellectual capital perspective”, *Journal of Hospitality Marketing & Management*, Vol. 29 No. 8,
30 pp. 1008–1026, doi: <https://doi.org/10.1080/19368623.2020.1703870>.
- 31
32 Battisti, E., Nirino, N., Christofi, M. and Vrontis, D. (2022), “Intellectual capital and dividend policy: the
33 effect of CEO characteristics”, *Journal of Intellectual Capital*, Vol. 23 No. 1, pp. 127–143.
- 34
35 Beattie, V. and Smith, S.J. (2013), “Value creation and business models: Refocusing the intellectual capital
36 debate”, *The British Accounting Review*, Elsevier BV, Vol. 45 No. 4, pp. 243–254.
- 37
38 Bellora, L. and Guenther, T.W. (2013), “Drivers of innovation capital disclosure in intellectual capital
39 statements: Evidence from Europe”, *The British Accounting Review*, Vol. 45 No. 4, pp. 255–270.
- 40
41 Beretta, V., Demartini, C. and Trucco, S. (2019), “Does environmental, social and governance performance
42 influence intellectual capital disclosure tone in integrated reporting?”, *Journal of Intellectual*
43 *Capital*, Vol. 20 No. 1, pp. 100–124.
- 44
45 Boujelbene, M.A. and Affes, H. (2013), “The impact of intellectual capital disclosure on cost of equity
46 capital: A case of French firms”, *Journal of Economics Finance and Administrative Science*, Vol.
47 18 No. 34, pp. 45–53.
- 48
49 Brügger, A., Vergauwen, P. and Dao, M. (2009), “Determinants of intellectual capital disclosure: evidence
50 from Australia”, *Management Decision*, Vol. 47 No. 2, pp. 233–245.
- 51
52 Buenechea-Elberdin, M. (2017), “Structured literature review about intellectual capital and innovation”,
53 *Journal of Intellectual Capital*, Vol. 18 No. 2, pp. 262–285.
- 54
55 Cerbioni, F. and Parbonetti, A. (2007), “Exploring the Effects of Corporate Governance on Intellectual
56 Capital Disclosure: An Analysis of European Biotechnology Companies”, *European Accounting*
57 *Review*, Informa UK Limited, Vol. 16 No. 4, pp. 791–826.

- 1
2
3 Chatterji, N. and Kiran, R. (2023), “The influence of human, organizational and relational capital of
4 universities on their performance: a developing economy perspective”, *Journal of Intellectual*
5 *Capital*, Vol. 24 No. 3, pp. 799–829.
6
- 7 Clarke, M., Seng, D. and Whiting, R.H. (2011), “Intellectual capital and firm performance in Australia”,
8 *Journal of Intellectual Capital*, Vol. 12 No. 4, pp. 505–530.
9
- 10 Dalwai, T. and Mohammadi, S.S. (2020), “Intellectual capital and corporate governance: an evaluation of
11 Oman’s financial sector companies”, *Journal of Intellectual Capital*, Vol. 21 No. 6, pp. 1125–1152.
12
- 13 Daraio, C., Di Leo, S., Iazzolino, G. and Laise, D. (2023), “DEA, balanced scorecard and intellectual capital
14 including the gender dimension: A comprehensive list of indicators”, *International Transactions in*
15 *Operational Research*, Wiley, Vol. 30 No. 6, pp. 2972–3012.
16
- 17 Dharni, K. and Jameel, S. (2021), “Trends and relationship among intellectual capital disclosures, patent
18 statistics and firm performance in Indian manufacturing sector”, *Journal of Intellectual Capital*,
19 Vol. 23 No. 4, pp. 936–956.
20
- 21 Díaz-Fernández, M.C., González-Rodríguez, M.R. and Simonetti, B. (2015), “Top management team’s
22 intellectual capital and firm performance”, *European Management Journal*, Vol. 33 No. 5, pp. 322–
23 331.
24
- 25 Farooq, M. and Ahmad, N. (2023), “Nexus between board characteristics, firm performance and intellectual
26 capital: an emerging market evidence”, *Corporate Governance: The International Journal of*
27 *Business in Society*, available at: <https://doi.org/10.1108/cg-08-2022-0355>.
28
- 29 Ginesti, G. (2019), “Top management characteristics and intellectual capital performance in small Italian
30 companies”, *Corporate Governance: The International Journal of Business in Society*, Emerald,
31 Vol. 19 No. 6, pp. 1153–1166.
32
- 33 Ginesti, G., Caldarelli, A. and Zampella, A. (2018), “Exploring the impact of intellectual capital on company
34 reputation and performance”, *Journal of Intellectual Capital*, Vol. 19 No. 5, pp. 915–934.
35
- 36 Gómez-Valenzuela, V. (2022), “Intellectual capital factors at work in Dominican firms: understanding their
37 influence”, *Journal of Innovation and Entrepreneurship*, Springer Science and Business Media
38 LLC, Vol. 11 No. 1, available at: <https://doi.org/10.1186/s13731-022-00205-8>.
39
- 40 Hidalgo, R.L., García-Meca, E. and Martínez, I. (2011), “Corporate Governance and Intellectual Capital
41 Disclosure”, *Journal of Business Ethics*, Springer Science and Business Media LLC, Vol. 100 No.
42 3, pp. 483–495.
43
- 44 Hsieh, C.-H., Ting, I.W.K., Asif, J. and Le, H.T.M. (2020), “The role of controlling shareholders in
45 determining investments of intellectual capital among Taiwanese semiconductor companies”,
46 *Journal of Intellectual Capital*, Emerald, Vol. 21 No. 1, pp. 62–86.
47
- 48 Inkinen, H. (2015), “Review of empirical research on intellectual capital and firm performance”, *Journal of*
49 *Intellectual Capital*, Vol. 16 No. 3, pp. 518–565.
50
- 51 Javaid, H.M., Ain, Q.U. and D’Ecclesia, R. (2023), “Female directors in the boardroom and intellectual
52 capital performance: Does the ‘critical mass’ matter?”, *Financial Innovation*, Springer Science and
53 Business Media LLC, Vol. 9 No. 1, available at: <https://doi.org/10.1186/s40854-023-00476-4>.
54
- 55 Lestari, N.I.G. and Adhariani, D. (2022), “Can intellectual capital contribute to financial and non-financial
56 performances during normal and crisis situations?”, *Business Strategy & Development*, Wiley, Vol.
57 5 No. 4, pp. 390–404.
58
59
60

- 1
2
3 Li, J. and Mangena, M. (2014), “Capital market pressures and the format of intellectual capital disclosure in
4 intellectual capital intensive firms”, edited by Musa Mangena, P. and Jia Liu, D. *Journal of Applied*
5 *Accounting Research*, Vol. 15 No. 3, pp. 339–354.
6
- 7 Li, J., Mangena, M. and Pike, R. (2012), “The effect of audit committee characteristics on intellectual capital
8 disclosure”, *The British Accounting Review*, Vol. 44 No. 2, pp. 98–110.
9
- 10 Li, J., Pike, R. and Haniffa, R. (2008), “Intellectual capital disclosure and corporate governance structure in
11 UK firms”, *Accounting and Business Research*, Informa UK Limited, Vol. 38 No. 2, pp. 137–159.
12
- 13 Li, Y.-Q. and Liu, C.-H.S. (2018), “The role of problem identification and intellectual capital in the
14 management of hotels’ competitive advantage-an integrated framework”, *International Journal of*
15 *Hospitality Management*, Vol. 75, pp. 160–170.
16
- 17 Lotfi, A., Salehi, M. and Lari Dashtbayaz, M. (2022), “The effect of intellectual capital on fraud in financial
18 statements”, *The TQM Journal*, Vol. 34 No. 4, pp. 651–674.
19
- 20 Manes Rossi, F., Nicolò, G. and Tartaglia Polcini, P. (2018), “New trends in intellectual capital reporting:
21 Exploring online intellectual capital disclosure in Italian universities”, *Journal of Intellectual*
22 *Capital*, Vol. 19 No. 4, pp. 814–835.
23
- 24 Mardini, G.H. and Lahyani, F.E. (2022), “Impact of firm performance and corporate governance mechanisms
25 on intellectual capital disclosures in CEO statements”, *Journal of Intellectual Capital*, Vol. 23 No.
26 2, pp. 290–312.
27
- 28 Massaro, M., Mas, F.D., Bontis, N. and Gerrard, B. (2020), “Intellectual capital and performance in
29 temporary teams”, *Management Decision*, Vol. 58 No. 3, pp. 410–427.
30
- 31 Nadeem, M. (2020), “Does board gender diversity influence voluntary disclosure of intellectual capital in
32 initial public offering prospectuses? Evidence from China”, *Corporate Governance: An*
33 *International Review*, Wiley, Vol. 28 No. 2, pp. 100–118.
34
- 35 Nadeem, M., Farooq, M.B. and Ahmed, A. (2019), “Does female representation on corporate boards improve
36 intellectual capital efficiency?”, *Journal of Intellectual Capital*, Vol. 20 No. 5, pp. 680–700.
37
- 38 Nadeem, M., Zaman, R., Suleman, T. and Atawnah, N. (2021), “CEO ability, career concerns, firms’ lifecycle
39 and investments in intellectual capital”, *International Review of Economics & Finance*, Elsevier
40 BV, Vol. 75, pp. 237–251.
41
- 42 Ndou, V., Secundo, G., Dumay, J. and Gjevori, E. (2018), “Understanding intellectual capital disclosure in
43 online media Big Data: An exploratory case study in a university”, *Meditari Accountancy Research*,
44 Vol. 26 No. 3, pp. 499–530.
45
- 46 Ni, Y., Cheng, Y.-R. and Huang, P. (2020), “Do intellectual capitals matter to firm value enhancement?
47 Evidences from Taiwan”, *Journal of Intellectual Capital*, Vol. 22 No. 4, pp. 725–743.
48
- 49 Nicolò, G., Aversano, N., Sannino, G. and Tartaglia Polcini, P. (2021), “ICD corporate communication and
50 its determinants: evidence from Italian listed companies’ websites”, *Meditari Accountancy*
51 *Research*, Vol. 29 No. 5, pp. 1209–1232.
52
- 53 Nicolò, G., Sannino, G. and Iorio, S.D. (2022), “Gender diversity and online intellectual capital disclosure:
54 Evidence from Italian-listed firms”, *Journal of Public Affairs*, Wiley, Vol. 22 No. 4, available at:
55 <https://doi.org/10.1002/pa.2706>.
56
- 57 Nkambule, N.A., Wang, W.-K., Ting, I.W.K. and Lu, W.-M. (2022), “Intellectual capital and firm efficiency
58
59
60

- of US multinational software firms”, *Journal of Intellectual Capital*, Emerald, Vol. 23 No. 6, pp. 1404–1434.
- Prencipe, A., Boffa, D., Papa, A., Corsi, C. and Mueller, J. (2023), “Unmasking intellectual capital from gender and nationality diversity on university spin-offs’ boards: a study on non-linear effects upon firm innovation”, *Journal of Intellectual Capital*, Emerald, Vol. 24 No. 1, pp. 257–282.
- Probohudono, A.N., Pratiwi, A.D. and Rochmatullah, M.R. (2022), “Does intellectual capital have any influence on stock price crash risk?”, *Journal of Intellectual Capital*, Emerald, Vol. 23 No. 6, pp. 1161–1174.
- Ramírez, Y., Tejada, Á. and Sánchez, M.P. (2022), “Determinants of online intellectual capital disclosure by Spanish local governments”, *Journal of Intellectual Capital*, Vol. 23 No. 2, pp. 249–289.
- Rehman, S.U., Ashfaq, K., Bresciani, S., Giacosa, E. and Mueller, J. (2023), “Nexus among intellectual capital, interorganizational learning, industrial Internet of things technology and innovation performance: a resource-based perspective”, *Journal of Intellectual Capital*, Vol. 24 No. 2, pp. 509–534.
- Rieg, R. and Vanini, U. (2023), “Value relevance of voluntary intellectual capital disclosure: a meta-analysis”, *Review of Managerial Science*, Springer Science and Business Media LLC, available at: <https://doi.org/10.1007/s11846-023-00630-3>.
- Ruiz-Fernández, L., Marco-Lajara, B. and Seva-Larrosa, P. (2023), “The U-shaped relationship between intellectual capital and hotel performance. The moderating effect of managerial gender”, *Current Issues in Tourism*, Informa UK Limited, pp. 1–14.
- Salvi, A., Raimo, N., Petruzzella, F. and Vitolla, F. (2022), “The financial consequences of human capital disclosure as part of integrated reporting”, *Journal of Intellectual Capital*, Vol. 23 No. 6, pp. 1221–1245.
- Salvi, A., Vitolla, F., Giakoumelou, A., Raimo, N. and Rubino, M. (2020a), “Intellectual capital disclosure in integrated reports: The effect on firm value”, *Technological Forecasting and Social Change*, Vol. 160, p. 120228.
- Salvi, A., Vitolla, F., Raimo, N., Rubino, M. and Petruzzella, F. (2020b), “Does intellectual capital disclosure affect the cost of equity capital? An empirical analysis in the integrated reporting context”, *Journal of Intellectual Capital*, Vol. 21 No. 6, pp. 985–1007.
- Shahwan, T.M. and Fathalla, M.M. (2020), “The mediating role of intellectual capital in corporate governance and the corporate performance relationship”, *International Journal of Ethics and Systems*, Vol. 36 No. 4, pp. 531–561.
- Shahwan, T.M. and Habib, A.M. (2020), “Does the efficiency of corporate governance and intellectual capital affect a firm’s financial distress? Evidence from Egypt”, *Journal of Intellectual Capital*, Vol. 21 No. 3, pp. 403–430.
- Shahzad, F., Baig, M.H., Rehman, I.U., Saeed, A. and Asim, G.A. (2022a), “Does intellectual capital efficiency explain corporate social responsibility engagement-firm performance relationship? Evidence from environmental, social and governance performance of US listed firms”, *Borsa Istanbul Review*, Vol. 22 No. 2, pp. 295–305.
- Shahzad, F., Hussain Baig, M., Rehman, I.U., Latif, F. and Sergi, B.S. (2020), “What drives the impact of women directors on firm performance? Evidence from intellectual capital efficiency of US listed firms”, *Journal of Intellectual Capital*, Vol. 21 No. 4, pp. 513–530.

- 1
2
3 Shahzad, K., Shah, S.Q.A., Lai, F.-W., Jan, A.A., Shah, S.A.A. and Shad, M.K. (2022b), “Exploring the
4 nexus of corporate governance and intellectual capital efficiency: from the lens of profitability”,
5 *Quality & Quantity*, Springer Science and Business Media LLC, Vol. 57 No. 3, pp. 2447–2468.
6
- 7 Singh, I., Mitchell Van der Zahn, J. L. W. (2008), “Determinants of intellectual capital disclosure in
8 prospectuses of initial public offerings”, *Accounting and Business Research*, Vol. 38 No. 5, pp.
9 409–431.
- 10
11 Smriti, N. and Das, N. (2018), “The impact of intellectual capital on firm performance: a study of Indian
12 firms listed in COSPI”, *Journal of Intellectual Capital*, Vol. 19 No. 5, pp. 935–964.
13
- 14 Smriti, N. and Das, N. (2022), “Do female directors drive intellectual capital performance? Evidence from
15 Indian listed firms”, *Journal of Intellectual Capital*, Vol. 23 No. 5, pp. 1052–1080.
16
- 17 Subramaniam, M. and Youndt, M.A. (2005), “The Influence of Intellectual Capital on the Types of
18 Innovative Capabilities”, *Academy of Management Journal*, Academy of Management, Vol. 48 No.
19 3, pp. 450–463.
- 20
21 Tayles, M., Pike, R.H. and Sofian, S. (2007), “Intellectual capital, management accounting practices and
22 corporate performance: Perceptions of managers. Accounting”, *Accounting, Auditing &*
23 *Accountability Journal*, Vol. 20 No. 4, pp. 522–548.
- 24
25 Tejedo-Romero, F. and Araujo, J.F.F.E. (2022), “The influence of corporate governance characteristics on
26 human capital disclosure: the moderating role of managerial ownership”, *Journal of Intellectual*
27 *Capital*, Vol. 23 No. 2, pp. 342–374.
- 28
29 Tejedo-Romero, F., Rodrigues, L.L. and Craig, R. (2017), “Women directors and disclosure of intellectual
30 capital information”, *European Research on Management and Business Economics*, Vol. 23 No. 3,
31 pp. 123–131.
- 32
33 Tiwari, R. (2022), “Nexus between intellectual capital and profitability with interaction effects: panel data
34 evidence from the Indian healthcare industry”, *Journal of Intellectual Capital*, Vol. 23 No. 3, pp.
35 588–616.
- 36
37 Tjahjadi, B., Soewarno, N., Astri, E. and Hariyati, H. (2019), “Does intellectual capital matter in performance
38 management system-organizational performance relationship? Experience of higher education
39 institutions in Indonesia”, *Journal of Intellectual Capital*, Vol. 20 No. 4, pp. 533–554.
- 40
41 Tjahjadi, B., Soewarno, N., Jermias, J., Hariyati, H., Fairuzi, A. and Anwar, D.N. (2022), “Does Engaging
42 in Global Market Orientation Strategy Affect HEIs’ Performance? The Mediating Roles of
43 Intellectual Capital Readiness and Open Innovation”, *Journal of Open Innovation: Technology,*
44 *Market, and Complexity*, Vol. 8 No. 1, p. 29.
- 45
46 Torre, C., Tommasetti, A. and Maione, G. (2020), “Technology usage, intellectual capital, firm performance
47 and employee satisfaction: the accountants’ idea”, *The TQM Journal*, Vol. 33 No. 3, pp. 545–
48 567.
- 49
50 Tran, N.P., Van, L.T.-H. and Vo, D.H. (2020), “The nexus between corporate governance and intellectual
51 capital in Vietnam”, *Journal of Asia Business Studies*, Vol. 14 No. 5, pp. 637–650.
- 52
53 Tseng, C.-Y. and James Goo, Y.-J. (2005), “Intellectual capital and corporate value in an emerging economy:
54 empirical study of Taiwanese manufacturers”, *R and D Management*, Wiley, Vol. 35 No. 2, pp.
55 187–201.
- 56
57 Ur Rehman, A., Aslam, E. and Iqbal, A. (2022), “Intellectual capital efficiency and bank performance:
58
59
60

- Evidence from islamic banks”, *Borsa Istanbul Review*, Vol. 22 No. 1, pp. 113–121.
- Vafaei, A., Taylor, D. and Ahmed, K. (2011), “The value relevance of intellectual capital disclosures”, *Journal of Intellectual Capital*, Vol. 12 No. 3, pp. 407–429.
- Vanini, U. and Rieg, R. (2019), “Effects of voluntary intellectual capital disclosure for disclosing firms: A structured literature review”, *Journal of Applied Accounting Research*, Emerald, Vol. 20 No. 3, pp. 349–364.
- Vidyarthi, H. and Tiwari, R. (2020), “Cost, revenue, and profit efficiency characteristics, and intellectual capital in Indian Banks”, *Journal of Intellectual Capital*, Vol. 21 No. 1, pp. 1–22.
- Vishnu, S. and Kumar Gupta, V. (2014), “Intellectual capital and performance of pharmaceutical firms in India”, *Journal of Intellectual Capital*, Vol. 15 No. 1, pp. 83–99.
- Vitolla, F., Raimo, N., Marrone, A. and Rubino, M. (2020), “The role of board of directors in intellectual capital disclosure after the advent of integrated reporting”, *Corporate Social Responsibility and Environmental Management*, Wiley, Vol. 27 No. 5, pp. 2188–2200.
- Vo, D.H., Van, L.T.H., Hoang, H.T.T. and Tran, N.P. (2022), “The interrelationship between intellectual capital, corporate governance and corporate social responsibility”, *Social Responsibility Journal*, Vol. 19 No. 6, pp. 1023–1036.
- Wang, C.H. and Juo, W. (2021), “An environmental policy of green intellectual capital: Green innovation strategy for performance sustainability”, *Business Strategy and the Environment*, Wiley, Vol. 30 No. 7, pp. 3241–3254.
- Wang, M.-C. (2013), “Value relevance on intellectual capital valuation methods: the role of corporate governance”, *Quality & Quantity*, Springer Science and Business Media LLC, Vol. 47 No. 2, pp. 1213–1223.
- White, G., Lee, A. and Tower, G. (2007), “Drivers of voluntary intellectual capital disclosure in listed biotechnology companies”, *Journal of Intellectual Capital*, Vol. 8 No. 3, pp. 517–537.
- Zéghal, D. and Maaloul, A. (2010), “Analysing value added as an indicator of intellectual capital and its consequences on company performance”, *Journal of Intellectual Capital*, Vol. 11 No. 1, pp. 39–60.

1
2
3
4
5
6
7
8
9
10
11
12

Competitiveness Review Manuscript: CR-10-2023-0262 entitled " Assessing Competitiveness through Intellectual Capital Research: A Systematic Literature Review and Agenda for Future Research"

13
14
15
16
17
18
19
20
21
22

Dear Professor Dr. Philippe Gugler:

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

Thank you for your careful review of our manuscript. We appreciate the time and effort you have put into evaluating our work and providing detailed comments and suggestions. We have carefully considered your feedback and are grateful for your insights. We plan to address each of your comments in detail in our response. We have revised the paper in line with all your recommendations, which have helped us to improve the quality of the current version of the paper. We hope the revised manuscript has been improved to the level of their satisfaction. Our point-to-point responses to the reviewers' comments are listed below.

48
49
50
51
52
53
54
55
56
57
58
59
60

Editor's Comments:

We are grateful to you for the useful and constructive summary of the reviewers' comments. As you will observe from the detailed amendments that we have made in response to your comments and those of the anonymous reviewers, we have fully revised the paper. Specifically, we have strived very hard in substantially addressing the following major and serious issues raised by the reviewers regarding the paper: (i) reframing the introduction and the theoretical development of your manuscript; (ii) sharpening and improving our results; and (iii) improving the conclusion. These revisions have helped us in greatly improving the current version of the paper. We specify below in a more detailed manner the revisions that we have carried out in response to each of these comments.

Reviewer 1

The authors would like to thank the reviewer for the time spent reading the manuscript and the encouraging comments made. We appreciate your valuable comments.

Once again, the author appreciates the reviewer's positive comments and valuable suggestions.

Reviewer 1	
Comments	Response
1. The paper includes many good points, such as: 1. Comprehensive Coverage: The manuscript does an excellent job in conducting a thorough systematic literature review (SLR) on intellectual capital (IC). The meticulous examination of 84 IC studies from 2005 to 2023 provides a comprehensive overview of the field. 2. Valuable Insights: The paper offers valuable insights into the development of IC research, highlighting key trends, geographical	We would like to thank you for the constructive and positive comments, which have helped us greatly improving the quality of the current version of the paper. We outline below the amendments that we have made in response to each of your comments.

<p>distribution, methodological preferences, and theoretical underpinnings. This contributes significantly to the existing body of knowledge.</p> <p>3. Identification of Research Gaps: The authors have successfully identified gaps in the current research, particularly the lack of focus on emerging economies and the predominance of quantitative methods. This identification of gaps is crucial for guiding future research.</p> <p>4. Practical Implications: The manuscript outlines practical implications, suggesting the need for more research into intellectual capital disclosure antecedents and outcomes. This is particularly useful for practitioners in the field.</p> <p>5. Originality and Value: The paper stands out for its originality, offering a panoramic view of nearly two decades of IC literature and acting as a guide for both scholars and industry professionals.</p>	
<p>2. Language and Clarity: While the manuscript is well-written, there are sections where the language could be improved for better clarity and readability. A careful proofreading to refine the language would enhance the overall quality of the paper.</p>	<p>Thank you for your feedback. We have carefully proofread the paper to improve its language and enhance overall readability.</p>
<p>3. Inclusion of Recent Literature: Considering the rapid advancements in the field of intellectual capital, it would be beneficial to include the most recent literature up to the current year. This would ensure that the paper reflects the latest trends and developments in the field</p>	<p>Thank you for your feedback. We have made sure to incorporate the latest literature related to systematic literature review in the field of intellectual capital. Please refer to Section 2 on page 3.</p>
<p>4. Theoretical Frameworks: The paper could benefit from a deeper exploration of the theoretical frameworks underpinning IC research. This might include a discussion on how emerging theories could be applied to intellectual capital.</p>	<p>Thank you for the feedback. We have ensured clarity in explaining various theories underpinning IC research in Section 2 Please refer to page 3-5.</p>
<p>5. Conclusion - Please outline a summary of findings, contributions, implications, limitations and avenues for future research. Especially, expand the discussions relating to implications, limitations and avenues for future research.</p>	<p>Thank you for the feedback, we amended the conclusion to include summary of findings, contributions, implications, limitations and avenues for future research. Please refer to page 13.</p>
<p>6. Global Perspective: While the manuscript mentions the lack of research in emerging economies, it could further emphasize the need for a more global perspective in IC research, including studies that compare and contrast different economic contexts.</p>	<p>Thank you for your feedback. We have incorporated an analysis of how the results vary depending on the geographical focus, providing insights into intellectual capital disclosure in both developed and</p>

	<p>emerging economies. Please refer to section 4.1 on page 6 for further details. Additionally, we have emphasized the importance of conducting comparative studies between developed and less developed countries in our recommendations for future research.</p> <p>The authors wish to express their appreciation to the reviewer for the valuable comments made, which should further strengthen the paper and greatly improve its contribution to the literature in this area.</p>
--	---

Reviewer (2)

The authors would like to thank the reviewer for the time spent reading the manuscript and the encouraging comments made. We appreciate your valuable comments.

Once again, the author appreciates the reviewer's positive comments and valuable suggestions.

Reviewer 2	
Comments	Response
1. The conclusion needs rework.	Thank you for the feedback, we amended the conclusion to include summary of findings, contributions, implications, limitations and avenues for future research. Please refer to page 13.
2. Originality: Does the paper contain new and significant information adequate to justify publication?: Fair	Thank you for the feedback, we have amended the introduction section to better show the contribution of the paper. Please refer to Section 1 on pages 1 and 2.
3. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: Adequate	Thank you for your feedback. We have made sure to incorporate the latest literature related to systematic literature review studies in the field of intellectual capital disclosure. Please refer to Section 2 on page 3.
4. 3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or	Thank you for the feedback. We have revised the methodology to provide additional information regarding the

<p>equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: It is a SLR and had build on scopus extracted information</p>	<p>selection approach and the criteria for choosing articles. Please see pages 5 and 6 for the updated details.</p>
<p>5. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Needs rework and binding otherwise it is giving impression as dispersed the theoretical lenses are</p>	<p>Thank you for the feedback, we have refined the results to ensure clarity and included a discussion of our results in Section 5.</p>
<p>6. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?: Fair</p>	<p>Thank you for the feedback, we have amended the implications, please refer to the 2nd paragraph on page14 as part of Section 6.</p>
<p>7. 6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Poor. It gives an impression that the authors have relied much on AI tools to paraphrase what they could have explained simply because of which the paper counts poor on readability.</p>	<p>Thank you for your feedback. We have carefully proofread the paper to improve its language and enhance overall readability.</p> <p>The authors wish to express their appreciation to the reviewer for the valuable comments made, which should further strengthen the paper and greatly improve its contribution to the literature in this area.</p>

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

Reviewer 3

The authors would like to thank the reviewer for the time spent reading the manuscript and the encouraging comments made. We appreciate your valuable comments.

Once again, the author appreciates the reviewer's positive comments and valuable suggestions.

Reviewer 3	
Comments	Response
<p>The paper is a bibliometric study promising a deep analysis of the concept of intellectual capital from the last twenty years or so of publications. Bibliometric studies tend to raise a lot of questions. When well-done, they can be useful but doing so is difficult.</p> <p>In particular, a bibliometric study needs a literature review. The actual search of the methodology does not substitute for that. The author(s) first need to establish they know the literature well enough to perform a high-level search and then interpret the results. That isn't established here beyond a few articles for context, there isn't a review of the concepts of IC, definitions, key issues, or really anything else .</p> <p>Related to that, the methodology is not fully explained. The keywords aren't identified, so we don't know the basis for the search (or, again, if the author(s) did a good job picking terms based on their knowledge of the field). The trim down of topics and such could also use more explanation, especially since IC-related journals are a specialized field (the one AMJ article that came top of list notwithstanding). The cut-off on date should also be explained as it leaves out really key publications (e.g. Bontis 1998) that have many more citations than those included here. The methodology also doesn't fully explain how the content analysis was done—how those key terms were coded and then analyzed.</p> <p>A broader lit review probably would have also identified related fields that could have been included such as knowledge management (Nonaka & Takeuchi are included in the references but probably wouldn't have shown up in the search), the broader field of intangibles, the accounting literature, and others .</p>	<p>Thank you for the feedback. We have included a new section for the literature review (Section 2), where we discuss the definition of IC, its dimensions, and the recent developments in the field based on previous systematic literature review studies on intellectual capital disclosure. We also address the limitations of these studies in our discussion. Please refer to this section for more details.</p> <p>Thank you for your detailed feedback on our methodology and literature review. We appreciate your insights and suggestions for improvement.</p> <p>Regarding the methodology, we acknowledge the need for a more thorough explanation. Hence, we ensured to identify keywords used for the search and provide rationale behind their selection, please refer to page 5 (selection approach). Additionally, the criteria for trimming down topics, explaining the cutoff date are all addressed in our revised methodology section. It is worth mentioning that during the conduct of our systematic literature review, we employed specific keywords to ensure comprehensive</p>

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

The descriptive statistics of the search (country, etc.) are fine but don't really add much value. Much more impactful would have been more discussion on the details of the key topics and future research. And, again, those then could have been placed in context of what we already know. There has long been discussion on the categories of IC (human, structural, and relational capital), how to measure it, strengths and weaknesses of various approaches such as VAIC mentioned here, how to grow IC (knowledge management and others), and others readily apparent to those in the field. What does this research then add to the discussion, in detail. It seems to focus heavily on the topic of disclosure, perhaps the reasons for that could be explored.

It isn't a lost case. The author(s) have done some empirical work here that could add up to something. But they need a firmer foundation of previous literature and key concepts, a clearer picture of what they are adding to that foundation, more explanation of the method, and then a deep, deep analysis of the contents of the publications identified to discern the depth of the current conversation.

coverage of relevant literature in the field. As a result, our search encompassed studies published between 2005 and 2023. It is important to clarify that the selection of this time span was influenced by the keywords and search criteria used. That could explain leaving out key publications (e.g. Bontis 1998). Your point about focusing more on key topics and future research rather than descriptive statistics of the search is well-taken. Please refer to the discussion section on page 5.

Our study contributes significantly to the intellectual capital disclosure literature by conducting a systematic review that focuses on the limitations of prior research—an area often overlooked. Unlike previous systematic literature reviews (SLRs), our analysis provides insights into the theories, methodological techniques, and empirical evidence in the field of intellectual capital disclosure.

Furthermore, our review highlights the need for more research in diverse contexts, suggesting opportunities to investigate the field of intellectual capital disclosure across different industries, sectors, and organizational sizes.

In addition, our review offers valuable insights and directions for future research, addressing key implications for stakeholders involved in the field of intellectual capital disclosure practices and reporting.

Thank you once again for your valuable feedback.

<p>1 2 3 4 5 6 7 8 9 10 11 12 13</p> <p>.1. Originality: Does the paper contain new and significant information adequate to justify publication?: Not really though there is potential.</p>	<p>Thank you for your feedback. We have emphasized the limitations identified in previous systematic literature review studies, explaining the unique features of our study. As a result, the contribution of our study is now more clearly articulated. Kindly review page 2 for further details.</p>
<p>14 15 16 17 18 19</p> <p>2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: No.</p>	<p>Thank you for the feedback. We have incorporated a new section for the literature review (Section 2). Please refer to page 3 for the updated content.</p>
<p>20 21 22 23 24 25 26 27</p> <p>3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: No, not fully explained.</p>	<p>Thank you for the feedback. We have revised the methodology to provide additional information regarding the selection approach and the criteria for choosing articles. Please see pages 5 and 6 for the updated details.</p>
<p>28 29 30 31 32 33 34 35 36 37 38 39 40 41 42</p> <p>4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Not much depth beyond the descriptive statistics and an annotated reference list.</p>	<p>Thank you for your feedback. , we have refined the results to ensure clarity, please refer to section 4. Additionally, we have rewritten the discussion section, emphasizing our key findings in relation to each research question, and revised the conclusion section. Please refer to Sections 5 and 6 for the updated sections.</p>
<p>43 44 45 46 47 48 49 50 51 52 53 54 55 56</p> <p>5. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?: A little but could be stronger.</p>	<p>Thank you for the feedback. We highlighted our research implications that address many interested parties, including academic scholars, accounting standards setters, and firms' managers and board of directors. Please refer to page 14.</p>
<p>57 58 59 60</p> <p>6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to</p>	<p>Thank you for your feedback. We have carefully proofread the paper</p>

<p>the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Writing is okay.</p>	<p>to improve its language and enhance overall readability.</p> <p>The authors wish to express their appreciation to the reviewer for the valuable comments made, which should further strengthen the paper and greatly improve its contribution to the literature in this area.</p>
--	--

Reviewer 4

The authors would like to thank the reviewer for the time spent reading the manuscript and the encouraging comments made. We appreciate your valuable comments.

Once again, the author appreciates the reviewer's positive comments and valuable suggestions.

Reviewer 4	
Comments	Response
<p>1.Originality: Does the paper contain new and significant information adequate to justify publication?: Though the concept of intellectual capital is not new but a SLR on IC and future agenda for research a new concept.</p>	<p>Thank you for your encouraging feedback and constructive suggestions regarding our paper. Your insights have been invaluable in helping us refine our research and strengthen its contributions to the field.</p>
<p>2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: There is not much on the literature review for the paper. The author could have included more on IC and its components. The duration of the data collection is not consistent, for instance, 2005-2023 or 2007-2023</p>	<p>Thank you for the feedback. We added a section for the literature review (Section 2) in which we discussed the definition of IC, dimensions and recent current state of art with regard to systematic review studies of IC.</p> <p>The data collection period spans from 2005 to 2023, and we have ensured it is consistently mentioned throughout the paper.</p>
<p>3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: -Authors could have</p>	<p>Thank you for the feedback, While we acknowledge that other search engines such as Web of Science, PubMed, and Dimensions exist, we chose to focus on Scopus due to its extensive coverage and widespread</p>

<p>1 2 3 4 used some software tools for the SLR process such as 5 METAL Software, REVMAN, DistillerSR etc. 6 - Only Scopus database has taken into consideration. 7 There are different search engine Web of Science, 8 PubMed, Dimensions etc. 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</p>	<p>use in academic research. However, we will consider your suggestion for future research endeavors.</p> <p>Additionally, we included the following text in the paper (page 5) to justify our sole dependence on Scopus Database.</p> <p>Numerous similar research in a variety of disciplines, including management, have been carried out solely employing the Scopus database (see Drago and Aliberti 2019; Yahaya et al. 2020). A wide range of topics are covered by Scopus data, which is also the most important citation and abstract database and the most frequently used search engine (Amrutha and Geetha 2020; Md Khudzari et al. 2018). This database has the benefit of enabling researchers to import a bibliography database for all findings, including citation matrix, publication, affiliation, references, etc., in an excel (.CSV) file.</p> <p>Thank you once again for bringing this to our attention.</p>
<p>41 42 43 44 45 46 47 48 49 50 51 52 53</p> <p>4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: The gap of the paper is not clearly stated. The authors are not clear whether the research done was on developing or developed countries.</p>	<p>Thank you for your feedback. Our study does not limit its analysis to either developed or developing nations. Instead, we categorize articles based on their geographical spread, initially organizing them by country. Subsequently, we refine our analysis to distinguish between articles originating from developed and developing countries, as explained in Section 3.3 on page 6.</p>
<p>54 55 56 57 58 59 60</p> <p>5. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public</p>	<p>Thank you for your feedback. We have rewritten the discussion section, emphasizing our key findings in relation to each research question, and revised the</p>

<p>1 2 3 4 5 6 7 8 9</p> <p>policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?: The findings and the conclusion of this research is not stated clearly.</p>	<p>conclusion section. Please refer to Sections 5 and 6 for the updated sections.</p>
<p>10 11 12 13 14 15 16 17 18 19</p> <p>6 .Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: - The paper can go for the proof reading as many instances the sentences are not clear.</p>	<p>Thank you for your feedback. We have carefully proofread the paper to improve its language and enhance overall readability.</p>
<p>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</p> <p>- The citations and references are not matching</p>	<p>Thank you for your feedback. We have revised the manuscript to make sure that all the in text citations are mentioned in the reference list.</p>