#### Bibliometric Analysis

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Abstract

Purpose –

Design/methodology/approach –

Findings –

Research limitations/implications –

Originality/value –

Keywords:

1. INTRODUCTION

Background….

Problem statements…

Objectives/aims of the paper…

Research Questions…

The rest of this paper is structures as follow… The next section…

1. LITERATURE REVIEW

Bibliometric Analysis

Past Studies

1. METHODS

**Database:** Scopus

**Search Field:** Article Title

**Time Frame:** All

**Language:** English

**Source Type:** Journal

**Document Type:** Article

TITLE("ecommerce" OR "e-commerce" OR "e commerce" OR "electronic commerce") AND ( LIMIT-TO ( DOCTYPE,"ar" ) ) AND ( LIMIT-TO ( LANGUAGE,"English" ) ) AND ( LIMIT-TO ( SRCTYPE,"j" ) )

Keywords & Search String

n = 4656

Record Identified & Screened

E-Commerce

**Screening**

**Included**

**Topic, Scope & Eligability**

Topic

Scope & Coverage

Record Included for Bibliometric Analysis

n = 0

Record Removed

n = 4656

25 July 2020

Date Extracted

**Figure 1.** Flow diagram of the search strategy.

**Source:** Zakaria, R., Ahmi, A., Ahmad, A. H., & Othman, Z. (2020) Worldwide Melatonin Research: A Bibliometric Analysis of the Published Literature between 2015 and 2019, Chronobiology International. https://doi.org/10.1080/07420528.2020.1838534

Modified from PRISMA (Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097)

1. RESULTS

Documents Profiles

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**Table 1.** Document Type

|  |  |  |
| --- | --- | --- |
| **Document Type** | **Total Publications (TP)** | **Percentage (%)** |
| Article | 203 | 54.86 |
| Conference Paper | 118 | 31.89 |
| Book Chapter | 33 | 8.92 |
| Note | 5 | 1.35 |
| Review | 4 | 1.08 |
| Editorial | 3 | 0.81 |
| Book | 2 | 0.54 |
| Short Survey | 1 | 0.27 |
| Undefined | 1 | 0.27 |
| **Total** | **371** | **100.00** |

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**Table 2.** Source Type

|  |  |  |
| --- | --- | --- |
| **Source Type** | **Total Publications (TP)** | **Percentage (%)** |
| Journals | 212 | 57.30 |
| Conference Proceedings | 104 | 28.11 |
| Book Series | 27 | 7.30 |
| Books | 22 | 5.95 |
| Trade Publications | 5 | 1.35 |
| **Total** | **370** | **100.00** |

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**Table 3.** Languages

|  |  |  |
| --- | --- | --- |
| **Language** | **Total Publications (TP)\*** | **Percentage (%)** |
| English | 361 | 97.30 |
| German | 4 | 1.08 |
| Portuguese | 3 | 0.81 |
| Chinese | 1 | 0.27 |
| French | 1 | 0.27 |
| Spanish | 1 | 0.27 |
| **Total** | **371** | **100.00** |

\*one document has been prepared in dual languages

**Table 4.** Subject Area

|  |  |  |
| --- | --- | --- |
| **Subject Area** | **Total Publications (TP)** | **Percentage (%)** |
| Business, Management and Accounting | 213 | 30.04 |
| Computer Science | 183 | 25.81 |
| Economics, Econometrics and Finance | 95 | 13.40 |
| Decision Sciences | 86 | 12.13 |
| Social Sciences | 42 | 5.92 |
| Engineering | 38 | 5.36 |
| Mathematics | 23 | 3.24 |
| Environmental Science | 6 | 0.85 |
| Arts and Humanities | 5 | 0.71 |
| Psychology | 5 | 0.71 |
| Energy | 3 | 0.42 |
| Multidisciplinary | 3 | 0.42 |
| Agricultural and Biological Sciences | 2 | 0.28 |
| Biochemistry, Genetics and Molecular Biology | 2 | 0.28 |
| Materials Science | 2 | 0.28 |
| Chemical Engineering | 1 | 0.14 |

Research Trends

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**Table 5.** Year of Publication

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **TP** | **NCP** | **TC** | **C/P** | **C/CP** | ***h*** | ***g*** |
| 2012 | 43 | 11.62 | 656 | 164 | 164 | 4 | 4 |
| 2013 | 27 | 7.30 | 1830 | 261.43 | 261.43 | 15 | 28 |
| 2014 | 32 | 8.65 | 1998 | 23.79 | 27.37 | 19 | 43 |
| 2015 | 26 | 7.03 | 2961 | 14.17 | 17.84 | 23 | 50 |
| 2016 | 19 | 5.14 | 2017 | 8.62 | 12.77 | 23 | 39 |
| 2017 | 31 | 8.38 | 1716 | 5.88 | 8.80 | 20 | 31 |
| 2018 | 22 | 5.95 | 828 | 2.26 | 4.57 | 13 | 19 |
| 2019 | 12 | 3.24 | 184 | 0.55 | 2.19 | 5 | 8 |
| 2020 | 43 | 11.62 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **371** |  |  |  |  |  |  |

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index.

**Figure 2.** Total Publications and Citations by Year

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**Table 6.** Top 20 Countries contributed to the publications

| **Country** | **TP** | **NCP** | **TC** | **C/P** | **C/CP** | ***h*** | ***g*** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| United States | 265 | 340 | 7404 | 15.73 | 21.79 | 41 | 77 |
| United Kingdom | 127 | 90 | 367 | 1.83 | 4.08 | 9 | 14 |
| Spain | 125 | 87 | 1177 | 9.27 | 13.53 | 20 | 32 |
| Brazil | 64 | 55 | 1623 | 21.08 | 29.51 | 16 | 40 |
| Portugal | 52 | 39 | 246 | 3.84 | 6.31 | 7 | 13 |
| Germany | 48 | 36 | 209 | 3.60 | 5.81 | 7 | 12 |
| Italy | 46 | 33 | 520 | 10.20 | 15.76 | 11 | 22 |
| France | 39 | 29 | 353 | 7.06 | 12.17 | 10 | 18 |
| Japan | 34 | 34 | 386 | 8.04 | 11.35 | 8 | 19 |
| Australia | 33 | 25 | 201 | 4.28 | 8.04 | 7 | 13 |
| Norway | 27 | 20 | 61 | 1.65 | 3.05 | 4 | 6 |
| Greece | 26 | 12 | 113 | 3.53 | 9.42 | 3 | 10 |
| South Korea | 26 | 19 | 333 | 11.10 | 17.53 | 8 | 18 |
| Austria | 24 | 13 | 30 | 1.07 | 2.31 | 3 | 4 |
| China | 21 | 11 | 47 | 2.04 | 4.27 | 4 | 6 |
| India | 21 | 13 | 85 | 4.25 | 6.54 | 3 | 9 |
| Turkey | 19 | 16 | 223 | 11.15 | 13.94 | 9 | 14 |
| Canada | 18 | 14 | 117 | 5.85 | 8.36 | 6 | 10 |
| Malaysia | 18 | 12 | 287 | 16.88 | 23.92 | 4 | 16 |
| Ecuador | 15 | 3 | 7 | 0.5 | 2.33 | 2 | 2 |
| Switzerland | 11 | 6 | 111 | 7.93 | 18.50 | 4 | 10 |
| Belgium | 10 | 9 | 31 | 2.38 | 3.44 | 3 | 5 |
| United States | 265 | 5 | 28 | 2.33 | 5.60 | 3 | 5 |
| United Kingdom | 127 | 6 | 30 | 3.00 | 5.00 | 4 | 5 |
| Spain | 125 | 6 | 80 | 8.00 | 13.33 | 4 | 8 |
| Brazil | 64 | 7 | 186 | 18.60 | 26.57 | 6 | 10 |

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index.

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**Table 7.** Most influential institutions with minimum of five publications

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Affiliation** | **Country** | **TP** | **NCP** | **TC** | **C/P** | **C/CP** | ***h*** | ***g*** |
| Technische Universität Bergakademie Freiberg | Taiwan | 14 | 16 | 229 | 9.54 | 14.31 | 7 | 15 |
| University of Hawaii at Manoa | USA | 13 | 17 | 318 | 13.83 | 18.71 | 6 | 17 |
| University of Chinese Academy of Sciences | China | 13 | 13 | 246 | 15.38 | 19.92 | 7 | 15 |
| Old Dominion University | Malaysia | 12 | 12 | 691 | 49.36 | 57.58 | 7 | 14 |
| The University of Adelaide | Malaysia | 12 | 8 | 21 | 1.62 | 2.63 | 3 | 4 |
| Universidad de Huelva | Hong Kong | 8 | 9 | 49 | 3.77 | 4.22 | 5 | 6 |
| University of Arkansas at Little Rock | Australia | 7 | 5 | 13 | 1.18 | 2.60 | 2 | 3 |
| University of Winnipeg | Taiwan | 7 | 6 | 199 | 19.9 | 33.17 | 5 | 10 |
| Jinan University | USA | 7 | 7 | 441 | 44.10 | 63.00 | 5 | 10 |
| Universidad Carlos III de Madrid | China | 6 | 16 | 229 | 9.54 | 14.31 | 7 | 15 |
| University of Waterloo | Malaysia | 6 | 17 | 318 | 13.83 | 18.71 | 6 | 17 |
| University of Birmingham | Malaysia | 6 | 13 | 246 | 15.38 | 19.92 | 7 | 15 |
| University of International Relations | Hong Kong | 6 | 12 | 691 | 49.36 | 57.58 | 7 | 14 |
| Rutgers University-Newark Campus | Australia | 5 | 8 | 21 | 1.62 | 2.63 | 3 | 4 |
| National University of Ireland Galway | Taiwan | 5 | 9 | 49 | 3.77 | 4.22 | 5 | 6 |

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index.

**Table 8.** Most Productive Authors

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author’s Name** | **Affiliation** | **Country** | **TP** | **NCP** | **TC** | **C/P** | **C/CP** | ***h*** | ***g*** |
| Alario-Hoyos, C. | The University of Hong Kong | Hong Kong | 35 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Meinel, C. | Universiti Utara Malaysia | Malaysia | 35 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Pérez-Sanagustín, M. | The University of Hong Kong | Hong Kong | 23 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Staubitz, T. | Universiti Utara Malaysia | Malaysia | 19 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Dillenbourg, P. | The University of Hong Kong | Hong Kong | 17 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Reich, J. | Universiti Utara Malaysia | Malaysia | 17 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Chen, L. | The University of Hong Kong | Hong Kong | 16 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Khalil, M. | Universiti Utara Malaysia | Malaysia | 16 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Zheng, Q. | The University of Hong Kong | Hong Kong | 16 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Brooks, C. | Universiti Utara Malaysia | Malaysia | 15 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Kalz, M. | The University of Hong Kong | Hong Kong | 15 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Kloos, C.D. | Universiti Utara Malaysia | Malaysia | 15 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |
| Muñoz-Merino, P.J. | The University of Hong Kong | Hong Kong | 15 | 12 | 270 | 15.88 | 22.5 | 5 | 16 |

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index.

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**Table 9.** Most Active Source Title

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source Title** | **TP** | **TC** | **Publisher** | **Cite Score** | **SJR 2018** | **SNIP 2018** |
| Journal of Information Systems | 19 | 856 | American Accounting Association | N/A | N/A | N/A |
| International Journal of Accounting Information Systems | 17 | 34 | Elsevier B. V. | N/A | N/A | N/A |
| New Dimensions of Business Reporting and XBRL | 11 | 69 | Springer | 2.44 | 0.9 | 1.252 |
| International Journal of Digital Accounting Research | 10 | 405 | University of Huelva | 1.78 | 0.464 | 1.099 |
| Ceur Workshop Proceedings | 9 | 1 | Sun SITE Central Europe | N/A | N/A | N/A |
| International Journal of Disclosure and Governance | 8 | 38 | Palgrave Macmillan | 1.06 | 0.283 | 0.713 |
| Journal of Emerging Technologies in Accounting | 8 | 332 | American Accounting Association | 3.53 | 1.085 | 1.995 |
| Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics | 8 | 210 | Springer Nature | 4.07 | 1.419 | 2.354 |
| International Journal of Accounting and Information Management | 7 | 492 | Emerald Publishing Limited | 7.72 | 2.323 | 3.797 |
| Lecture Notes in Information Systems and Organization | 7 | 43 | Springer Nature | 0.97 | 0.219 | 0.819 |
| Issues in Accounting Education | 6 | 0 | American Accounting Association | 0.51 | 0.221 | 0.454 |
| Accounting Horizons | 5 | 136 | American Accounting Association | 0.43 | 0.155 | 0.503 |
| Decision Support Systems | 5 | 10 | Elsevier B. V. | N/A | N/A | N/A |
| International Journal of E Business Research | 5 | 5 | IGI Global | 0.00 | 0.102 | 0.101 |

Notes: TP=total number of publications; TC=total citations;

Citation Analysis

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**Table 10.** Citations Metrics

|  |  |
| --- | --- |
| **Metrics** | **Data** |
| Papers | 5233 |
| Number of Citations | 102139 |
| Years | 29 |
| Citations per Year | 3522.03 |
| Citations per Paper | 19.52 |
| Cites\_Author | 52608.85 |
| Papers\_Author | 2737.72 |
| Authors\_Paper | 2.46 |
| h\_index | 129 |
| g\_index | 236 |

**Table 11.** Top 20 Highly cited articles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Authors** | **Title** | **Year** | **Cites** | **Cites**  **per Year** |
| 1 | D.H. McKnight, V. Choudhury, C. Kacmar | Developing and validating trust measures for e-commerce: An integrative typology | 2002 | 2689 | 141.53 |
| 2 | P.A. Pavlou | Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model | 2003 | 2562 | 142.33 |
| 3 | D. Gefen | E-commerce: The role of familiarity and trust | 2000 | 1751 | 83.38 |
| 4 | D.J. Kim, D.L. Ferrin, H.R. Rao | A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents | 2008 | 1462 | 112.46 |
| 5 | P.A. Pavlou, M. Fygenson | Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior | 2006 | 1414 | 94.27 |
| 6 | S.S. Srinivasan, R. Anderson, K. Ponnavolu | Customer loyalty in e-commerce: An exploration of its antecedents and consequences | 2002 | 1209 | 63.63 |
| 7 | D.H. McKnight, N.L. Chervany | What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology | 2001 | 1185 | 59.25 |
| 8 | J.B. Schafer, J.A. Konstan, J. Riedl | E-commerce recommendation applications | 2001 | 1081 | 54.05 |
| 9 | T. Dinev, P. Hart | An extended privacy calculus model for e-commerce transactions | 2006 | 1014 | 67.6 |
| 10 | D. Gefen, D.W. Straub | Consumer trust in B2C e-Commerce and the importance of social presence: Experiments in e-Products and e-Services | 2004 | 941 | 55.35 |
| 11 | C. Liu, K.P. Arnett | Exploring the factors associated with Web site success in the context of electronic commerce | 2000 | 865 | 41.19 |
| 12 | W.H. DeLone, E.R. McLean | Measuring e-commerce success: Applying the DeLone and McLean Information Systems Success Model | 2004 | 745 | 43.82 |
| 13 | S. Devaraj, M. Fan, R. Kohli | Antecedents of B2C channel satisfaction and preference: Validating e-commerce metrics | 2002 | 718 | 37.79 |
| 14 | A. Bhattacherjee | An empirical analysis of the antecedents of electronic commerce service continuance | 2001 | 699 | 34.95 |
| 15 | F. Belanger, J.S. Hiller, W.J. Smith | Trustworthiness in electronic commerce: The role of privacy, security, and site attributes | 2002 | 662 | 34.84 |
| 16 | E.E. Grandon, J.M. Pearson | Electronic commerce adoption: An empirical study of small and medium US businesses | 2004 | 584 | 34.35 |
| 17 | D. Chatterjee, R. Grewal, V. Sambamurthy | Shaping up for E-commerce: Institutional enablers of the organizational assimilation of Web technologies | 2002 | 576 | 30.32 |
| 18 | X. Bo, I. Benbasat | e-commerce product recommendation agents: Use, characteristics, and impact | 2007 | 574 | 41 |
| 19 | A.A. Tsay, N. Agrawal | Channel conflict and coordination in the E-commerce age | 2004 | 571 | 33.59 |
| 20 | Z. Huang, M. Benyoucef | From e-commerce to social commerce: A close look at design features | 2013 | 549 | 68.63 |

Authorship Analysis

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**Table 12.** Number of Author(s) per document

|  |  |  |
| --- | --- | --- |
| **Author Count** | **Total Publications (TP)** | **Percentage (%)** |
| 1 | 206 | 18.68 |
| 2 | 296 | 26.84 |
| 3 | 284 | 25.75 |
| 4 | 175 | 15.87 |
| 5 | 67 | 6.07 |
| 6 | 42 | 3.81 |
| 7 | 9 | 0.82 |
| 8 | 7 | 0.63 |
| 9 | 1 | 0.09 |
| 10 | 2 | 0.18 |
| 11 | 1 | 0.09 |
| 21 | 1 | 0.09 |
| 22 | 1 | 0.09 |
| 26 | 1 | 0.09 |
| 0\* | 10 | 0.91 |
| **Total** | **1103** | **100.00** |

\*Conference review document. No author is listed.

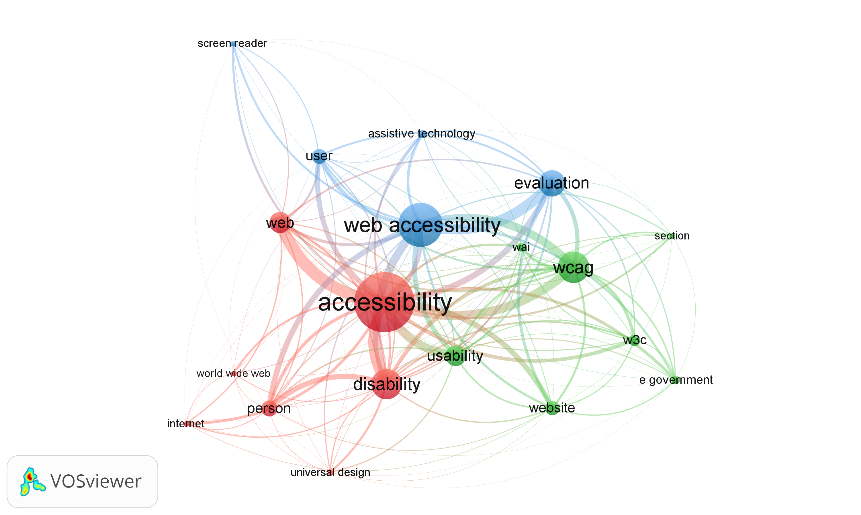
Keywords

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**Table 13.** Top Keywords

|  |  |  |
| --- | --- | --- |
| **Author Keywords** | **Total Publications (TP)** | **Percentage (%)** |
| web accessibility | 328 | 8.4 |
| accessibility | 281 | 7.2 |
| usability | 67 | 1.7 |
| wcag | 61 | 1.6 |
| disability | 48 | 1.2 |
| internet | 40 | 1 |
| wcag 2.0 | 40 | 1 |
| web | 40 | 1 |
| e-government | 33 | 0.8 |
| evaluation | 33 | 0.8 |
| disabilities | 30 | 0.8 |
| w3c | 30 | 0.8 |
| people with disabilities | 24 | 0.6 |
| guidelines | 23 | 0.6 |
| wai | 22 | 0.6 |
| world wide web | 20 | 0.5 |
| universal design | 19 | 0.5 |
| assistive technology | 18 | 0.5 |
| automated evaluation | 18 | 0.5 |
| section 508 | 18 | 0.5 |

Visualisation Map



**Figure 3.** Network visualisation map of the author keywords

**A picture containing map, text, sky

Description automatically generated**

**Figure 4.** VOSviewer visualisation of a term co-occurrence network based on title and abstract fields (Binary Counting)

A picture containing text, map

Description automatically generated

**Figure 5.** VOSviewer visualisation of a term co-occurrence network based on title and abstract fields (Full Counting)

A close up of a map

Description automatically generated

**Figure 6.** VOSviewer visualisation of a term co-occurrence network based on title fields (Binary Counting)

A picture containing sky, outdoor

Description automatically generated

**Figure 7.** Network visualisation map of the citation by countries

Note: Minimum number of documents of an author = 1; Minimum number of citations of an author = 5

A close up of a map

Description automatically generated

**Figure 8.** Network visualisation map of the citation by documents

Minimum number of citations of a document = 5

A close up of a map

Description automatically generated

**Figure 9.** Network visualisation map of the citation by documents

Minimum number of citations of a document = 10

A picture containing object

Description automatically generated

**Figure 10.** Network visualisation map of the co-authorship

Note: Unit of analysis = Countries; Counting method: Fractional counting; Minimum number of documents of a country = 3; Minimum number of citations of a country = 5



**Figure 11.** Network visualisation map of the co-authorship

Note: Unit of analysis = Countries; Counting method: Full counting; Minimum number of documents of a country = 3; Minimum number of citations of a country = 5

**A close up of a necklace

Description automatically generated**

**Figure 12.** Network visualisation map of the co-authorship

Note: Unit of analysis = Authors; Counting method: Fractional counting; Minimum number of documents of an author = 3; Minimum number of citations of an author = 3

**A picture containing sky, map

Description automatically generated**

**Figure 13.** Network visualisation map of the co-authorship

Note: Unit of analysis = Authors; Counting method: Fractional counting; Minimum number of documents of an author = 1; Minimum number of citations of an author = 5

1. DISCUSSION

RQ…

1. CONCLUSION

Summary –

Contribution –

Limitation of the study –

Future research –

ACKNOWLEDGEMENT

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