Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

Nur Aini Regina Lating[1], Arni Surwanti[2], Alni Rahmawati[3]

[1,2,3] Muhammadiyah Yogyakarta University Indonesia

ABSTRACT: The Customer Relationship Management (CRM) has evolved into a key business application, by gradually creating its impact over the years, where the organization made it one of the imperative requirements of effective Business operation. CRM in recent years emerged as, a more Business and customer-oriented application. This study aims to analyze the relevance of Customer relationships concerning progress from Customer Relationship Management (CRM) in fields of Subject area, Countries that contributed to the field of research, Sources, affiliations, Authors, and funding sponsors. Science mapping techniques and performance analysis were applied in this process by Vos-Viewer Bibliometric software by extracting 1,940 Publications between 2010 and 2023 that are indexed in the SCOPUS database. The Bibliometric analysis denotes that 2010 was the year with a maximum of 144 publications indexed in the Scopus Database and 2023 had a dip at only 105 indexing. Author Smith, A.D. with 23 articles publications. The countries that participated the most are the United States of America followed by India and United kingdom. Commendably China was the highest funding sponsor to be specific it's from the National Natural Science Foundation of China. The research papers had major Affiliations from the Hong Kong Polytechnic University followed by Robert Morris University in Pennsylvania and Georgia State University. The research significantly shows the progress and impact all over the world and is not restricted to any specific industry.

KEYWORDS: Customer Relationship Management (CRM) ·

INTRODUCTION

The landscape of Customer Relationship Management (CRM) has undergone significant evolution from 2010 to 2023, marking a continuous progression. In today's era, where technological advancements are crucial for long-term survival, CRM has evolved beyond its initial role as a contact management tool. This transformation has led to pivotal advancements that have the potential to revolutionize the industry.

At its core, CRM represents a holistic approach that combines people, processes, and technology to effectively manage relationships. The focus is on customer retention and the cultivation of enduring relationships, enabling businesses to understand their prospects better.

During the period from 2010 to 2023, an increasing number of businesses are expected to adopt CRM for the first time. Notably, researchers such as Gal and Casas have pioneered the exploration and development of customer loyalty strategies grounded in CRM, with a specific emphasis on emerging economies and small- to medium-sized enterprises across various sectors.

The fusion of data mining with CRM, as explored by Chatterjee, Chaudhuri, Smith, A.D. and , offers a significant advantage by leveraging the vast reservoir of data for predictive scoring models. This trend enables businesses to engage with customers more accurately and manage relationships more effectively.

The impact of CRM adoption on organizational performance, as demonstrated by Cierna and Sujová, underscores its pivotal role in enhancing competitive advantage. Hanaysha and Al- Shaikh further emphasize that CRM serves as a strategic marketing plan, fostering strong bonds between businesses and their clientele with the ultimate objective of boosting customer loyalty.

Demirel's research highlights that CRM not only enhances employee-based brand equity but also underscores the importance of customer focus and knowledge management in bolstering overall employee-based brand equity.

The studies conducted by Mohammadi and Sohrabi reveal that analytical and operational CRM have a direct impact on business performance, reaffirming the pivotal role of CRM in shaping operational efficiency.

Incorporating the components of the marketing mix with customer relationship management, as unveiled by Romano and Fjermestad, has a significant and favorable impact on customer satisfaction. This synergy enhances the value proposition and customer experience.

Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

Bull's research indicates that in an increasingly interconnected world driven by CRM-related Information Systems, the scope of CRM is expanding globally, impacting businesses and industries on a broad scale.

To navigate the years from 2010 to 2023 in the realm of CRM, strategic investments in cutting- edge technologies and human resources are essential. The progression of CRM during this period is not merely an evolution but a transformative journey, where the art of cultivating and nurturing customer relationships becomes ever more sophisticated and instrumental for long- term success.

METHODOLOGY

The purpose of this article is to present a comprehensive bibliometric analysis of research on electronic customer relationship management. First, using the retrieval approach, relevant publications are identified in the respective database. Bibliometric analysis, in the field of statistics, is the quantitative study of publication records, citations, and citation patterns. It offers researchers reliable, high-quality academic material, and has gradually replaced other sources as the primary ones for bibliometric analysis. The method provides a set of data that helps researchers to evaluate: the status and growth of their research field, the relative 'importance' of different pieces of work in the overall literature, and their performance compared with other scholars. The fundamental traits of the articles are then discussed in terms of annual indicators, publication types and study areas, and highly referenced publications. Next, using a range of complementary bibliometric approaches and tools, influential and highly competent countries/regions, institutions, authors, and their collaboration connections are analyzed. Future trends, hotspots, and research horizons are also noted. Finally, more discussion on current hot topics, upcoming trends and problems, and limitations. Bibliometric techniques are scientific expertise and form a crucial component of research evaluation methodologies, particularly in the sciences and applied fields.

2.1 Data Source and Retrieval Strategy

Meho, & Young says that Google Scholar produces results with varying degrees of accuracy and citation analysis from Scopus offers 20% more coverage than Web of Science. Documents are retrieved from database by the following syntax as per Fig. 1. From Scopus indexed publication 1,940 were retrieved for the period 2010–2023. makes customer engagement easy. It reduces costs and enables real-time interactions
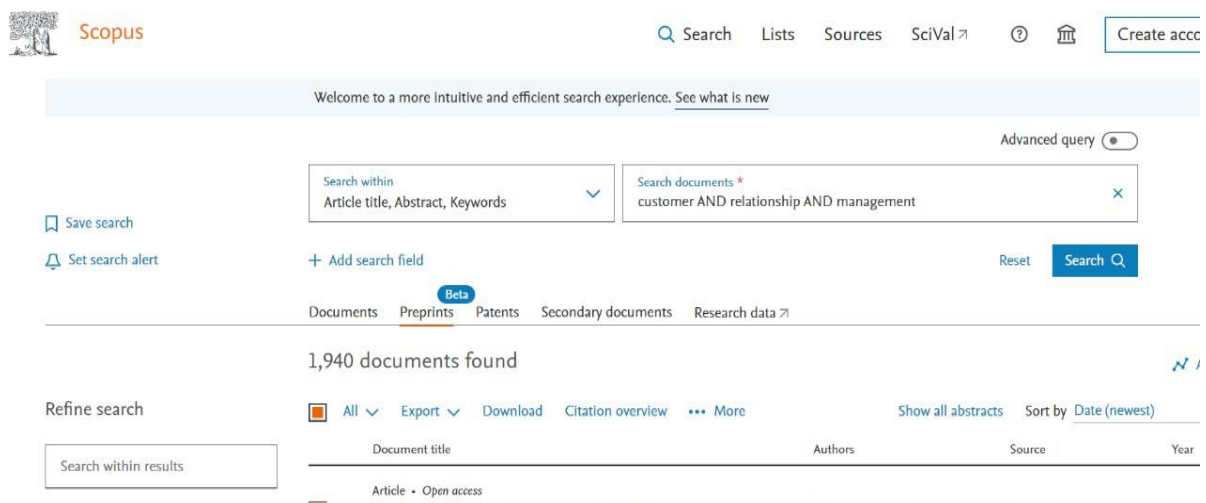

Figure 1. Scopus Document search

2.2 Number of Publications by year

The number of publications in the CRM field over time are compiled in order to examine the development trend of this category as per in Fig. 2 According to the data retrieved from 2010– 2023, Based on the provided data on the number of publications in the CRM field from 2010 to 2023, it can be observed that there has been fluctuation in publication numbers over the years.

In 2010, there were 144 publications, which remained relatively stable until 2012, with 132 publications. However, from 2013 to 2014, there was a slight decline in the number of publications, with 148 and 131 respectively. This decline continued between 2015 and 2016, with 116 and 131 publications respectively.

From 2017 to 2018, there was a significant increase in the number of publications, with 117 and 119 respectively. However, this upward trend was followed by a decline in 2019, with 171 publications.

In recent years, from 2020 to 2023, there has been a slight decrease in the number of publications, with 151, 150, 152, and 105 respectively.

The data suggests that the number of publications in the CRM field has fluctuated over the years, with periods of growth and decline. It is important to note that the trend in recent years shows a decreasing number of publications, which could indicate a shift in focus towards other emerging areas or research topics.
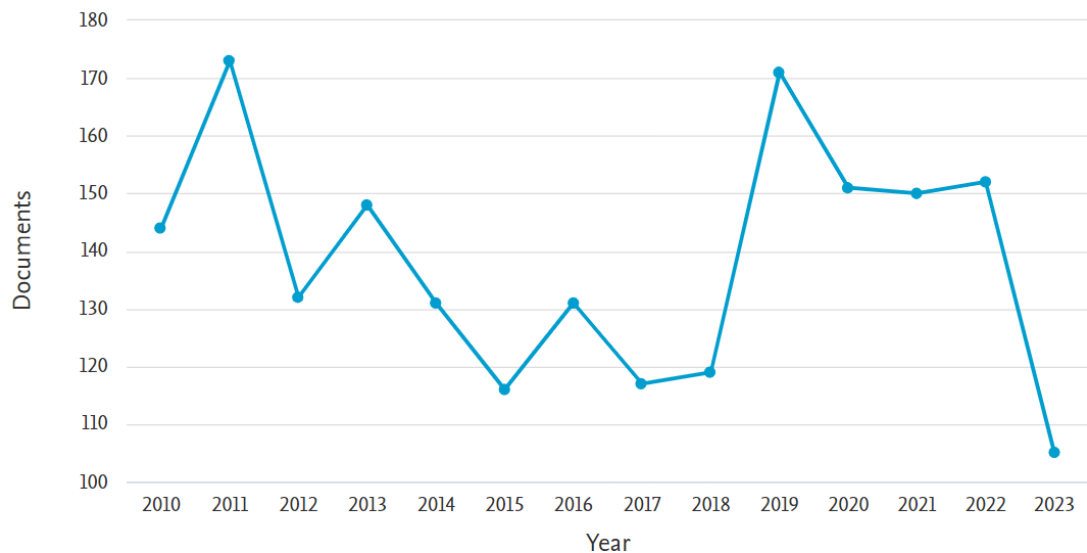
Documents by year

Figure 2. Number of publications by year Scopus

2.3 Subject Area of Publication

Based on Fig. 3 & Table 1 Based on the provided data on the number of publications in different subject areas related to CRM, it is evident that the major areas of interest in the field are Business, Management, and Accounting, with a total of 1589 publications, accounting for 42.8% of the total. This category also received the highest number of citations, with 3083 citations.

Following closely is Computer Science, with 393 publications, representing 10.6% of the total. This field also received a significant number of citations, with 2575 citations.

Engineering is the third most prominent field with 252 publications, making up 6.8% of the total publications. It received 1506 citations.

Furthermore, Decision Sciences contributed 395 publications, accounting for 10.6% of the total and receiving 1037 citations. Social Sciences made up 436 publications, representing 11.7% of the total and receiving 726 citations.

Other subject areas, such as Mathematics, Economics, Econometrics, and Finance, Environmental Science, Energy, Arts and Humanities, and others, had varying percentages of publications and citations.

Based on this data, it can be anticipated that Business, Management, and Accounting, as well as Computer Science, will continue to grow consistently in the field of CRM. Additionally, there may be an increase in industry-specific research in the future.
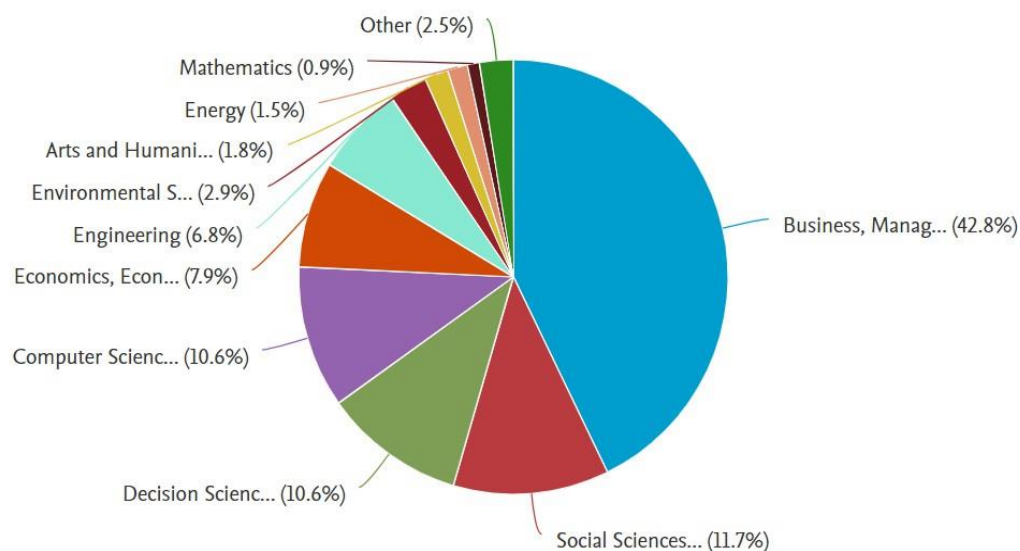
Documents by subject area

Figure 3.Subject area of publication

Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

Table 1 The subject area of publications

Subject Area	No. Of Publications (Total 1,940)	Overall Percentage
Business, Management and Accounting	1589	42.8%
Computer Science	393	10.6%
Engineering	252	6.8%
Decision Sciences	395	10.6%
Social Sciences	436	11.7%
Mathematics	34	0.9%
Economics, Econometrics and Finance	293	7.9%
Environmental Science	106	2.9%
Energy	56	1.5%
Arts and Humanities	66	1.8%
Others	94	2.5%

2.4 Types of Publications

There are 1,940 publications indexed in SCOPUS Database, according to Fig. 4 & Table 2, Based on the provided data on the document types of publications in the SCOPUS Database related to CRM, it is evident that the Article category has the highest number of publications, with 1917 articles, accounting for 98.8% of the total publications. This is followed by Conference Papers, with 23 publications, making up 1.2% of the total.

Article publications dominate the field, representing the majority of the research output, while Conference Papers have a smaller share. However, it is expected that the Conference Paper category will face tough competition in the coming years, indicating a larger interest in conferences as a platform for publication.

2.5 Subject Area of Publications

There are 1,940 publications indexed in SCOPUS Database, according to Fig. 4 & Table 2, Based on the provided data on the document types of publications in the SCOPUS Database related to CRM, it is evident that the Article category has the highest number of publications, with 1917 articles, accounting for 98.8% of the total publications. This is followed by Conference Papers, with 23 publications, making up 1.2% of the total.

Article publications dominate the field, representing the majority of the research output, while Conference Papers have a smaller share. However, it is expected that the Conference Paper category will face tough competition in the coming years, indicating a larger interest in conferences as a platform for publication
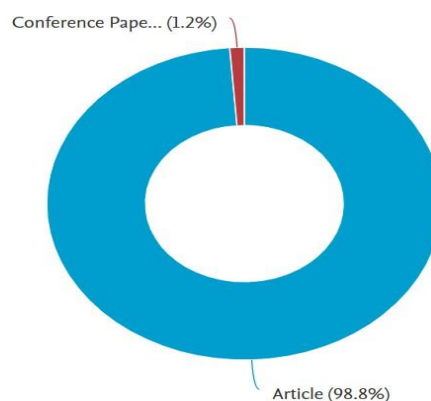

Conference Pape... (1.2%)

Article (98.8%)

Figure 4. Types of publication

Table 2. The subject area of publications

Document type	No. Of Publications	Overall Percentage
Article	1917	98.8%
Conference Paper	23	1.2%

2.6 Publications by Country Wise

As per Fig. 5 & Fig. 6 The United States of America has the highest publications of 423 which holds 21.8% of the total publications indexed. Then followed by India (222), at 11.4% United Kingdom (150) 7.7%, and the China (129) which cover 6.6% of total publications in the database. The data also reveals that European nations produce more than 50% of CRM articles, demonstrating the academic field's leading position in Europe on this subject.

Additionally, the majority of the nations on the list have advanced economies. This might be a result of the thriving commercial operations, the cultural background, and the presence of academic institutions. Table 3 Tiwan has 124 publications, Iran at Australia at very close of 89 and 87 publications followed by Germany and Spain by 76 and 73 publications. India ranks at number two and has all the potential to top the list in the coming years.
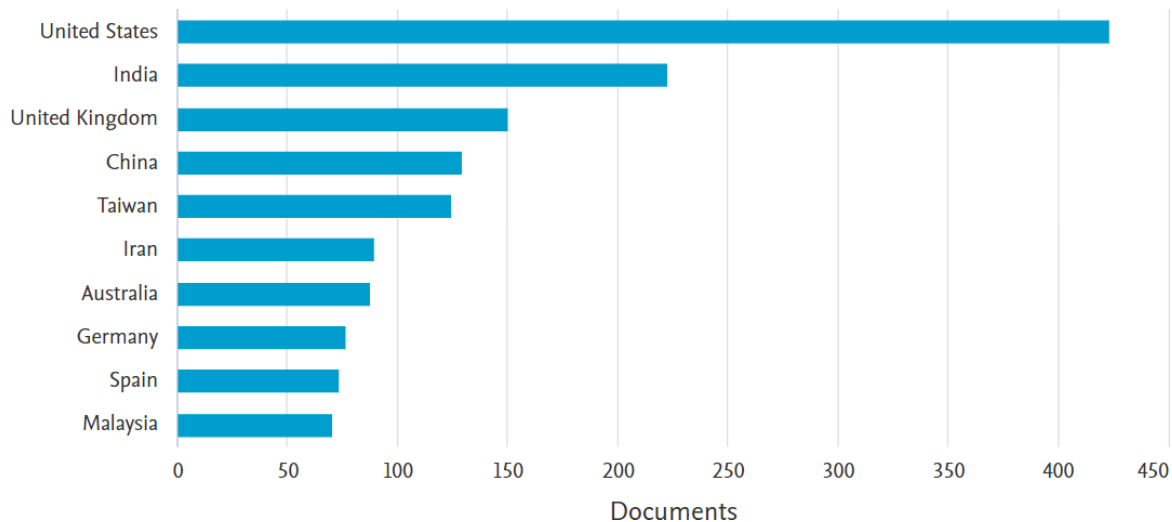

Figure 5. Publications by country

The number of Citations based on country wise is reflecting different aspect compared to the Number of publications country wise. United States Tops the list with 18908 citations with 423 publications and United Kingdom with 5238 citations with 150 publications.

Table 3. Top 10 Publications by country-wise

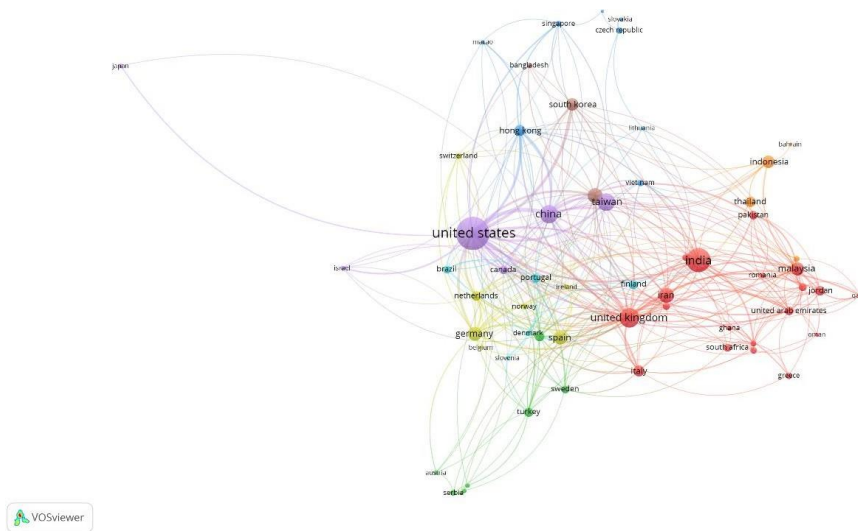| Country	No. Of Publications	%
United States	423	21.8%
India	222	11.4%
United Kingdom	150	7.7%
China	129	6.6%
Taiwan	124	6.4%
Iran	89	4.6%
Australia	87	4.5%
Germany	76	3.9%
Spain	73	3.8%
Malaysia	70	3.6%
Country	Publications	Citations
United States	421	18908
United Kingdom	149	5238
China	129	5670
Hong Kong	48	5426
India	222	4037

Figure 6. Country wise publications Table 4 Top 5 Countries based on Citations

2.7 Author and Co-authorship Analysis

Based on, the chart Fig. 7 shows that author Smith, A.D. published 23 articles during 2010– 2023 which seems the author has gradually researched CRM with advancements and discussions and contracted 113 citations. There are indexed articles by various authors, and only a well-informative article gets the most citation Table 5 & Fig. 8 shows various researchers are considering author Fjermestad J. work by relating it to their study. Any publication should create a discussion and light on the respective fields. The next author Kumar, v. has 4 publications with 701 citations which is commendable. The remarkable work of Author Verhoef, P.C has the same number of publications of 3 by authors, Agnihotri R, Jaber F, Ranjan J. the Citation is 878 which is extraordinarily commendable compared to 113 citations even though author Smith A.D. has the maximum publication. It's prominent that any article which has the highest citation is playing a fundamental role in the development of CRM study and its address on the keynotes based on previous studies and gaps respectively.
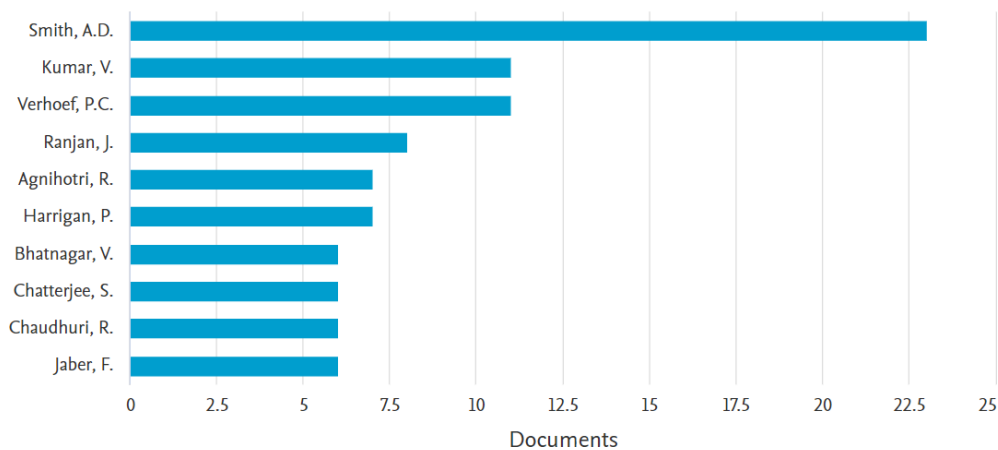
Figure 7. Number of Publications by Author
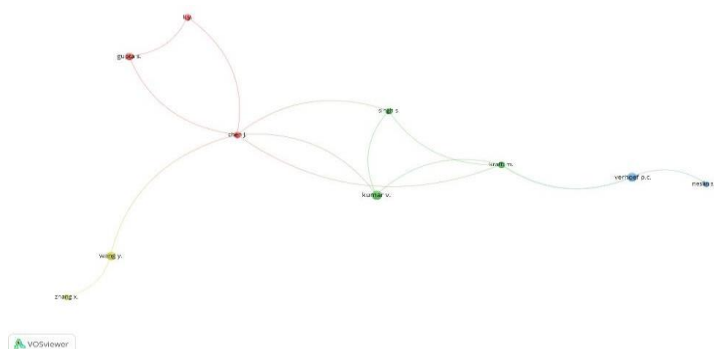
Figure 8. Author & Co-author Correlation (VOSviwer)

Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

Table 5. Author and co-authorship based on citations

Author	Publications	Citations
Simth, A.D.	23	113
Agnihotri, V.	3	453
Bhatnagar, V.	4	18
Chatterjee, s.	6	196
Ranjan, J.	4	18
Harrigan, P.	4	231
Jaber, F.	3	23
Kumar, v.	4	701
Verhoef, P.C	3	878

2.8 Correlations of Keywords

Complex keyword searches can be built to locate articles in Scopus. One of the critical analyses in Bibliometrics analyses the Keyword match among the authors, this is one of the methods for the academicians and researchers to identify the articles based on their subject of interest. As it's very apparent that the VOS-Viewer result Fig. 9 projects the Keywords interrelating with various Variables. Table 6 shows CRM relating variable such as Customer Relationship management, Customer Satisfaction, CRM, Data mining, Customer loyalty, Trust, customer relationship, Customer experience, Relationship Marketing and Customer Engagement. It should be noticed carefully that very minimum study in made in the theme CRM though its being the current trend. It is already making its mark wherever it is implemented, mostly with the Multicorporation companies. More of the studies can be anticipated in SCRM in coming years. Also, the crucial part of keyword search is the the Term does not maintain consistently as "CRM" which makes the leakage. Customer Relationship Management is keyed differently as "Customer Relationship Management (CRM)", "CRM". Though it all means the same the weightage of Keyword significance is scattered. Finally, the findings show that CRM function as Company and customer-oriented applications.

Table 6. Top 10 keywords according to occurrences

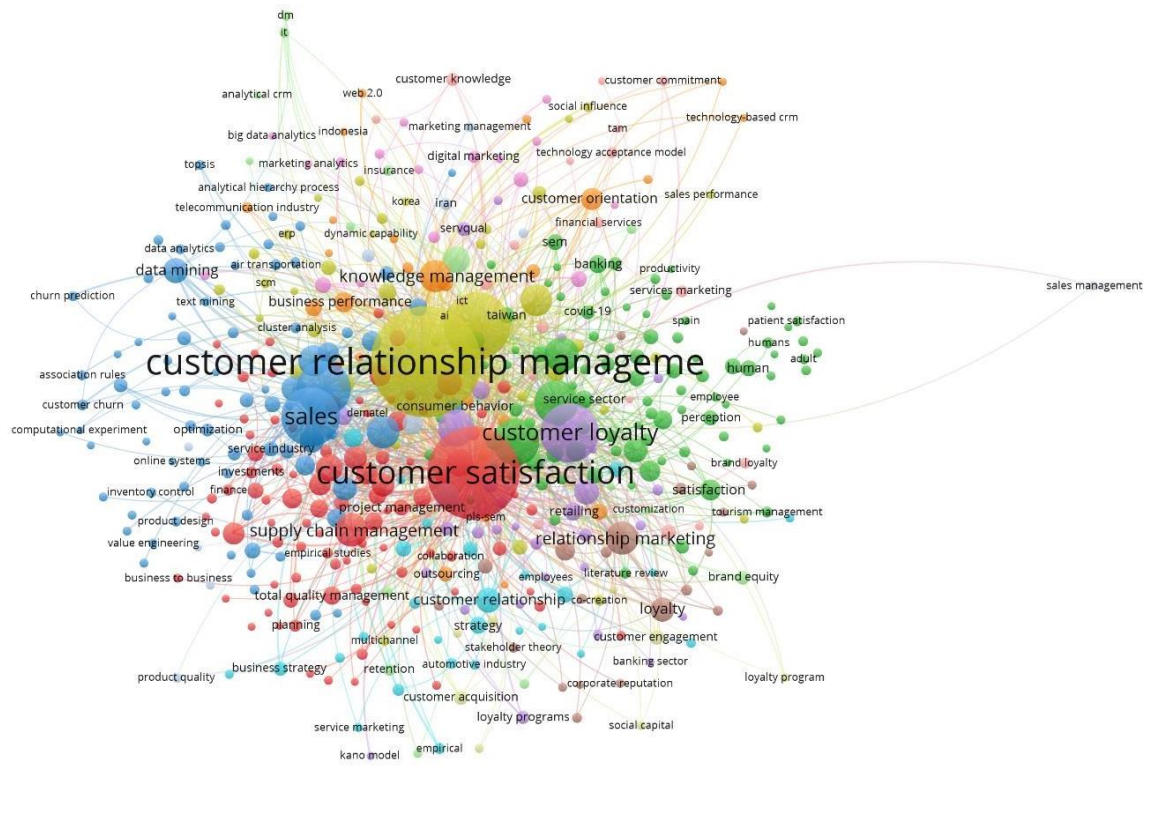| Keyword	Occurrences	Total Link Strength
Customer relationship management	866	766
Customer Satisfaction	607	572
CRM	315	297
Customer loyalty	247	230
Trust	46	46
Data mining	45	45
Customer Relationship	47	41
Relationship Management	20	20
Customer experience	19	19
Customer Engagement	17	17

Figure 9. Correlations of Keywords

2.9 Publications by Number of Affiliations

From the total of 1,940 publications, All the affiliations were recorded in the SCOPUS database which is only 100% of the total. Based Fig. 10 the Hong Kong Polytechnic University has a maximum affiliation of 27 and Robert Morris University minutely less by 4 at a total of 23 affiliations. Georgia State University has 17 and the University of Tehran at 17 affiliations. The following institution/University each have 16 affiliations Universiti Utara Malaysia, J. Mack Robinson College of Business, And the following institution/University has 13 affiliations Indian Institute of Technology Kharagpur, Institute of Management Technology, Ghaziabad. Though Asian countries have the major affiliations, the United States has the maximum affiliation and likewise maximum publications.This can lead to cross countries' studies can be made. The finding suggests that the United States of America is once again making its mark in the Technology industry and making its identity across the world providing the applications.
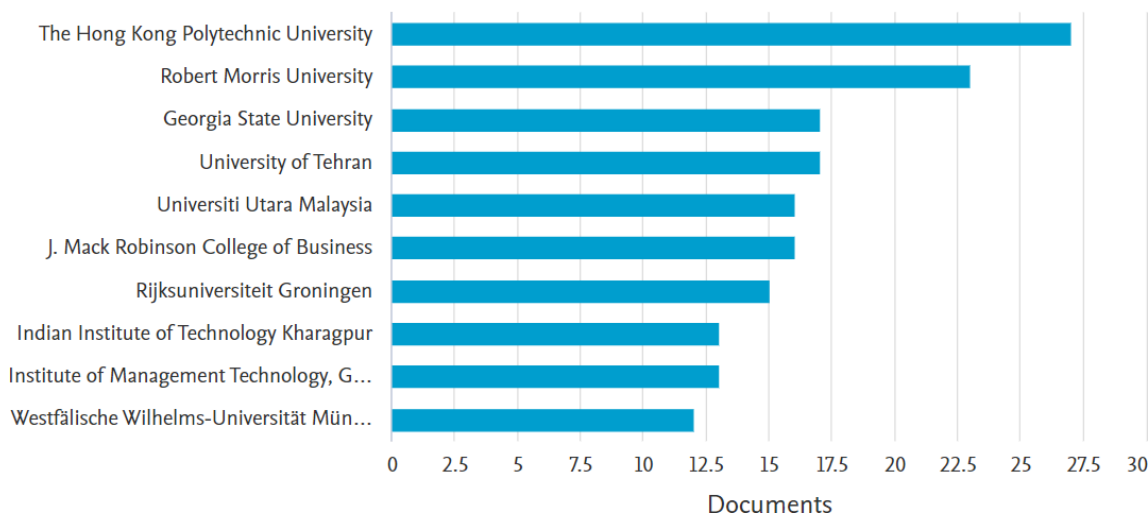

Figure 10. Number of Affiliations

Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

2.10   Source of Journals

A scholarly publication includes articles written by the domain experts. These articles' main target audience is other professionals. Most of these publications cover original Table 7

"International Journal of electronic customer" has the greatest number of 36 publications with 289 citations, followed by "Industrial management and data system" at 29 publications with 1093 citation. Thirdly "Industrial marketing management" have only 26 publications but with 1396 citations. This highlights that the standard of the Journal does validate the astonishing studies.
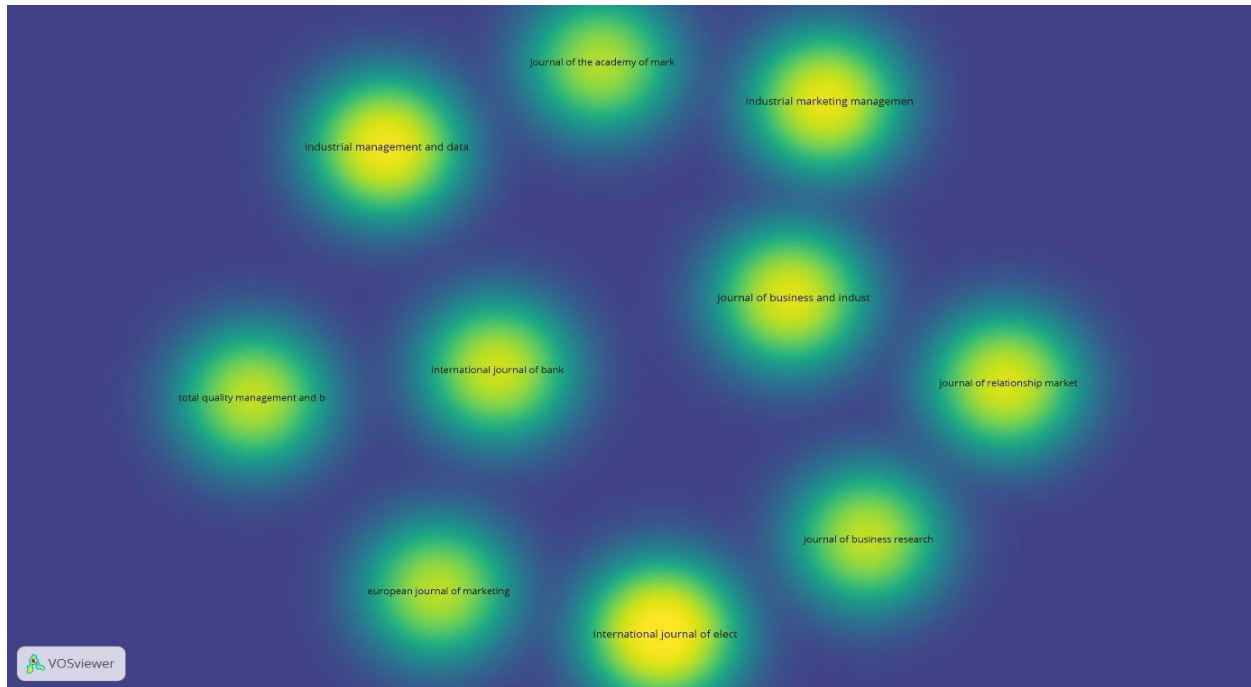

Figure 11. Source of Journals (VOSviewer)

Figure 10 Journal of business and industrial management, Journal of relationship marketing, International Journal of bank marketing, Journal of business research, Total quality management and business. A very important fact to be noted is that 8th position in top 10 "European journal of marketing" have made only 18 publications whereas the citation is 1151. It simply results in how effectively the author has addressed the scope and Gaps in the study of Customer Relationship Management.

Table 7. Source of Journals based on the number of Publications and Citations

source	Documents	Citations
Journal of business and industrial management	24	547
Journal of business research	19	1405
International Journal of bank marketing	21	898
International Journal of electronic customer	36	289
Industrial marketing management	26	1396
Journal of the academy of marketing	17	1754
Industrial management and data system	29	1093
Journal of relationship marketing	23	308
European journal of marketing	18	1151
Total quality management and business	19	349

2.11   Fund Sponsors

 In Fig. 11 database consisting of 1,940 publications only 354 publications are sponsored. The above table indicates the Top 10 Sponsors for various publications. The highest number of sponsors is by the National Natural Science Foundation of China by sponsoring 46 publications followed by the European Regional Development Fund with 11 publications then by Fundamental Research Funds for the Central Universities with 11 and National Science Council every 9 publications (Table 8 and Fig. 12).

Table 8 Publications sponsors from China

| Publications by funding sponsors	No. Of sponsors
National Natural Science Foundation of China	46
European Regional Development Fund	11
Fundamental Research Funds for the Central Universities	11
European Commission	9
National Science Foundation	9
Conselho Nacional de Desenvolvimento Científico e Tecnológico	7
Hong Kong Polytechnic University	7
Ministry of Education of the People's Republic of China	7
National Office for Philosophy and Social Sciences	6
Coordenação de Aperfeiçoamento de Pessoal de Nível Superior	6
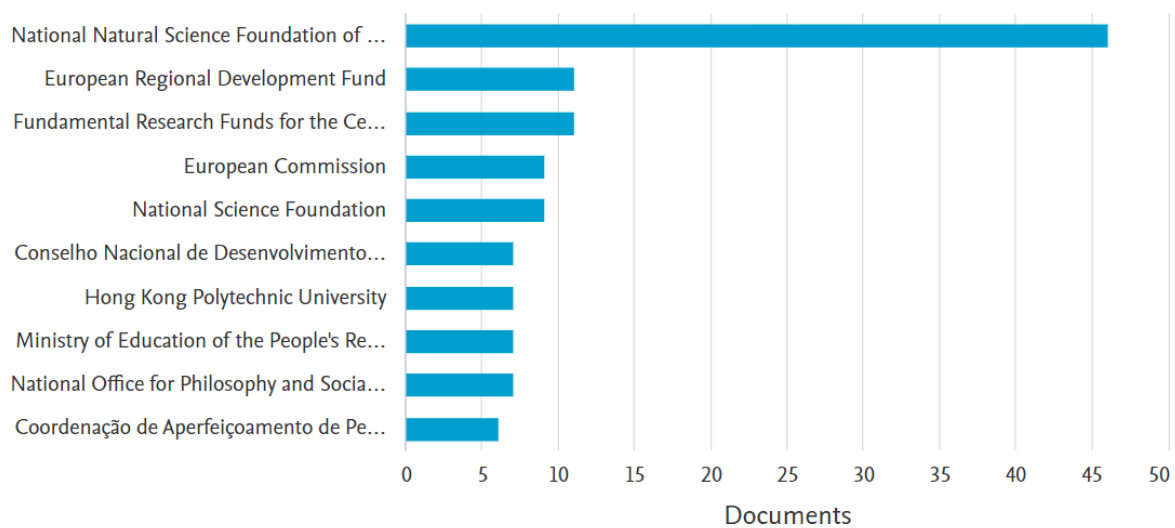
Figure 12. Top 10 Publication Sponsors

DISCUSSION

The data presented in the document provides valuable insights into the progression and trends in Customer Relationship Management (CRM) from 2010 to 2023. The analysis includes

various aspects such as the number of publications, subject areas, types of publications, country-wise publications, author and co-authorship analysis, affiliations, and sources of journals.

The number of publications in the CRM field has shown fluctuations over the years, with periods of growth and decline. The highest number of publications was recorded in 2010, with 144 publications, and the lowest in 2019, with 105 publications. This indicates that there has been a shift in focus towards other emerging areas or research topics in recent years.

However, it is important to note that the trend may change in the future as new developments and advancements in CRM continue to emerge.

In terms of subject areas, Business, Management, and Accounting have been the major areas of interest in the CRM field, accounting for 42.8% of the total publications. This is followed by Computer Science, with 10.6% of the total publications. These two subject areas are expected to continue growing consistently in the field of CRM. Additionally, there may be an increase in industry-specific research in the future, as indicated by the varying percentages of publications and citations in other subject areas.

The analysis also reveals the dominance of article publications in the CRM field, representing 98.8% of the total publications. This indicates that article publications are the primary mode of disseminating research findings in this field. However, conference papers have also made a smaller contribution, suggesting a growing interest in conferences as a platform for publication Country-wise, the United States has the highest number of publications, with 423publications, followed by India with 222 publications. These two countries have emerged as key contributors to CRM research. The data also shows that European nations produce more than 50% of CRM articles, indicating the leading position of European academic institutions in this field. It is worth noting that the United States has the maximum number of affiliations, suggesting its strong presence in the technology industry and its influence in global CRMresearch.

Progression of Customer Relationship Management 2010–2023: A Bibliometric Analysis

The analysis of author and co-authorship reveals the contributions of various researchers in the CRM field. Author Smith, A.D. has published the highest number of articles, with 23 publications, followed by authors Agnihotri, V. and Kumar, V. with 4 publications each. The citation count varies among authors, with author Verhoef, P.C. having the highest citation count of 878, indicating the impact of their work in the development of CRM research.

The analysis of sources of journals highlights the importance of reputable journals in validating the quality of CRM studies. The "International Journal of electronic customer" has the highest number of publications, with 36 publications, followed by "Industrial management and data system" with 29 publications. These findings suggest that researchers value the credibility and impact of journals in the CRM field.

CONCLUSION

The analysis of the data provides valuable insights into the progression and trends in CRM research from 2010 to 2023. It is evident that CRM has evolved from a contact management tool to a holistic approach for managing customer relationships. The integration of data mining, the macro process of strategic significance, and the impact on organizational performance and competitive advantage have been key advancements in CRM during this period.

The findings also highlight the importance of customer satisfaction, the incorporation of marketing mix components, and the global expansion of CRM. The data shows that Business, Management, and Accounting, as well as Computer Science, are the major subject areas in CRM research. These areas are expected to continue growing in the future, with a potential increase in industry-specific research.

The analysis of country-wise publications reveals the dominance of the United States and European nations in CRM research. These countries have made significant contributions to the field, indicating their strong academic presence and technological advancements.

However, other countries such as India and Taiwan have also shown promising growth in CRM research.

The analysis of author and co-authorship provides insights into the contributions of individual researchers in the CRM field. It is evident that certain authors have made significant contributions, as reflected in their publication and citation counts. This highlights the importance of collaboration and knowledge sharing among researchers in advancing CRM research.

MANAGERIAL IMPLICATIONS

The findings of this analysis have several managerial implications for businesses and Organizations. Firstly, the evolution of CRM from a contact management tool to a holistic approach emphasizes the importance of investing in cutting-edge technologies and human resources. Businesses need to stay updated with the latest CRM advancements to effectively manage customer relationships and gain a competitive advantage.

Secondly, the integration of data mining with CRM presents opportunities for businesses to harness the power of data for predictive scoring models. This can enable more accurate customer engagement and relationship management, leading to improved customer satisfaction and loyalty.

Thirdly, the impact of CRM adoption on organizational performance and competitive advantage highlights the strategic importance of CRM in driving business success.

Organizations should prioritize CRM initiatives and align them with their overall marketing and business strategies.

Furthermore, the incorporation of marketing mix components with CRM can enhance customer satisfaction and the overall value proposition. Businesses should focus on delivering a seamless customer experience across all touchpoints and leverage CRM technologies to personalize marketing efforts.

Finally, the global expansion of CRM research indicates the relevance and applicability of CRM principles across different countries and industries. Businesses operating in international markets should consider the cultural and contextual factors when implementing CRM strategies.

FUTURE RECOMMENDATIONS

Based on the analysis of the data, several future recommendations can be made for further research in the field of CRM. Firstly, there is a need for more studies focusing on specific industry sectors and their unique CRM challenges and opportunities. This can provide valuable insights for businesses operating in those industries and contribute to industry- specific CRM best practices.

Secondly, future research should explore the impact of emerging technologies such as artificial intelligence, machine learning, and blockchain on CRM. These technologies have the potential to revolutionize customer relationship management and businesses need to understand their implications and adapt accordingly.

Thirdly, there is a need for more research on the ethical considerations and privacy concerns related to CRM. As businesses collect and analyze vast amounts of customer data, it is important to ensure that ethical guidelines and privacy regulations are followed to protect customer information and maintain trust.

Furthermore, future research should focus on the integration of CRM with other business functions such as supply chain

management, operations, and finance. This can provide a more holistic view of customer relationships and enable businesses to optimize their overall operations.

Lastly, there is a need for more comparative studies that analyze the differences and similarities in CRM practices across different countries and cultures. This can help businesses understand the cultural nuances and tailor their CRM strategies accordingly.

REFERENCES

1) Dubey, R., Gunasekaran, A., Childe, S.J., Bryde, D.J., Giannakis, M., Foropon, C., Roubaud, D., Hazen, B.T.: Big data analytics and artificial intelligence pathway to operational performance under the effects of entrepreneurial orientation and environmental dynamism: A study of manufacturing organisations. Int J Prod Econ. 226, 107599 (2020). https://doi.org/10.1016/ J.IJPE.2019.107599.

2) Chen, I.J., Popovich, K.: Understanding customer relationship management (CRM). Business Process Management Journal. 9, 672–688 (2003).https://doi.org/10.1108/146371503 10496758.

3) Gal, S., Casas, J.: Succession of hide-seek and pursuit-evasion at heterogeneous locations. J R Soc Interface. 11, (2014). https://doi.org/10.1098/rsif.2014.0062.

4) Chatterjee, S., Chaudhuri, R., Vrontis, D.: AI and digitalization in relationship management: Impact of adopting AI-embedded CRM system. J Bus Res. 150, 437–450 (2022). https://doi. org/10.1016/j.jbusres.2022.06.033.

5) Hendler, F., LaTour, K.A., Cotte, J.: Temporal Orientation and Customer Loyalty Programs. Cornell Hospitality Quarterly. 63, 448–464 (2022). https://doi.org/10.1177/193896552110 08413

6) Rastgar, A.A., Esmaili, E., Naderi, R., Hemmati, A.: Clarifying the effect of customer knowledge management to improve business performance of banks: Considering the role of electronic customer relationship management. International Journal of Electronic Customer Relationship Management. 12, 108–123 (2019). https://doi.org/10.1504/IJECRM. 2019.104019.

7) Mohammadi, M., Sohrabi, T.: Examining the effect of marketing mix elements on customer satisfaction with mediating role of electronic customer relationship management. Industrial Engineering and Management Systems. 17, 653–661 (2018).https://doi.org/10.7232/iems. 2018.17.4.653.

8) Romano, N.C., Fjermestad, J.: Electronic customer relationship management: An introduction. (2015).

9) Bull, C.: Strategic issues in customer relationship management (CRM) implementation. Business process management Journal. 9, 592–602 (2003).

10) Tsokota, T., Mahlangu, G., Muruko, M.E., Kangara, C.T.C.: Electronic customer relationship management framework for Game Parks in Zimbabwe. African Journal of Science, Technology, Innovation and Development. 14, 1184–1195 (2022). https://doi.org/10.1080/20421338. 2021.1938797.

11) Al-Bashayreh, M., A.D., A.-O.M., M.R.E., & S.A.-A.A.: Evaluating Electronic Customer Relationship Management System Success. The Mediating Role of Customer Satisfaction. 14, 12310 (2022).

12) Li, F. and G.X.: AI-driven customer relationship management for sustainable enterprise performance. Sustainable Energy Technologies and Assessments. 52, (2022).

13) Brown, J.R., K.A.S., & D.C.S.: The role of ownership in managing interfirm opportunism: a dyadic study. Journal of Marketing Channels. 21, 31–42 (2014).

14) Sawlani, D.K., So, I.G., Furinto, A., Hamsal, M.: The impact of competitive advantage to the firm performance in construction sector. Quality - Access to Success. 23, 187– 200 (2022). https://doi.org/10.47750/QAS/23.190.21.

15) Babgohari, A.Z., Hamedi, M., Taghizadeh-Yazdi, M., Nazari-Shirkouhi, S.: Towards the analysis of e-CRM practices using an integrated fuzzy approach. International Journal of Electronic Customer Relationship Management. 13, 272–293 (2022). https://doi.org/10.1504/IJE CRM.2022.124099.

16) Yang, Z., Babapour, H.: Critical variables for assessing the effectiveness of electronic customer relationship management systems in online shopping. Kybernetes. (2022). https://doi.org/10. 1108/K-10-2021-0952.

17) Wamilia, M., Munandar, J.M., Sumarwan, U.: Political marketing factors affecting consumers. International Journal of Innovation, Creativity and Change. 11, 399–419 (2020).

18) Anna, K., Lazaros, P.: Exploring E-CRM Implementation in Sport Tourism Hotels in Peloponnese. In: Springer Proceedings in Business and Economics. pp. 611–627 (2020). https:// doi.org/10.1007/978-3-030-36342-0_47.

19) Dogan-Sudas, H., Kara, A., Cabuk, S., Kaya, K.: Social media customer relationship management and business performance: empirical evidence from an emerging market. Studies in Business and Economics. 17, 90–107 (2022). https://doi.org/10.2478/sbe-2022-0027.

20) Perez-Vega, R., Hopkinson, P., Singhal, A., Mariani, M.M.: From CRM to social CRM: A bibliometric review and research agenda for consumer research. J Bus Res. 151, 1–16 (2022). https://doi.org/10.1016/j.jbusres.2022.06.028.

21) Tranfield, D., Denyer, D., Smart, P.: Towards a Methodology for Developing EvidenceInformed Management Knowledge by Means of Systematic Review (2003).

22) Zheng, Z., X.W., X.Y., & X.Q.: Mapping knowledge structure and themes trends of biodegradable Mg-based alloy for

orthopedic application: A comprehensive bibliometric analysis. Front Bioeng Biotechnol. 10, (2022).

23) Falagas, M.E., K.V.D., A.-J.R., & K.D.E.: Comparison of SCImago journal rank indicator with journal impact factor. The FASEB journal. 22, 2623–2628 (2008).

24) Malthouse, E.C., H.M., S.B., W.E., & Z.M.: Managing customer relationships in the social media era: Introducing the social CRM house. Journal of interactive marketing. 27, 270–280 (2013).

25) Ellegaard, O., Wallin, J.A.: The bibliometric analysis of scholarly production: How great is the impact? Scientometrics. 105, 1809–1831 (2015). https://doi.org/10.1007/s11192-015- 1645-z.

26) Meho, L.I., & Young K.: Impact of data sources on citation counts and rankings of LIS faculty: Web of Science versus Scopus and Google Scholar. Journal of the american society for information science and technology. 58, 2105–2125 (2007).

27) He, K., Zhang, X., Ren, S., Sun, J. Deep residual learning for image recognition (2016) Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2016-December, art. no. 7780459, pp. 770-778. Cited 119857 times DOI: 10.1109/CVPR.2016.90

28) Braun, V., Clarke, V. Using thematic analysis in psychology (2006) Qualitative Research in Psychology, 3 (2), pp. 77-101. Cited 84743 times DOI: 10.1191/1478088706qp063oa

29) Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C. (1995) Multivariate Data Analysis, . Cited 83647 times.

30) Hu, L.-T., Bentler, P.M. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives (1999) Structural Equation Modeling, 6 (1), pp. 1-55. Cited 67156 times DOI: 10.1080/10705519909540118

31) Fornell, C., Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error (1981) Journal of Marketing Research, 18 (FEBRUARY), pp. 39-50. Cited 63600 times.

32) Hochreiter, S., Schmidhuber, J. Long Short-Term Memory (1997) Neural Computation, 9 (8), pp. 1735-1780. Cited 58088 times. DOI: 10.1162/neco.1997.9.8.1735

33) Baron, R.M., Kenny, D.A. The Moderator-Mediator Variable Distinction in Social Psychological Research. Conceptual, Strategic, and Statistical Considerations (1986) Journal of Personality and Social Psychology, 51 (6), pp. 1173-1182. Cited 57394 times. DOI: 10.1037/0022-3514.51.6.1173

34) Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y., Podsakoff, N.P. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies (2003) Journal of Applied Psychology, 88 (5), pp. 879-903. Cited 46998 times. DOI: 10.1037/0021-9010.88.5.879