An International Multidisciplinary Journal
अनन्यशास्त्रम्
(A Unique Treatise of Knowledge)
ISSN:3049-3927 (Online)
Volume: 01 | Issue: 03 | December: 2025
Research Article

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
Peer-Reviewed | Refereed | Open Access Journal
DOI: https://doi.org/10.64328/aimjv01i030014

The Digital Age in Small and Medium Enterprises: A Bibliometric Exploration of Artificial Intelligence-Based Customer Relationship Management and Its Role in Enhancing Organizational Agility

Anjali Jadon[1] and Dr. Abhilasha Dixit[2]

Abstract

As the digital age progresses, small and medium-sized businesses (SMEs) are under increasing pressure to improve their responsiveness, creativity, and consumer engagement. This research delves into how digital transformation, AI, and CRM systems interact with one another in small and medium-sized enterprises (SMEs), with a focus on how these three factors affect organizational agility. Using a bibliometric strategy, this study examines the extant literature on Organizational Agility through bibliometric analysis that traces the path of research from 2000 to 2025, and there are 3,104 documents were found in the database. While searching the Scopus database, the author identifies emerging trends, seminal and most-cited papers, authors, universities, and countries that contributed to the development of the theory. Separately, the author again ran the database to find the Scopus documents of academic literature on artificial intelligence customer relationship management systems to spot developing themes, prominent figures, and noteworthy publications. According to the results, there is a rising desire to include AI tools in CRM platforms to improve operational flexibility, personalize customer experiences, and make decisions in real-time. These tools include catboats, machine learning, and predictive analytics. According to the report, these technologies help SMEs remain flexible by allowing them to respond more swiftly to market developments and adjust their plans with greater flexibility.

Researchers, industry professionals, and government officials can all benefit from this bibliometric study's findings as they seek to comprehend and use AI-driven CRM systems to boost digital agility and long-term competitiveness.

Keywords: Organizational agility; CRM; Bibliometric analysis; SMEs; Artificial Intelligence; Digital.

[1] Research Scholar, Department of Amity Business School, Amity University Madhya Pradesh, Gwalior, India, Email: anjalijadonone@gmail.com, ORCID ID: https://orcid.org/0009-0002-9376-5434
[2] Assistant Professor, Department of Amity Business School, Faculty of Management, Amity University Madhya Pradesh, Gwalior, India, Email: adixit@gwa.amity.edu ORCID ID: https://orcid.org/0000-0002-2647-4381.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Introduction

The Digital Age in SMEs with AI-Based CRM: A Bibliometric Approach on Organizational Agility. SMEs must remain flexible and swiftly adjust to changing technology and customer needs if they want to grow in the modern digital age. These competencies improve organizational agility by rapidly detecting and mitigating market opportunities and disruptions(Manurung & Kurniawan, 2022; Strode et al., 2022). According to recent bibliometric trends, AI-driven CRM has evolved from a purely technical tool into a strategic enabler of agility for SMEs. This provides the basis for a more in-depth examination of how academic research on digital transformation, AI-driven CRM, and agility has evolved over the last two decades (Chatterjee et al., 2021). In modern businesses, constant transformation is the rule rather than the exception. The corporate world of today is ever-changing and unpredictable. A possible facilitator of the organization's competitiveness, it is considered a crucial component of any successful corporation(Akkaya & Qaisar, 2021). The capacity of an organization to respond effectively and rapidly to changes in its external environment is known as organizational agility(Asima Siddique & Muhammad Asif Khan, 2022).

The purpose of this study is to use a bibliometric method to investigate the role those digital innovations play in helping SMEs become more agile, specifically looking at CRM systems that use AI(Ko et al., 2022). The purpose of this study is to survey the existing literature and find important gaps in knowledge by looking at important research trends, networks of co-authors, keyword co-occurrence, and notable publications. Researchers hope that policymakers, practitioners, and academics can all benefit from the results by better understanding the strategic importance of CRM adoption based on AI for promoting digitally adaptive and agile SME ecosystems(Çallı & Çallı, 2021)

The effects of digital transformation and CRM systems powered by artificial intelligence on organizational agility in small and medium-sized enterprises (SMEs) are the focus of this research. This study uses bibliometric analysis to reconstruct the academic development of these ideas from 2000 to 2025, acknowledging that agility is no longer a luxury but a necessity, particularly for small and medium-sized enterprises (SMEs) with limited resources. The study finds important publications, writers, institutions, and areas that have contributed to the growth of organizational agility within the framework of digital innovation by reviewing 3,104 documents that were indexed by Scopus.

A longitudinal visualization of research topics can also be used to pinpoint potential future study fields. None of the authors, especially in the context of web visualizations, has conducted a thorough literature assessment. We conducted this investigation to close this gap. The research question that follows demonstrates how the study’s loops work.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

RQ1: What are the key issues of study for Customer Relationship Management with SMEs

RQ2: How effectively has Organizational Agility and Customer Relationship Management Literature been published in terms of authors, organizations, journals, and nations? The publication's performance would publicize the top contributors and the network that connects them.

RQ3: How has the conversation evolved? Explore the relationship between organizational agility and customer relationship management.

Literature Review:

The "agility" concept was developed at Lehigh University's Iacocca Institute in the United States. They defined it as a manufacturing system that can meet the ever-evolving demands of the market (speed, flexibility, customers, competitors, suppliers, infrastructure, and responsiveness) through the use of hard and soft technologies, human resources, educated management, and information(Govuzela & Mafini, 2019).

Agile refers to an organization's ability to react, adjust, and prosper in a changing environment. The fundamentals of agility (derived from the Agile Manifesto and software development in the 1990s). The idea of agility is new to modern administrative theory. Agility has been characterized by one author in terms of the skills required to accomplish light mobility within the company(Piercy, 2009). The capacity to react swiftly and profitably to unexpected occurrences is known as agility. Implementation of production facilities that are more economical, quicker, and efficient. New soft technologies (software and techniques) are introduced. Showcasing new materials, Information technology connection with (new) hard and soft technologies. According to Janssen (2010), agility is the organizational capacity to respond swiftly and efficiently to a significantly shifting environment(Crocitto & Youssef, 2003).

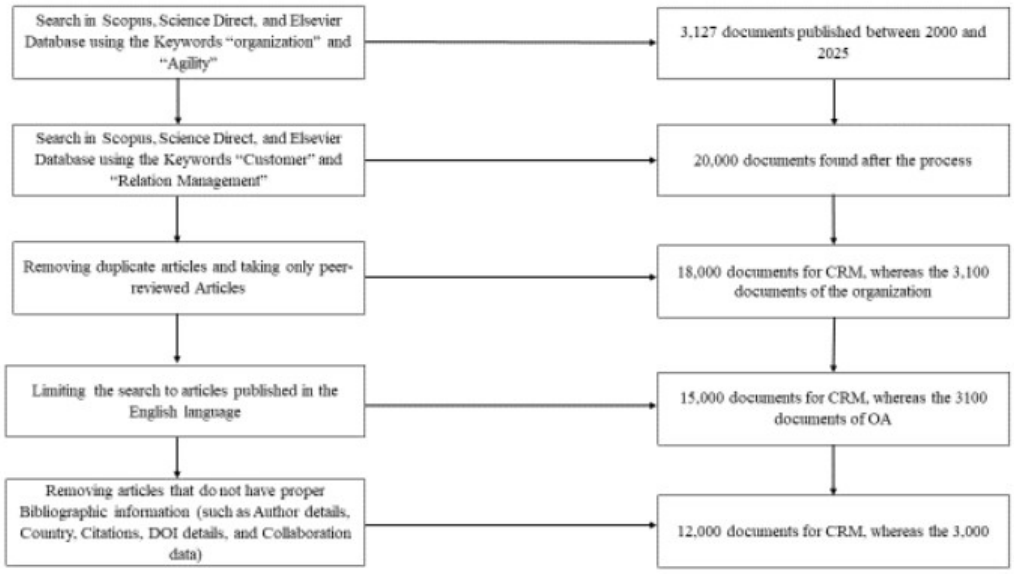
According to Sherehiy (2008), OA is crucial to the organization's operations because it gives employees high-level skills, knowledge, and the ability to transform and organize procedures while utilizing modern technology(Al-Darras & Tanova, 2022). It is expected that the current

situation of circumstances will soon alter. According to Francis (2001), the digital or "fourth industrial revolution" of today has pushed us past the days of "nimble" or "agile" manufacturing(Kurniawan et al., 2020). The business landscape is changing at an exponential rate due to digitization, which is also reducing the planning horizon, enabling the emergence of the virtual world, opening up new markets, increasing the variety and nature of products and competition, and raising customer expectations for low-cost, personalized goods and services(Thongrawd et al., 2020).

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

The development of AI technologies has contributed to the creation of particular Intelligence-integrated CRM systems (AICS), which provide simpler and cheaper analysis of customer information. Numerous companies are utilizing AI to enhance their current CRM system(Haider & Kayani, 2021). Google has already used AI to update the search box and forecast what is being searched for with accuracy. An AI system is being used to customize Amazon items to draw in customers(Adeiza et al., 2022). According to customer relationship management, every organization needs to store and investigate consumer data to understand their requirements(Ledro et al., 2022). Organizations use AI with their CRM digitalized platform to understand customers' requirements, likes, and dislikes because it is challenging for people to analyze large volumes of customer data(Dewnarain et al., 2019). According to Kaulio et al. (2017), an organization's agility is an indication of its capacity to adapt and change its knowledge, digital processes, and design capital to maximize the usage of an AI-integrated CRM system(Nurlaely et al., 2019). Software providers have lately turned their focus to small and medium-sized businesses, or SMEs, providing them with a variety of CRM systems that were previously only used by huge corporations. According to Taylor and Murphy (2004), SMEs are seen as significant economic actors and a possible driver of local, regional, and national economic growth(Guerola-Navarro et al., 2024). As significant economic actors, SMEs can contribute to local, regional, and national economic growth(Sherehiy & Karwowski, 2014). Many small and medium-sized businesses (SMEs) have adopted CRM to compete successfully and succeed in global marketplaces(Kurniawan et al., 2021). Determine how SMEs' use of information and communication technologies is influenced by their financial resources and technical expertise.

Bibliographic analysis



ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Subsequently, the quantitative and qualitative analyses were performed through the bibliometric dataset concerning the 3127 documents, where the author first filtered the keywords **"**Organisation Agility", "Agility" in the database of Scopus. Afterwards, the author searched for another keyword of our research variable that is "Customer" and "Relationship", and "Management". Then, the 20,000 documents were found in the dataset. this 20,000 also have peer-reviewed journals with duplicate articles. Again, the author filtered the search and found 18000 documents of CRM and 3100 documents of OA. After analysing the obtained documents, the filter uses for the English language published documents and it is about 15000 of CRM and 3104 documents of OA are found in the second filter where after analysing the language the author puts their hand with those documents don't have DOI, Citation and the extract of documents should be 12000 documents of CRM and the 3000 documents of OA are found

Distribution of Years:

The study period was defined for this bibliometric analysis as the years 2000 to 2025. To identify both long-term patterns and more recent advancements within the subject, we chose to capture the evolution and trends of scholarly production across a large timeframe, which was 26 years. At the turn of the millennium, there was a surge in both research and technical development, and the most recent data accessible was from 2025, while the year 2000 marked the start of this new era. This all-encompassing time frame guarantees a strong and accurate picture of the research environment. The clusters were defined as follows:

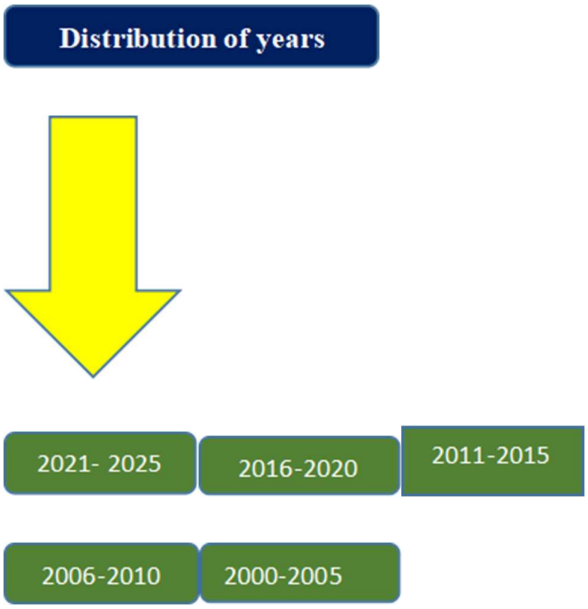


Figure 01: Distribution of years:

The papers were grouped into these groups so that we could analyse the term patterns over time. We hoped to give equal weight to keywords with comparable strengths and weights by categorizing the papers in this way

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

(4). To provide a fair and accurate examination of keyword patterns throughout time, this technique prevented trends from being skewed by years with fewer publications

Using the existing bibliometric data, we first used VOSviewer to create clusters. We used a distribution of publication years from 2000 to 2025 to structure the temporal component of the analysis. Our first thorough study covered the entire period from 2000 to 2025, so we could go on to the segmented analysis. We were able to gain a basic knowledge of the dataset by conducting an exploratory analysis of the overall patterns, keyword co-occurrences, and theme structures throughout the entire timeframe.

Cluster 1: Analysis of Top keywords from 2000-2025.

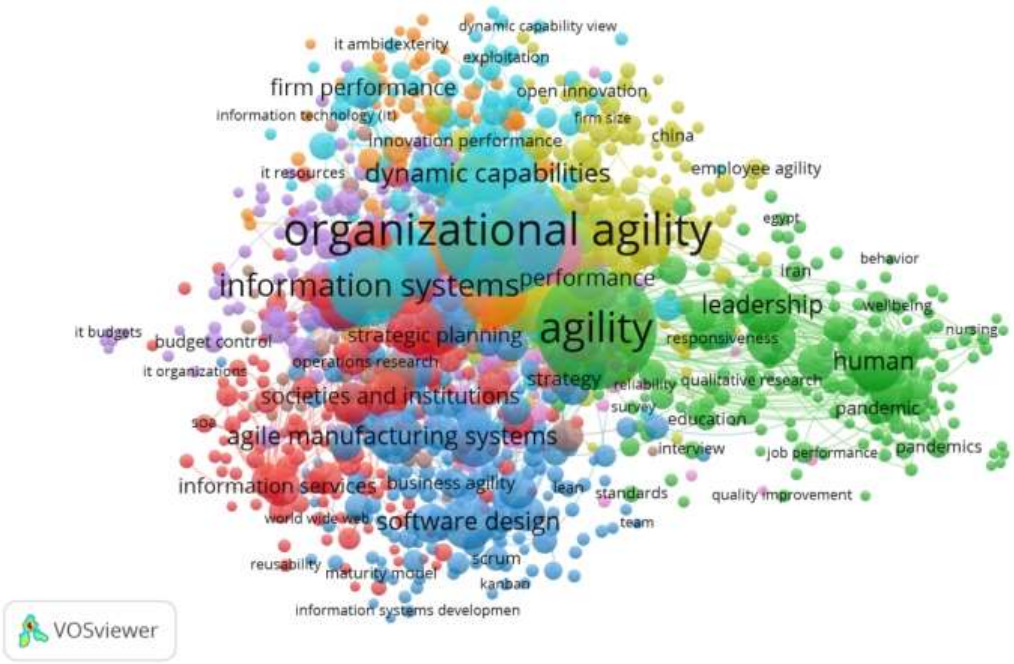


Figure 02: Keywords from 2000-2025

Organisational agility was not a commonly used or even defined phrase during this time. Therefore, scholars from all walks of life referred to it using a wide range of related terminology. The author's goal is to provide light on the relevance of organisational agility, both inside organisations and in its wider societal influence, by elucidating these many terms and interpretations.

This year's cluster has 1189 keywords with a total co-occurrence link with other keywords, which will be calculated, and after that, 1000 are selected. According to the results of the bibliographic study, organisational agility is the most common topic in the publications that were examined, and the term “agility” has the strongest total links and more keywords are there, which are in tabular form:

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Table 02: Keywords

Keywords	Occurrence	Total Link Strength
Organization Agility	586	2929
Agility	499	2632
Information System	224	1776
Decision Making	151	1206
Human	105	1174

This table shows the highest total link strength of the keywords. The total link strength explains that the overall strength of links is the sum of all the connections between an item (such as a document, author, or keyword) and other objects in a network. The above table aims to explain the keywords from different authors that indicate how the different authors use organisational agility in different ways.

Cluster 2: Analysis of Top keywords from 2000-2005

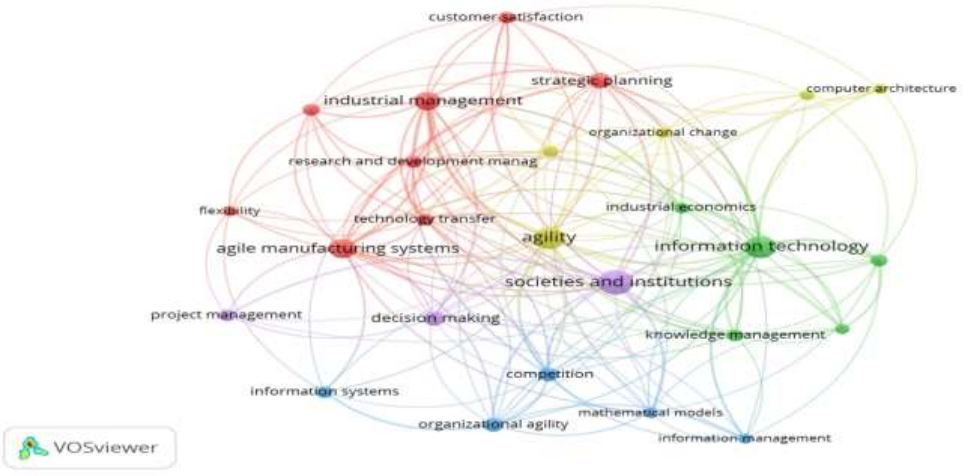


Figure 03: Keywords 2000-2005

This year's cluster has 595 keywords with a total co-occurrence link with other keywords, which will be calculated, and after that, 26 are selected. According to the results of the bibliographic study, the society's institution is the most common topic in the publications that were examined, and the term “agility” has the strongest total links and more keywords are there, which are in tabular form:

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Table 03: Keywords

Keywords	Occurrence	Total Link Strength
society's institution	28	65
Agility	22	50
Agile Manufacturing System	18	49
Information Technology	22	49
Industrial Management	15	45

This table shows the highest total link strength of the keywords. The total link strength explains that the overall strength of links is the sum of all the connections between an item (such as a document, author, or keyword) and other objects in a network. The above table aims to explain the keywords from different authors that indicate how the different authors used organisational agility in different ways.

Organisational agility was a hot topic in academia from 2000 to 2005, with contributions from scholars in 34 different countries. Global study on agility entered its formative phase during this time, with the emergence of theories and frameworks that would later serve as foundations. Research during this time came from all over the world, with significant contributions coming from countries like Canada, China, the US, the UK, and Germany, among many others, according to bibliometric analyses. The majority of these preliminary investigations centred on how agility is conceptualised in information systems, strategic responsiveness, and organisational structures. The breadth of contributions made during this period, which reached all corners of the globe, set the stage for the following multidisciplinary growth of research on organisational agility.

Table 04: Keywords

Countries	Documents	Citation	Total Link Strength
United States	53	4629	13
United Kingdom	15	946	5
Denmark	2	86	3
Italy	2	115	3
Switzerland	2	139	3

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Using bibliometric data collected between 2000 and 2005, we can see which nations have made the most strides in the field of organisational agility studies. Based on the data in the table, it is clear that the United States had a significant impact on academic output during this time. The country produced 53 documents with a combined total of 4,629 citations, which shows that they were very productive. After that came the United Kingdom, which played a significant role in developing early theoretical and empirical frameworks with 15 publications and 946 citations. Despite only submitting two papers per, the comparatively high citation counts (86, 115, and 139, respectively) of the three countries' publications indicate a considerable influence. In addition, the United States has the highest degree of interconnection (TLS = 13), followed by the United Kingdom (TLS = 5), and the other three countries (TLS = 3 each). This total link strength illustrates the level of international collaboration. In this early stage of the global research agenda on organizational agility, these measurements highlight the prominent role of these nations, especially the U.S. and the U.K.

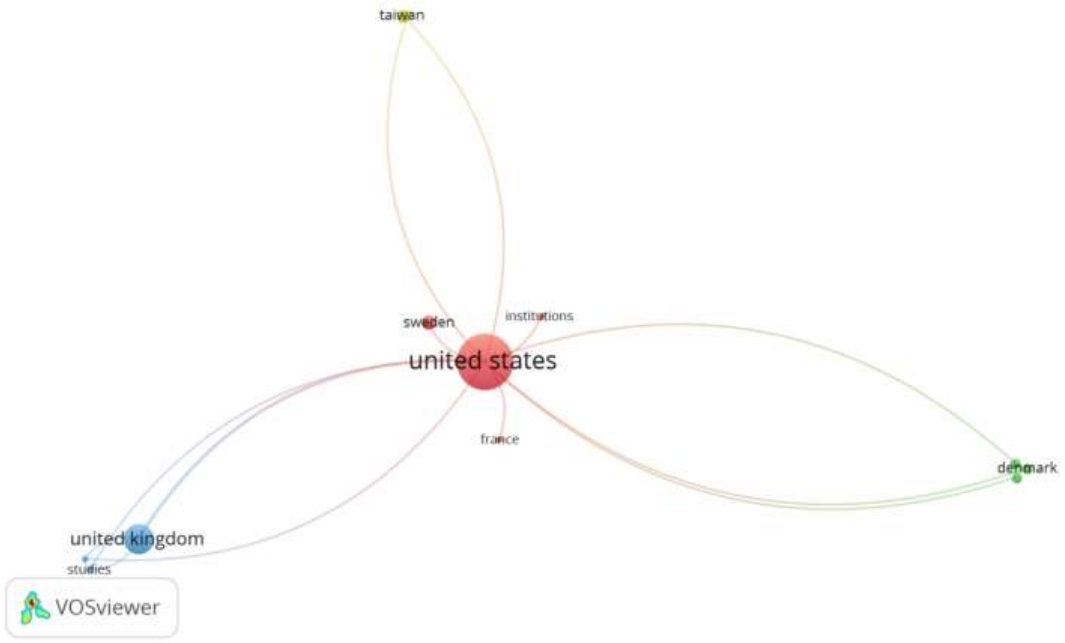


Figure 04: Countries 2000-2005

Cluster 3: Analysis of Top keywords from 2006-2010

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

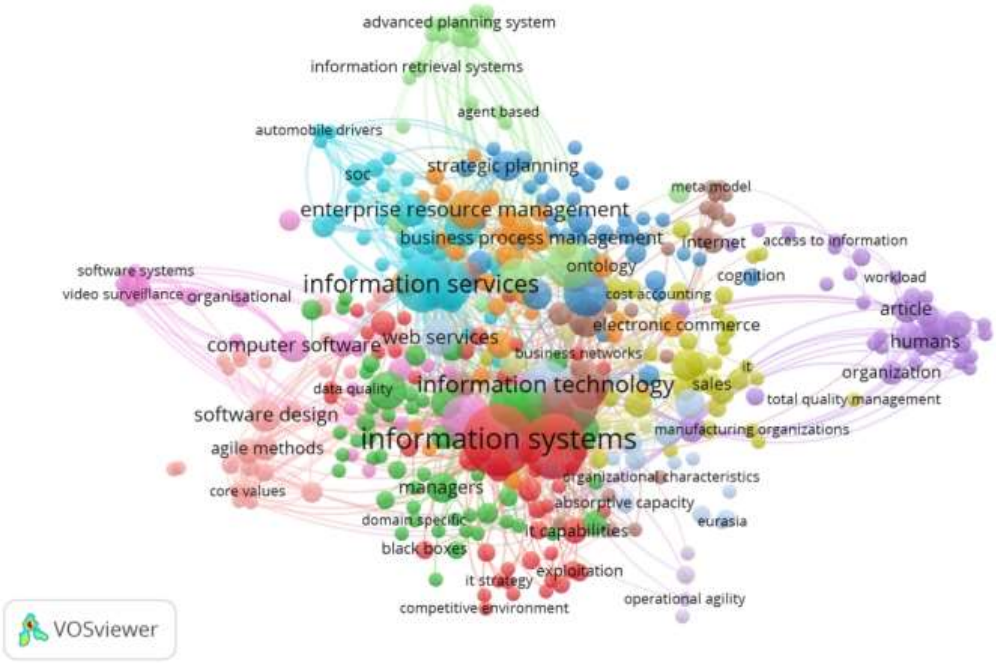


Figure 05: Keywords 2006-2010

This bibliometric analysis indicates that the papers cover the most highly used keywords from 2006 to 2010. While running the analysis, there are 1998 keywords are there and out of the 418, they meet the thresholds. However, the following keywords are in the given list, which show the total link strength and occurrence.

Table 04: Keywords

Keywords	Occurrence	Total Link Strength
Information System	**46**	**366**
Industry	**30**	**257**
Information Service	**26**	**253**
Service-Oriented Architecture	**22**	**222**
Agility	**39**	**200**

This table shows how the different authors from different countries used various and different keywords to explain organisational agility.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Organisational agility was a hot topic in academia from 2006 to 2010, with contributions from scholars in 34 different countries. Global study on agility entered its formative phase during this time, with the emergence of theories and frameworks that would later serve as foundations. Research during this time came from all over the world, with significant contributions coming from countries like Canada, China, the US, the UK, and Germany, among many others, according to bibliometric analyses. The majority of these preliminary investigations centred on how agility is conceptualised in information systems, strategic responsiveness, and organisational structures. The breadth of contributions made during this period, which reached all corners of the globe, set the stage for the following multidisciplinary growth of research on organisational agility.

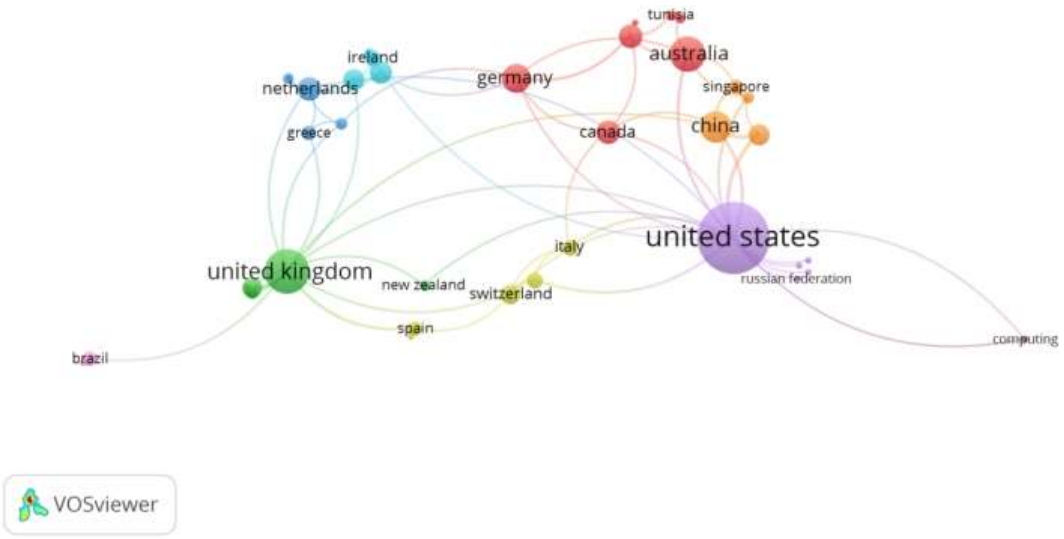


Figure 05: Countries 2006-2010:

From 2006 to 2010, the top countries making contributions to organisational agility were identified by bibliometric analysis. With 94 publications and 3,059 citations, the US was the most productive nation, demonstrating the breadth and depth of its research. Following closely behind with 37 papers and 1,453 citations, the UK demonstrates a robust academic presence in the subject. With 18 papers and 174 citations, China showed a rising interest in the subject. With 8 papers and 143 and 360 citations, respectively, the Netherlands and Hong Kong also contributed significantly. According to the Total Link Strength (TLS), which is a measure of the intensity of co-authorship and collaborative connections, the United States is the most central network node, with 29 nodes. The United Kingdom comes in second with 15, China with 11, Hong Kong with 9, and the Netherlands with 8. Not only does this data show the academic production, but it also

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

shows the tendencies in international collaboration that were influential in the early stages of research on organisational agility.

Table 05: Countries 2006-2010

Countries	Documents	Citation	Total Link Strength
United States	**94**	**3059**	**29**
United Kingdom	**37**	**1453**	**15**
China	**18**	**174**	**11**
Hong Kong	**8**	**143**	**9**
Netherlands	**10**	**360**	**8**

Cluster 4: Analysis of Top keywords from 2011-2015

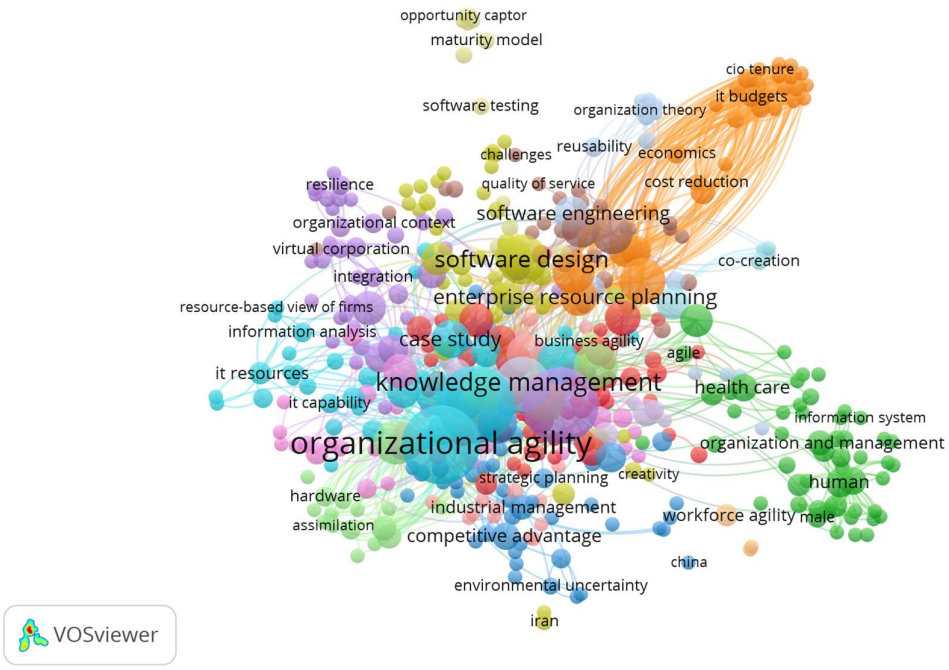


Figure 06: Keywords 2011-2015

The regularity of a particular keyword in the document is referred to as its occurrence, and the cumulative strength of links between that keyword and other terms in the article is referred to as its total link strength.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Commonly, co-occurrence, co-citation, or semantic linkages are used to calculate the link strength. When the results of the table are analysed,

some interesting patterns emerge. Since “Knowledge management” and “organizational agility” are the keywords with the highest frequency and overall link strength, the article places a lot of emphasis on themes relating to people.

This bibliometric analysis indicates that the papers cover the most highly used keywords from 2010 to 2015, while the analysis, there are 2159 keywords are there and out of which 463 meet the thresholds. However, the following keywords are in the given which show the total link strength and occurrence.

Table 06: Keywords

Keywords	Occurrence	Total Link Strength
Information System	56	425
organizational agility	57	349
Agility	54	220
Information Management	20	205
Service Innovation	19	182

According to the results of the keyword co-occurrence analysis, the research on organizational agility from 2011 to 2015 shifted its thematic focus towards technology. With 57 appearances and a total link strength of 349, the word "organizational agility" stood out, highlighting its key importance in academic discourses. Second in frequency (56 occurrences) and total link strength (425 points), "information system" indicates a high level of interconnection with other study issues and plays a crucial role in facilitating agility. The notion of agility is still being studied in many organizational settings, as evidenced by the 54 instances of the phrase "agility" and a link strength of 220. There was a noticeable uptick in interest in how companies handle data and innovate services to adapt to changing environments, as evidenced by the prominence of terms like "information management" (19 occurrences, 182 link strength) and "service innovation" (20 occurrences, 205 link strength). This change shows how agility research is developing and how it is incorporating more and more technological, managerial, and innovation-focused aspects.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Figure 07:

Countries 2011-2015

From 2011 to 2015, some top-tier nations made substantial contributions to the growing body of literature on organizational agility. The United States was the most active contributor, with 83 documents and 40 total links, showing that the international research community is very collaborative. The significant effect and significance of China's contributions are reflected in the large number of citations (1,010), even though the country produced fewer publications (26). At 39 publications with 992 citations and a total link strength of 29, Australia was right behind, demonstrating both productivity and great international participation. A high citation-to-publication ratio and a concentration on high-quality research were suggested by the 587 citations received by the Netherlands, even though they only contributed 12 documents. In a similar vein, Brazil's 15 papers garnered 409 citations and 17 total links, suggesting an increase in interest and cooperation in the subject.

Table 06: Countries

Countries	Documents	Citation	Total Link Strength
United States	83	618	40
China	26	1010	30
Australia	39	992	29
Netherlands	12	587	19
Brazil	15	409	17

Cluster 5: Analysis of Top keywords from 2016-2020

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Figure 08: Keywords 2016-2020

This bibliometric analysis indicates that the papers cover the most highly used keywords from 2016 to 2020, while the analysis, there are 3601 keywords are there and out of which 897, meet the thresholds. However, the following keywords are in the given which show the total link strength and occurrence.

An in-depth examination of keyword co-occurrence from 2016 to 2020 showed that "organizational agility" was the most common term, appearing 169 times with a total link strength of 920, suggesting that it played a pivotal role in the literature. Following closely behind was the more general term "agility," which showed up 142 times and had a solid total link strength of 845, indicating that it is still relevant in several types of studies. A total of 84 occurrences with a link strength of 714 for "Information System" demonstrate its importance and the vital role it plays in supporting flexible capabilities. "Information Use" occurred 54 times, whereas "Decision Making" occurred 41 times, and the connection strengths for the two were 492 and 362, respectively.

Table 08: Keywords

Keywords	Occurrence	Total Link Strength
organizational agility	169	920
Agility	142	845
Information System	84	714
Information Use	54	492
Decision Making	41	362

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

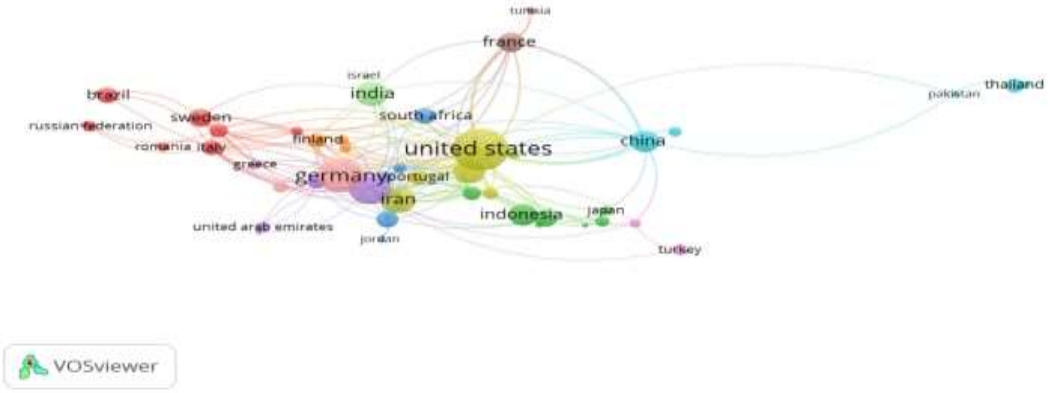


Figure 09: Countries: 2016-2020

Countries	Documents	Citation	Total Link Strength
United States	133	7019	61
United Kingdom	74	4645	58
Germany	91	3230	41
Australia	41	1868	29
France	29	2138	23

During the period from 2016 to 2020, the United States emerged as the leading contributor in terms of research output, with 133 documents and a total of 7,019 citations, indicating both high productivity and impact. The United Kingdom followed with 74 documents and 4,645 citations, also demonstrating significant influence in the field. Germany contributed 91 documents, receiving 3,230 citations, reflecting a strong research presence. Australia and France, though contributing fewer documents, 41 and 29, respectively, still showed notable impact with 1,868 and 2,138 citations. In terms of collaboration, measured by Total Link Strength, the United States and the United Kingdom had the highest values (61 and 58, respectively).

Cluster 6: Analysis of Top keywords from 2021-2025

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

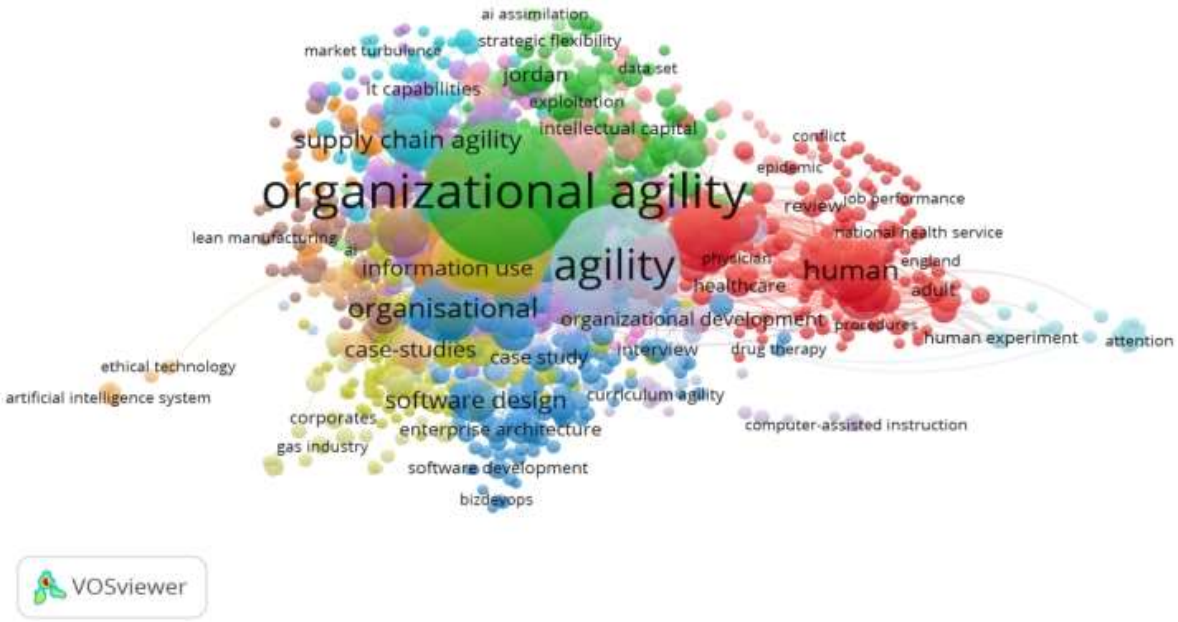


Figure 10: Keywords 2021-2025:

This bibliometric analysis indicates that the papers cover the most highly used keywords from 2021 to 2025, while the analysis, there are 6266 keywords are there and out of which 1577 meet the thresholds. However, the following keywords are in the given list which show the total link strength and occurrence.

The keyword analysis for the years 2021–2025 showed that researchers were quite interested in topics like digital transformation and agility. With 330 occurrences and a total link strength of 1635, "organizational agility" stood up as the most prominent keyword, suggesting its essential significance and significant relationships with other terms in the network. Following closely behind was "Agility," which reflects its extensive usage across many contexts, appearing 239 times with a total link strength of 1410. Another important term, "Digital Transformation," appeared 142 times with a total link strength of 878, underscoring its increasing relevance in technology and organizational studies. Curiously, the term "Human" had a high link strength of 796 despite appearing 62 times, indicating that, despite its infrequent use, it had substantial relational relevance inside the network. The relevance of "Decision Making" in talks about digital change and agile approaches was further supported by its total link strength of 660, which was quoted 72 times. In sum, the evidence points to a shifting research environment that is more focused on digital innovation, human-centric decision-making, and agility.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Table 10: 2021-2025

Keywords	Occurrence	Total Link Strength
Organizational agility	330	1635
Agility	239	1410
Digital Transformation	142	878
Human	62	796
Decision Making	72	660

Table 11: 2021-2025

Countries	Documents	Citation	Total Link Strength
United Kingdom	138	3209	196
United States	202	2839	170
Australia	67	1045	87
France	67	1250	85
India	108	1582	83

From 2021–2025, the United States produced 202 documents, more than any other country. The United Kingdom came in second with 138 publications. With 3,209 citations, the UK's research output was very visible and influential, surpassing all other countries in this regard. Reflecting its increasing prominence in the academic world, India also contributed significantly with 108 articles and 1,582 citations. With 67 documents each, France and Australia showed great success in relation to their output volume, receiving 1,250 and 1,045 citations, respectively. Once again, the UK topped the list of countries with the most overall link strength (a measure of international collaboration) at 196, indicating a pivotal role in global research networks. The US came in at 170, Australia at 87, France at 85, and India at 83.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

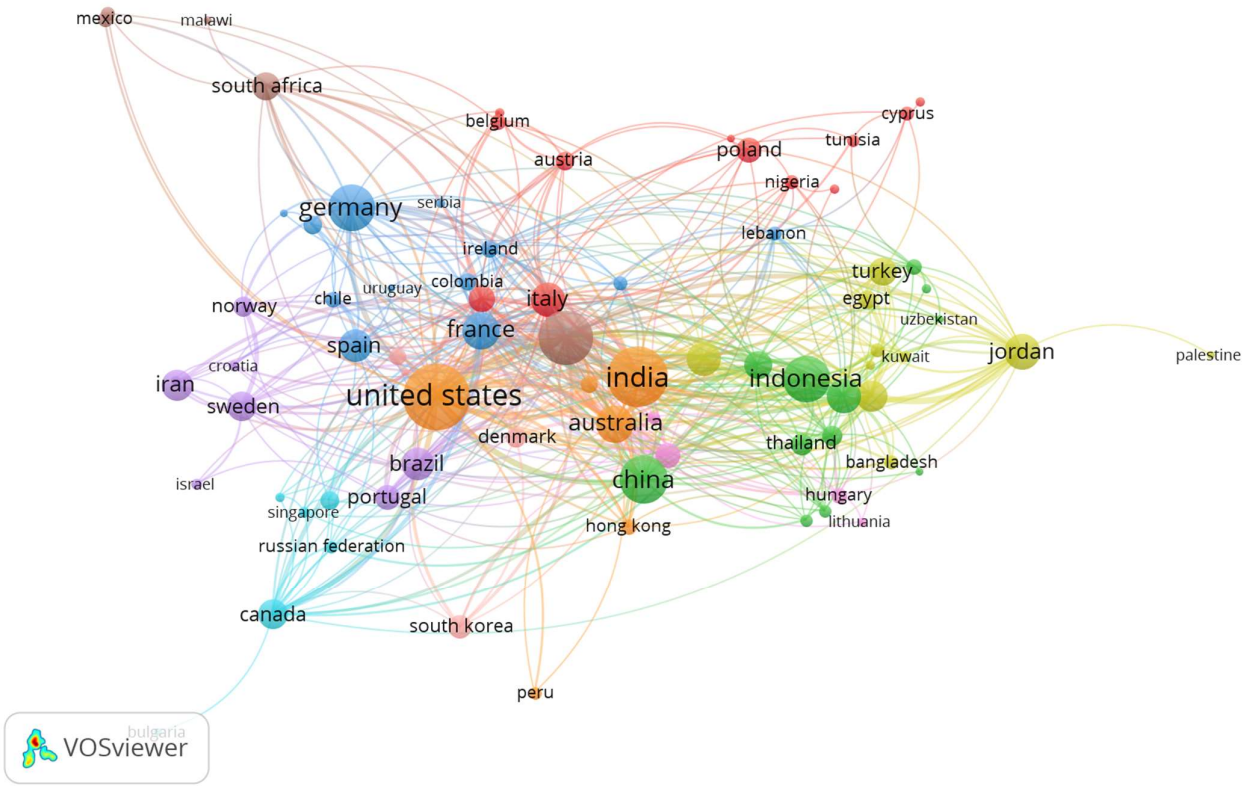


Figure 12: Countries 2021-2025

The relationship between organizational agility and customer relationship management:

In today's corporate world, organizational agility and CRM go hand in hand. Customer relationship management (CRM) includes the techniques and technology used to manage and analyse customer interactions throughout their lifecycle. In contrast, agility refers to an organization's capacity to sense, respond, and adapt to changes in its environment. Organizational agility has a favourable effect on CRM, according to studies.

Improved customer relationship management (CRM) outcomes, including customer acquisition, engagement, knowledge, value creation, and retention, are closely connected with agility factors like employee empowerment and organic organizational structure. Strong customer relationships may be built and maintained by agile organizations because they are better able to comprehend and respond to consumer needs.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Table 12: Dimensions of Agility

Dimensions of Agility	**Effect on Customer Relationship Management**
Employee Empowerment	Improving response time and individualization for customers
Organic Structure	Improved responsiveness to client demands
Organizational Learning	Provides support for the continuous improvement of CRM
Agile CRM Technology	Streamlines and customizes interactions with customers

These two ideas are crucial factors in the success of small and medium-sized businesses (SMEs), the combination of organizational agility and customer relationship management (CRM). For SMEs to adapt quickly to market changes, encourage innovation, and establish long-term competitive advantages. To improve operational efficiency and customer responsiveness, SMEs should implement agile CRM systems.

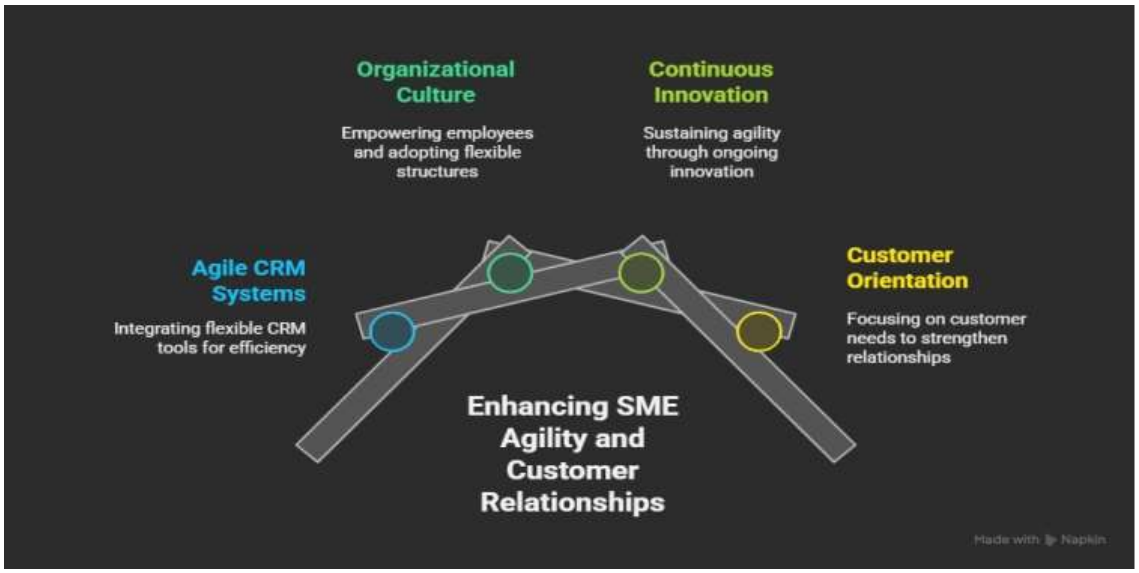


Figure 13: Connection of Agility and CRM

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Custer 1: Analysis of Top keywords from 2000-2005

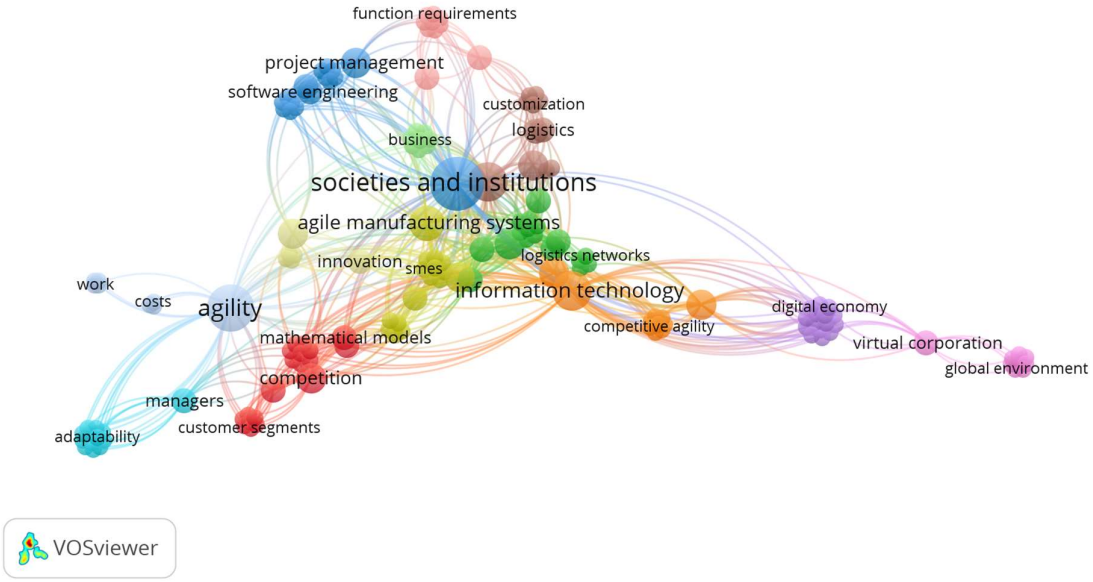


Figure 14: Keywords 2000-2005 OA & CRM

This bibliometric analysis indicates that the papers cover the most highly used keywords from 2000 to 2005. Among the 160 keywords analysed, 31 meet the thresholds. However, the following keywords are in the given which show the total link strength and occurrence.

Table 13: Keywords 2000-2005

Keywords	Occurrence	Total Link Strength
Societies & Institution	9	45
Customer Satisfaction	5	31
Agile Manufacturing System	4	24
Information Technology	5	21
Strategic Planning	3	11

Cluster 2: Analysis of Top keywords from 2006-2010

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

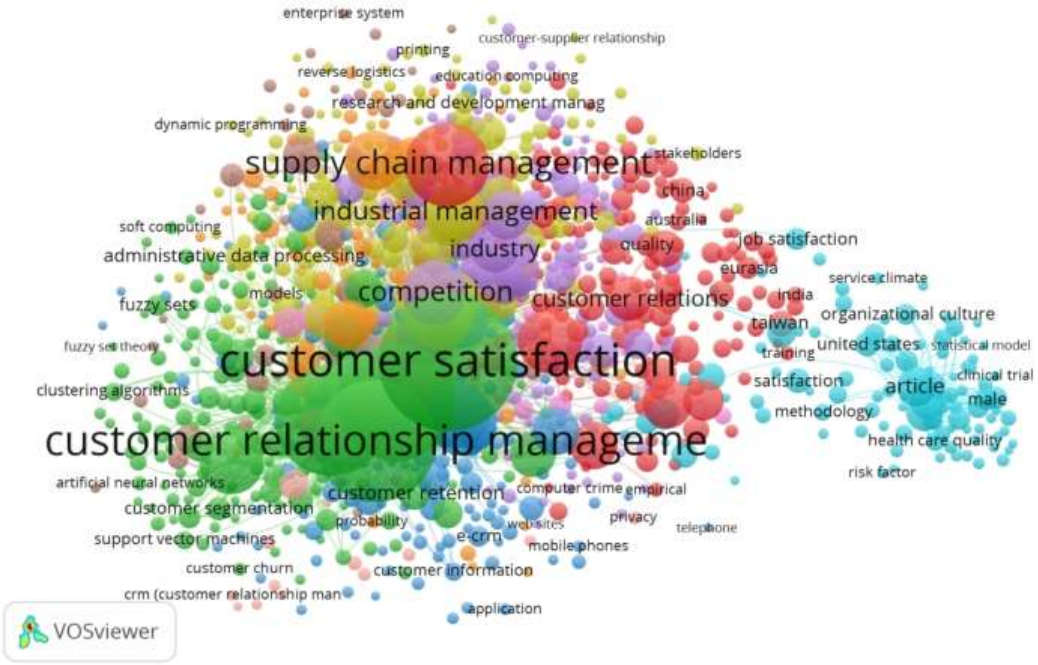


Figure 15: Keywords 2006-2010

There are several recurring patterns in the literature that emerge from analyses of keyword frequency and overall link strength conducted between 2006 and 2010. With 1,022 mentions and the maximum overall link strength of 8,590, "Customer Satisfaction" stood out as the most frequently occurring keyword, suggesting its essential importance and strong links with other terms in the literature. With 737 occurrences and a strong link strength of 7,426, "Sales" proved to be a crucial term in business-related research. There was a noticeable increase in scholarly interest in stakeholder engagement and organizational communication when the term "public relations" appeared 653 times with a link strength of 6,581. Despite "CRM" (Customer Relationship Management) appearing only 5 times, it was strategically relevant at the time due to the 5,797 total connection strengths, indicating its considerable interconnectedness with other important ideas. As a conclusion, the term "Supply Chain Management" had a moderate but significant impact on the academic conversation, appearing 372 times with a link strength of 2,586.

Table 14: Keywords 2006-2010

Keywords	Occurrence	Total Link Strength
Customer Satisfaction	1022	8590
Sales	737	7426

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Public Relation	653	6581
CRM	5	5797
Supply Chain Management	372	2586

Cluster 3: Analysis of Top keywords from 2011- 2015

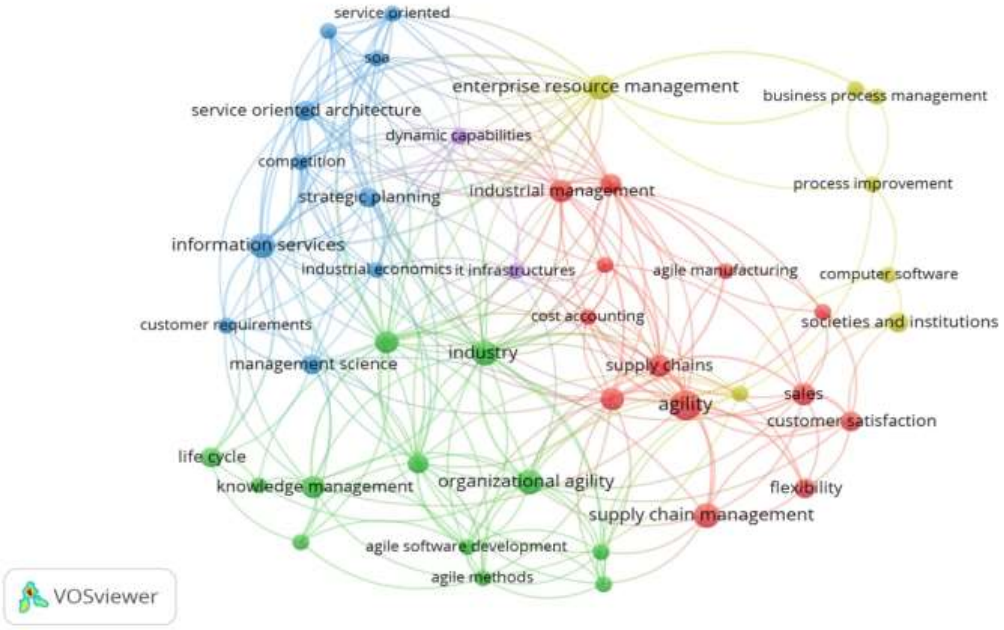


Figure 16:

Keywords: 2011-2015

Table 15: Keywords 2011- 2015

Keywords	Occurrence	Total Link Strength
Industry	5	35
Information Services	5	31
Enterprise Resource Management	5	30

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Information System	4	26
Service-Oriented Architecture	3	25

A keyword analysis of the research landscape from 2011 to 2015 uncovered multiple dominant themes. With 5 appearances and the greatest Total Link Strength (TLS) of 35, the keyword "Industry" stood out as the most often used and relevant across several research studies, suggesting significant connectedness. Topics such as "Enterprise Resource Management" (TLS=30) and "Information Services" (TLS=31) also surfaced as important during this time, with 5 occurrences of each. After that, "Information System" appeared four times with a TLS of twenty-six, indicating a smaller but still noticeable presence. Lastly,

"Service Oriented Architecture" had a respectable TLS of 25, despite its lower frequency of occurrence (3), proving its relevance due to the strong links it maintained with other terms. Research during these years mostly focused on enterprise systems, information management, and industrial applications, according to the data.

Cluster 4: Analysis of Top keywords from 2016- 2020

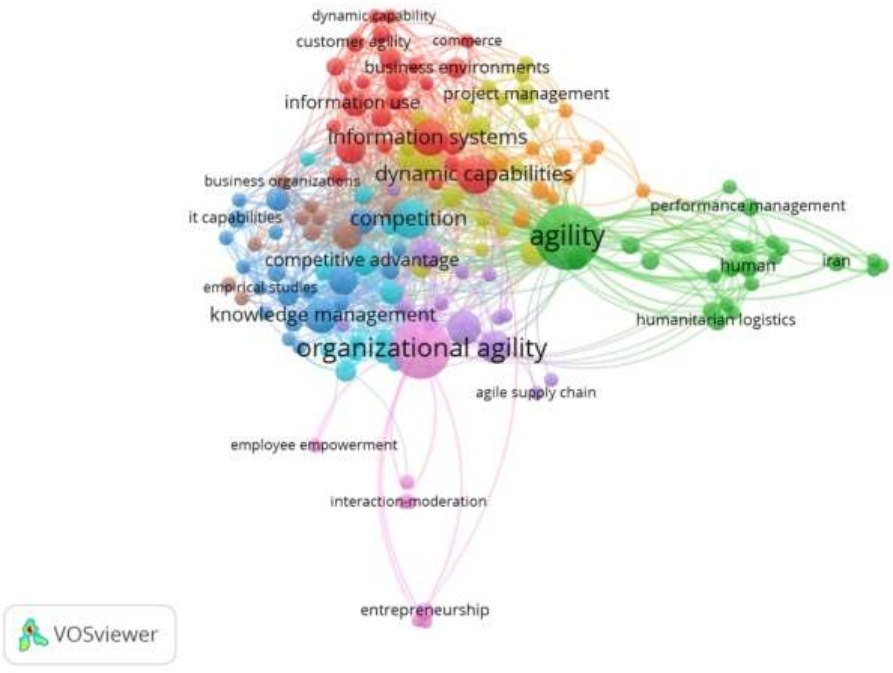


Figure 17: Keywords 2016-2020

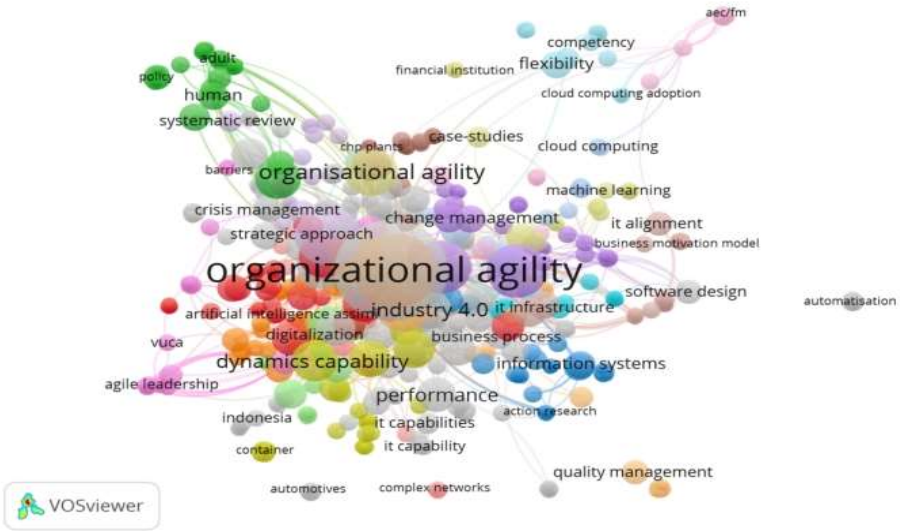
ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Table 16: Keywords

Keywords	Occurrence	Total Link Strength
Agility	36	146
Organization Agility	30	119
Competition	13	91
Dynamic Capabilities	13	79
Information System	11	73

A cumulative number of 773 keywords were found in the dataset for the years 2016–2020. Of these, 146 keywords were considered significant enough to warrant inclusion in the study, suggesting that these terms appear often and with varying degrees of importance in the relevant literature. With 36 occurrences and the greatest total link strength of 146, the keyword "Agility" stood out and played a vital part in the overall theme. "Organizational Agility" came next, appearing 30 times with a total link strength of 119, indicating a great deal of connection with similar ideas. "Competition" was another popular term, appearing 13 times with 91 link strengths, "Dynamic Capabilities" thirteen times with 79 link strengths, and "Information System" eleven times with 73 link strengths. According to these results, there was a lot of research on technical support, competitive strategy, and organizational adaptability throughout this period.

Cluster 5: Analysis of Top keywords from 2021- 2025



Keywords: 2021-2025

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Keywords	Occurrence	Total Link Strength
Organization Agility	67	435
Knowledge management	23	259
Agility	37	248
Decision Making	15	246
Project management	19	201

The dataset had 1,501 unique terms for the years 2021–2025. Of these, 416 keywords were considered relevant enough to warrant further investigation since they were shown to be highly connected inside the study network. Among the most common terms, "organization agility" stood out with 67 occurrences and a total link strength of 435, indicating its importance in the literature. Along with "Agility" (37 times, 248 total link strength), "Knowledge Management" (23 times, 259 total link strength), "Decision Making" (15 times, 246 total link strength), and "Project Management" (19 times, 201 total link strength), there were other influential and frequently used keywords. Based on these results, it seems that strategic decision-making, organizational responsiveness, and knowledge processes have been the main areas of study as of late, particularly in contexts that are both fast-paced and project-driven**.**

Discussion

Using a bibliometric approach, this study investigates how small and medium-sized businesses (SMEs) are undergoing digital transformation, utilizing AI-driven customer relationship management (CRM), and fostering organizational agility(Azad & Ahmadi, 2015). Findings show that SMEs are more likely to use AI-based CRM technologies to improve internal responsiveness and flexibility, two important aspects of organizational agility, and to increase customer engagement, both of which have been greatly impacted by the digital age(Binsaeed et al., 2023). In line with the rapid acceleration of digital adoption during and after the COVID-19 epidemic, the bibliometric study reveals a rising academic interest in the incorporation of AI technology into CRM systems, especially beyond 2020(Guerola-Navarro et al., 2021).

An important result and facilitator of digital transformation in SMEs, "organizational agility," has recently gained a lot of attention(Alanazi, 2023). By swiftly responding to customer requests, anticipating market trends, and reallocating resources appropriately, SMEs that successfully deploy AI-based CRM solutions exhibit increased agility in a turbulent and competitive market. Not only that, but having "knowledge

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

management" as one of the top buzzwords shows how important it is to collect, analyze, and use customer data as a fundamental asset for driving agility(Gil-Gomez et al., 2020).

To get the most out of customer relationship management systems, this study says that small and medium-sized enterprises (SMEs) should invest in artificial intelligence (AI) and develop digital competencies(Khan et al., 2022). Insightful for academics and industry professionals alike, the bibliometric method surveys the state of knowledge and current developments in this field of study. Finally, AI-based CRM has been a driving force behind organizational agility in the digital age, which has reshaped customer engagement methods in SMEs(Hanaysha et al., 2022; Ngo & Vu, 2021). The implementation hurdles, return on investment, and sector-specific adaptations of AI-based CRM in SME contexts should be the focus of future studies, especially given the rapid evolution of digital technology.

Implications of the study

Managerial implications:

The results of this study provide important information for decision-makers and managers in SMEs who are looking to improve organizational agility by implementing CRM solutions that are based on artificial intelligence. The bibliometric study shows that topics like organizational agility, information management, and decision-making are being studied more and more, which is important because these areas are crucial to the digital transformation of SMEs.

The study highlights the importance of investing in AI-driven CRM tools for managers. These tools go beyond just being a technological upgrade; they can increase operational efficiency, responsiveness to market changes, and customer preferences. By utilizing AI-powered CRM systems, small and medium-sized enterprises (SMEs) can instantly process massive amounts of customer data, leading to better decisions and a more agile work environment. Organisational adaptive methods and collaborative learning can both benefit from AI capabilities that are well-aligned with knowledge management practices.

Small and medium-sized enterprises (SMEs) should promote innovation and flexibility in their operational models, according to the increasing focus on "organizational agility" in recent research. Incorporating digital tools, fostering digital skills among staff, and consistently monitoring the impact of AI systems on customer interaction and business outcomes are all ways in which managers can establish dynamic capabilities. In sum, the research lays forth a plan for how to increase long-term agility and competitive advantage in the dynamic digital market by utilizing CRM technology powered by artificial intelligence.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Academic Implications:

This study expands to the growing amount of literature on the topic of digital transformation, AI-based CRM, and organizational agility in SMEs by providing several significant scholarly contributions. Scholars may find a thorough synopsis of the most important publications, developing research clusters, and keyword trends from 2000–2025, thanks to the research's bibliometric technique, which methodically maps the field's intellectual structure and thematic history. The results show that there is a rising tide of scholarly interest in AI-driven technologies that can help small and medium-sized enterprises (SMEs) adapt and be more agile, especially in highly competitive and ever-changing markets.

Findings like "organizational agility," "knowledge management," and "decision making" highlight the importance of interdisciplinary theoretical frameworks that unite the fields of innovation studies, strategic management, and information systems. Researchers can use the study as a springboard to delve further into the strategic, behavioural, and socio-technical aspects of AI adoption in SMEs, as well as into previously unexplored areas and possible research gaps. In sum, this study bolsters the theoretical underpinnings of digital transformation studies and points the way for future empirical investigations into how SMEs can improve their agility and long-term viability by using CRM systems powered by artificial intelligence.

Future and Limitations:

To start with, the research only uses bibliometric data pulled from certain academic databases, which can leave out important works that are indexed in other places like Google Scholar, Scopus, or Web of Science. Therefore, the results may understate the field's international and multidisciplinary character. Furthermore, quantitative measures such as citation counts and publication frequency are prioritized in bibliometric analysis, but these do not always represent the research's quality or contextual depth.

Secondly, the selection of threshold values and keyword standardization methods limits the analysis, even though VOSviewer was employed efficiently to discover clusters and theme patterns. Cluster formation and interpretation can be greatly affected by small changes in author-supplied keywords or language.

Integrating bibliometric analysis with qualitative methods like content analysis or systematic literature reviews could provide a more thorough picture of conceptual evolution in future studies. In addition, research spanning geographies and industries is necessary to confirm the real effect of CRM systems powered by AI on the agility of small and medium-sized enterprises (SMEs). One interesting area to explore further is how small and medium-sized enterprises (SMEs) might use artificial intelligence (AI) to keep up with the fast-paced digital transformation without sacrificing personalization or efficiency in customer relationship management (CRM) operations.

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Conclusion

Using a bibliometric approach, this study investigated how digital transformation, CRM powered by artificial intelligence (AI), and organizational agility interact with one another in SMEs. We methodically examined the scholarly literature from 2000–2025 using tools like VOSviewer, finding important themes, keywords, and trends. A rising body of research is focusing on how small and medium-sized enterprises (SMEs) can improve their digital responsiveness, agility, and customer-centric strategies through the use of AI-driven customer relationship management (CRM) systems. The importance of ideas like organizational agility, information management, and decision-making in developing resilient and competitive SMEs has been highlighted. For practitioners looking to promote agile change in SME contexts using AI technology, this bibliometric analysis gives significant insights and lays the groundwork for future research.

References:

Adeiza, A., Abdullahi, M. S., Abdel Fattah, F. A. M., Fawehinmi, O., Ismail, N. A., Arnaut, M., Aigbogun, O., Adam, I. S., & Ehido, A. (2022). Mediating mechanism of customer satisfaction on customer relationship management implementation and customer loyalty among consolidated banks. *Uncertain Supply Chain Management*, *10*(3). https://doi.org/10.5267/j.uscm.2022.3.012

Akkaya, B., & Qaisar, I. (2021). Linking Dynamic Capabilities and Market Performance of SMEs: The Moderating Role of Organizational Agility. *Istanbul Business Research*, *0*(0). https://doi.org/10.26650/ibr.2021.50.961237

Alanazi, T. M. (2023). The effect of social customer relationship management on customer loyalty in Saudi Arabia. *Uncertain Supply Chain Management*, *11*(2). https://doi.org/10.5267/j.uscm.2023.1.014

Al-Darras, O. M. A., & Tanova, C. (2022). From Big Data Analytics to Organizational Agility: What Is the Mechanism? *SAGE Open*, *12*(2). https://doi.org/10.1177/21582440221106170

Asima Siddique, & Muhammad Asif khan. (2022). The Association between Organization Agility and Quality of Work Life in Small and Medium Enterprise of Punjab Pakistan. *International Journal of Social Science & Entrepreneurship*, *2*(1). https://doi.org/10.58661/ijsse.v2i1.15

Azad, N., & Ahmadi, F. (2015). The customer relationship management process: Its measurement and impact on performance. *Uncertain Supply Chain Management*, *3*(1). https://doi.org/10.5267/j.uscm.2014.9.002

Binsaeed, R. H., Yousaf, Z., Grigorescu, A., Chitescu, R. I., Nassani, A. A., & Samoila, A. (2023). Customer Engagement and Customer Relationship Management Capabilities' Effects on Innovation Performance and Customer Distrust's Moderating Role. *Sustainability (Switzerland)*, *15*(12). https://doi.org/10.3390/su15129475

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Çallı, B. A., & Çallı, L. (2021). Relationships between digital maturity, organizational agility, and firm performance: An empirical investigation on SMEs. *Business & Management Studies: An International Journal*, *9*(2). https://doi.org/10.15295/bmij.v9i2.1786

Crocitto, M., & Youssef, M. (2003). The human side of organizational agility. In *Industrial Management and Data Systems* (Vol. 103, Issues 5–6). https://doi.org/10.1108/02635570310479963

Dewnarain, S., Ramkissoon, H., & Mavondo, F. (2019). Social customer relationship management: An integrated conceptual framework. *Journal of Hospitality Marketing and Management*, *28*(2). https://doi.org/10.1080/19368623.2018.1516588

Gil-Gomez, H., Guerola-Navarro, V., Oltra-Badenes, R., & Lozano-Quilis, J. A. (2020). Customer relationship management: digital transformation and sustainable business model innovation. *Economic Research-Ekonomska Istrazivanja* , *33*(1). https://doi.org/10.1080/1331677X.2019.1676283

Govuzela, S., & Mafini, C. (2019). Organisational agility, business best practices and the performance of small to medium enterprises in South Africa. *South African Journal of Business Management*, *50*(1). https://doi.org/10.4102/sajbm.v50i1.1417

Guerola-Navarro, V., Gil-Gomez, H., Oltra-Badenes, R., & Soto-Acosta, P. (2024). Customer relationship management and its impact on entrepreneurial marketing: a literature review. *International Entrepreneurship and Management Journal*, *20*(2). https://doi.org/10.1007/s11365-022-00800-x

Guerola-Navarro, V., Oltra-Badenes, R., Gil-Gomez, H., & Gil-Gomez, J. A. (2021). Research model for measuring the impact of customer relationship management (CRM) on performance indicators. *Economic Research-Ekonomska Istrazivanja* , *34*(1). https://doi.org/10.1080/1331677X.2020.1836992

Haider, S. A., & Kayani, U. N. (2021). The impact of customer knowledge management capability on project performance-mediating role of strategic agility. *Journal of Knowledge Management*, *25*(2). https://doi.org/10.1108/JKM-01-2020-0026

Hanaysha, J. R., Al-Shaikh, M. E., & Kumar, P. (2022). An Examination of Customer Relationship Management and Business Sustainability in Small and Medium Enterprises. *International Journal of Customer Relationship Marketing and Management*, *13*(1). https://doi.org/10.4018/IJCRMM.300832

Khan, R. U., Salamzadeh, Y., Iqbal, Q., & Yang, S. (2022). The Impact of Customer Relationship Management and Company Reputation on Customer Loyalty: The Mediating Role of Customer Satisfaction. *Journal of Relationship Marketing*, *21*(1). https://doi.org/10.1080/15332667.2020.1840904

ANANYAŚĀSTRAM:
An International Multidisciplinary Journal
(A Unique Treatise of Knowledge)
ISSN : 3049-3927(Online)

Ko, A., Mitev, A., Kovács, T., Fehér, P., & Szabó, Z. (2022). Digital Agility, Digital Competitiveness, and Innovative Performance of SMEs. *Journal of Competitiveness*, *14*(4). https://doi.org/10.7441/joc.2022.04.05

Kurniawan, R., Budiastuti, D., Hamsal, M., & Kosasih, W. (2020). The impact of balanced agile project management on firm performance: the mediating role of market orientation and strategic agility. *Review of International Business and Strategy*, *30*(4). https://doi.org/10.1108/RIBS-03-2020-0022

Kurniawan, R., Manurung, A. H., Hamsal, M., & Kosasih, W. (2021). Orchestrating internal and external resources to achieve agility and performance: the centrality of market orientation. *Benchmarking*, *28*(2). https://doi.org/10.1108/BIJ-05-2020-0229

Ledro, C., Nosella, A., & Vinelli, A. (2022). Artificial intelligence in customer relationship management: literature review and future research directions. In *Journal of Business and Industrial Marketing* (Vol. 37, Issue 13). https://doi.org/10.1108/JBIM-07-2021-0332

Manurung, A. H., & Kurniawan, R. (2022). Organizational agility: do agile project management and networking capability require market orientation? *International Journal of Managing Projects in Business*, *15*(1). https://doi.org/10.1108/IJMPB-10-2020-0310

Ngo, V. M., & Vu, H. M. (2021). Can customer relationship management create customer agility and superior firms' performance? *International Journal of Business and Society*, *22*(1). https://doi.org/10.33736/IJBS.3169.2021

Nurlaely, Sularso, A., & Panjaitan, H. (2019). Influence of Customer Relationship Management and Product Innovation on Market Orientation, Competitive Advantage in Improving the Marketing Performance of Food Industry Small Businesses In East Java. *International Journal of Business and Management Invention (IJBMI)*, *8*(04).

Piercy, N. F. (2009). Strategic relationships between boundary-spanning functions: Aligning customer relationship management with supplier relationship management. *Industrial Marketing Management*, *38*(8). https://doi.org/10.1016/j.indmarman.2009.03.015

Sherehiy, B., & Karwowski, W. (2014). The relationship between work organization and workforce agility in small manufacturing enterprises. *International Journal of Industrial Ergonomics*, *44*(3). https://doi.org/10.1016/j.ergon.2014.01.002

Strode, D. E., Sharp, H., Barroca, L., Gregory, P., & Taylor, K. (2022). Tensions in Organizations Transforming to Agility. *IEEE Transactions on Engineering Management*, *69*(6). https://doi.org/10.1109/TEM.2022.3160415

Thongrawd, C., Ramanust, S., Narakorn, P., & Seesupan, T. (2020). Exploring the mediating role of supply chain flexibility and supply chain agility between supplier partnership, customer relationship management and competitive advantage. *International Journal of Supply Chain Management*, *9*(2).