

Sustainable customer relationship management

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Abstract

Purpose – Sustainable customer relationship management (SCRM) is a combination of business strategy, customer-oriented business processes and computer systems that seeks to integrate sustainability into customer relationship management. The purpose of this paper is to contribute to the body of knowledge of marketing, business management and computer systems research domains by classifying in research categories the current state of knowledge on SCRM, by analysing the major research streams and by identifying a future research agenda in each research category.

Design/methodology/approach – To identify, select, collect, synthesise, analyse and evaluate all research published on SCRM, providing a complete insight in this research area, the PRISMA methodology, content analysis and bibliometric tools are used.

Findings – In total, 139 papers were analysed to assess the trend of the number of papers published and the number of citations of these papers; to identify the top contributing countries, authors, institutions and sources; to reveal the findings of the major research streams; to develop a classification framework composed by seven research categories (CRM as a key factor for enterprise sustainability, SCRM frameworks, SCRM computer tools and methods, case studies, SCRM and sustainable supply chain management, sustainable marketing and knowledge management) in which academics could expand SCRM research; and to establish future research challenges.

Social implications – This paper have an important positive social and environmental impact for society because it will lead to an increase in the number of green and socially conscious customers with an ethical behavior, while also transforming business processes, products and services, making them more sustainable.

Originality/value – Customer relationship management in the age of sustainable development is an increasing research area. Nevertheless, to the authors' knowledge, there are no systematic literature reviews that identify the major research streams, develop a classification framework, analyse the evolution in this research field and propose a future research agenda.

Keywords Sustainability, Customer relations, Computer systems and software, Corporate social responsibility, Sustainable development

Paper type Literature review

1. Introduction

Enterprises worldwide are being pushed to be more socially responsive and environmentally sustainable, while increasing company value and continue being customer-oriented (Das and Hassan, 2021). This has forced to an evolution in customer relationship management (CRM) towards sustainable customer relationship management (SCRM). SCRM can be defined as taking into account social, economic and environmental impacts when creating long-term fruitful customer relations. Moreover, SCRM aims to engage sustainability-conscious customers and to increase consumer awareness of corporate sustainability issues (Müller, 2014).

To implement SCRM, an enterprise has to transform its CRM business processes in new sustainability orientated processes (Chalmeta and Barqueros-Muñoz, 2021). However,



development of the research on SCRM is still limited, and there are few examples of SCRM applications to real cases (Gil-Gomez *et al.*, 2020); and hence practitioners have problems integrating sustainability in Customer Relationship Management (Gil-Gomez *et al.*, 2020). Existing SCRM literature usually consider sustainable as a synonym of a long-term business activity or analyse only one of the sustainability dimensions (economic, environmental, or social) with little research that provides an integrated perspective on how sustainability influence customer relationship management (Jang and Lee, 2021). Therefore, sustainability in CRM is presented as a mutilated concept lacking of a holistic view. In addition, SCRM is commonly focused only on marketing, without taking into account other CRM areas such as sales or post-sales (Ližbetinová *et al.*, 2019). Consequently, more research is needed in this field (Liu and Chen, 2022).

The above shortcomings could limit its impact. To overcome the research gap between the increasing interest in the integration of sustainability in customer relationship management and the scarcity of systematic literature reviews on this subject, this paper proposes the following research objectives: (1) to analyse the current state of the SCRM research, (2) to define a classification framework that organises research developed identifying significant common items and (3) to highlight gaps in the existing knowledge. The hypothesis is that a study of current SCRM research can systematise the scientific knowledge of the phenomenon and set directions for future research. In this context, the below research questions (RQs) are developed:

- RQ1. Which are the most relevant institutions, sources, authors, countries and the most cited papers in the field of Sustainable Customer Relationship Management?
- RQ2. Is it feasible to classify SCRM research papers on the basis of relevant common points?
- RQ3. Which are the future challenges in the research area of Sustainable Customer Relationship Management?

The increasing number of papers in the SCRM research area need to be studied and analysed to identify research topics, main findings and gaps that can be approached in future research. Therefore, to answer the above research questions, this paper (1) carry out a systematic literature review on Sustainable Customer Relationship Management, since it has been validated as an effective research tool that enables an accurate evaluation of the findings to date (Breslin and Gatrell, 2020); (2) gives a deep insight into the research area by using content analysis and bibliometric tools to analyse 139 papers and to identify the most relevant institutions, countries, sources, authors and research categories related to SCRM; (3) identifies and analyses the most cited papers; (4) proposes seven topics that would push academics to expand research on SCRM; and (5) identifies the future research challenges in every research topic. To perform the bibliographic analyses, the PRISMA approach was used (Bandyopadhyay and Ray, 2020).

This paper is organized in the following way: Section 2 shows a review of the background related to SCRM. Section 3 describes the research methods and tools used to perform the systematic literature review and the categories identification. Section 4 presents the findings of the bibliographical and content analyses. Section 5 discusses the findings, and finally, section 6 shows the conclusions, with the future work and research limitations.

2. Background

2.1 CRM

Customer Relationship Management (CRM) is a change in the enterprise strategy that moves from a product-focused strategy to a customer-focused one (Cierna and Sujova, 2022).

Previously, business strategies were focused on the product or service, and the goal of marketing was to convince customers to buy them. This change, together with the development of new information and communication technologies, and new forms of business organization has converged in what it is currently known as CRM, which transforms the relationships between companies and clients (Lokesh *et al.*, 2022). The aim is create value for customers, understand their needs and offer value-added services (Meha, 2021).

CRM does not have a single definition. In the literature, it has been analysed from different academic disciplines such as Marketing, Business, Management, Information Technology (Migdadi, 2020); and it has been conceptualised from five different viewpoints: (1) Process, (2) Strategy, (3) Philosophy, (4) Capability and/or (5) Technological tools (Meena and Sahu, 2021). Therefore, CRM is not just technology. A suitable implementation of CRM requires an integrated and balanced approach to people, process and technology. Despite these different approaches, many definitions agree that the main business areas of CRM are marketing, sales and after-sales support (Sun and Wang, 2022), and that the objective is to establish long-term relationships with customers in order to generate value between customers and company.

CRM allows enterprises (1) to have an integrated, single view of customers, by using analytical tools; (2) to manage customer relationships in a single way, regardless of the communication channel; and (3) to improve the effectiveness and efficiency of the processes involved in customer relationships (Li and Xu, 2022). Therefore, CRM provides multiple benefits to the company and to customers, such as greater customer satisfaction, better service, better customer segmentation, personalized service, etc (Chalmeta, 2006).

2.2 Sustainable customer relationship management

Sustainable has become a key strategic objective worldwide. It can be defined as satisfy humanity current needs without compromising future generations needs (Brundtland *et al.*, 1987). However, there are other numerous definitions of the sustainability concept (Langa *et al.*, 2021) which can be classified into 5 categories (Lozano, 2008): (1) conventional economists' perspective; (2) non-environmental degradation perspective; (3) integrational perspective, i.e. encompassing the economic, environmental and social aspects; (4) inter-generational perspective; and (5) holistic perspective.

The awareness about sustainable development has generated a new paradigm in the enterprise values and policies and in the way of understanding business and has triggered new management models that take into account the economic, social and environmental impact of their decisions (Luu *et al.*, 2019; Yu and Xu, 2022). The aim is to generate long-term shared value (de Villiers *et al.*, 2022) between the enterprise and its internal and external stakeholders, combining economic and social value (Blackburn *et al.*, 2018).

In this context, the Sustainable Customer Relationship Management arises as an evolution of the CRM (Tian *et al.*, 2021). Müller (2014) states that SCRMM means become aware of environmental, social and economic impact of customer-oriented business process, as well as to communicate corporate sustainability issues among their customers, which will increase corporate value among its sustainability-conscious customers.

SCRMM is a consequence of (1) the sustainability awareness in companies (Ceccarini *et al.*, 2022); (2) the information technologies evolution such as Digitalization, Big Data, etc. that allows the re-engineering of the CRM business processes, making them more sustainable (Chalmeta and Barqueros-Muñoz, 2021); and (3) the increase of highly responsible consumers (Papadopoulou *et al.*, 2022) who, aware of the negative impacts of the current model of consumption and production, seek more sustainable lifestyles (Figure 1).

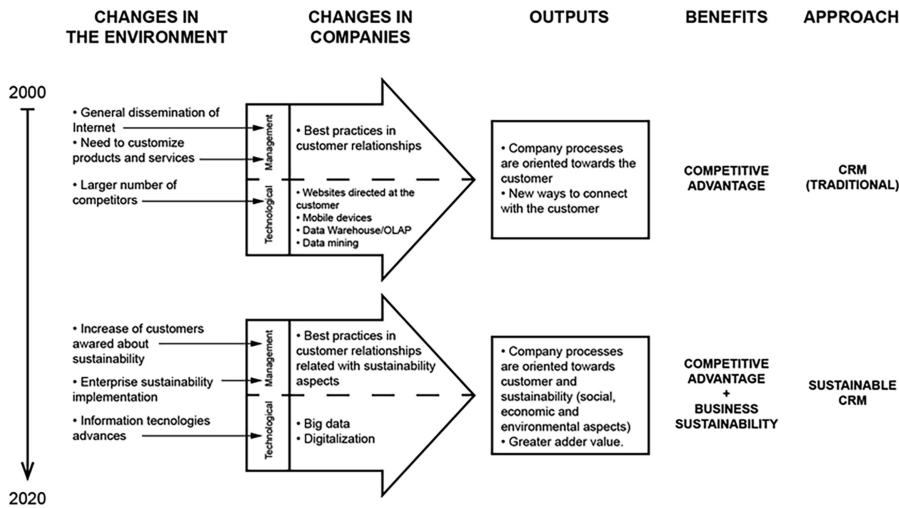


Figure 1. Evolution of the CRM concept to Sustainable CRM

3. Research methodology

To answer the three research questions, [RQ1](#), [RQ2](#) and [RQ3](#), a systematic literature review has been carried out. Systematic literature review is a research method that allows to identify, select, collect, synthesise and evaluate all research published on a particular research area. The results obtained are showed in [Section 4](#).

The research was conducted following the criteria of preferred reporting items for systematic reviews and meta-analysis (PRISMA) ([Liberati et al., 2009](#)). These include the following steps: (1) eligibility criteria; (2) information sources; (3) search terms; (4) study selection; and (5) data collection process and synthesis ([Figure 2](#)).

3.1 Eligibility criteria

Studies were eligible for inclusion if they were: research papers, review papers and conference/congress papers since they are regarded true knowledge ([Ramos-Rodríguez and Ruíz-Navarro, 2004](#)); directly relevant to sustainable customer relationship management; they were written in English; and published in peer-reviewed journals.

We excluded studies if they were: not written in English; books, thesis and conference proceedings; papers that focused on other sustainability domains such as supply chain, education sustainability; and papers that were not available in full text.

3.2 Information sources

We conducted an organised, systematic and comprehensive wide-ranging search of two online databases: Web of Science and Scopus. These two databases were selected because they combine both a rigorous selection process and wide interdisciplinary coverage. For this reason, they are the main sources of bibliographic citations used for bibliometric analyses ([Martínez-López et al., 2018](#)).

3.3 Search terms

The collection of papers was conducted by selecting those papers that had specific keywords related to our research aims and questions in the title, in the abstract or in the keywords section ([Table 1](#)). These keywords were customer relationship management, CRM, sustainable and sustainability.

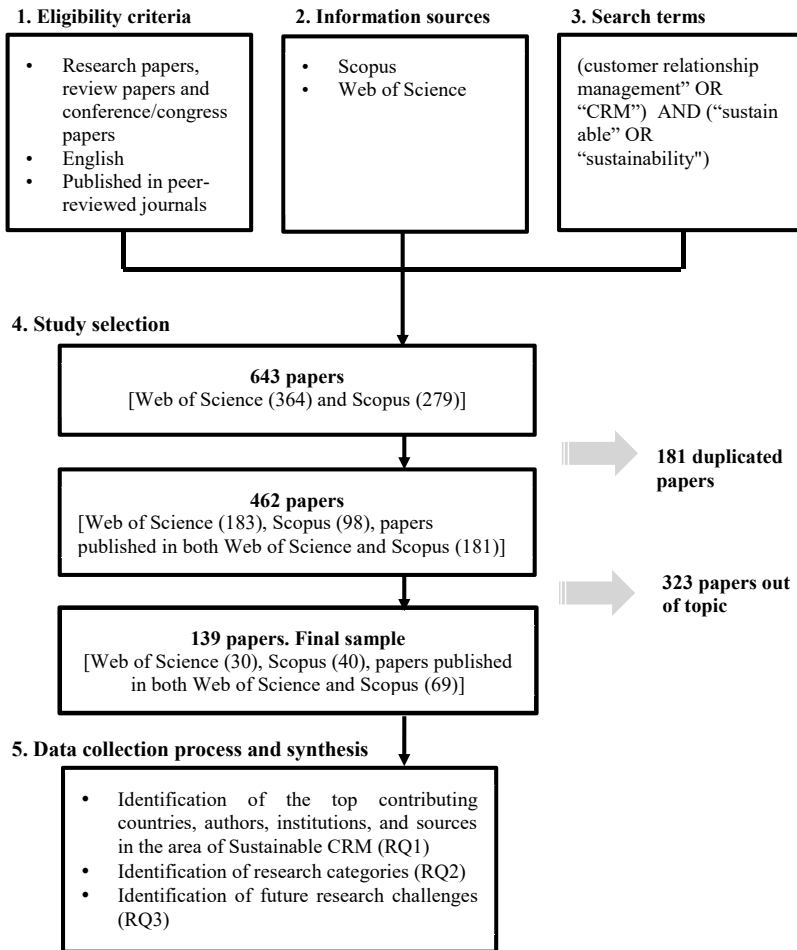


Figure 2. Research methodology steps

Data base	Keywords	Content	Period	Document	Language
Scopus and Web of Science	("customer relationship management" OR "CRM") AND ("sustainable" OR "sustainability")	TITLE ABS KEY	Until June 2022	Research and Review Journal and Conference Papers	English

Table 1. Search strategy

Logical operators were connected with different sets of keywords and designed as follows: ("customer relationship management" OR "CRM") AND ("sustainable" OR "sustainability")

3.4 Study selection

The study selection process attempts to analyse, evaluate and identify relevant articles based on the goals of our systematic review. This process was independently performed by the two

co-authors of this study. Firstly, records are identified through different information sources (online databases) using the keywords. Secondly, once all records are obtained, records are excluded based on duplicates (Linnenluecke *et al.*, 2020). Thirdly, once all duplicates are removed, records are screened based on “title, abstract and keywords”. Any studies that did not meet the eligibility criteria were excluded. Finally, a “full-text” screening of all studies was performed. A meeting was carried out to discuss and agree on the final studies that are included in this systematic review.

3.5 Data collection process and synthesis

The search concentrated on research papers and review papers published until June 9, 2022. In our initial search, we found 643 papers (364 papers from Web of Science and 279 papers from Scopus). The number of duplicated papers removed was 181. Applying the eligibility criteria, we excluded papers by screening the title, the abstract and the keywords (for example papers whose CRM acronym is related with Coastal Resource Management; Copper Raw Materials; Coral Reef Management; Clinical Risk Management; Climate Risk Management, etc were excluded). Finally, we excluded papers based on the full text screening. Hence, the final sample consisted of 139 papers.

We used Microsoft Excel 2016 to collect basic publication data such as date, title, authors, publisher, DOI, URL, pages, volume, issues, keywords.

The analysis of the data collection allowed to identify the top contributing countries, authors, institutions and sources in the area of Sustainable CRM (RQ1), to establish research categories (RQ2) and to identify future research challenges (RQ3).

For the research categories identification, the comparative method proposed by Collier (1998) was used. This method enables the identification of common points shared by the papers through a content analysis, so that the categories emerged. Content analysis is “an effective tool for analysing a sample of research documents in a systematic and rule-governed way” (Seuring and Gold, 2012). It allows an objective identification of the content in a data set, such as selected articles (Sandberg and Jafari, 2018). It overlaps with the concept of thematic analysis, which is mainly a qualitative method for uncovering different categories within a data set (Fugard and Potts, 2015).

A first categories classification was done taking into account the aim of the paper and its contribution to the state of the art. Then, the capacity of the categories classification to arrange all the papers was checked paper by paper. If a paper did not fit into any research category, the classification was redesigned to integrate the incompatible paper. The categories classification was reconsidered several times until all the papers on the sample were properly distributed.

As a result, seven main SCRM research categories were identified: CRM as a key factor for enterprise sustainability, SCRM frameworks, SCRM computer tools and methods, Case studies, SCRM and sustainable supply chain management, Sustainable marketing and Knowledge management. We also created a qualitative and quantitative evidential narrative summary for each CRM research category.

Any disagreements between co-authors of this study were settled through consensus.

3.6 Finding analysis

Once the final sample of papers had been defined, the analysis tools provided by Scopus and Web of Science and were employed to determine the evolution in the number of papers published by year; to analyse the number of papers published by author, country, institution and journal; to analyse the indicators of relevance, impact and prestige of the ten journals with the most published articles on the list; to analyse the content of the ten most cited articles on the sample.

4. Findings

4.1 Bibliometric analysis

4.1.1 Trend in the publication of papers. The first article detected in the systematic literature review dates back to 2001. Since then to date, the number of papers has evolved greatly, and a growing trend is observed (Figure 3). The number of papers published in 2022 corresponds to the period between January and June. Therefore, the number of publications at the end of 2022 should exceed the number of publications in previous years.

4.1.2 Most influence authors. In the analysis of the authors, there is no one that highlights significantly regarding the number of publications. This can be due to there is limited number of specialists in the area. There are only eight authors with three articles. The rest of the authors have two papers or less (see Table 2).

4.1.3 Most influence countries. Regarding the countries, there is a leadership of India, followed by the United States and China. These three countries with higher number of publications account for approximately one-third of the total number of publications related to the study area (see Table 3).

4.1.4 Top contributing institutions. The analysis of the institutions reveals that none highlights significantly regarding the number of publications. Therefore, there is no institution with a high degree of expertise in this research area (Table 4).

Trend in the publication of papers

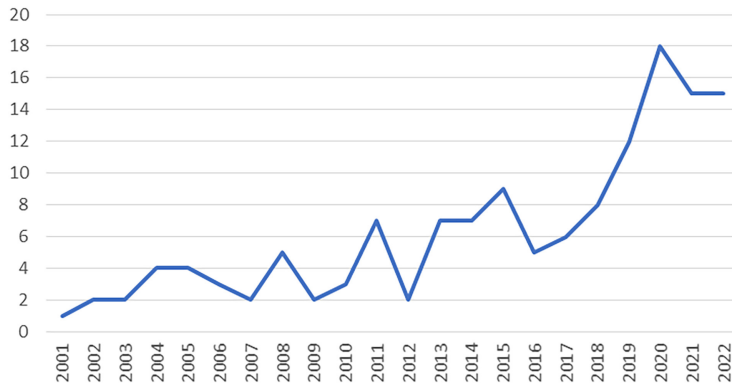


Figure 3.
Trend in the publication of papers

Author	No. docs	Total author citations (Scopus/WoS)	Date of the first publication of the sample	Citation per article (Scopus/WoS)
Gholami, H.	3	330/276	2015	Gholami <i>et al.</i> (2018) (9/4)
Saman, M.Z.M.	3	1,471/1,147	2015	Gholami <i>et al.</i> (2015) (17/12) Gholami <i>et al.</i> (2020) (4/3)
Sharif, S.	3	3,829/2,491	2015	
Zakuan, N.	3	2060/1,207	2015	
Gomez, J.M.	3	543/698	2011	vom Berg <i>et al.</i> (2017) (2/0)
vom Berg, B.W.	3	17/5	2011	vom Berg <i>et al.</i> (2014) (1/0) Memari <i>et al.</i> (2011) (0/0)
Lee, Y.I.	3	220/208	2006	Lee and Trim (2006) (23/13)
Trim, P.R.J.	3	408/151	2006	Trim and Lee (2004) (7/0) Trim and Lee (2008) (16/11)

Table 2.
Top contributing authors

Country	No of docs	Relationship management
India	22	251
United States	16	
China	12	
United Kingdom	10	
Germany		
Malaysia	8	
Italy	6	
Taiwan		
Turkey		
Canada	5	
Czech republic		
France		

Table 3.
Top 12 contributing countries

Institution	No of docs	
Universiti Teknologi Malaysia	4	Table 4. Top contributing institutions
Birkbeck University London	3	
Indian Institute of Technology System Iit System	3	
University of Nicosia	3	
Appl Sci Private Univ	2	
Celal Bayar University	2	
Dimitrie Cantemir Univ	2	
Dokuz Eylul University	2	
Indian Institute of Management Lucknow	2	
Indian Institute of Technology Iit Kharagpur	2	
Insead Business School	2	
Institute of Technology Business Ceske Budejovice	2	
Kyoto University	2	
Nanjing University of Science Technology	2	
National Institute of Industrial Engineering Nitie	2	
National University of Singapore	2	
Royal Holloway University London	2	
Technical University of Ostrava	2	
Technical University Zvolen	2	
Tomas Bata University Zlin	2	
Universidade De Sao Paulo	2	
Universität Oldenburg	2	
Universitat Politecnica De Valencia	2	
University of London	2	
University of Massachusetts System	2	
Zkv Career Sro	2	

4.1.5 Most cited papers. Regarding papers citation analysis, the most cited paper has 760 citations, which stands out significantly from the rest of the citations. [Table 5](#) shows the ten most cited papers.

4.1.6 Sources analysis. Regarding publishers, the journal that has most publications is Sustainability with nine papers. The following journals are International Journal of Productivity and Performance Management and Business Process Management Journal, with four and three publications. These three journals have published roughly the 11% of the papers of the sample, so it can be concluded that there is no journal specialized in this research area.

To assess the impact and relevance of the sources, three impact indicators have been used: CiteScore, Source Normalized Impact per Paper (SNIP) and SCImago Journal Rank (SJR). The

Article	Abstract	Citations (Scopus/WoS)
The customer relationship management process: Its measurement and impact on performance (Azad and Ahmadi, 2015). Published in <i>Uncertain Supply Chain Management</i>	This article conceptualises and validates a construct for the SCRM. It also empirically investigates the consequences of its implementation on business performance	0/760
Using e-CRM for a unified view of the customer (Pan and Lee, 2003). Published in <i>Communications of the ACM</i>	It discusses the development of e-commerce, and the new business models and business opportunities emerging from e-CRM	153/100
Green supply chain performance measurement using the analytic hierarchy process: a comparative analysis of manufacturing organisations (Dey and Cheffi, 2013). Published in <i>Production Planning and Control</i>	The objective of the study is the development and implementation of an analytical framework for measuring the environmental performance of manufacturing supply chains. The novelty of this framework is that it integrates supply chain processes (including CRM) with strategic and operational organisational decision levels	122/101
Measurement of resilience and its application to enterprise information systems (Wang et al., 2010). Published in <i>Enterprise Information Systems</i>	This article proposes a different and unique measure of resilience for CRM information systems. The article ends with an example to illustrate it	84/70
An exploratory study of implementation of customer relationship management strategy (Osarenkhoe and Bennani, 2007). Published in <i>Business Process Management Journal</i>	The paper provide insights on the core components of CRM and the implementation of a sustainable CRM strategy	85/45
Customer relationship management in the hairdressing industry: An application of data mining techniques (Wei et al., 2013). Published in <i>Expert Systems with Applications</i>	The study applies data mining techniques to a RFM (recency, frequency and monetary) model in a hair salon in Taiwan to segment customers and develop marketing strategies	70/47
New service bonds and customer value in customer relationship management: The case of museum visitors (Siu et al., 2013). Published in <i>Tourism Management</i>	The study explores the profits of a long-term sustainable customer relationship	61/56
Sustainability in The Banking Industry: A Strategic Multi-Criterion Analysis (Raut et al., 2017). Published in <i>Business Strategy and the Environment</i>	The paper develop an integrated Multi-criterion Decision Making (MCDM) model for sustainability evaluation of banking services practices. The model evaluates sustainability from four perspectives: financial stability, customer relationship management, internal business processes and environmental management system	50/44
Customer engagement in a Big Data world (Kunz et al., 2017). Published in <i>Journal of Services Marketing</i>	This research proposes a data-driven framework for strategic value creation and customer engagement	0/90
Green supply chain management enablers: Mixed methods research (Dubey et al., 2015). Published in <i>Sustainable Production and Consumption</i>	The aim of the paper is to fill the research gap of methodological approaches and techniques that consider the dynamic nature of green supply chains	0/87

Table 5.
Ten most cited papers

impact factors correspond to the year 2021 and were collected from Scopus. Table 6 shows the results of the journals evaluation according to these three indicators.

Source	n	CiteScore	SNIP	SJR
Sustainability	9	5	1.310	0.664
International Journal of Productivity and Performance Management	4	4.9	1.310	0.578
Business Process Management Journal	3	6.2	1.464	0.844
Journal of Cleaner Production	3	15.8	2.444	1.921
Benchmarking an International Journal	2	7.4	1.421	0.894
Economic Research Ekonomska Istrazivanja	2	4.9	1.329	0.565
Enterprise Information Systems	2	8.2	1.557	0.868
International Journal of Supply Chain Management	2	1.0	0.438	0.190
Management of Environmental Quality	2	6.7	1.189	0.816
Mediterranean Journal of Social Sciences	2	–	0.681	0.135
Procedia Manufacturing	2	–	–	–
Quality Access to Success	2	1.8	0.370	0.211

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management

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Table 6.
Sources analysis

4.2 Research categories

A content analysis of the 139 articles was carried out to identify (1) a classification framework composed by seven research categories that organize papers according to common issues and (2) future research challenges in Sustainable CRM.

The research categories obtained are shown in Table 7. The number of papers in each category is showed in brackets in the first column. The description of the state of existing knowledge in every category has been carried out analysing the five most cited papers in every category.

Table 8 shows a summary of the future research challenges on SCRM, made by a content analysis of the papers in each topic. It is interesting to highlight that the most cited papers in the research area, shown in Table 5, are mainly in the category *SCRM computer tools and methods* (five of the ten articles). The other five papers belong to category *Case studies* (two articles), category *sustainable supply chain management* (two articles) and category *SCRM frameworks* (one article).

5. Discussion

This study has applied the PRISMA systematic literature review approach, which not only categorised and organised the existing literature in a systematic and valid manner, but also identified the main potential areas for future research. The PRISMA approach guarantees a replicable, scientific and transparent process to minimise bias and provides an audit trail of the reviewer's decisions, procedures and conclusions, which is a necessary requirement in systematic reviews (Tranfield *et al.*, 2003).

5.1 Contributions to theory

The findings shown in this paper contribute to the theory on sustainable CRM because:

- (1) According to Paul and Criado (2020) and Paul *et al.* (2021), a systematic literature review should be written when there is a substantial body of work in the domain (at least 40 articles for review), and no systematic literature review has been conducted in the field in recent years (within the last 5 years). Therefore, this paper covers a gap in the domain of Sustainable Customer Relationship Management, as it updates the only systematic literature review carried out to date (Müller, 2014), expanding the period of analysis up to June 2022. In addition, it analyses papers from the Scopus and Web of Science databases, which follow a more rigorous selection process than the online databases Proquest and ScienceDirect used by Müller (2014).

Categories and number of papers	Description
CRM as a key factor for enterprise sustainability (20)	This category includes articles that argue and/or conclude that CRM is a factor that enhances or improves corporate sustainability. For example, Ahuja et al. (2019) demonstrate that, from a multi-automotive company perspective, Customer Relationship Management is a highly significant causal Human Critical Success Factor in efficient adoption of Sustainable Manufacturing practice. On the other hand, Vesal et al. (2021) , prove that CRM positively impact micro, small and medium enterprises (MSME) business sustainability and future opportunities. Apart from that, Bahri-Ammari and Soliman (2016) demonstrates the importance of CRM and service quality perception in maintaining a sustainable and profitable relationship with customers. Additionally, Guerola-Navarro et al. (2021) develop a research model for measuring the impact of CRM that demonstrate the correlation between CRM and business sustainability. Bhat and Darzi (2018) analyse the role of CRM capability towards the goal of sustainable competitive advantage (SCA). Finally, Pohludka and Štverková (2019) conducted a marketing survey in small and medium-sized companies, concluding that the need of CRM for long-term business sustainability
SCRM frameworks (4)	This category encompasses articles proposing a framework or model to achieve sustainable CRM. Osarenkhoe and Bennani (2007) propose a process-oriented integrative framework that facilitate successful implementation of a sustainable CRM strategy. Furthermore, Gil-Gomez et al. (2020) developed a framework to assess the effect of each one of the three business areas of CRM (sales, marketing and services) on the three dimensions of sustainability (economic, environmental and social). Hasani et al. (2017) prove that CRM plays a significant role in the sustainability of start-up companies and develop and test a framework to assess the technological, organisational, environmental and managerial effects on SCRM adoption in start-up companies. Finally, Shukla and Pattnaik (2019) establish the value of sustainability in CRM and propose a conceptual framework for modern businesses through its integration with various social networking sites that produces volumes of real-time data
SCRM computer tools and methods (51)	This category comprises articles that explain and/or propose useful techniques or tools for the development of SCRM. Mainly, they are segmentation techniques, computational models, methodologies and data processing techniques. On the one hand, Reinartz et al. (2004) conceptualize and operationalize (in two cross-sectional studies across four different industries and three countries) a method to measure the degree to which CRM processes have been implemented in order to build sustainable relations with customer. Apart from that, Pan et al. (2006) introduce the concepts of relational incentive, relational value and relational tool that position indirect communications as an important contender to direct communications for sustainable organizational relationship building. Wang et al. (2010) highlights the relevance of the resilience in service systems (such as CRM) and present a method to measure the resilience based on the recovery ability of the system. Furthermore, Wei et al. (2013) segmentate customers and develop marketing strategies by adopting data mining techniques to apply in RFM (recency, frequency and monetary). Finally, Kunz et al. (2017) propose a strategic framework based on Big Data to align both the customer and firm perspectives
Case studies (30)	This category includes case studies where SCRM is applied to specific companies or business sectors. Different business sectors have been considered: tourism industry, manufacturing industry, finance sector, hospitality sector, education sector, etc. For instance, Siu et al. (2013) , contribute to the literature on CRM analysing the role of new service bonds (i.e. the newness and meaningfulness of new services provided by organizations) as a relationship tactic for customer value for long-term sustainability, in the context of the museum industry. Moreover, Raut et al. (2017) develop an effective and integrated model for the evaluation of the sustainability practices in banking services, which considers the CRM as one of the model perspectives. Additionally, Güçdemir and Selim (2017) propose a simulation optimization approach that integrates CRM and Production Planning and Control approaches in order to use manufacturing resources of job shops more effectively in satisfying customers and thus gain a sustainable competitive advantage. On the other hand, Racherla and Hu (2008) assert that e-CRM systems provide firms with a sustainable competitive advantage and identify influential factors (classified under the Technology-Organization-Environment framework) that drive hospitality firms to adopt CRM systems. Finally, Gholami et al. (2015) applies CRM for a strategic leadership towards sustainable development in the education sector, concluding with a new concept called Student Relationship Management (SRM)

Table 7.
Research categories

(continued)

Categories and number of papers	Description
SCRM and sustainable supply chain management (20)	This category encompasses articles focused on sustainable supply chain management (SCM) that consider CRM as a part of SCM. For example, Dey and Cheffi (2013) consider CRM as a supply chain process in the development of an innovative green supply chain (GSC) performance measurement. Additionally, Dubey et al. (2015) highlights CRM as an enabler for green supply chain management (GSCM). Additionally, Mohanty (2018) found that CRM is an operational factor that enables the integrated logistics for sustainable supply chain. Moreover, Hazen et al. (2020) use the circular economy as method to explore the SCM processes including CRM. Finally, Duque-Urbe et al. (2019) propose a framework to identify sustainable SCM practices composed by 12 categories including CRM
Sustainable marketing (10)	This category comprises articles that propose strategies or models for sustainable marketing. For example, Lizbetinová et al. (2019) states that marketing strategy is a key process to achieve sustainable growth and attracting customers and prove this analysing three company clusters in Slovakia. Moreover, Lee and Trim (2006) propose, from a retail marketing perspective, the “organizational resilience value system” model that is useful to establish a customer relationship management policy that provides the organization with a sustainable competitive advantage. Additionally, Trim and Lee (2008) highlight the influence that marketers have in the development of sustainable partnership arrangements; and outlines the link between organizational learning and customer relationship management. Hitka et al. (2019) identify the positive changes in company performance, as a result of a re-evaluation of marketing to satisfy customers who care about social and environmental issues. Finally, Mishra and Prasad (2014) develop a model to understand linkages between consumers' brand loyalty with respect to various product categories and socio demographic variables in order to appreciate customer relationship marketing (CRM) strategies in the Indian context
Knowledge management (3)	This category includes articles that analyse knowledge management in CRM. Evangelista and Durst (2015) identify that CRM is one of the three basic elements through which building-up appropriate KM approaches strategies in the area of environmental sustainability. Additionally, Khasawneh and Alazzam (2014) states that knowledge is key for achieve sustainability and competitive advantage, and they develop a model for customer knowledge management. Finally, Fairchild (2011) analyses the sustainability KM metrics proposed in the literature and proposes a measurement model for KM metrics

Table 7.

- (2) According to [Linnenluecke et al. \(2020\)](#), descriptive statistics (e.g. frequency tables) should be used to summarise the basic information on the topic gathered over time in systematic reviews. This paper uses bibliometric statistical analysis techniques to show significant information in the SCRM domain such as the top contributing countries, authors, institutions and sources (RQ1 answer).
- (3) According to [Mukherjee et al. \(2022\)](#), [Linnenluecke \(2017\)](#), [Post et al. \(2020\)](#), to make a theoretical contribution it is not enough to merely report on previous literature. Systematic literature reviews should focus on identifying new frameworks, promoting the objective discovery of knowledge clusters or identifying major research streams. Through a content analysis, this paper proposes a classification framework composed of seven research categories that shows different ways of contributing to the current state of knowledge on the topic: CRM as a key factor for enterprise sustainability, SCRM frameworks, SCRM computer tools and methods, Case studies, SCRM and sustainable supply chain management, Sustainable marketing and Knowledge management (RQ2 answer). In addition, instead of an arbitrary selection of evidence for category description, the five most cited papers have been selected to describe the major research streams in the research categories, which contributes to the replicability of the process and the quality of the findings.
- (4) According to [Post et al. \(2020\)](#), to make a theoretical contribution, systematic literature reviews can focus on identifying a research agenda. However, this research agenda should follow and accompany another form of synthesis, such as a taxonomy

Categories	Future research challenges
CRM as a key factor for enterprise sustainability	<ul style="list-style-type: none"> To explore the link between CRM and the three dimensions of business sustainability (economic, social and environmental) To evaluate the changes, limitations and benefits between traditional CRM and SCRMM implementation in the short, medium and long term and for each one of the sustainable dimensions To define customer-oriented sustainability indicators and to develop SCRMM maturity models
SCRMM frameworks	<ul style="list-style-type: none"> To develop theoretical frameworks that consider all sustainability dimensions to support SCRMM implementation in companies. These frameworks should develop specific methodologies and best practices adapted to different business sectors, to facilitate their application in real cases Furthermore, these frameworks should consider how to integrate SCRMM into existing CRM
SCRMM Computer tools and methods	<ul style="list-style-type: none"> To develop new specific technologies, techniques and tools for SCRMM management and implementation. For example, techniques that enable the identification and assess of customers perceptions in terms of social, environmental and economic aspects, such as SCRMM Balanced Scorecards, or Big Data analytics
Case studies	<ul style="list-style-type: none"> To carry out more SCRMM case studies in different business sectors and different contexts (such as developed and developing countries), that addresses all sustainability dimensions To analyse how specific characteristics of a business sector influence the SCRMM implementation in a company
SCRMM and sustainable supply chain management	<ul style="list-style-type: none"> To explore how the link between SCRMM and sustainable Supply Chain Management affects the social and economic sustainability dimensions, because the majority of the research focuses on environmental aspects To carry out more case studies to validate the theoretical models
Sustainable marketing	<ul style="list-style-type: none"> To analyse how sustainable marketing decisions influence R&D programs To explore how sustainable marketing could be an enabler for Corporate Sustainability and Corporate Social Responsibility To develop cross-industry and cross-cultural studies
Knowledge management	<ul style="list-style-type: none"> To analyse the link between Knowledge Management (KM) and the three sustainability dimensions in SCRMM, because current research only focus on the environmental dimension

Table 8.
Future research
challenges

or framework. This paper synthesises the future research challenges in each research category of the proposed classification framework (answer to RQ3).

5.2 Contributions to managerial practice

This study offer consulting firms and managers of enterprises different lines of thought that will allow them to carry out SCRMM in enterprises. Moreover, the literature classification in seven categories, enable practitioners to: (1) understand the current state of the art in SCRMM, in terms of conceptualisation, frameworks, models, methods, tools, influence and business practices; (2) know the future challenges in the seven research topics to make appropriate investment decisions about improving current tools/methods; (3) analyse the consequences of SCRMM implementation.

5.3 Contributions to society

This paper will make significant progress towards Sustainability-oriented CRM research and implementation. This will have an important positive social and environmental impact for society because it will lead to an increase in the number of green and socially conscious customers with

an ethical behavior (Roberts, 2003), while also transforming business processes, products and services, making them more sustainable. This will imply, among other benefits, fairer treatment of customers and employees, the hiring and training of local people, more community consultation processes, reduction of carbon emissions or water consumption, etc.

6. Conclusion

The growing interests of consumers and companies in sustainability has transformed CRM into SCRM, with the aim of offering more socially and environmentally sustainable products and services while attracting and retaining sustainability-conscious customers.

To advance in the state of the art in SCRM, in this paper a systematic literature review on SCRM has been carried out. A sample of 139 papers were analysed to assess the trend of the number of papers published and the number of citations of these papers; to identify the top contributing countries, authors, institutions and sources; to reveal the findings of the ten most cited papers; and to establish research categories and future research challenges in the area.

This study therefore addresses a critical research gap, namely, the lack of extensive systematic reviews of the current research on sustainable CRM, which could constrain its influence. As a consequence of the study, some conclusions can be drawn: First, the number of papers is still low although the tendency is clearly on the increase, in terms of both the number of citations and the number of publications per year. Second, analyses of the influence of authors and institutions do not reveal any particular tendency or pattern. Third, regarding productivity, Gholami, H., Saman, M.Z.M., Sharif, S., Zakuan, N., Gomez, J.M., vom Berg, B.W., Lee, Y.I. and Trim, P.R.J are the top contributing authors; and India, the United States, China and the United Kingdom are the countries with the most publications in this field. This shows that the more productive regions are Asia and English-speaking countries. Fourth, the main sources are: Sustainability, International Journal of Productivity and Performance Management Business Process Management Journal and Journal of Cleaner Production. Sustainability is the journal with the most papers published. Fifth, a classification by categories has been developed through a comparative analysis of the content, so as to bring some order to the research effort that is being made, which includes all the papers in the sample. This classification into seven research categories supports the future work of academics in this research area because it establishes common shared elements and patterns in every research category and reveals those aspects that have been studied to a lesser extent and are in need of future research. The categorisation revealed that, regardless of the category and despite the volume of research in the area, few studies address a comprehensive vision of the concept of sustainability – conclusions that are in line with those of Müller (2014). In some cases, the concept refers to the economic or long-term sustainability of the company. In others, sustainability is approached only from social and/or environmental perspectives.

The systematic literature review has proved that an analysis of current research could support academics future research in SCRM as well as and practitioners work. The main conclusion is that this research area requires more research and a higher number of annual publications. The majority of papers have been published in four categories: SCRM computer tools and methods, case studies, SCRM and sustainable supply chain management and CRM as a key factor for enterprise sustainability; therefore, more research is needed in the other three. On the other hand, it is necessary more research studies that consider jointly the economic, environmental and social sustainability dimensions, because the majority of the SCRM literature studies focus only in one of these sustainability dimensions.

Finally, it is important to highlight the limitations of this work: (1) only two bibliographical databases have been studied, Scopus and Web of Science. Other databases could be analysed to extent and contrast the findings; (2) there is a language bias, due to the search was carry out only

in English; (3) other keywords could have been used and might have produced other findings; (3) the comparative method proposed by Collier (1998) was used. Other methods, such as network analysis or latent Dirichlet allocation (LDA), might be used for research categories identification and may result in other classifications.

References

- Ahuja, J., Panda, T.K., Luthra, S., Kumar, A., Choudhary, S. and Garza-Reyes, J.A. (2019), "Do human critical success factors matter in adoption of sustainable manufacturing practices? An influential mapping analysis of multi-company perspective", *Journal of Cleaner Production*, Vol. 239, doi: [10.1016/j.jclepro.2019.117981](https://doi.org/10.1016/j.jclepro.2019.117981).
- Azad, N. and Ahmadi, F. (2015), "The customer relationship management process: its measurement and impact on performance", *Uncertain Supply Chain Management*, Vol. 3 No. 1, doi: [10.5267/j.uscm.2014.9.002](https://doi.org/10.5267/j.uscm.2014.9.002).
- Bahri-Ammari, N. and Soliman, K.S. (2016), "The effect of CRM implementation on pharmaceutical industry's profitability: the case of Tunisia", *Management Research Review*, Vol. 39 No. 8, pp. 854-878, doi: [10.1108/MRR-11-2014-0258](https://doi.org/10.1108/MRR-11-2014-0258).
- Bandyopadhyay, C. and Ray, S. (2020), "Social enterprise marketing: review of literature and future research agenda", *Marketing Intelligence and Planning*, Vol. 38 No. 1, pp. 121-135, doi: [10.1108/MIP-02-2019-0079](https://doi.org/10.1108/MIP-02-2019-0079).
- Bhat, S.A. and Darzi, M.A. (2018), "Service, people and customer orientation: a capability view to CRM and sustainable competitive advantage", *Vision*, Vol. 22 No. 2, pp. 163-173, doi: [10.1177/0972262918766132](https://doi.org/10.1177/0972262918766132).
- Blackburn, N., Hooper, V., Abratt, R. and Brown, J. (2018), "Stakeholder engagement in corporate reporting: towards building a strong reputation", *Marketing Intelligence and Planning*, Vol. 36 No. 4, pp. 484-497.
- Breslin, D. and Gatrell, C. (2020), "Theorizing through literature reviews: the miner-pro prospector continuum", *Organizational Research Methods*, doi: [10.1177/1094428120943288](https://doi.org/10.1177/1094428120943288).
- Brundtland, G.H., Khalid, M., Agnelli, S., Al-Athel, S. and Chidzero, B.J.N.Y. (1987), *Our Common Future: Brundtland Report*, ONU, Ada, OH.
- Ceccarini, C., Bogucka, E.P., Sen, I., Constantinides, M., Prandi, C. and Quercia, D. (2022), "Visualizing internal sustainability efforts in big companies", *IEEE Computer Graphics and Applications*, Vol. 42 No. 3, pp. 87-98, doi: [10.1109/MCG.2022.3163063](https://doi.org/10.1109/MCG.2022.3163063).
- Chalmeta, R. (2006), "Methodology for customer relationship management", *Journal of Systems and Software*, Vol. 79 No. 7, doi: [10.1016/j.jss.2005.10.018](https://doi.org/10.1016/j.jss.2005.10.018).
- Chalmeta, R. and Barqueros-Muñoz, J.E. (2021), "Using Big data for sustainability in supply chain management", *Sustainability*, Vol. 13 No. 13, p. 7004, doi: [10.3390/su13137004](https://doi.org/10.3390/su13137004).
- Cierna, H. and Sujova, E. (2022), "Differentiated customer relationship management - a tool for increasing enterprise competitiveness", *Management Systems in Production Engineering*, Vol. 30 No. 2, pp. 163-171, doi: [10.2478/mspe-2022-0020](https://doi.org/10.2478/mspe-2022-0020).
- Collier, D. (1998), "Comparative method in the 1990s", *CP Newsletter of the Comparative Politics Organized Section of the American Political Science Association*. doi: [10.2139/ssrn.1757219](https://doi.org/10.2139/ssrn.1757219).
- Das, S. and Hassan, H.M.K. (2021), "Impact of sustainable supply chain management and customer relationship management on organizational performance", *International Journal of Productivity and Performance Management*, Vol. 71 No. 6, pp. 2140-2160, doi: [10.1108/IJPPM-08-2020-0441](https://doi.org/10.1108/IJPPM-08-2020-0441).
- de Villiers, C., Hsiao, P.C.K., Zambon, S. and Elisabetta, M. (2022), "Sustainability, non-financial, integrated, and value reporting (extended external reporting): a conceptual framework and an agenda for future research", *Meditari Accountancy Research*. doi: [10.1108/MEDAR-04-2022-1640](https://doi.org/10.1108/MEDAR-04-2022-1640), forthcoming, The University of Auckland Business School Research Paper, SSRN, available at: <https://ssrn.com/abstract=4099866>

- Dey, P.K. and Cheffi, W. (2013), "Green supply chain performance measurement using the analytic hierarchy process: a comparative analysis of manufacturing organisations", *Production Planning and Control*, Vol. 24 Nos 8–9, pp. 702-720, doi: [10.1080/09537287.2012.666859](https://doi.org/10.1080/09537287.2012.666859).
- Dubey, R., Gunasekaran, A., Papadopoulos, T. and Childe, S.J. (2015), "Green supply chain management enablers: mixed methods research", *Sustainable Production and Consumption*, Vol. 4, doi: [10.1016/j.spc.2015.07.001](https://doi.org/10.1016/j.spc.2015.07.001).
- Duque-Urbe, V., Sarache, W. and Gutiérrez, E.V. (2019), "Sustainable supply chain management practices and sustainable performance in hospitals: a systematic review and integrative framework", *Sustainability (Switzerland)*, Vol. 11 No. 21, doi: [10.3390/su11215949](https://doi.org/10.3390/su11215949).
- Evangelista, P. and Durst, S. (2015), "Knowledge management in environmental sustainability practices of third-party logistics service providers", *VINE*, Vol. 45 No. 4, pp. 509-529, doi: [10.1108/VINE-02-2015-0012](https://doi.org/10.1108/VINE-02-2015-0012).
- Fairchild, A. (2011), "A view on knowledge management", *Strategies for Information Technology Governance*. doi: [10.4018/9781591401407.ch007](https://doi.org/10.4018/9781591401407.ch007).
- Fugard, A.J.B. and Potts, H.W.W. (2015), "Supporting thinking on sample sizes for thematic analyses: a quantitative tool", *International Journal of Social Research Methodology*, Vol. 18 No. 6, pp. 669-684.
- Gholami, H., Saman, M.Z.M., Sharif, S. and Zakuan, N. (2015), "A CRM strategic leadership towards sustainable development in student relationship management: SD in higher education", *Procedia Manufacturing*, Vol. 2, pp. 51-60, doi: [10.1016/j.promfg.2015.07.010](https://doi.org/10.1016/j.promfg.2015.07.010).
- Gholami, H., Zameri Mat Saman, M., Mardani, A., Streimikiene, D., Sharif, S. and Zakuan, N. (2018), "Proposed analytic framework for student relationship management based on a systematic review of CRM systems literature", *Sustainability*, Vol. 10 No. 4, p. 1237, doi: [10.3390/su10041237](https://doi.org/10.3390/su10041237).
- Gholami, H., Zakuan, N., Saman, M.Z.M., Sharif, S. and Kohar, U.H.A. (2020), "Conceptualizing and operationalizing the student relationship management strategy: towards a more sustainable-based platform", *Journal of Cleaner Production*, Vol. 244, 118707, doi: [10.1016/j.jclepro.2019.118707](https://doi.org/10.1016/j.jclepro.2019.118707).
- Gil-Gomez, H., Guerola-Navarro, V., Oltra-Badenes, R. and Lozano-Quilis, J.A. (2020), "Customer relationship management: digital transformation and sustainable business model innovation", *Economic Research-Ekonomska Istrazivanja*, Vol. 33 No. 1, pp. 2733-2750, doi: [10.1080/1331677X.2019.1676283](https://doi.org/10.1080/1331677X.2019.1676283).
- Güçdemir, H. and Selim, H. (2017), "Customer centric production planning and control in job shops: a simulation optimization approach", *Journal of Manufacturing Systems*, Vol. 43, pp. 100-116, doi: [10.1016/j.jmsy.2017.02.004](https://doi.org/10.1016/j.jmsy.2017.02.004).
- Guerola-Navarro, V., Oltra-Badenes, R., Gil-Gomez, H. and Gil-Gomez, J.A. (2021), "Research model for measuring the impact of customer relationship management (CRM) on performance indicators", *Economic Research-Ekonomska Istrazivanja*, Vol. 34 No. 1, pp. 2669-2691, doi: [10.1080/1331677X.2020.1836992](https://doi.org/10.1080/1331677X.2020.1836992).
- Hasani, T., Bojei, J. and Dehghantanha, A. (2017), "Investigating the antecedents to the adoption of SCRM technologies by start-up companies", *Telematics and Informatics*, Vol. 34 No. 5, pp. 655-675, doi: [10.1016/j.tele.2016.12.004](https://doi.org/10.1016/j.tele.2016.12.004).
- Hazen, B.T., Russo, I., Confente, I. and Pellathy, D. (2020), "Supply chain management for circular economy: conceptual framework and research agenda", *International Journal of Logistics Management*, Vol. 32 No. 2, pp. 510-537, doi: [10.1108/IJLM-12-2019-0332](https://doi.org/10.1108/IJLM-12-2019-0332).
- Hitka, M., Pajtkova-Bartakova, G., Lorincova, S., Palus, H., Pinak, A., Lipoldova, M., Krahlucova, M., Slastanova, N., Gubiniova, K. and Klaric, K. (2019), "Sustainability in marketing through customer relationship management in a telecommunication company", *Marketing and Management of Innovations*, Vol. 4, doi: [10.21272/mmi.2019.4-16](https://doi.org/10.21272/mmi.2019.4-16).
- Jang, H.-W. and Lee, S.-B. (2021), "The relationship between contact-free services, social and personal norms, and customers' behavior for the sustainable management of the restaurant industry", *Sustainability*, Vol. 13 No. 17, p. 9870, doi: [10.3390/su13179870](https://doi.org/10.3390/su13179870).

- Khasawneh, R. and Alazzam, A. (2014), "Towards customer knowledge management (CKM): where knowledge and customer meet", *Marketing and Consumer Behavior: Concepts, Methodologies, Tools, and Applications*, Vol. 1 No. 4, doi: [10.4018/978-1-4666-7357-1.ch002](https://doi.org/10.4018/978-1-4666-7357-1.ch002).
- Kunz, W., Aksoy, L., Bart, Y., Heinonen, K., Kabadayi, S., Ordenes, F.V., Sigala, M., Diaz, D. and Theodoulidis, B. (2017), "Customer engagement in a Big data world", *Journal of Services Marketing*, Vol. 31 No. 2, doi: [10.1108/JSM-10-2016-0352](https://doi.org/10.1108/JSM-10-2016-0352).
- Langa, E.S., Agostinho, F., Liu, G., Almeida, C.M. and Giannetti, B.F. (2021), "How the global initiative report's indicators are related to the strong sustainability concept? - a paraconsistent approach", *Journal of Environmental Accounting and Management*, Vol. 9, pp. 299-318, doi: [10.5890/JEAM.2021.09.007](https://doi.org/10.5890/JEAM.2021.09.007).
- Lee, Y.-I. and Trim, P.R.J. (2006), "Retail marketing strategy: the role of marketing intelligence, relationship marketing and trust", *Marketing Intelligence and Planning*, Vol. 24 No. 7, pp. 730-745, doi: [10.1108/02634500610711888](https://doi.org/10.1108/02634500610711888).
- Li, F.Y. and Xu, G.H. (2022), "AI-driven customer relationship management for sustainable enterprise performance", *Sustainable Energy Technologies and Assessments*, Vol. 52, doi: [10.1016/j.seta.2022.102103](https://doi.org/10.1016/j.seta.2022.102103).
- Liberati, A., Altman, D.G., Tetzlaff, J., Mulrow, C., Gøtzsche, P.C., Ioannidis, J.P.A., Clarke, M., Devereaux, P.J., Kleijnen, J. and Moher, D. (2009), "The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration", *BMJ*, Vol. 339, p. b2700, doi: [10.1136/bmj.b2700](https://doi.org/10.1136/bmj.b2700).
- Linnenluecke, M.K. (2017), "Resilience in business and management research: a review of influential publications and a research agenda", *International Journal of Management Reviews*, Vol. 19, pp. 4-30.
- Linnenluecke, M.K., Marrone, M. and Singh, A. (2020), "Conducting systematic literature reviews and bibliometric analyses", *Australian Journal of Management*, Vol. 45 No. 2, pp. 175-194, doi: [10.1177/0312896219877678](https://doi.org/10.1177/0312896219877678).
- Liu, Y.S. and Chen, Z. (2022), "A new model to evaluate the success of electronic customer relationship management systems in industrial marketing: the mediating role of customer feedback management", *Total Quality Management and Business Excellence*, doi: [10.1080/14783363.2022.2071694](https://doi.org/10.1080/14783363.2022.2071694) (In press).
- Lizbetinová, L., Štarchoň, P., Lorincová, S., Weberová, D. and Pruša, P. (2019), "Application of cluster analysis in marketing communications in small and medium-sized enterprises: an empirical study in the Slovak Republic", *Sustainability (Switzerland)*, Vol. 11 No. 8, doi: [10.3390/su11082302](https://doi.org/10.3390/su11082302).
- Lokesh, S., Menaga, A. and Vasantha, S. (2022), "Influence of customer relationship management towards customer loyalty with mediating factor customer satisfaction in insurances sector", *Quality-Access to Success*, Vol. 23 No. 187, pp. 169-173.
- Lozano, R. (2008), "Envisioning sustainability three-dimensionally", *Journal of Cleaner Production*, Vol. 16 No. 17, pp. 1838-1846, doi: [10.1016/j.jclepro.2008.02.008](https://doi.org/10.1016/j.jclepro.2008.02.008).
- Luu, T., Viet, L., Masli, E. and Rajendran, D. (2019), "Corporate social responsibility, ambidextrous leadership, and service excellence", *Marketing Intelligence and Planning*, Vol. 37 No. 5, pp. 580-594, doi: [10.1108/MIP-05-2018-0157](https://doi.org/10.1108/MIP-05-2018-0157).
- Martínez-López, F.J., Merigó, J.M., Valenzuela-Fernández, L. and Nicolás, C. (2018), "Fifty years of the European Journal of Marketing: a bibliometric analysis", *European Journal of Marketing*, doi: [10.1108/EJM-11-2017-0853](https://doi.org/10.1108/EJM-11-2017-0853).
- Meena, P. and Sahu, P. (2021), "Customer relationship management research from 2000 to 2020: an academic literature review and classification", *Vision-The Journal of Business Perspective*, Vol. 25 No. 2, pp. 136-158, doi: [10.1177/0972262920984550](https://doi.org/10.1177/0972262920984550).
- Meha, A. (2021), "Customer relationship management", *Quality-Access to Success*, Vol. 22 No. 183, pp. 42-47.
- Memari, A., Vom Berg, B.W. and Gomez, J.M. (2011), "Sustainable CRM for mobility services based on SOA architecture", *Environmental Science and Engineering (Subseries: Environmental Science)*, doi: [10.1007/978-3-642-19536-5_19](https://doi.org/10.1007/978-3-642-19536-5_19).

- Migdadi, M.M. (2020), "Knowledge management, customer relationship management and innovation capabilities", *Journal of Business and Industrial Marketing*, Vol. 36 No. 1, pp. 111-124, doi: [10.1108/JBIM-12-2019-0504](https://doi.org/10.1108/JBIM-12-2019-0504).
- Mishra, S. and Prasad, S. (2014), "Exploring linkages between socio-demographic factors and customer loyalty in India", *Management and Marketing*, Vol. 9 No. 1, pp. 13-26.
- Mohanty, M. (2018), "Assessing sustainable supply chain enablers using total interpretive structural modeling approach and fuzzy-MICMAC analysis", *Management of Environmental Quality: An International Journal*, Vol. 29 No. 2, pp. 216-239, doi: [10.1108/MEQ-03-2017-0027](https://doi.org/10.1108/MEQ-03-2017-0027).
- Müller, A.-L. (2014), "Sustainability and customer relationship management: current state of research and future research opportunities", *Management Review Quarterly*, Vol. 64 No. 4, pp. 201-224, doi: [10.1007/s11301-014-0104-x](https://doi.org/10.1007/s11301-014-0104-x).
- Mukherjee, D., Marc, W., Kumar, S. and Donthu, N. (2022), "Guidelines for advancing theory and practice through bibliometric research", *Journal of Business Research*, Elsevier, Vol. 148, pp. 101-115.
- Osarenkhoe, A. and Bennani, A. (2007), "An exploratory study of implementation of customer relationship management strategy", *Business Process Management Journal*, Vol. 13 No. 1, pp. 139-164, doi: [10.1108/14637150710721177](https://doi.org/10.1108/14637150710721177).
- Pan, S.L. and Lee, J.-N. (2003), "Using e-CRM for a unified view of the customer", *Communications of the ACM*, Vol. 46 No. 4, pp. 95-99, doi: [10.1145/641205.641212](https://doi.org/10.1145/641205.641212).
- Pan, S.-L., Tan, C.-W. and Lim, E.T.K. (2006), "Customer relationship management (CRM) in e-government: a relational perspective", *Decision Support Systems*, Vol. 42 No. 1, pp. 237-250, doi: [10.1016/j.dss.2004.12.001](https://doi.org/10.1016/j.dss.2004.12.001).
- Papadopoulou, M., Papasolomou, I. and Thrassou, A. (2022), "Exploring the level of sustainability awareness among consumers within the fast-fashion clothing industry: a dual business and consumer perspective", *Competitiveness Review*, Vol. 32 No. 3, pp. 350-375, doi: [10.1108/CR-04-2021-0061](https://doi.org/10.1108/CR-04-2021-0061).
- Paul, J. and Criado, A.R. (2020), "The art of writing literature review: what do we know and what do we need to know?", *International Business Review*, Vol. 29 No. 4, 101717, doi: [10.1016/j.ibusrev.2020.101717](https://doi.org/10.1016/j.ibusrev.2020.101717).
- Paul, J., Lim, W.M., O'Casey, A., Hao, A.W. and Bresciani, S. (2021), "Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR)", *International Journal of Consumer Studies*, April 2022, doi: [10.1111/ijcs.12695](https://doi.org/10.1111/ijcs.12695).
- Pohludka, M. and Štverková, H. (2019), "The best practice of CRM implementation for small- and medium-sized enterprises", *Administrative Sciences*, Vol. 9 No. 1, 22, doi: [10.3390/admsci9010022](https://doi.org/10.3390/admsci9010022).
- Post, C., Sarala, R., Gatrell, C. and Prescott, J.E. (2020), "Advancing theory with review articles", *Journal of Management Studies*, Vol. 57 No. 2, pp. 351-376.
- Racherla, P. and Hu, C. (2008), "e-CRM system adoption by hospitality organizations: a technology-organization-environment (toe) framework", *Journal of Hospitality and Leisure Marketing*, Vol. 17 Nos 1-2, pp. 30-58, doi: [10.1080/10507050801978372](https://doi.org/10.1080/10507050801978372).
- Ramos-Rodríguez, A.R. and Ruiz-Navarro, J. (2004), "Changes in the intellectual structure of strategic management research: a bibliometric study of the Strategic Management Journal, 1980-2000", *Strategic Management Journal*, Vol. 25 No. 10, pp. 981-1004, doi: [10.1002/smj.397](https://doi.org/10.1002/smj.397).
- Raut, R., Cheikhrouhou, N. and Kharat, M. (2017), "Sustainability in the banking industry: a strategic multi-criterion analysis", *Business Strategy and the Environment*, Vol. 26 No. 4, pp. 550-568, doi: [10.1002/bse.1946](https://doi.org/10.1002/bse.1946).
- Reinartz, W., Krafft, M. and Hoyer, W.D. (2004), "The customer relationship management process: its measurement and impact on performance", *Journal of Marketing Research*, Vol. 41 No. 3, doi: [10.1509/jmkr.41.3.293.35991](https://doi.org/10.1509/jmkr.41.3.293.35991).
- Roberts, S. (2003), "Supply chain specific? Understanding the patchy success of ethical source initiatives", *Journal of Business Ethics*, Vol. 44 Nos 2-3, pp. 159-170.

- Sandberg, E. and Jafari, H. (2018), "Retail supply chain responsiveness. Towards a retail-specific framework and a future research agenda", *International Journal of Productivity and Performance Management*, Vol. 67 No. 9, pp. 1977-1993.
- Seuring, S. and Gold, S. (2012), "Conducting content analysis based literature reviews in supply chain management", *Supply Chain Management: An International Journal*, Vol. 17 No. 5, pp. 544-555.
- Shukla, M.K. and Pattnaik, P.N. (2019), "Managing customer relations in a modern business environment: towards an ecosystem-based sustainable CRM model", *Journal of Relationship Marketing*, Vol. 18 No. 1, pp. 17-33, doi: [10.1080/15332667.2018.1534057](https://doi.org/10.1080/15332667.2018.1534057).
- Siu, N.Y.M., Zhang, T.J.F., Dong, P. and Kwan, H.-Y. (2013), "New service bonds and customer value in customer relationship management: the case of museum visitors", *Tourism Management*, Vol. 36, pp. 293-303, doi: [10.1016/j.tourman.2012.12.001](https://doi.org/10.1016/j.tourman.2012.12.001).
- Sun, Y.L. and Wang, P. (2022), "The E-commerce investment and enterprise performance based on customer relationship management", *Journal of Global Information Management*, Vol. 30 No. 3, pp. 1-15, doi: [10.4018/JGIM.20220701.oa9](https://doi.org/10.4018/JGIM.20220701.oa9).
- Tian, G., Pekyi, G.D., Chen, H., Sun, H. and Wang, X. (2021), "Sustainability-conscious stakeholders and CSR: evidence from IJVs of Ghana", *Sustainability*, Vol. 13 No. 2, p. 639, doi: [10.3390/su13020639](https://doi.org/10.3390/su13020639).
- Tranfield, D., Denyer, D. and Smart, P. (2003), "Towards a methodology for developing evidence-informed management knowledge by means of systematic review", *British Journal of Management*, Vol. 14, pp. 207-222.
- Trim, P.R.J. and Lee, Y. (2004), "Enhancing customer service and organizational learning through qualitative research", *Qualitative Market Research*, Vol. 7 No. 4, pp. 284-292, doi: [10.1108/13522750410557094](https://doi.org/10.1108/13522750410557094).
- Trim, P.R.J. and Lee, Y.-I. (2008), "A strategic approach to sustainable partnership development", *European Business Review*, Vol. 20 No. 3, pp. 222-239, doi: [10.1108/09555340810871428](https://doi.org/10.1108/09555340810871428).
- Vesal, M., Siahtiri, V. and O'Cass, A. (2021), "Strengthening B2B brands by signalling environmental sustainability and managing customer relationships", *Industrial Marketing Management*, Vol. 92, pp. 321-331, doi: [10.1016/j.indmarman.2020.02.024](https://doi.org/10.1016/j.indmarman.2020.02.024).
- vom Berg, B.W., Gómez, J.M. and Sandau, A. (2017), "ICT-platform to transform car dealerships to regional providers of sustainable mobility services", *Interdisciplinary Journal of Information, Knowledge, and Management*, Vol. 12, pp. 037-051, doi: [10.28945/3652](https://doi.org/10.28945/3652).
- vom Berg, B.W., Valdés, A.R., Memari, A., Barakat, N. and Gómez, J.M. (2014), "Customer segmentation based on compensatory fuzzy logic within a sustainability CRM for intermodal mobility", in Espin, R., Pérez, R., Cobo, A., Marx, J. and Valdés, A. (Eds), *Soft Computing for Business Intelligence. Studies in Computational Intelligence*, Springer, Berlin, Heidelberg, Vol. 537, doi: [10.1007/978-3-642-53737-0_27](https://doi.org/10.1007/978-3-642-53737-0_27).
- Wang, J.W., Gao, F. and Ip, W.H. (2010), "Measurement of resilience and its application to enterprise information systems", *Enterprise Information Systems*, Vol. 4 No. 2, pp. 215-223, doi: [10.1080/17517571003754561](https://doi.org/10.1080/17517571003754561).
- Wei, J.-T., Lee, M.-C., Chen, H.-K. and Wu, H.-H. (2013), "Customer relationship management in the hairdressing industry: an application of data mining techniques", *Expert Systems with Applications*, Vol. 40 No. 18, pp. 7513-7518, doi: [10.1016/j.eswa.2013.07.053](https://doi.org/10.1016/j.eswa.2013.07.053).
- Yu, Y.B. and Xu, Q. (2022), "Influencing factors of enterprise R&D investment: post-subsidy, sustainability, and heterogeneity", *Sustainability*, Vol. 14 No. 10, doi: [10.3390/su14105759](https://doi.org/10.3390/su14105759).

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