

Supply chain model in retail business: A systematic mapping study

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ABSTRACT

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Scientific breakthroughs in the field of the supply chain must keep pace with technological advancements and environmental changes. Modifying processes, systems, structures, roles, and skills is the goal. The relevance of staff training and the necessity for technology is currently a hot topic in managing changes in the concept of the supply chain in retail business. The purpose of this study is to classify and identify journal and conference articles and undertake analysis of the present paper to develop a deep comprehension of the supply chain in retail business. A systematic mapping study (SMS) examines scientific publications produced over time, focus, locus, and the most widely investigated type of research. It is also the most widely used research method. The SMS technique follows well-established empirical guidelines, and the mapping data is based on Scopus. According to SMS research findings on organizational change, 68 studies match the inclusion criteria. By paper type, method, focus, locus, and year of research publication, we divided 68 publications into topic groups. The current studies are then categorized and quantified based on multiple parameters, topic descriptions, and current research trends.

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1. Introduction

The current competitive environment, according to Handfield & Nichols, Jr., (2002), is fast-changing, beginning with developments in technology, the global trade system, and political, economic stability. Improving both of the companies external and internal performances is important to make them competitive as the number of foreign and domestic competitors grows. One of the abilities that will make a company survive is being able to adapt to changes in its business environment. Organizations are realizing that increasing efficiency is not enough because supply chains have made businesses more competitive. A company that tries to make its business competitive has known the supply chain as one of the ways to reach the global marketplace and grow revenue (Childhouse & Towill, 2003; Moberg, 2002). We did a comprehensive mapping analysis to get insight into previous studies. The goal of this research is to create a map of existing literature in order to generate relevant results for practical use and to identify future research needs. The goal is to establish the groundwork for future study and get a deeper understanding of the supply chain in retail business. Retail is the most crucial link in the supply chain since it interacts directly with the final consumers. Furthermore, retail establishes a link between the final clients and the vendors of the items. Retailers are responsible for determining clients' desires and needs and collaborating with other supply chain actors, such as wholesalers, manufacturers, and transportation companies, to guarantee that the goods customers desire are available. (Utami, 2006). In total, we analyzed 68 articles among 725 papers collected in this mapping study. The following are research questions in this study:

- RQ 1:** What kinds of articles are included in this investigation?
RQ 2: What methodology is employed?
RQ 3: What is the research focus on the understudied topic?
RQ 4: What is the distribution of research topics and methodologies?

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RQ 5: Where does the research on the subject matter take place?

RQ 6: How are research emphasis and research locus distributed?

RQ 7: What are the countries' annual publication trends on this topic?

The findings of this study offer a thorough research strategy to understanding the retail supply chain, as well as consequences and advice for academics and practitioners. The following is the format of this journal: based on earlier works, Section 2 covers supply chain management and retail business and their links. The study methodologies used, such as research objectives, search stages, Section 3 explains preferred publication forums, searched keywords, and exclusion/inclusion criteria. The categorization algorithm and schema are described in Section 4. The findings of the mapping project are detailed in Section 5. Section 6 summarizes the research findings, examines potential validity threats, and discusses the study's flaws. Conclusions are included in Section 7.

2. Literature Review

2.1 Supply Chain Concept

Supply chain encompasses all activities involved in changing objects from raw materials to the final step, when goods and services reach the ultimate clients. Supply chain management entails the effective and efficient planning, design, and control of material, information, and financial flows along the supply chain in order to provide greater value to the end consumers. Manufacturers, suppliers, distributors, transporters, warehouses, and customers are all part of the supply chain. Firms have recently found that their supplier networks compete in the marketplace, not the firms themselves. (Janat, 2016) The global network of organizations and activities is involved in the following activities:

- a. Creating a set of goods and services and the processes that go with them
- b. Converting raw materials into finished goods and services
- c. Making use of these products and services
- d. Disposing of these commodities and services.

They must consider all the many organizations inside a company involved in transforming raw materials into a finished product that is delivered. Even a simple product like bottled water is produced and delivered by dozens of businesses. By developing, planning, procuring, manufacturing, delivering, and returning or disposing of a set of products and services, supply chain firms collaborate to create value. 1 Supply chain is occasionally replaced with terms such as demand chain, extended enterprise, supply network, and supply web. These terms refer to the idea that a supply chain comprises interconnections and linkages between companies that perform specific activities for a certain set of goods. Swink, Melnyk, Cooper, and Hartley (Swink, Melnyk, Cooper, & Hartley, 2020). Supply chain management is a collaboration of manufacturers and service providers to generate products or services that end customers require. Physical flows, communication flows, and monetary flows all connect these producers and service providers (Bozarth & Handfield, 2016).

2.2 Retail Concept

Retailing refers to selling goods and services to individuals, families, and households for personal, family, or domestic consumption. All sales to the final consumers, such as automobiles, apparel, restaurant meals, and movie tickets, are included. The final process of distribution from supplier to consumer is retail (Berman, Evans, & Chatterjee, 2018). Retailing is the final stage of a distribution channel, which comprises all companies and individuals involved in getting goods and services from the producer to the consumer. Manufacturers, wholesalers, and consumers routinely communicate with retailers. Many manufacturers would rather produce a single simple item and sell their whole inventory to a small number of buyers. Consumers still want to pick and choose from a variety of goods and services, and they still want to buy in little quantities. Retailers gather things from a variety of sources, purchase in bulk, and sell in tiny quantities. This is how the process of sorting works. Communication with customers, manufacturers, and wholesalers is another role of retailers. Advertisements, salespeople, and displays tell shoppers on the availability and features of the products and services, as well as sales, store hours, and other information. Manufacturers and distributors are kept up to date on sales estimates, supply delays, customer complaints, damaged items, inventory turnover, and other issues by merchants. As a result of retailer feedback, many products and services have altered. Small suppliers might benefit from retailers' transportation, storage, labeling, advertising, and prepayment of products. Suppliers may be required to assist small shops in the same way. The activities that retailer's complete impact the percentage of sales that they need to cover costs and profits. Customers' transactions are also completed by retailers. This means providing convenient locations, completing orders quickly and properly, and processing credit purchases. Gift wrapping, delivery, and other customer services (Berman et al., 2018). Many businesses are turning to omnichannel commerce to widen their appeal. Omnichannel commerce comprises a store selling to customers through a variety of retail formats (points of contact). To make shopping easier and to meet consumer demands, most large enterprises have physical stores and websites. Some businesses use retail stores, mail orders, Websites, tablets, cellphones, and a toll-free phone number to provide information and sell to customers. Retailer-supplier relationships can be challenging to maintain. Manufacturers and wholesalers must be concerned with the quality of displays, customer service, store hours, and retailers' reliability as business partners because merchants are part of a distribution network. Many resale items, store furnishings, computers, management advice, and insurance are also purchased by retailers. Retailers today wield greater

power than ever before because of the growth of huge chains. Suppliers cannot have a successful relationship with retailers unless they know what they want (Berman et al., 2018). Channel relationships are the most varied in intense distribution, where suppliers tried to reach as many merchants as possible to sell their products. This frequently boosts supplier sales and enables retailers to provide a diverse selection of brands and product options.

The retail mix is a collection of qualities that merchants utilize to suit client needs and influence their purchase decisions, according to Levy et al. (2010). Retail mix aspects include merchandise and service, merchandise price, advertising, promotional programs, store design, merchandise display, salesperson assistance, and store location convenience. The retail mix is defined by the retailer's use of merchandise, price, advertising and promotion, customer service and selling, and store layout and design to satisfy the target market (Dunne, Lusch, & Carver, 2005). The marketing mix of a retailing firm (Davidson & Sweeney, Daniel Joseph Stampfl, 1988) includes location and physical facilities, merchandise, pricing, promotion, services, and organization/personnel.

3. Research Method

Another literature review that supports the systematic literature review is the systematic mapping study or scoping review (Kitchenham, 2004). A systematic mapping study was performed to outline the types of research endeavors that were involved in this study. A systematic mapping study indicates a high-level study and "planned" research rather than going into the research subject in depth. To put it another way, a systematic mapping study (Kitchenham et al., 2011) can be seen as a strategy for gaining an overview of a certain research field because it tells a story rather than extracting granular data (Brereton et al., 2007). A systematic mapping study is preferred if it is identified during domain checks and before starting SLR that there is insufficient research available or the issue is too vast. (Kitchenham et al., 2011; Petersen et al., 2008)

3.1 Search Steps

The accuracy of this SMS study is important, so the search and analysis process needs to be reliable. The following sections will be describing the process how to choose the data source, how to construct the search string and make the criteria of exclusion and inclusion. We used a step-by-step search method that we learned from our research. Each step in this process is a result, and the process's result is a systematic map. Figure 1 depicts the entire SMS procedure employed in this work, which was carried out according to Petersen et al. (2008) and Wendler (2012)

3.1.1 Data Sources and Research Selection

We used the Scopus database to do an electronic search. Scopus digital library was selected because it is a public library with a strong commercial presence. The search string was produced using the following technique (Barbosa & Alves, 2011) such as defining the primary keywords; searching the entire article; finding the alternative version of keywords; and combining them. The following is the final search string:

“Supply Chain” (OR “Supply Chain Management”) AND (“Retail” OR “Retail Business”)

This search string is used to do searches over the whole article, including main content, abstract, title and keywords. This search began in June 2021. The quantity of search result was reduced and gain a more accurate search results from the database, lastly every part of the search term in quotes.

Table 1
Research Questions

No.	Research question	Description
1.	What types of papers are included in this research? RQ 2. What kind of methodology is used? RQ 3. How is the research focus on the topic under study? RQ 4. What is the distribution of research focus and the types of methods used? RQ 5. Where is the locus of research on the topic under study? RQ 6. How is the distribution of research focus and research locus? RQ 7. What are the publication trends of the countries each year on this topic?	Provide an overview of the types of papers used in research with supply chain topics in retail businesses classified in validation research, evaluation research, solution proposal, philosophical paper and experience paper.
2.	What methodology is used?	Investigating the types of research and methods applied, determining the most important designs and methods, and revealing gaps in previous studies
3.	Research focus	Classifying research according to the main focus, namely the supply chain framework, retail framework, retail relations with other variables, and supply chain relationships with other variables
4.	Distribution of research focus and types of methods	Combining research focus data and methods to provide an overview of trends between the two
5.	The type of retail that is the locus of research	This question reveals the type of retail that is the object of research
6.	Distribution of research focus and research locus	Combining research focus data and research locus to provide an overview of trends between the two
7.	How has the trend of publications about supply chain in retail business been changing from time to time?	This question reveals study trends from several countries or regions and publication schedules

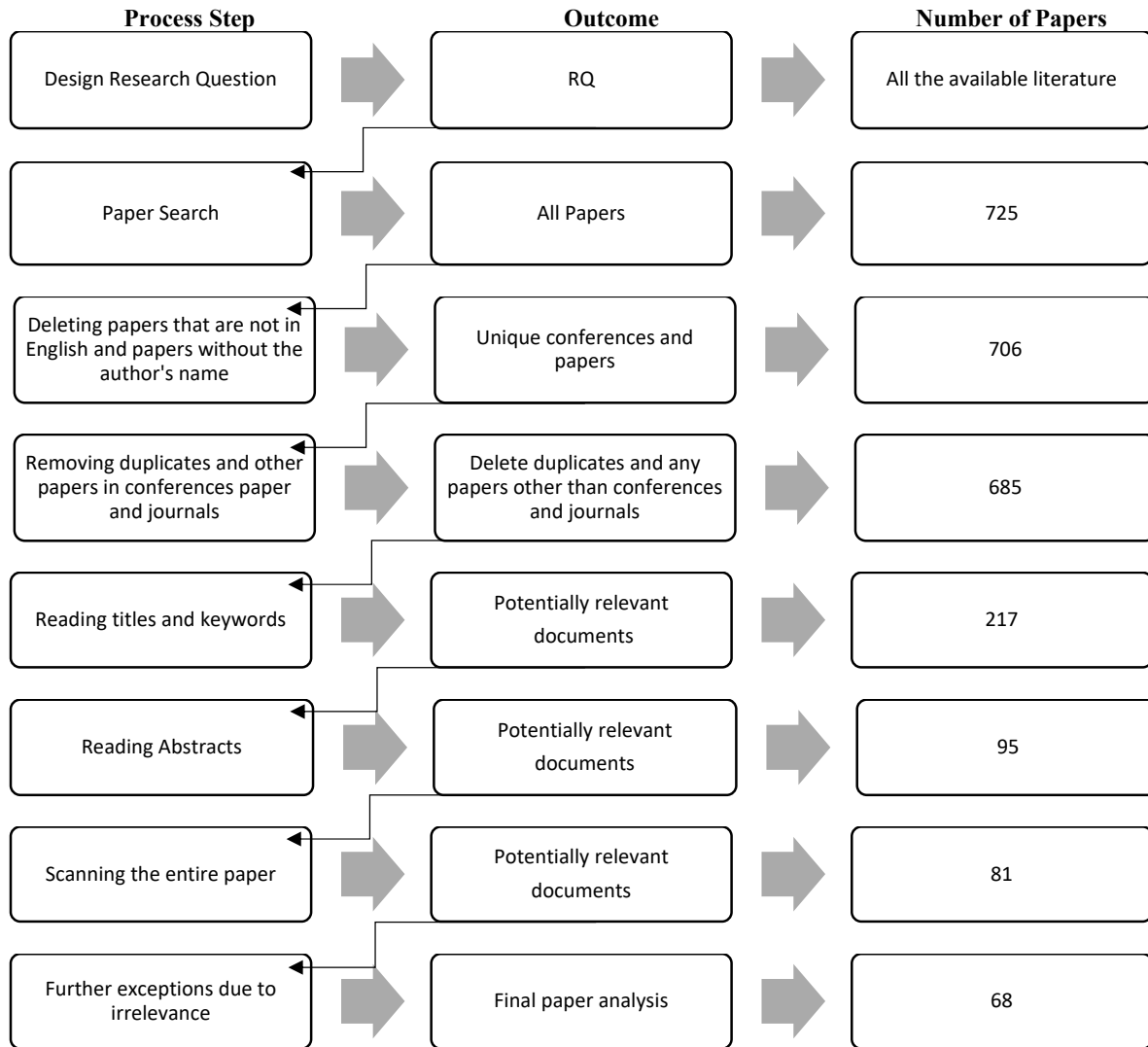


Fig. 1. Research Stage

3.2.2 Exclusion and inclusion criteria

One of the mapping study tasks is the inclusion and exclusion criteria stage, which eliminates irrelevant research and incorporates relevant ones (Petersen et al., 2008). In addition, it ensures that only the most suitable items are examined. We used the following criteria to determine which papers were excluded and included in this study (Table 2). We left the books and these sections out since the number of search results would be too large to analyze all of them in practice. Furthermore, new scientific research is frequently published for the first time in scientific journals and conferences. As a result, we narrowed the scope of our search to only conference papers and journals. Content that does not clearly have a reason for exclusion is read in-depth to reduce the risk of removing relevant articles. This happens in Step 8 of the SMS process, where six pieces are finally published.

Table 2
Inclusion and Exclusion Criteria

Inclusion	Exclusion
<ul style="list-style-type: none"> • Papers focusing on supply chain in retail • Papers in English • Only journals and conference papers • Peer-reviewed papers 	<ul style="list-style-type: none"> • Papers that fall outside the supply chain and retail domain • In a language other than English • Other than journal and conference papers, such as books, book sections, theses, dissertations, work reports, trade literature, editorial notes, newsletters, etc. • Non-peer reviewed • Duplicate writing

We utilized Microsoft Excel to manage references and to help us delete duplicates in the fourth step of this mapping study. The duplication needs to be removed; we first sorted all 706 original articles by author. If one of the articles has been

published in many sources or with different papers but has the same content, we deleted one and left the other. As a result, we now have a one-of-a-kind article.

4. Classification Scheme

A categorization method based on the research questions is designed to assess and classify articles. We started with the concept of a classification system (Petersen et al., 2008). To categorize studies, we devised three criteria. The classification of papers based on their research methodologies is one element. For our study technique, we were inspired by Palvia et al. (2004)'s methodological classification and modified it to meet our needs. The second aspect establishes the type of paper-based on Wieringa, Maiden, Mead, & Rolland, (2006) classification. In addition, using the keyword technique mentioned, we selected five categories of study interest.

5. Mapping results

5.1 Paper Type (RQ1)

The following section is based on the results of the mapping by answering the study questions that have been presented previously. The results are based on 68 selected articles showing several classifications which are differentiated into the following criteria:

Table 3

Types of Research with the Theme of Supply Chain in the Supply Chain

Paper Type	Definition	Number of Papers	Paper
Validation research	Paper using new investigative methods that have not been implemented/practiced	3	(Monthatipkul & Yenradee, 2008); (Gawankar, et.al 2015); (Chan, et.al, 2017)
Evaluation research	Paper using investigative methods that have been implemented/practiced, then to evaluate the current method	52	(Agrawal et al., 2002); (Ali et al., 2018); (Amer et al., 2010); (Anbanandam et al., 2011); (Banerjee & Mishra, 2017); (Beron et al., 2013); (Bertolini et al.,2012); (Boeck & Wamba, 2008); (Brun et al., 2008); (Brun & Castelli, 2008); (Cachon & Kök, 2010); (Castelli & Brun, 2010); (Chen & Huang, 2010); (Chkanikova & Sroufe, 2021); (Choi, 2016); (de Brito et al.,2008); (Gawankar et al., 2013); (Gawankar et al.,2020); (Gawankar et al.,2017); (Hamister, 2012); (Jie & Gengatharen, 2019); (Kamble et al., 2019); (Ke et al.,2018); (Kurata & Yue, 2008); (Li et al.,2018); (M. Li, 2009); (W. Li et al., 2018); (Lowson, 2001); (Mamic, 2005); (Metilda, 2011); (Nair & Closs, 2006); (Oke & Gopalakrishnan, 2009); (Petljak et al., 2018); (Petljak c2016); (Rana et al.,2016); (Randall et al., 2011); (Karimi et al.,2018);(Saha, Sarmah, & Modak, 2017);(Saleh et al., 2016); (Schleper et al., 2021);(Sindhu & Panghal, 2016); (Slamet et al., 2020); (Swartz et al., 2010); (Tao et al., 2020); (Vieira et al., 2009); (Wen et al., 2018); (Williams & Waller, 2011); (Wu et al., 2013); (Yan et al., 2016); (Y. Yan, et al., 2018); (R. Yan & Pei, 2011); (Yerpude & Singhal, 2020); (Zhang & Wang, 2018)
Solution proposal	A paper that proposes a solution to an issue under investigation; this solution proposal can be in the shape of a new or existing technique.	3	(Li & Wang, 2017); (Li, Tang, O'Brien, & Wang, 2006); (Hubner, Kuhn, & Sternbeck, 2013)
Philosophical paper	Papers that introduce new perspectives of existing things using taxonomies or conceptual frameworks	10	(Edwards, McKinnon, & Cullinane, 2011);(Ganesan, George, Jap, Palmatier, & Weitz, 2009); (Hingley, Lindgreen, & Grant, 2015); (Lorentz & Hilmolla, 2008); (Sellitto, Burgess, & Hawking, 2007); (Waller, Cassady, & Ozment, 2006); (L. Wu, Shao, & Chen, 2010); (L. Xiao, Wang, & Chin, 2020)(T. Xiao & Yang, 2008); (Zairi, 1998)

Source: (Banaeianjahromi & Smolander, 2016)

Results from the classification of research documents show that most of the research on supply chain in the retail business is dominated by research with the evaluation research model, namely papers using investigative methods that have been implemented/practiced, then to evaluate the current method. There are 52 articles using this method. For example, paper by Agrawal et al., (2002) which describes a methodology for managing inventory, capacity, and delivery for a variety of retail products manufactured by multiple vendors in the fashion industry, or research by Hamister, (2012) which investigates the adoption and implementation of SCM practices by small retail firms. In addition, this theme also has 3 research validation paper types, 3 research solution proposals, and 10 philosophical papers. While the experience paper was not found, it was removed from the table.

5.2 Types of Methods (RQ2)

Research is divided into six categories, according to (Wieringa et al., 2006): validation studies, evaluation studies, proposed solutions, philosophical papers, opinion pieces, and personal experience papers are all examples of research. To answer RQ2, we utilized this categorization to categorize the remaining 68 documents. We did not include opinion publications or Delphi studies in our category, however, because we could not find any records that met these criteria. An opinion paper is a type of writing in which the author conveys their point of view on a certain subject. The Delphi study, on the other hand, is a research project that comprises two or more rounds of expert-filled questionnaires based on predictive techniques.

We analyzed the research methods used for each paper and found that the most common type of paper was case study or multiple case study with a total of 38 papers. The next sequence is survey research with a total of 13 articles. The next most common type of paper is constructive study with a total of 10 articles. Research with the type of literature study amounted to 3 articles. Then the discussion paper and grounded theory are 2 papers each.

Table 4
Types of Research Methods with the Supply Chain Theme in the Supply Chain

Types of Research Methods	Definition	Number of Papers	Title
Multiple Case Study/Case Study	Case study of a phenomenon in one or more organizations over a period of time	38	(Agrawal et al., 2002); (Ali et al., 2018); (Amer et al., 2010); (Banerjee & Mishra, 2017); (Beron et al., 2013); (Bertolini et al., 2012); (Boeck & Wamba, 2008); (Brun & Castelli, 2008); (Cachon & Kök, 2010); (Brun & Castelli, 2008); (Chen & Huang, 2010); (Chkanikova & Sroufe, 2021); (Choi, 2016); (de Brito et al., 2008); (Kamble et al., 2019)(Ke et al., 2018); (Kurata & Yue, 2008); (B. Li et al., 2018); (M. Li, 2009); (W. Li et al., 2018); (Mamic, 2005); (Metilda, 2011); (Nair & Closs, 2006); (Okay & Gopalakrishnan, 2009); (Saha et al., 2017); (Saleh et al., 2016); (Schleper et al., 2021); (Sindhu & Panghal, 2016); (Slamet et al., 2020); (Swartz et al., 2010); (Tao et al., 2020); (Wen et al., 2018); (T. Wu et al., 2013); (B. Yan et al., 2016); (R. Yan & Pei, 2011); (Y. Yan et al., 2018); (Yerpude & Singhal, 2020); (Zhang & Wang, 2018)
Constructive Study	Research that intends to build a new framework, software artifact or conceptual model	10	(Zairi, 1998); (T. Xiao & Yang, 2008); (Kurata & Yue, 2008); (L. Wu et al., 2010); (Waller et al., 2006); (D. Li & Wang, 2017); (D. Li et al., 2006); (Hubner et al., 2013);(Shradha Ashok Gawankar et al., 2015);(Chan et al., 2017)
Literature Study	Research that analyzes and expands on the existing literature	3	(Hingley et al., 2015); (Lorentz & Hilmolla, 2008); (Sellitto et al., 2007)
Discussion Paper	Research that discusses an argument or phenomenon	2	(Edwards et al., 2011); (Ganesan et al., 2009)
Grounded Theory	Research aimed at developing theory through data analysis	2	(Anbanandam et al., 2011); (Monthatipkul & Yenradee, 2008)
Survey	Research that uses predefined and structured questionnaires to capture data from individuals	13	(Brun et al., 2008); (Shradha Ashok Gawankar et al., 2015); (Shradha A. Gawankar et al., 2020); (S. Gawankar et al., 2013); (Shradha Ashok Gawankar et al., 2017); (Hamister, 2012); (Jie & Gengatharen, 2019); (Lowson, 2001); (Petljak et al., 2018); (Petljak et al., 2016); (Rana et al., 2016); (Randall et al., 2011); (Vieira et al., 2009); (Williams & Waller, 2011)

Source: (Banaeianjahromi & Smolander, 2016)

Cachon and Kök (2010), for example, conducted research using case studies to examine contract forms and coordination of competing producers in the retail supply chain. Swartz et al., (2010) have published a case study paper to explore the viability of deploying RFID total asset visibility technology for post-consumer monitoring of medical supply orders. Anbanandam et al., (2011) did a case study on collaboration between garment retailers and producers in India's apparel retail business.

5.3 Research Focus (RQ3)

Based on the results of our research database processing, we found that most of the papers discuss the supply chain framework where most of the papers discuss the conceptual framework or supply chain structure that is used to assist business actors in this case in the retail sector to develop systems and performance consistently. The real or conceptual structure is intended to serve as a support or guide to build and expand the structure into something useful for the organization. Based on the data we have collected, there are 46% of the 68 papers with a research focus on the supply chain framework or 31 of the 68 papers. One of the studies that focuses on the supply chain framework is the research of Chan et al., (2017) which talks on how cloud computing and smart gadgets are evolving (CCSD). The authors discovered that the CCSD platform may also be used to coordinate different phases of the supply chain. The findings suggest that CCSD increases information sharing performance when all-channel communication networks are used.

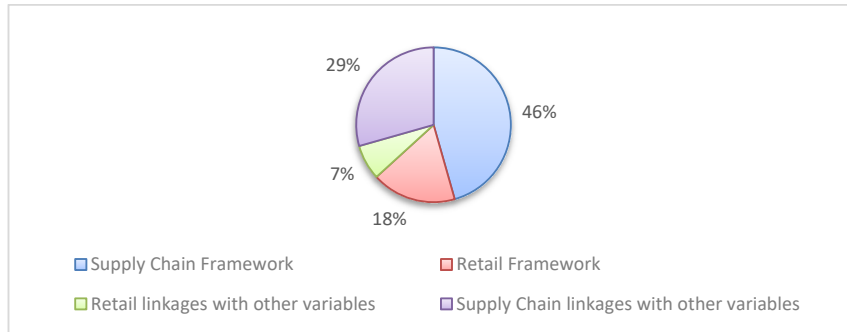


Fig. 2. Framework Diagram

The next number of papers that dominate is with a focus on research related to supply chain relationships with other variables. The number of papers with this research focus is 20 papers, or about 29%.

5.4 Distribution of Research Focus and Type of Method (RQ4)

Research with this theme is dominated by research related to the supply chain framework in the form of a case study. In addition, the form of case study research also discusses a lot related to supply chain relationships with other related variables. Survey research that is also done by many researchers is also related to the supply chain framework and supply chain relationships with other related variables.

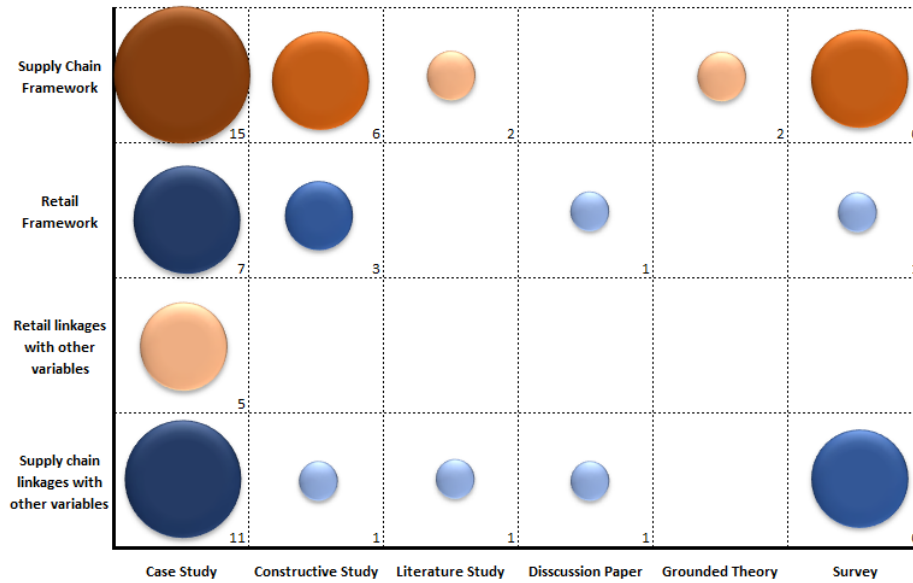


Fig. 3. Distribution of Research Focus and Type of Method

5.5 Locus of Research (RQ5)

Research with a major theme of supply chain in retail business is dominated by unidentified loci. This means that most studies do not specify the locus or location of the research conducted. Most of the researchers only mention that the research was conducted in the retail industry by not explaining further what type of retail was being studied. The number of studies with unidentified loci is 30 articles or about 44% of the 68 articles that are successfully selected. Furthermore, research by taking the focus on the retail sector of miscellaneous goods is also found on this theme with a total of 13 articles. Meanwhile, fashion retail and food retail are ranked next with 18% and 15% of the 68 articles that are successfully selected, respectively.

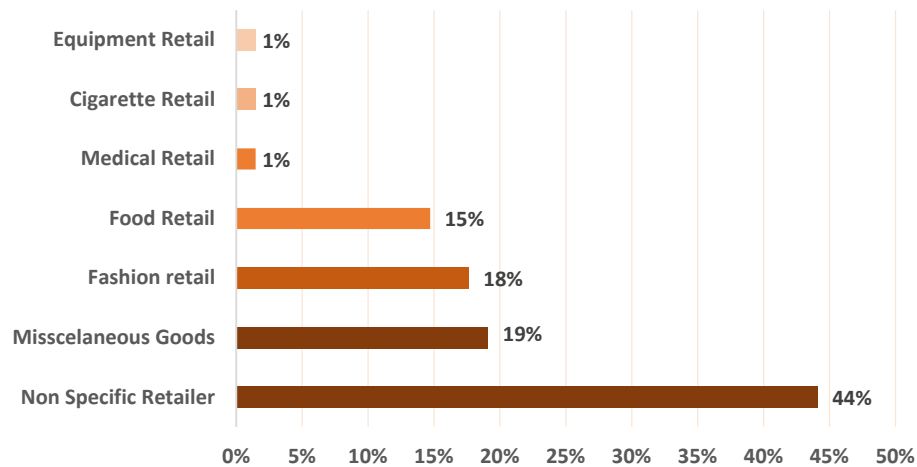


Fig. 4. Choice of Locus in Research with the Theme of Supply Chain in the Retail Industry

By not generalizing conditions in the business world, the many loci of research in the miscellaneous goods, fashion and food industries indicate that these sectors are closely related to supply chain management in its management. In addition, these three sectors are usually run with a sales management system on a retail scale so that many business actors are involved in this sector.

5.6 Distribution of Research Focus and Research Locus (RQ6)

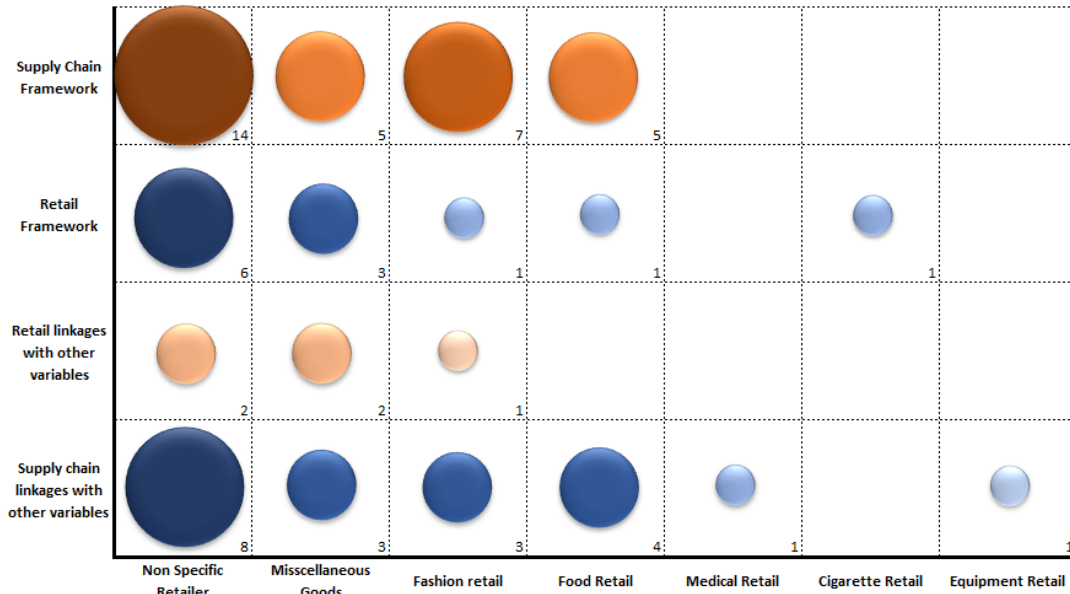


Fig. 5. Distribution of Research Focus and Research Locus

Research related to the supply chain framework is mostly found at the non-specific retailer locus and at the miscellaneous goods, food retail and fashion retail loci. The relationship between the supply chain and other variables is also found in many studies with non-specific loci. While retail linkages with other variables, apart from being found at unspecified loci, are also found in miscellaneous goods and fashion retail, although in limited quantities.

5.7 Regional Publication Trends Each Year (RQ 7)

To answer the question RQ7, the distribution of research shows that the number of studies has increased in several years, but decreased in the period 2011-2015. The downward trend in the number of publications during this period may be due to the economic recession (Mayall, 2009).

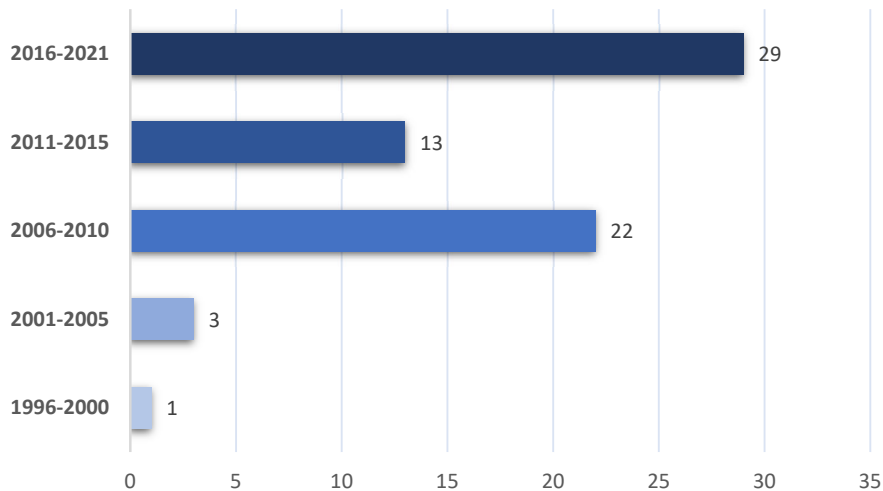
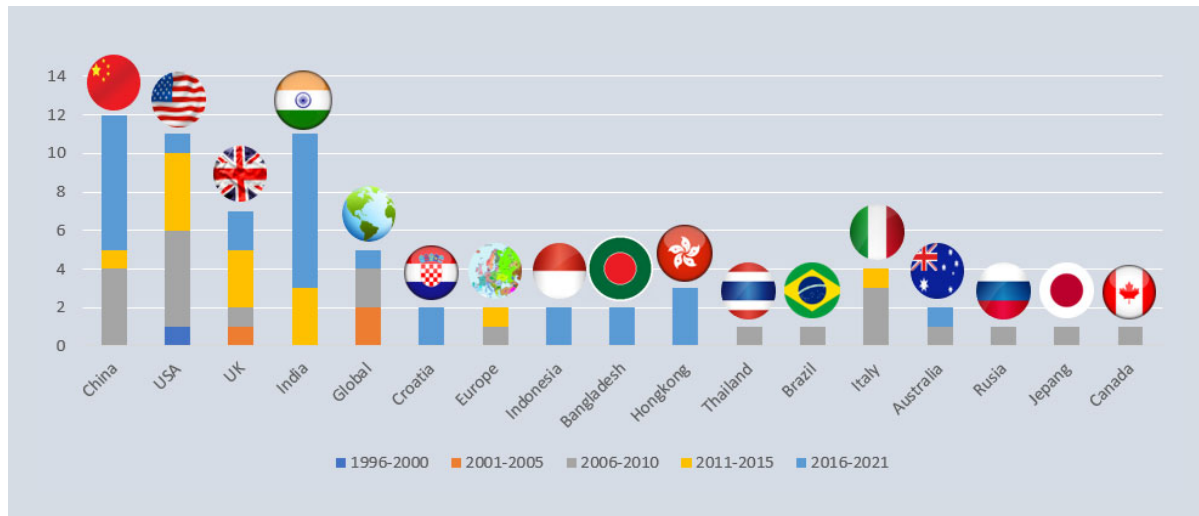


Fig. 6. Publication Trends by Year

In the last five years, research on supply chain in retail has increased rapidly again. The global pandemic has shifted some supply chain concepts and strategies in almost all countries. Various expectations have shifted, including in logistics and supply chain which will play an increasingly important role in the future, mainly due to the pandemic which has also restricted the movement of goods, thus changing the management process. As a businessperson, it is necessary to continue to adapt to existing changes. The increasing urgency of supply chain studies is indicated by the increasing number of publications in this field.



The highest-ranking research with the theme of supply chain in the retail industry is occupied by China, then India and the USA. The number of publications is likely related to the number of retailers operating in those countries. It is known that these three countries also have the highest population in the world, thus allowing a correlation to the number of retailers operating.

6. Discussion

6.1 Summary of Findings

Systematic mapping study provides a complete perspective of the retail supply chain throughout the world. The findings of this study, for example, can be used as a beginning point for future research and projects by researchers and professionals. We searched the relevant databases after selecting our research strategy and found 725 articles that emerged when we input keywords based on the principal study themes. However, not all of these were meaningful or distinctive, based on the results. As a result, we specified the criteria for exclusion and inclusion. Then we looked at 68 articles that were both related and unusual. We created a schema classification to assess 68 publications. We categorized publications by study focus, type of paper, research technique, nation, and year of publication, and the link between these categories. Regarding the focus of the research, we concluded that the "SCM framework" dominates with 46% of the total papers that we had selected. While the "retail framework" is the dominant research focus, then 18% of the total articles. Regarding the type of paper, "evaluation research" is the most frequent type of paper used with a total of 68 articles. Meanwhile, "philosophical paper" is in the next rank with 10 papers while the experience paper was not found at all. "case study/multiple case study" is the type of research method that is most widely used to research this theme, which is a total of 38 articles. Then the "survey" type research was also found with a total of 10 articles. Both "case studies/multiple case study" and "survey research" were found to identify supply chain frameworks and supply chain linkages with other variables. However, we identified that there was no single type of opinion paper or Delphi study on the themes we studied.

Research with a major theme of supply chain in retail business is dominated by unidentified loci. However, research by taking a focus on the retail sector of miscellaneous goods, fashion retail and food retail is mostly found on this theme, respectively by 19%, 18% and 15%. This shows that retail is dominated by these three types of sectors. When viewed from the country, papers with the theme of supply chain in retail are mostly issued by authors from China. The USA and India are next in the rankings. When viewed from year to year, most research comes from the last 5 years. This shows that research has become more practical over the last decade. We see that the number of publications between 2011 and 2015 decreased, which may be due to the economic downturn.

6.3 Validity Limitations and Threats

There are various limitations to this systematic mapping study. We were unable to cover all existing and unpublished journal and conference databases on electronic search sites because we were limited to the Scopus database. Furthermore, we only

looked at peer-reviewed items such as journals and conference papers, and we did not include any book or magazine sections in our study. We may also confront challenges in terms of validity. To avoid this, throughout the research methods phases, we specifically identified the current work's research questions and objectives and ensured that all relevant papers were included (Mohabbati, Asadi, Gašević, Hatala, & Müller, 2013). Therefore, using the Scopus electronic database solely, we attempted to incorporate as many papers as feasible. As a result, some other significant study would likely be overlooked since it did not show in the Scopus database, preventing us from making broad generalizations, assertions, or projections. Furthermore, in terms of internal validity, we limited ourselves to the precise procedures listed in the research methods section when extracting data. We presented the results in the form of charts, graphs, and tables. To put it another way, using a well-defined approach reduces study bias.

7. Conclusion statement

Changes in the corporate environment, such as rapid technological advancements and pandemics, necessitate organizational changes to improve company performance in numerous areas. Changes can help you gain new abilities, open up new business prospects, and improve your creativity. The primary goal of this study is to offer an overview of the available literature on supply chains in retail organizations. To determine which problems were studied in this research domain, the SMS approach (Kitchenham, 2004; Petersen et al., 2008) was employed. Existing studies were classified according to the research method utilized and the type of paper. Adopted systematic mapping study is practical research methods for identifying areas with enough information on a topic and domains where more study is required. The findings of this study can be used to help scholars plan future research by identifying research gaps. The content of 68 papers is analyzed and categorized based on research emphasis, kind of paper, research technique, nation and year of publication, and the relationship between these classifications throughout time in the present study. We discovered that nearly two-thirds of previous studies focused on case studies/multiple case studies in the form of evaluation research when performing this SMS study. Our findings have implications for scholars and practitioners as a basis for categorizing and determining the trend of publications linked to the supply chain in the retail industry. For researchers, this study provides a fair overview of supply chain research in the retail business and identifies research gaps. For instance, consider the necessity for investigation into the creation of a retail system.

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