



Systematic Review

New Trends in E-Commerce Research: Linking Social Commerce and Sharing Commerce: A Systematic Literature Review

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Abstract: Technological advances have facilitated the move from market-centric to user-centric commerce by enabling the progress towards S-Commerce from E-Commerce. Technologically advanced S-Commerce platforms have enabled collaborative commerce, which has led to the development of new commerce concepts such as sharing commerce. Unlike traditional E-Commerce or S-Commerce platforms, where the platform provider was burdened with more responsibility in ensuring the smooth flow of operations and transactions, sharing commerce offers a new approach, wherein both platform providers and users collaborate in ensuring process flow, growth, and development to co-create value and achieve sustainability. The research linking S-Commerce and sharing commerce is still in its early stages. Focussing on this aspect, this study conducts a systematic review to identify research questions relevant to S-Commerce and sharing commerce, related challenges, and the benefits of linking S-Commerce with sharing commerce. A total of 143 studies were selected using the keywords and review protocol, which were analysed to identify definitions, themes, issues, and benefits associated with S-Commerce and sharing commerce. The results obtained are explained and discussed in this study. The results provide a theoretical base for the emerging topic of sharing commerce.

Keywords: social commerce; sharing commerce; E-Commerce; social media



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1. Introduction

The functioning of E-Commerce has been undergoing major changes in terms of operations management, service delivery, and customer relationships management over the past few decades. Most of the changes are attributed to introducing new technologies such as Web 3.0 technologies, machine learning, and artificial intelligence. These technologies have revolutionised the process of conducting business, especially with integrating social media elements with E-Commerce platforms, resulting in S-Commerce platforms [1]. Similarly, the integration of other accessibility technologies has expanded the accessibility of E-Commerce applications [2]. With the launch of 5G technologies, mobile commerce (m-commerce) has increased the accessibility of commerce applications, increased online sales, and reduced the traditional aspect of shopping. For example, 90% of the total sales through mobile application was recorded by Zalando, a German retailer; similarly, Shop Direct, a retailer in the UK, has recorded 62% of its sales coming from its mobile platform in the year 2016 [3].

The top E-Commerce companies such as Amazon and eBay group had a market share of 66% in the German E-Commerce industry in 2017 [4]; furthermore, 41% of the worldwide marketplace sales were attributed to online retail sales in 2017, with an increase of 17% from 2008, which is expected to rise by more than 10% annually 2018 onward [5]. These trends reflect the increasing demand for E-Commerce in recent years and can be attributed to the new technologies that have been introduced into E-Commerce, such as S-Commerce,

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sharing commerce and M-Commerce (subsets of E-Commerce): for example, chatbots for providing customer support services; voice assistants for implementing the tasks such as searching for products, filtering, sorting etc. [6] through voice commands by the users; augmented and virtual reality techniques for enhancing the users' experience while shopping on the online commerce platform; and other technologies such as blockchain technology and E-wallets for simplifying the payment processes. These technologies can be integrated with social media technologies to provide an innovative, efficient, and effective online information exchange in buying and selling on online platforms [7].

The increased trust and reliance on E-Commerce sites have led to an increase in the adaptability of online shopping. Various studies have found a positive relationship between trust and purchase intentions on E-Commerce and S-Commerce platforms [8–10]. S-Commerce is growing rapidly owing to its wide scope and numerous advantages. Biucky et al. [11] found that the perceived risk of adopting S-Commerce is positively correlated to perceived usefulness. The consumers' perception of usability and other factors such as security and reliability may impact S-Commerce adoption. However, various studies have shown positive results in S-Commerce adoption. Hashim et al. [12] found that S-Commerce can increase the company's reach, improve advertisements, increase profits, and minimise costs; it can be considered the future way of doing business.

Although there is an increase in S-Commerce adoption, the expansion of sharing economy and sharing commerce has redefined the E-Commerce platform introducing new concepts along with the S-Commerce technologies. Sharing commerce is an approach of sharing resources on mutual consent by means of buying/selling, barter system, or any other form of transaction. It is a relatively new concept in E-Commerce, which is adopted because of the enjoyment of the activity and economic gains [13]. Various studies have found an increasing adoption of sharing commerce [14–16]; however, research in this area is limited, as the concept of sharing in commerce is evolving, and various definitions of sharing commerce are being introduced [13]. Considering these aspects, this article focusses on a systematic review of literature on S-Commerce and sharing commerce and identifies the benefits and challenges by linking the concepts, which can help identify various implications that can be used by researchers and system developers in designing effectively integrated platforms As this review focusses on the types of commerce, which are not specifically based on the platforms but the concepts and methods (social media, social networking, sharing), M-Commerce in particular is not considered in this study. Notably, E-Commerce, S-Commerce, and sharing commerce applications are accessible from computers and mobile phones. Accordingly, various theoretical implications can be drawn from this study. Historical developments of sharing and S-Commerce, theoretical foundations of sharing and S-Commerce studies would reflect the development of technologies and commerce strategies according to the changes in consumer behaviour, which can be used for predicting future developments. The benefits and challenges associated with linking S-Commerce and sharing commerce can further highlight the possibilities of integrating both concepts and the issues that would arise, which can be used for research in future studies. In addition, an analysis of methodological contexts can reveal the limitations and strengths of the research studies. In this context, the purpose of this study is to conduct a systematic review to identify the new trends in the E-commerce development, focusing on the S-Commerce and sharing commerce: the challenges and benefits in linking both. Accordingly, the following research questions are derived, which will be addressed in this study.

- (1) What are the definitions of S-Commerce and sharing commerce?
- (2) What themes do the research studies related to sharing the commerce/S-Commerce/E-Commerce focus on?
- (3) What factors can be understood in linking S-Commerce and sharing commerce?
 - 1. What are the different issues/difficulties related to S-Commerce and sharing commerce?
 - 2. What are the various benefits of S-Commerce and sharing commerce?

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This paper is organised as follows: introduction to the concepts of different types of online commerce, including E-Commerce, S-Commerce, and sharing commerce, followed by the methodology, results, and conclusion.

2. Background

This section introduces different types of online commerce, including E-Commerce, S-Commerce, and sharing commerce, and their development through time.

2.1. E-Commerce

The online buying and selling of products and services can be referred to as E-Commerce. It is associated with various technologies such as M-Commerce, E-Marketing, E-SCM (Supply Chain Management), EDI (Electronic Data Interchange), and EFT (Electronic Funds Transfer). which facilitate the process of buying and selling on the internet [17]. It has transformed the shopping process from traditional personal shopping (in brick-andmortar stores) to online shopping, enabling customers to have a pleasant experience by providing effective services in the areas of delivery, EFT, payments, and accessibility of services. In addition, emerging technology applications such as chatbots are used to provide a better experience for customers who shop online on E-Commerce platforms [18]. E-Commerce facilitates various forms of business transactions between businesses and customers over the internet, reducing costs and increases process efficiency and time involved in business transactions. E-Commerce platforms have been extensively used for the past few decades because of their efficiency in handling various operations and information management. Considering the rapid growth of E-Commerce, it is estimated that total international online sales will exceed \$27 trillion in 2020 [19]. With the rapid technological developments, E-Commerce has been undergoing various developments for integrating it with various technologies. For instance, E-Commerce has integrated various social media elements on its platforms, such as reviews and ratings for products, referrals, and recommendations, which has increased customers' engagement on E-Commerce platforms (in both shopping and e-marketing through referrals). As stated earlier, this led to introducing new commerce systems such as S-Commerce and sharing commerce, which are discussed in the following sections.

2.2. S-Commerce

S-Commerce is a platform that integrates social media elements and E-Commerce technologies, features, and functionalities. It uses social media elements to promote online interaction and information exchange among consumers, which can help in the process of making purchasing decisions on the online platform. However, there are various definitions outlined by different authors in different contexts. Some studies [9,20] define S-Commerce as a new communication channel between customers on social media enabled platforms and between customers firms to create value for both them. In another study, S-Commerce is interpreted as an online model, which is characterised by the influence of social networking sites in E-Commerce. It is also characterised by leveraging social capital to promote commercial activities on SNSs [21]. These definitions characterise S-Commerce based on the platform: using social networking sites for commerce activities (Off-site: S-Commerce activities happen outside the company's website); and using social media elements on E-Commerce platform (On-site: S-Commerce activities happen on the company's website) [22]. In another context, S-Commerce is considered a subset of E-Commerce where the social media elements are used for improving the interactions between the customers, and between customers and businesses, and it facilitates customers' contributions to the promotion of the businesses (for example, reviews, recommendations, referrals, ratings etc.), and it enhances the online shopping experience [23].

The definition by Zhou et al. [24] focusses more on the operational perspective, which defines S-Commerce as the use of internet-based media that allows people to participate in various business promotional, marketing, and sales activities. Hajli [9] explained the

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role of both platform and consumers, stating that the platform provides an opportunity for interactivity while consumers produce the content. Therefore, the concept of S-Commerce is complex, and there is no definition in a single context; the definitions are emerging with integrating new social technologies on the E-Commerce platform [9,25,26].

S-Commerce features differ from the traditional E-Commerce platform, which can be explained in terms of content, community, context, connection, and conversation [27–29]. The information presented on the S-Commerce platform can be considered content. Producing and sharing valuable information, such as reviews, and the ratings of products and services by consumers creates value for users while increasing their engagement with the platform. Similarly, building a community network is another important feature of S-Commerce that lets users interact with each other effectively and develop strong relationships [27]. Context is an instance in which a transaction or communication occurs [28]. For example, liking a product or expressing a desire to buy a product are a few instances which can help the company tune in to the requirements of the consumers and provide services accordingly. Relationships or connections between users can help in decision-making because a particular user can obtain feedback about a product or service from other users. Similarly, the conversations between the users and the company can help in creating a more effective interaction which would help in building excellent customer relationships [29].

As explained by Leitner [30], S-Commerce can be characterised as manifesting through different types. First, there are peer-to-peer platforms such as eBay and Etsy, where users interact directly with other users on the platform and sell directly. Second, social networks such as Facebook, Twitter, and Pinterest advertise products on the company's social page and sell the products. Third, group buying (Groupon, LivingSocial) is used by companies to offer products and services at a low price if enough consumers agree to buy. Next, peer recommendations through platforms such as Amazon and Alibaba, where the information related to products and services is aggregated in terms of reviews, ratings, recommendations, purchase history, and feedback, can aid the consumers in the buying process. In addition, the consumers directly managed the whole business processes, such as design, manufacturing, distribution, etc., through voting, funding, and collaboration in different activities. (e.g., Threadless, Kickstarter). This is also known as collaborative commerce. This approach can be considered as one of the types of sharing commerce, which is explained in the next section.

2.3. Sharing Commerce

Sharing commerce is a new concept in business that emerged through the recent developments in the sharing economy. Sharing commerce and sharing economy terms are often used interchangeably, as they reflect sharing resources between individuals for free or a certain cost, typically through online interaction. Sharing commerce is an approach in online commerce wherein E-Commerce, S-Commerce, and social networking technologies are utilised in online buying and selling [13]. Collaborative commerce or participatory commerce are a few types of sharing commerce. There can be various approaches to sharing commerce based on the degree of participation of the consumers and the company providing the platform. For example, in group buying, participants use third-party platforms to place bulk order at a low price, and another company delivers the order. Similarly, in participatory commerce, consumers themselves become involved in the process of producing, buying, and selling goods and services. Therefore, sharing commerce can be defined as an approach wherein online commerce operations such as production, distribution, buying, and selling are shared among various entities, including consumers and businesses at various levels [13].

A recent trend in the online commerce sector is the increased adoption of S-Commerce with E-Commerce. The reason behind this trend is that S-Commerce offers profound benefits that come from aligning customers with business operations such as advertising and marketing and involving them in activities such as product reviewing and rating, which can help other customers in the process of making purchase decisions. However, sharing

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commerce is gaining momentum in recent times due to its various degrees of participatory methods, which not only give more freedom to consumers in the process of buying and selling but also help them in selecting the right product at the right price [31]. However, due to its complexity in the level of participation, and lack of clear rules on the authority and responsibilities of conducting business operations, it is deemed that sharing commerce is still in the nascent stage; it needs to be defined clearly, and any ambiguities surrounding the management of business operations need to eliminated. Different authors explain the concept of sharing in different contexts. The concept of sharing can be identified in relation to information being generated on S-Commerce platforms, which can be influenced by individuals and social capital factors [32]. Individuals may be influenced by reputation, enjoyment and satisfaction gained by helping other customers on the platform by sharing relevant information, while social capital factors such as out-degrees' post, in degrees feedback, customer expertise, and reciprocity may influence the information sharing process. Similarly, Hamari et al. [13] explained the concept of collaborative commerce using peer-to-peer activity, where goods and services are shared among a network of individuals through a community-based online platform. Users find collaborative commerce effective and are motivated by two factors: enjoyment of the process and economic gains.

Similarly, it is also identified that both social and commercial desire was considered the important motivational drivers of sharing commerce [33]. Owing to its extensive benefits and scope for increasing business with greater participation, sharing commerce was identified to be one of the important areas of research in online commerce [34,35] for analysing its applicability in various industries, where it can significantly reduce costs and increase business performance. Sharing commerce can be closely related to the sharing economy, which is based on the concept of sharing resources for reducing costs, increasing profits and, importantly, mutual benefits [36]. For example, resource-based sharing can be explained through Uber, where the cab service is shared among a group of passengers. Similarly, revenue-based sharing can provide various opportunities for business development [37]. Information sharing, as in S-Commerce, can benefit consumers in deciding which product or service to buy [9]. The sharing economy has various benefits, such as increasing engagement and satisfaction and reducing costs [38]; however, there are other issues such as developing trust [39], managing business operations, and improving public relations [40], which need to be addressed. As the sharing economy is still in its early stages of development, the scope of its applicability and associated risks are yet to be analysed. However, the sharing economy can revolutionise the E-Commerce industry if it is appropriately integrated with new technologies and other methods such as S-Commerce.

2.4. Historical Development/Evolution of E-Commerce, S-Commerce, and Sharing Commerce

With the development of ARPANET in the 1970s, researchers were involved in developing various techniques for online transactions. In 1976, Atalla Technovation became the first company to introduce products designed for secure online transaction processing, specifically for banking and financial institutions [41]. This was followed by the development of the first online shopping system in 1979 by Michael Aldrich [42], the first B2B online shopping system by Thomson Holidays (UK) in 1981 (Palmer, 1988), and the first B2C online shopping system by retail giant Tesco in 1984 [43]. With the development of the World Wide Web in 1990, E-Commerce began growing significantly, leading to the introduction of new commerce applications, including S-Commerce and sharing commerce, in later years.

The concept of S-Commerce emerged after the introduction of social networking applications such as Facebook and Google social applications in the later 1990s and early 2000s. Since its inception, the concept of S-Commerce has emerged from a simple human social networking approach to a multi-dimensional approach by encompassing the concepts of social psychology, social heuristics, information sharing and management, communication strategies, and information communication technologies in the economic dimension (E-Commerce) [44]. Since then, S-Commerce has been characterised by the idea

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of participation, which is called collectivism. Kim et al. [45] identified the antecedents of collectivism, which include consumers' preferences, reliance, concerns, and norm acceptance. These antecedents were found to have significant effects on the perceived usefulness of S-Commerce.

As the concept of S-Commerce was relatively new in the 2000s, most of the studies considered constructs relevant to E-Commerce platforms: Trust, Usability, Satisfaction etc. Bansal and Chen [46] found that consumers exhibited more trust toward E-Commerce platforms than S-Commerce platforms due to issues such as improper access, unreliability, and frequent errors. Cecere [47] pointed out that technology and management strategies are the main barriers to S-Commerce and recommended new strategies for increasing business value and presence. Hajli [48] determined that social relationships on S-Commerce platforms create value and identified trust as a significant factor influencing consumer behaviour. Most of the studies during 2010–2012 focussed on creating value, consumer behaviour, expectations, and motivation [49,50] on the S-Commerce platform.

Hajli [48] introduced the S-Commerce adoption model. The role of trust and technology was the focus of major research studies during 2013–2015. Noor et al. [51] identified six factors, including usefulness, ease of use, security, privacy, website design, and electronic word of mouth (e-WOM), which impact trust on the S-Commerce platform. Most of these factors are related to the technical aspects of the platforms. Hajli et al. [52] mentioned constructs including ratings and reviews, recommendations and referrals, and forums and communities which can build trust in S-Commerce platforms, reflecting the use of social media and networking elements in building trust. Similarly, Zhang et al. [53] investigated the impact of technological environments on motivating users' participation in S-Commerce. They found that virtual experiences such as social support, social presence, and information flow can significantly impact. S-Commerce constructs have been introduced by Hajli [1] as ratings, reviews, recommendations and referrals. Wang and Hajli [54] found that privacy concerns moderated the relationship between S-Commerce constructs and co-branding. Thus, with the increasing adaption of S-Commerce during 2013–2015, technical and social issues such as privacy, security, and reliability became the major factors related to S-Commerce.

After 2015, the trust continued to be one of the major factors directing the evolution of S-Commerce. Trust and the supporting constructs for building trust and their impact on purchasing intention formed the major areas of investigation. Shanmugam et al. [55] investigated the role of social constructs (such as reviews, ratings, and referrals) and social support constructs, including informational and emotional support, on trust establishment. The study has revealed that social constructs positively impacted consumers by providing emotional and informational support, which has resulted in establishing trust. Similarly, Hajli [1] also found that social constructs, along with the use of technologies such as Web 2.0. applications are enabling factors in increasing social presence by using social constructs; this approach increased not only trust but also the intention to buy. Yahia et al. [56] found that the reputation of the platform and price advantage have the strongest influence on trust. Similarly, Gibreel et al. [57] state that social and technical factors must be considered for the growth of S-Commerce in emerging markets and found that word of mouth (WoM) is positively correlated with building trust and purchase intention. Accordingly, Wang and Yu [58] found that the decision to make a purchase (intention) is greatly influenced by WOM and by observing and learning from other consumers on the platform. Cultural implications are also one of the important areas of research related to S-Commerce. Various studies [59,60] focussed on adopting S-Commerce in different cultural contexts and found various constructs had differentiating effects on building trust and purchase intention. In a recent publication [61], the authors also emphasise the impact of S-Commerce information sharing on value co-creation.

In similar to how S-Commerce resulted from the development of social media and networking technologies, the emergence of sharing commerce can be connected with the development of sharing economy, which has been increasingly adopted since the Sustainability **2022**, 14, 16024 7 of 38

early 2010s [13,31]. The research in relation to sharing commerce is still in the early stages. Few studies have focussed on various types of sharing and other constructs and their impact on the various business entities. Pei and Yan [62] found that cooperative behaviour and information sharing can reduce information distortion and aid in making better decisions. Similarly, Rong et al. [63] found that sharing commerce can help create sustainable value chains, which has become one of the major businesses objectives in recent years. Lee et al. [64] state that perceived benefits and trust are major motivational factors for engaging in the sharing economy. Although there are benefits that can be derived from sharing commerce, it also entails some risks which need to be addressed. For example, Ganapati and Reddick [65] reveal that the regulation of sharing commerce, especially mobility services, accommodation sharing, and gig labour, are major issues surrounding sharing commerce. Similarly, Lutz et al. [66] highlighted privacy concerns, monetary motives, and trust as the major issues of sharing commerce which needs to be addressed.

Although sharing commerce has been gaining momentum in recent years, it has many similarities with the evolution of S-Commerce. The evolution of sharing commerce can be compared with S-Commerce, as both concepts initially had technical and trust related drawbacks but later gained momentum in adoption. The focus then shifted to the impact of different constructs and technologies in gaining trust and creating value.

3. Methodology

This research paper applies the systematic review approach to link S-Commerce and sharing commerce. By reviewing studies that fit pre-defined inclusion and exclusion criteria, we aim to identify 'the challenges and benefits of moving to sharing commerce'. In addition, systematic review studies are conducted to collect evidence related to specific research topics or methods or to explore a new phenomenon and gaps in the research for future research opportunities [67]. These reasons match the purpose of this study.

This study aims to conduct a systematic review to identify research questions relevant to S-Commerce and sharing commerce, related challenges, and the benefits of linking S-Commerce with sharing commerce. There are six stages in this systematic review: (1) define the research question(s), (2) demonstrate the protocol of the review, (3) define the selection criteria of inclusion and exclusion, (4) define the criteria for selecting the studies besides the search strategy, (5) assess the quality of the respective papers, and (6) identify the how data were extracted and synthesised [67]. This methodology is widely used in various fields, especially in social commerce research [68–70]. PRISMA guidelines were adopted in this study for conducting the systematic review [70]. PRISMA checklist and the flow diagram are available in Supplementary Materials. A detailed explanation of each step is provided in the sections below:

3.1. Review Protocol

The review protocol identifies how the systematic review should be performed. It is important to define the review protocol before starting the systematic review to minimise potential bias. Identifying the review protocol depends mainly on the research question and the strategies that are adopted to implement the systematic review [67].

Following Kitchenham and Charters [67], the review protocol of this paper includes background information about S-Commerce and sharing commerce, research questions being addressed, search strategy adopted, the process of selecting studies, assessing the quality of the selected studies, and the process of extracting and synthesising data. The research background of S-Commerce and sharing commerce has been discussed above.

3.2. Inclusion and Exclusion Criteria

Identifying inclusion and exclusion criteria is substantial to ensure the relevance of the selected studies. Only English literature that discussed the topic of S-Commerce and sharing commerce was selected for this systematic review. Different databases, such as EBSCO, ScienceDirect, Semantic Scholar, Elsevier, and Taylor and Francis, were scanned using the

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Saudi Digital Library. Furthermore, some relevant studies were identified by searching Google Scholar. Keywords included in the search process include 'sharing commerce', 'sharing economy', 'social commerce', 'social E-Commerce', and 'digital transformation'. The selected studies published between 2008 and 2022 discussed the issues related to the sharing economy, sharing commerce and S-Commerce. We selected this period for many reasons. The notions of the sharing economy and S-Commerce have been increasingly studied in different articles since 2010. However, the two concepts emerged in the late 1990s. We tried to cover the concepts right from the beginning for a more comprehensive understanding of their evolution.

3.3. Search Strategy and Study Selection Process

The research strategy involved two phases. First, we identify the literature on S-Commerce, sharing economy, and sharing commerce. Webster and Watson [71] emphasised that different sources of academic studies should be considered to cover the wide range of academic papers. Thus, different databases such as EBSCO, ScienceDirect, Semantic Scholar, Elsevier, and Taylor and Francis were scanned. We used SDL to explore different databases besides hand-searching in Google Scholar. These databases were selected because they provide papers from high impact factor journals and cover many publications. Keywords were extracted and used to find relevant publications. These keywords include 'sharing commerce', 'sharing economy, 'social commerce', 'social E-Commerce', and 'digital transformation'.

Second, the references of the selected citations were tracked using the 'backward, forward method' to find relevant publications and ensure the systematic research's comprehension [71,72]. MS Excel was used to manage the retrieved papers and to ensure there was no duplication.

After discussing the search strategy, this section discusses how the studies were selected. This section identifies literature related to this systematic review's domain. Initially, 168 papers resulted from the search. After refinement and eliminating the duplication, 153 studies remained. Secondly, the abstract and conclusion of the selected literature were analysed by applying the inclusion and exclusion criteria (explained in Section 3.3). Then, the full-text review was applied to the rest of the publications to guarantee that all nominated studies concerning our research question as recommended by Kitchenham and Charters [67]. Thus, a total of 143 studies remained.

3.4. Quality Assessment

Assessing the quality of scientific literature is a crucial step when performing a systematic review study. It helps ensure the selected studies' quality and validity and reduces bias [65]. According to Bandara, Miskon, and Fielt [73] and Kitchenham and Charters [67], a list of questions was developed to be employed to assess the quality of the selected papers. These questions are:

- (1) Is the subject of the study related to S-Commerce, E-Commerce, or sharing commerce?
- (2) Does the paper clearly describe the research approach/methodology?
- (3) Does the paper include a description of how data were collected?
- (4) Does the paper clearly describe how data were analysed?

Each one of these questions represents a criterion. Each criterion was measured based on a 3-point Likert scale (high, medium, and low), where 2 reflects the highest score and 0 reflects the lowest score [74]. The quality of all papers was measured based on the total score each paper had. If a paper fully satisfied a criterion, it received a score of 2 for that criterion. If a paper moderately satisfied the criterion, it scored 1. If a paper did not satisfy the criterion, it scored 0. Then, the total score of the criteria was calculated to obtain the final score of each paper by calculating the average score of the four criteria. The publications scoring 0 to 0.75 were considered low-quality papers. The papers scoring 0.76 to 1.5 were considered medium-quality papers. The papers scoring 1.51 to 2 were considered high-quality papers. As a result of this process, one paper did not satisfy the quality criteria

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and was classified as a low-quality paper. Therefore, we used the remaining 143 papers to answer the research questions of our systematic review. Out of all, 24 were medium quality, and 119 papers were of high quality (see Appendix A, which shows the outcome of the QA assessment for each paper). Figure 1 shows the results of the QA assessment.

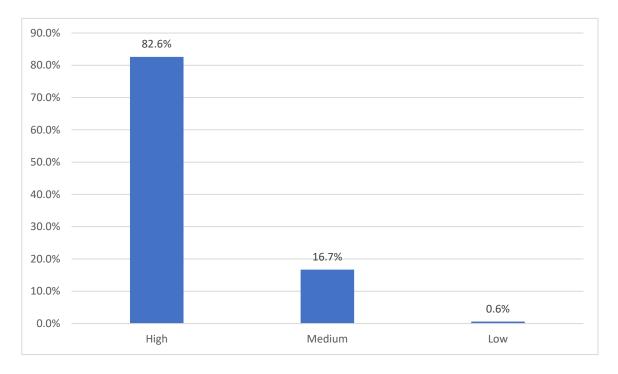


Figure 1. QA assessment result.

3.5. Data Extraction and Synthesis

Eleven factors were identified for data extraction from each study selected for review in order to address the research questions, which included publication source, year of publication, key topics discussed, methods, techniques for data collection, adopted theories, definitions of S-Commerce and sharing commerce, themes (central aspect of the study), challenges and benefits of S-Commerce/Sharing Commerce, and study outcomes. These eleven factors were assessed and derived from each study selected for the review.

3.5.1. Publication Sources Overview

As illustrated in Figure 2, this review assumes greater importance because many of the studies have been published in reputable and high-impact factor journals and prominent conferences on information systems. Primary studies were used to guarantee high quality and to provide precise information on the S-Commerce and sharing commerce phenomena. Nearly all the distribution of publication sources was journals with 123 findings, followed by 19 conference studies, and finally, one study published in a workshop. This paper did not use any study published in a book chapter or symposium.

3.5.2. Temporal View of Publication

As stated earlier, the chosen period for this review is 2010–2022. The distribution of the research over the years is presented in Figure 3. As displayed in the graph, the publication of S-Commerce and sharing commerce findings increased progressively between 2010 and 2017. The largest number of publications was recorded in 2017 with 21 studies, which was followed by 17 studies in 2016 and 16 studies in 2018. Such distribution demonstrates how the number of the S-Commerce and sharing commerce findings rose. However, in 2019, the number decreased to 13 studies, which again rose to 15 studies in 2021.

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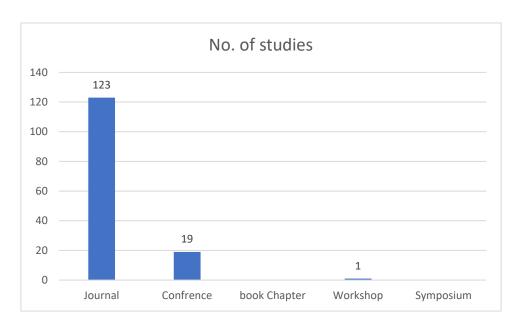


Figure 2. Distribution of studies based on source of publication.

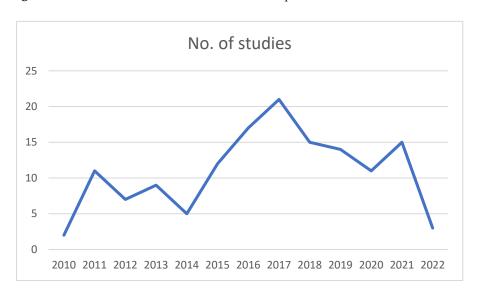


Figure 3. Temporal view of primary studies.

Table 1 summarises the development of S-Commerce and sharing commerce studies; it displays the key themes debated during 2010–2019. From 2010 to 2014, S-Commerce research focussed around three major themes: the economic value implication of S-Commerce; the concern for privacy and trust for users; and online consumer behaviour in S-Commerce across cultures. In 2015, S-Commerce studies revolved around the significance of the growth of online communities that empowered users and topics related to the acceptance and use of sharing commerce as a new form of S-Commerce.

From 2016 to 2018, sharing commerce continued to develop. A major trend was the technical dimension of sharing commerce sites, technological characteristics, and the tools that illustrate the sharing commerce evolution and its potential for the future The debate about the adoption of sharing commerce by users and challenges and prospects remained throughout the period (2016–2018). Research tackled topics such as purchase intention, buying habits, shopping experiences, trust and risks, building brand loyalty, continued customer participation in sharing commerce activities, and finally public relations in the sharing economy.

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 Table 1. S-Commerce and Sharing Commerce Studies Evolution.

Timeline	Key Topics
2010	Value from S-Commerce networks [28,75]
2011	Issues of trust in S-Commerce [21,25,46]
2012	User participation on S-Commerce sites across cultures [49,76,77] Consumers' trust in S-Commerce [78]; S-Commerce adoption model [48]
2013	Online consumer behaviour in S-Commerce across cultures [23,79] Online trust and value in S-Commerce [51,80]
2014	Trust and privacy concerns [52] Information disclosure in S-Commerce environment [81]
2015	Consumer perception of knowledge-sharing (collaborative consumption) [1,13,14,34,82] The shift of power from dealers to purchasers (Social Exchange Perspective) [20,38]
2016	New technologies in commerce and sharing economy [36] Trust and risks in the sharing economy [8,15,31] Developing brand loyalty in sharing commerce [83,84]
2017	Buyer intentions to engage in sharing commerce [29,59,85] The role of personal privacy in the sharing economy [11,66] Understanding media in the sharing economy [40] User reliability measuring in a sharing economy environment [86,87]
2018	Opportunities and challenges of sharing economy [65] Why people engage in the sharing economy [33,64] Brand co-creation through S-Commerce information sharing [88] Role of online merchandise suggestions on buyer decision making and loyalty in social shopping communities [89,90]
2019	Using S-Commerce information sharing for value co-creation [60] Shared behaviour and information sharing in the E-Commerce age [62] How do merchandise suggestions affect impulse purchasing? [91] How sustainable is the sharing economy? [92] The sharing economy and its consequences for sustainability [93]
2020	Consumer behaviour [94–96] Social commerce engagement [97] Social support through recommendations [98] Factors influencing purchase intentions [99] Impact of information sharing activities and learning activities [100,101]
2021	Consumer behaviour [102–104] Social support factors [105,106] Information quality on social commerce platforms [107,108] Value co-creation by stakeholders [109,110]
2022	Consumer behaviour [111–113]

The development continued in 2019; sharing commerce studies expanded to include how sustainable the sharing economy is and its implications. However, from 2019, user-centric aspects were the most prominent areas covering user behaviour, motivation, intentions, information sharing behaviour, etc.

3.5.3. Research Methodologies

Methods for the study which have been implemented in the preliminary studies are shown in Figure 4. As can be noted, most of the findings used quantitative methodology and were survey based. The illustration shows that 95 of the 143 research studies were quantitative, while 20 investigations were reviews, and 13 types of research were qualitative. The distributions display only two studies, both quantitative and qualitative, 10 were conceptual studies, and the other three were unclear (Figure 4).

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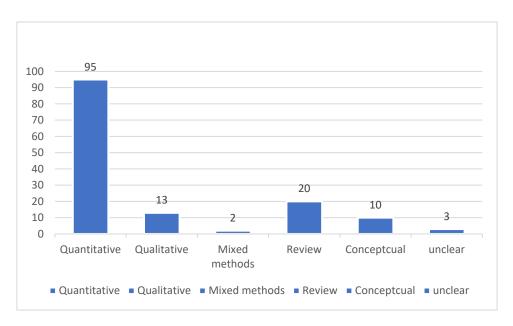


Figure 4. Distribution of research methodologies.

The techniques relevant to the methodologies are presented in Figure 5.

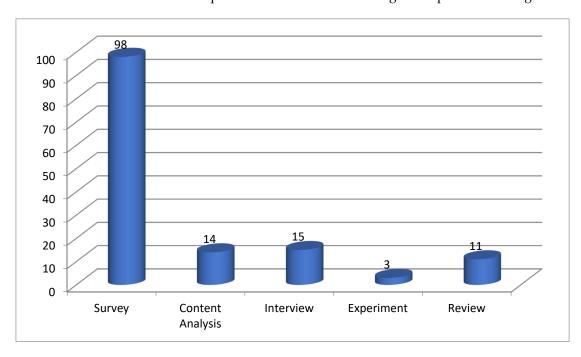


Figure 5. Techniques adopted in selected studies.

3.5.4. Theoretical Foundations: Classification of Theories Are Based on the Primary Goals of Each Theory

The systematic review of the previous studies revealed that Planned Behaviour Theory (PBT), Consumer Behaviour Theory (CBT), Social Support Theory (SST), and the Technology Acceptance Model (TAM) are the most frequently used theories in these studies. As shown in Figure 6 below, CBT was the most used theory found in (17) studies, and it was followed by SST and TAM, which were both used in (10) separate studies, respectively. Subsequent to this is Social Exchange Theory, which was found in seven papers. The following theories gained attention as well and were applied in seven to six studies each; these are the Unified Theory of Acceptance and Use of Technology, Word of Mouth model, and Social Support Theory.

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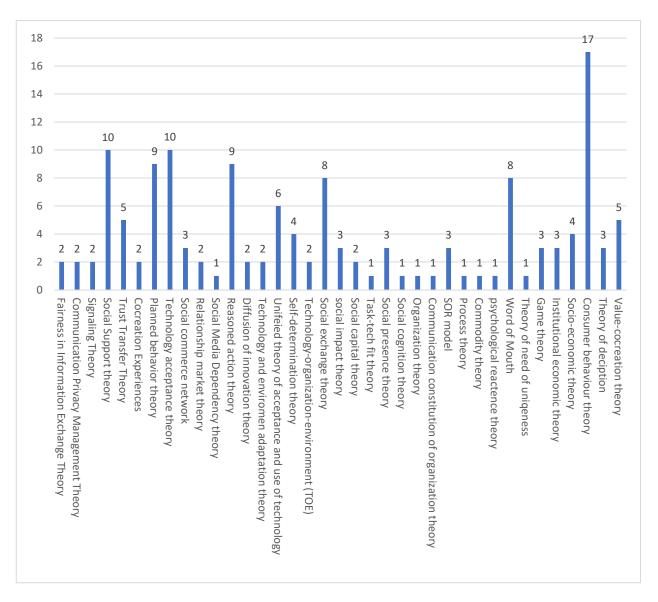


Figure 6. Distribution of theories.

Social-related and behaviour-related theories were found to be commonly used in previous studies. That indicates the important role of social and behavioural aspects in S-Commerce. The reasons behind this could be the social nature of S-Commerce, the importance of the customer engagement model, or the impact of social interactions on purchasing intention or the decision-making process.

4. Research Questions (RQs) Results

In this section, the research questions are addressed by gathering the information from the studies selected for systematic review, as discussed in the previous section.

4.1. What Are the Definitions of S-Commerce and Sharing Commerce?

S-Commerce is an online business model resulting from social networking sites' influence on E-Commerce [25]; these authors opined that S-Commerce is characterised by leveraging social capital to promote commercial activities on social networking sites. Curty and Zhang [114] stated that in S-Commerce, people trade or intentionally explore trade opportunities by participating and/or engaging in a collaborative online environment. The definition given by Liang et al. [21] considers the social networking activities on E-

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Commerce platforms, which portrays social networking and E-Commerce as different entities. Mohd and Rosli [26] described it as a platform where sellers and buyers connect online through social media networking.

Similarly, Wang and Yu [58] stated that S-Commerce differs from E-Commerce's unidirectional browsing and buying activity to a bidirectional 'purchase decision journey' that allows for two-way communications and sound collaborative relationships with other consumers. These two definitions highlight the transaction attributes, including buying and selling online on social media platforms. Hajli [1] stated that S-Commerce offers an opportunity for interaction whereby consumers produce content which explains the importance of the role of consumers in S-Commerce. Hajli [1] further added that the interaction with the consumers allows the vendors to access diverse markets. The definition given by Hajli [1] has more scope as compared to Liang et al. [21]. It clarifies that consumers interact and produce content on E-Commerce platforms or social media platforms.

S-Commerce development can be related to the integration of social networking elements with E-Commerce platforms, which has changed the way people use E-Commerce platforms for online buying and selling [25]. For instance, using social networking on E-Commerce platforms can help companies in effectively interacting with their customers and promote their products and services. Similarly, customers can provide reviews and ratings for a product or service, and they may become involved in promotional activities by sharing the product or service to friends and colleagues. Thus, S-Commerce platforms can help both consumers and companies in information sharing and management activities. Thus, social commerce can be defined as the subset of E-Commerce, where social media techniques supporting social interactions and user contributions can be observed in assisting with the buying and selling of products and services [115].

However, when the customers not only use social media and social networking elements for sharing information but also become actively involved in the operations such as marketing promotion and buying and selling, that reflects a collaboration between all the stakeholders. This approach reflects sharing or collaborative commerce. In S-Commerce, customers may support information-sharing activities such as reviews and ratings. However, in sharing commerce, customers collaborate with companies not only in information-sharing activities but also in the process of production, distribution, marketing, promotion, and most of the supply chain activities. Customers either partner with companies or collaborate with other customers in the process of buying and selling in sharing commerce. Whereas in S-Commerce, customers do not partner with other customers or companies on the platforms but are only involved in information sharing, which constitutes their own views, which may influence both companies and customers either positively or negatively [32]. In a different context, Hamari et al. [13] studied the concept of Collaborative Consumption (the peer-to-peer-based activity of obtaining, giving, or sharing access to goods and services, coordinated through community-based online services) and found that participation in sharing commerce is motivated by enjoyment as well as economic gains. In this process, the people in a community are involved in buying/selling/sharing goods and services rather than businesses and people in sharing commerce. This draws a line of differentiation between collaborative consumption, where a group of people are involved in transactions, and sharing commerce, where both people and businesses are involved in transactions. However, sharing commerce is in its early stages and is not fully developed as there are many complications, including legal and regulatory issues which must be addressed [31].

While objective and motivational perspectives drive S-Commerce participation, commercial and social desire drive sharing commerce participation [33]. The applicability of sharing commerce in various industries has been the focus of research studies. Sigala [34], for example, states that sharing commerce can be beneficial in the tourism industry. Hsu [116], stated the potential use of artificial intelligence in solar energy collaborative commerce. Similarly, ecological welfare, improved social connections, and collective development were identified to be potential benefits of sharing commerce [35]. From the

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above discussion, sharing commerce can be defined as the subset of E-Commerce that integrates the concepts of social commerce and collaborative commerce (electronically enabled business interactions among all stakeholders in business operations, including customers) in assisting the buying and selling of products and services [100].

The definitions of both S-Commerce and sharing commerce involve the concept of collaboration, where the collaboration in S-Commerce is among the users in sharing information on the platforms. In contrast, in sharing commerce, the collaboration can also be extended from information sharing to products/services selling and buying on the platform. However, there are various themes that need to be identified and aspects that need to be considered in linking S-Commerce and sharing commerce.

4.2. What Are the Various Themes Revealed by the Systematic Review?

A research theme is a central aspect of a research study intended to be explored [21]. The major themes identified from the systematic review of 143 studies include customer behaviour, security and privacy, firm performance, business model, framework development, network analysis, S-Commerce/sharing commerce adoption, system/website design, and social process, as shown in Figure 7. Figure 8 depicts themes across the timeline from 2009 to 2021.

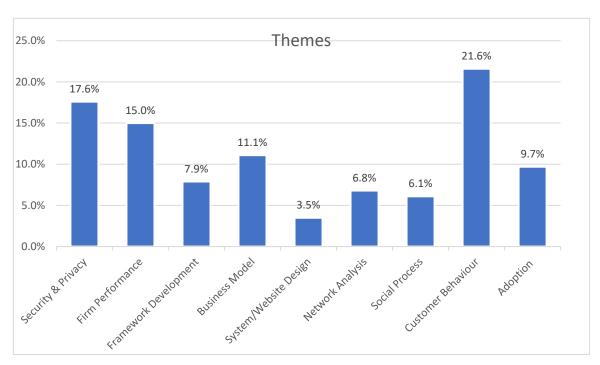


Figure 7. Distribution of Themes.

As S-Commerce developed during early 2004–2009 [69], various studies focussed on its impact on customer behaviour, design of platforms, business models, and analysis of networks during 2009–2011. The customer behaviour aspect continued to be one of the important aspects studied until 2019, along with the developments in the technology infrastructure and its linking with network analysis, social process, and firm performance, with a focus on customer engagement, social support, adoption, community development, and market coverage. In addition, security and privacy are important topics and were the major research areas between 2015 and 2019. The research looked at the aspects of trust, loyalty, reliability, and support with a focus on usability, purchase intention, relationship management, accessibility, information sharing, and responsibility.

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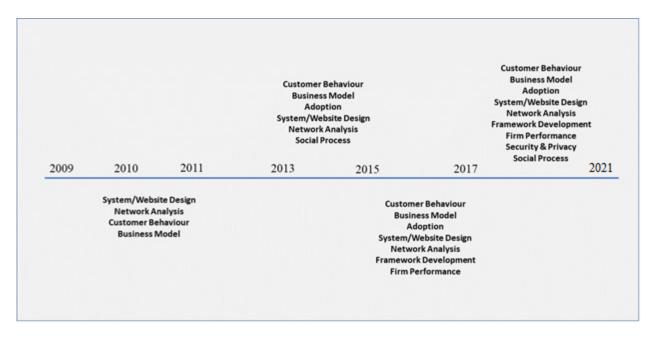


Figure 8. Distribution of themes over the timeline.

4.3. What Are the Various Factors to Be Understood in Linking S-Commerce and Sharing Commerce?

S-Commerce focuses on the concept of information sharing mainly through reviews, ratings, and feedback which customers can use in making purchase decisions and by companies to improve their products and/or services. Other forms of information sharing, such as referrals and e-WoM, help companies expand their marketing activities with the help of customers. Whereas in sharing commerce, the focus is on economic gains and customer satisfaction in information-sharing activities. In sharing commerce, customers can become involved in selling products/services or through third-party platforms (B2C/C2C), unlike in S-Commerce (primarily B2C). Linking both concepts can help build a hybrid platform, integrating the concepts of B2B, B2C, and C2C on a social/sharing commerce platform using social media and networking technologies for information sharing. However, there are various issues/challenges and advantages/disadvantages that need to be analysed and understood and explained under the following research questions.

4.3.1. What Are the Challenges/Issues Associated with S-Commerce and Sharing Commerce?

There are several issues to be considered in both S-Commerce and sharing commerce, as they involve customers and businesses who are not known to one another, and where the risk of security associated with the E-Commerce activities can be at stake. This review has identified ten major issues associated with S-Commerce and sharing commerce.

Trust: S-Commerce, as discussed in the previous section, focusses on information sharing in the process of online shopping/business transactions. User reviews are one such part of information sharing which can directly influence the customers' trust, as both positive and negative reviews could affect the levels of trust which can impact purchase decisions [117]. Similarly, Cheng et al. [118] identified various antecedents of particularised trust including trust disposition, quality-assured shared information, familiarity, and endorsement by other members, which could influence users' purchasing behaviour. Not only the information attributes (reviews, ratings, or feedback) but also the social factors, such as social support, seller uncertainty, and product uncertainty, influence users' trust and their purchasing behaviours [119]. Accordingly, it was identified that there are various factors influencing trust on S-Commerce platforms. For example, a recent study found that users trust more in E-Commerce platforms than in S-Commerce platforms [46], reflecting the influence of the business model on the users' trust. In addition, design and usability features that influence user experience are major factors influencing trust [45].

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In contrast to S-Commerce, trust in sharing commerce is more influenced by transaction security than information attributes, as the users in sharing commerce are unknown to each other, and the risk of the transaction would rely on the platform service provider [120]. Similarly, the user's familiarity with the service provider and the service provider's familiarity with other users are a few factors that impact the trust of the users [15]. Activities dedicated to social commerce, such as information sharing, can increase trust, reduce privacy risks, and improve decision making in sharing commerce platforms [98], which can facilitate informational and emotional support from peers and contribute to value cocreation [115]. As the sharing economy is still in its early stages of development, physical security remains one of the major factors affecting trust, which can eventually be addressed by building trusted and reliable platforms by major S-Commerce players who are familiar with users [31]. Various antecedents of trust in the sharing economy (e.g., reputation, trust in the platform, and interaction experience) related to multiple entities (i.e., seller, buyer, platform, interpersonal, and transaction) are required to be analysed, which deepens the understanding of factors affecting trust [39].

From the review, it is evident that research related to factors affecting trust in S-Commerce is comparatively more than that of sharing commerce, which is relatively new and is in its nascent stage. In addition, the focus on trust factors in sharing commerce is mostly regarding transactional/physical security, while in S-Commerce, it regards information sharing, design specifications, and business models.

Sustainability: The research on S-Commerce in recent years focussed on privacy and security, business models, network analysis, and customer behaviour with the aim of developing sustainable S-Commerce platforms [69]. Achieving sustainability in S-Commerce is a complex issue, as various factors influencing its operations and functionality are still emerging. In addition, rapidly developing technologies are used in upgrading S-Commerce functionalities [121]. Similarly, in sharing commerce, various users interact on a common platform in the buying and selling process. Therefore, the concept of sustainability is more focussed on the platform provider, considering how resources are used in the context of social, economic, and environmental factors. Therefore, sustainability in the sharing economy is analysed by connecting the platforms to various industries in the market. A recent study [92] has identified various issues related to sustainability, such as lack of regulations, ambiguity in the transactional processes in sharing commerce, and sustainability connotations of the platforms. Existing strategies need to be coupled with new approaches for achieving sustainability in the sharing economy [35,122], which is framed as: (1) an economic opportunity; (2) a more sustainable form of consumption; (3) a pathway to a decentralised, equitable and sustainable economy; (4) creating unregulated marketplaces; (5) reinforcing the neoliberal paradigm; and (6) an incoherent field of innovation [123].

Therefore, the sustainability of S-Commerce may mostly depends on the platform provider, and various issues associated with the operational processes in these systems are involved in this aspect [99,103,124]. However, in sharing commerce, all the stakeholders are responsible for achieving sustainable development by participating in various value creation activities such as information sharing, marketing, consumer engagement, etc. [125].

Competition/Competitive Advantage: S-Commerce has various advantages over E-Commerce, which are related to information quality, active communication, price advantage, and e-WoM, which improves the shopping experience and generates value in marketing and branding [80]. These factors add competitive value for S-Commerce platforms compared to traditional offline shops and E-Commerce platforms. However, the issues of transaction safety, privacy and security as well as the reality of experiencing products/services before purchase are a few aspects that need to be addressed. Similarly, the issues in sharing commerce are highlighted by Habibi et al. [126], who analysed the concept of sharing and found it to be limited and misunderstood in practical terms. There is no exchange of money or direct transactions between users; platform providers control transactions. For example, Uber (ride sharing) or Kangaride (Canadian peer-to-peer ride-sharing platform) allow users to post ride-sharing information but not conduct direct transactions.

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The competitive advantage in such cases is dependent on various factors such as the car condition and driver behaviour which can increase or decrease the competitive value of the platform provider. Whereas, in S-Commerce, the power of buying is transferred from sellers to buyers, who can make decisions based on the quality of the information provided and by using social networking channels [20,49], which can add competitive value to the platform based on the information provided. However, in sharing commerce, although the power seems to be in the hands of users, a lack of quality information can affect the competitive value and brand of the platform and service providers [127]. For example, in the case of hotels or AirBnB, a lack of hospitableness information may affect customer's experience, which may affect their attitudes towards the hotel/accommodation and also the sharing platform provider, which in turn could affect the competitive value [82]. To simplify and understand the competitive value in the sharing economy, Zhang et al. [93] developed a customer value proposition model with four values including economic, social, emotional, and technical.

Sharing commerce can lead to competitive advantage among businesses, as consumers actively take part in value co-creation, marketing, and promotion through E-WoM and other information-sharing activities such as reviews, ratings, forums, communities, etc. [93,112,127,128], and recommendations from which new consumers can learn and be influenced in developing purchase intentions [101]. However, it is evident that there is a lack of research into the issues of competitive advantage in both S-Commerce and sharing commerce.

Ownership/Responsibility: Both sharing commerce and S-Commerce experience the issue of ownership/responsibility. Information is rapidly generated and shared online by various sources across the internet. Similarly, in both sharing and S-Commerce, users share information through ratings, reviews, referrals, feedback, recommendations, and the service provider/product/service information using social media networks [16]. However, the issue of ownership/responsibility for the information is still unaddressed. For example, in sharing commerce, users share activities such as renting, lending, trading, bartering, and swapping goods, services, transportation solutions, space, or money on the service provider's platform. However, the responsibility/ownership of the activity or service has to be of both the platform provider and users. It is the responsibility of the platform provider to provide safe transactions and the responsibility of the users to provide and receive quality service/products [38].

Similarly, in S-Commerce, information sharing, social support, and relationship quality positively affect brand co-creation directly or indirectly, and privacy concerns moderate the effects of S-Commerce information sharing on brand co-creation [88]. The ownership of such content created and shared by the users can be a concern if there are no regulations on information sharing and content creation methods. It can be surmised that the issue of ownership/responsibility in S-Commerce is less critical than in sharing commerce, where users not only share information but also trade and become involved in value co-creation [109].

Security and Privacy: The adoption of S-Commerce largely depends on perceived usefulness rather than psychological, social, and technological [11] risk constructs. Similarly, Featherman and Hajli [129] found that if usage risk concerns increase, it may reduce the intention to use S-Commerce. However, there are other issues related to security and privacy, which can result in harmful losses to personal finances, time, and information theft. Various factors can affect the intention to disclose personal information on the S-Commerce platform by considering the security and privacy issues.

Accordingly, Sharma and Crossler [81] discovered that intention to self-disclose in S-Commerce is affected by perceived ownership of information, privacy apathy, the risks and benefits of disclosure, and fairness of information exchange. It was found that perceived enjoyment, perceived apathy, perceived usefulness, and fairness in information exchange positively affect the disclosure of personal information, whereas perceived privacy risks negatively affect the intention to disclose personal information. Additionally, industry self-

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regulation and institutional privacy policy assurance may positively influence users' trust in sharing information and online shopping on S-Commerce platforms [130]. However, in a recent study conducted by Williams [131], it was found that the perception of a secure environment is only of partial influence; perceived innovativeness, perceived usefulness, and convenience were found to have more influence on information sharing and online shopping in S-Commerce. Although security and privacy are the major concerns, it is evident that users' focus is shifting towards innovativeness and usefulness by increasing their knowledge and awareness levels through social learning [101]. It is identified that consumers' cognition, trust, and value co-creation activities in sharing commerce have a positive impact on social shopping and social sharing intentions [109]. However, information sharing and participation behaviour can be positively influenced by consumers' knowledge of sharing behaviour. Therefore, awareness and knowledge among the consumers is an important factor that needs to be established to minimise privacy and security concerns [102].

Reliability is an important factor in analysing customer behaviour and their attitudes towards S-Commerce. As discussed earlier, online users placed more trust in E-Commerce than in S-Commerce [46]. However, the growing importance of S-Commerce has led to confusion among businesses regarding which platform they should utilise and which platform users find reliable. In this aspect, Chen et al. [132] found that integrating E-Commerce with social media plugins can attract users by connecting them with familiar platforms that they consider reliable in terms of trustworthiness of reviews and ratings. Similarly, when sharing commerce anchors itself to trusted social media platforms promoting C2C transactions, the information quality and the number of likes promote impulsive buying [133]. Both recommender-related signals (information quality and similarity) and product-related signals (vicarious expression and aesthetic appeal) influence the trust and reliability of the platform/service provider, which leads to impulsive buying [91]. However, using such techniques for impulsive buying may not achieve long-term reliability and trust.

Similarly, Featherman and Hajli [129] found that when customers evaluate new services and technologies, an increase in usage risk concerns negatively affects intention to use. Therefore, establishing trust and reliability is necessary while integrating new e-services and technologies into sharing and S-Commerce. In addition, factors such as reputation, size, information quality, transaction safety, communication, economic feasibility, WOM, e-WOM, usefulness, ease of use, security, privacy, website design, and referrals also affect trust and reliability [51,80]. Similarly, in sharing commerce, cyber–physical systems for creating mutual trust between providers and users were developed by Seo et al. [85]. Although reliability in S-Commerce can be achieved by various informational, technological, design, and service-related features, achieving reliability in sharing commerce is a complex task. It may require extensive research to develop reliable models.

Usability: Behavioural factors such as satisfaction, ethics, trust, enjoyment/ease, social pressure, and awareness largely influence the aspect of usability in S-Commerce [85]. Technology and social media elements also improvability by providing effective methods to share information, quality information, and privacy and security [129]. One of the recent aspects of S-Commerce, such as live-streaming by individual sellers on Facebook, is gathering pace and helping buyers gain new experiences and trust in the sellers [134]. Similarly, usability in sharing commerce has a scope for improvement regarding social, economic, and epistemic benefits, which provide a relative advantage over S-Commerce. In addition, sharing commerce creates an enjoyable and intriguing experience for users and providers as they are personally involved in trading (selling/buying) on a trusted thirdparty platform [14]. The factors influencing usability aspects were categorised into three categories, namely: social factors (informational support and community commitment), trust (towards members and community) and website quality (ease of use and service quality), reflecting the social, behavioural, and design aspects in S-Commerce platforms [29]. However, the usability aspect is closely associated with social pressure, behavioural aspects, attitudes, trust, and design factors which may frequently be changing; as a result, the

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usability aspect in S-Commerce and sharing commerce has become a complex issue in the fast-changing technology, market, and social environments.

Relationship Management: Managing the relations between users, between users and service providers, and between users and social media platforms plays an important role in the functioning of both sharing and S-Commerce platforms. The quality of relationships between users and social networking websites in the sharing commerce context may significantly affect their intention to use S-Commerce [21]. Cooperative behaviour among all the parties involved in sharing and S-Commerce can help in the smooth implantation of the process which can be an effective approach for mutual benefits [62]. For example, a collaborative approach in the tourism industry helps in planning tours, budgeting, and other activities without any complications [34]. The relationships are often influenced by various factors such as information quality, ratings or likes of users, and reviews. Strong relationships in a trusted platform can promote impulsive buying [133]. However, in such cases, the quality may be undermined, and the ratings or likes would be considered, which may affect the buyers and their future relationships on the platform. Therefore, the quality of information, accuracy, and legitimacy are basic foundations for establishing good relationships between all stakeholders in both sharing and S-Commerce platforms. However, communication in sharing commerce can lead to various issues if not managed. Gregory and Halff [40] analysed that the sharing economy poses challenges to traditional forms of organising public relations functions but offers opportunities to realise different potentials when public relations facilitate communication circuits and become a metacommunicative competence embedded within the organisation.

Policies and Strategies: Policies and strategies are important in ensuring the successful implementation of both sharing and S-Commerce and achieving sustainability and success. This systematic review has identified that most of the research studies focus on identifying the relationships between various factors or constructs in sharing and S-Commerce. At the same time, the concept of policies, strategies, and regulations is considered in very few studies. The need for policies can be identified from the issues that may arise during the performance of activities such as delivery, returns, and payments. In their study, Pei and Yan [62] found that cooperative wholesale price and profit sharing between seller and platform provider may minimise the payment-related issues; adopting a returns policy would help increase the value of information sharing. Therefore, clear policies reflecting the relationships, information sharing, roles and responsibilities of sellers, buyers, and e-tailers can ensure a smooth flow of operations. However, there is ambiguity in the policies and strategies to be adopted in sharing commerce as it is relatively new, and there is a direct interaction of sellers/buyers on the platform, unbound to any mutual agreement on the transactions. The findings from the research studies focussed on customer behaviour and trust can be used for building policies and strategies by e-tailer companies [85].

For example, Baghdadi [135] proposed a framework comprising three main entities: (a) enterprise social interactions, actors, and business processes (and their output: products/services), (b) the relationships between these entities, and (c) the constraints (if any), which can be used for developing policies on operations, information sharing, and value co-creation. Similarly, policies on competition, marketing, expenditures, sustainability, growth, information systems management, and technology architecture are essential to control the external environment's risks [23,28,45,55,136].

Regulations: The prospects of information sharing and generating user-specific content are simplified to a great extent with the emergence of the internet, social media and networking technologies. However, issues regarding information security, management and sharing, and privacy are major issues affecting social networking and E-Commerce industries [32]. The recent trial of Facebook regarding privacy and of Google concerning the use of user information are two important examples reflecting the need for placing effective rules and regulations governing the operations related to information management on E-Commerce platforms. Sharing and S-Commerce are relatively new subsets of E-Commerce on which the research is being carried out. Considering their fast-paced growth, the

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need to develop regulations is highly required now. Li and Ku [137] found that social presence, support, benefit, transaction efficiency, and self-presentation impact customer switching and are major influencing factors in switching to sharing and S-Commerce platforms. However, the regulations regarding transaction safety, information management and sharing largely apply to platform providers' terms, and there are no regulatory bodies or guidelines for sharing and S-Commerce operations. There are many prospective benefits for different industries in switching to sharing commerce. For example, the service and manufacturing industries can benefit from adopting the gig economy, gig labour, and information/finance [65]. However, a lack of effective and efficient regulations and policies may hinder the transition to sharing commerce. Therefore, this issue needs to be addressed by future research studies.

4.3.2. What Are the Various Benefits/Advantages of S-Commerce and Sharing Commerce?

This section discusses the benefits of both sharing and S-Commerce, and it outlines how they can improve the online shopping experience by encouraging a mutual-benefits approach between service providers, buyers, and sellers. These advantages are discussed below.

Lower Costs: It is highly common for people try to save money in purchasing, whether through discounts or wholesale prices, or reduced prices. However, at the same time, quality is also considered important. Sharing commerce/collaborative commerce is one approach where the users can largely benefit in terms of lower costs, quality products, and good service. Interest in participating in sharing commerce is motivated by many factors, such as its sustainability, enjoyment, and economic gains [13]. A similar study [33] analysed both the users' social desire and commercial desire in engaging with shopping on social networking sites. It revealed that commercial desire is more influential than social desire in S-Commerce platforms. In addition, perceived economic benefits along with trust in the platform are influential factors for engaging in S-Commerce to generate economic value [64,75].

Convenience (Accessibility and Ease): Businesses in the new era must identify ways to influence users' purchasing decisions by leveraging social media, without which they may forego the opportunity to expand the customer base. Therefore, social media elements support online consumers in enhancing their decision-making process by providing convenient and easy-to-use mechanisms with effective information sharing and management capabilities. A recent study [138] has interlinked S-Commerce quality and social support quality with interactive events, including initial attention, interaction experience, intuitive evaluation, and intention to buy. The study found that social support quality was found to significantly influence consumer's initial attention, intuitive evaluation, and intention to buy; and S-Commerce quality was found to significantly influence consumer's interaction experience and intention to buy, indicating that both factors are important in facilitating favourable user experience and improving participation in S-Commerce.

Furthermore, the quality of information shared can significantly affect consumer satisfaction and loyalty [107]. Therefore, it is essential to generate social capital by improving the social support and quality of information (in reviews, forums and communities) shared on the platforms, which can improve the ease of use, increases social commerce adoption, and support impulse buying behaviour, leading to economic benefits [112,113]. Therefore, sharing and S-Commerce mechanisms provide a convenient and enjoyable shopping experience by integrating various components, including people, technology, resources, social media, and networking elements, which increase the intention to use [16,44].

Global Market Coverage: S-Commerce and sharing commerce provide a mechanism to co-create brand value for service providers, sellers, and buyers, which can create enormous opportunities for growth in existing and new markets globally [54,88]. Factors such as trust, familiarity, technical quality (governing form and technical utility), ease of use, and e-WOM enhance online sales through sharing and S-Commerce platforms, especially in emerging markets, as the marketing and advertising activities are mainly performed in collabora-

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tion [26,57]. Therefore, companies are increasingly adopting social media technologies that can help them expand markets and involve customers in promoting brands and products. Considering this fact, entrepreneurs increasingly rely on S-Commerce for their business expansion [12]. Similarly, collaborative consumption, a component of sharing commerce, is expected to alleviate societal problems such as hyper-consumption, pollution, and poverty by lowering the cost of economic coordination within communities [12]. S-Commerce and sharing commerce would result in a value co-creation circle, which not only creates benefits from network externality by growth in membership but also enhances service quality in the S-Commerce platform [139]. In addition, the emergence of new technologies in S-Commerce and sharing commerce is minimising operational costs (marketing and advertising) and effectively increasing resource use in promoting growth in global markets [36].

Community Development: Sharing and S-Commerce promote social interaction among buyers, sellers, and service providers in a collaborative setting for mutual benefit. In addition, it can also promote community development by encouraging entrepreneurs to venture into S-Commerce. In addition, it helps buyers in purchase decision making by providing social support, which helps them identify quality products and find affordable deals on products they are interested in [86]. In addition, sharing and S-Commerce using social media elements generate trust among various cultures who can actively participate on both platforms, which supports the integration of cultures in commercial activities, promoting collaboration and development [76,79]. Through collaboration, innovation and brand awareness can be promoted, which benefits the service providers and the community.

Consistent Audience Growth through Social Networking: By enabling better user experiences in sharing and S-Commerce compared to traditional modes of shopping and E-Commerce, customer growth can be increased exponentially. As determined by various studies [13,33,34,45,64,140–142], the use of social media elements can improve initial attention, sharing experience, intuitive evaluation, and intention to buy. In addition, Swift's guanxi dimensions, including interactivity, stickiness, and word of mouth, positively affect mutual understanding, reciprocal favour, and relationship harmony. These factors improve relationships between sellers and buyers and strengthen purchase intentions [140], reflecting the improvement in trust and loyalty between strangers on sharing and S-Commerce platforms. Similarly, adopting socio-economic and environmental sustainability in S-Commerce activities can attract a large number of customers [123].

Engagement: S-Commerce and sharing commerce have social media and networking technologies integrated into their platforms, attracting and engaging users more effectively than traditional E-Commerce platforms. In addition, features such as performance expectancy, hedonic motivation, habit, price saving orientation, social support, trust, and S-Commerce constructs increase the intention to use and engage in sharing and S-Commerce [56,143]. Customer engagement behaviour is strongly determined by social interaction, technological factors (interactivity and system quality), and motivational factors (hedonic and utilitarian motivations and perceived value) [105]. It is identified that consumers focus more on intrinsic rewards than extrinsic rewards when sharing information. Therefore, to achieve good engagement levels, platforms must adopt cleaner designs facilitating self-interest among the consumers [111], and increasing customer loyalty [104].

Additionally, the integration of new technologies on S-Commerce platforms is improving the user experience and engagement by attracting and raising interest in them [144]. For example, the live-streaming of sellers, virtual customer experiences, and game–theoretical coordination [53,93,134] improve the user experiences and engagement on sharing and S-Commerce platforms.

Trust and Loyalty: Both trust and behavioural aspects such as loyalty were major themes of research studies in the last few years in S-Commerce and sharing commerce. Users had more trust in E-Commerce than in S-Commerce in the initial years of S-Commerce development [45,46]. However, realising the benefits of social media elements, the user's perceptions of S-Commerce changed, and their trust and loyalty toward S-Commerce

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increased [64,140,141]. Social media constructs such as e-WOM, reviews, referrals, recommendations, and ratings were positively correlated with trust in S-Commerce [58,90]. Similarly, loyalty towards a brand in S-Commerce or sharing commerce is determined by relationship quality, which is further influenced by self-congruence (i.e., the self-factor), social norms (i.e., the social factor), information quality and interactivity (i.e., characteristics of brand pages), and motivation, which are also considered to be the factors influencing trust [83]. As seen in the systematic review, trust is an antecedent of loyalty, which is positively related to the intention to use [83,142].

Enhanced Experience: Sharing and S-Commerce offer an enhanced experience for its users by using social media elements and high-end technologies, which may not be available on traditional E-Commerce platforms. Information-sharing features allow users to engage with and experience online shopping in a social network [32,64]. Social support in such an environment motivates the users and makes the experience enjoyable. In a different context, Kim et al. [80] found that value dimensions such as hedonic and social values and behavioural intentions vary between high-end and low-end technology in S-Commerce platforms. These differences can be understood from various studies that were conducted in different settings (restaurants, fashion retail, movie tickets purchase) which found that high-end technology in S-Commerce platforms improves user experience, engagement, and intention to buy [10,144,145].

Social Media Support: Social support in sharing and S-Commerce can be provided in different ways. For example, information sharing through reviews and ratings about products/services on the platform can help the users make purchase decisions. Similarly, through referrals, e-WOM, and recommendations, users can help their colleagues, friends, and relatives in online shopping through trusted platforms. These aspects can be termed social support or social influence, which can influence the consumers' decision-making process [55,77,89,132]. However, limited research has considered consumers' decisionmaking processes on social commerce platforms by investigating how their perceptual attitudes, behavioural intentions, and immediate gratifications affect the online purchase of products and services [146]. Social support leads to social presence or engagement, increasing trust and facilitating purchase decisions [8]. Social support and community factors also support creating loyalty toward a brand or platform, increasing customers and improving relationships [104]. It can also lead to impulse-buying behaviour on S-Commerce platforms [147]. It is evident from the review that social support and social influence factors are major entities which differentiate sharing and S-Commerce platforms from traditional E-Commerce platforms by transferring the power from sellers to buyers.

Adoption: The rapid development and deployment of social media and networking technologies has changed the internet from a market for goods and services to a user-driven market which is social-centric and collaborative. The shift in the commerce market has motivated various researchers to investigate the adoption of E-Commerce, S-Commerce, and sharing commerce approaches by consumers [2]. Various models and frameworks were developed to study the adoption. Social approaches such as forums and communities, ratings, reviews, referrals, and recommendations are increasingly used for building trust and enhancing the user experience on sharing and S-Commerce websites, which in turn is increasing the engagement in influencing purchase decisions and adoption rates [48]. Focussing on these aspects, Friedrich [148] found that for some factors, such as trust, usefulness, or social influence, the effects point in a clear direction, while for several other factors, such as enjoyment, risk, or social presence, the effects are not yet clear and require further investigation. Similarly, Akman and Mishra [85] observed that perceived trust, enjoyment/ease, reliability, social pressure, satisfaction, and awareness are positively correlated with the adoption of sharing and S-Commerce.

5. Research Propositions

This section discusses the challenges and research opportunities of linking E-Commerce, S- Commerce, and sharing commerce. Various implications can be drawn from the sys-

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tematic review in relation to theory. Accordingly, ten research propositions are offered based on three areas: conceptual and theoretical development, design and interaction, and implementation.

5.1. Conceptual and Theoretical Development

5.1.1. Defining the Key Concepts and Terms

Commerce has undergone various developments through time with the application of various technologies, such as internet Web 2.0 technologies, social networking, virtual and interactive technologies, and concepts such as collaborative marketing, social support, products localisation, etc. Accordingly, it has undergone various developments leading to new ways of business and processes of buying and selling, such as E-Commerce, S-Commerce, and sharing commerce. Accordingly, different terminologies were used to explain and define these concepts in relation to various influence factors. Therefore, to clarify the conceptual terminology, there is a need for a systematic review of commerce-related definitions and terms. The definitions provided by Mohd and Rosli [26] and Hajli [1] reflected the consideration of various concepts and levels of integration on online commerce platforms. In this context, the following proposition is proposed.

Proposition 1. Defining concepts such as E-Commerce, social and sharing commerce can be difficult in light of various levels of integration of ICTs, social networking, and sharing commerce concepts. Therefore, it is essential to redefine these concepts to reflect the changing levels of integrating of different concepts and influencing factors on online commerce platforms.

5.1.2. Understanding, Theorising, and Measuring Various Integrating and Influencing Factors in Online Commerce and Measuring Impact

Online commerce aims to increase the buying and selling process by facilitating effective interactions between the consumers and the platforms. Various factors can influence this process. Social elements such as review ratings were identified to be providing social support, which could establish trust and enhance positive purchasing decisions [1,88,119]. Therefore, it is necessary to identify various factors of influence and integrate factors which can impact online commerce operations. Accordingly, this study revealed nine themes (security and privacy; firm performance; framework, business model; system design; network analysis; social process; consumer behaviour; and adoption) related to online commerce operations, according to which various factors of influence were identified. Accordingly, the following proposition is proposed:

Proposition 2. Measuring the impact of various factors on the use of online commerce platforms (E-Commerce, S-Commerce, sharing commerce) can be difficult. Therefore, it is necessary to develop and test theoretically sound and practically feasible impact indicators to measure its benefits.

In addition, to understand how these online commerce platforms are being used, and affecting consumers and organisations, appropriate theoretical frameworks should be developed. In this context, the following proposition is proposed.

Proposition 3. It is necessary to theorise the use of different constructs on online commerce platforms and their impact on the decision making of all stakeholders and purchase intentions; therefore, an integrated conceptual framework is needed to provide a systematic understanding of the decision-making process and development of purchase intentions.

5.2. Design and Interaction

5.2.1. The Role of Socio-Cultural Factors in Facilitating Decision Making

While various factors can be identified for analysing their impact on decision making on the new designs of online commerce platform (linking S-Commerce and sharing commerce), there are a few important factors that need to be analysed specifically. Both

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social and cultural factors were identified to be having various levels of impact on the decision-making and purchase intentions of consumers across different regions [1,23,60,79]. Accordingly, the following proposition is proposed.

Proposition 4. Socio-cultural factors can support and facilitate decision-making, but their impact on the integrated platforms (S-Commerce and sharing commerce) can vary across the regions, and accordingly, the design and levels of integration have to be accordingly modified with respect to the consumer's preferences in different regions.

5.2.2. The Role of Design and Technological Factors in Facilitating Decision Making

The themes identified in this study have identified various factors, including security and privacy, framework, business model, system design, network analysis, etc., which can be related to the design and interaction aspects of the integrated platform (S-Commerce and sharing commerce). Furthermore, studies [29,45,51,80] have identified that design and interaction features can impact the decision making on online commerce platforms. In this context, the following proposition can be proposed.

Proposition 5. Design and interaction factors can support and facilitate decision making, but their impact on the integrated platforms (S-Commerce and sharing commerce) can vary according to the levels of integration.

5.2.3. The Role of Behavioural Factors in Facilitating Decision-Making

Using various elements in the design of S-Commerce, sharing commerce, and integrated platforms can influence consumer behaviour and attitudes towards adopting and using the platform. Accordingly, studies reviewed [38,56,83,85,90] have identified that motivation and satisfaction can influence decision making on online commerce platforms. Accordingly, the following proposition is proposed.

Proposition 6. Behavioural factors such as motivation and satisfaction can influence decision making, but their impact on the integrated platforms (S-Commerce and sharing commerce) can vary according to the levels of integration and the consumer's skills and abilities using the platform.

5.2.4. The Role of Various Factors in Linking S-Commerce and Sharing Commerce

As explained earlier, sharing commerce incorporates the idea of social commerce, especially in using social networking concepts, information sharing, etc. in its application. In addition, unlike social commerce, where the consumer's role is limited, sharing commerce involves all stakeholders, including consumers, in the business activities; the value is co-created and can lead to increased trust among the stakeholders along with the responsibility to contribute to the growth and achieve sustainability. Accordingly, the influencing factors of both social and sharing commerce would remain the same. As the integration of sharing and social commerce platforms is on the rise, there is a need to interlink various influencing factors of both sharing and social commerce, as it can increase the trust, reduce privacy risks, and improve decision making in sharing commerce platforms [100]. This study has identified various factors linking S-Commerce and sharing commerce, including trust, sustainability, competitive advantage, ownership/responsibility, security and privacy, reliability, usability, relationship management, policies and strategies, and regulations. However, sharing commerce has been increasingly adopted in the past few years, and changes in the technologies, design and lifestyles of the people may lead to new factors which can influence the integrated platforms (S-Commerce and sharing commerce). Therefore, the following proposition can be proposed in this context.

Proposition 7. *Identifying influencing factors in the context of the integrated platform (S-Commerce and sharing commerce) can be difficult in light of rapid technological developments as well as changes in people's needs and lifestyles. Therefore, it is essential to identify and redefine these factors at regular intervals.*

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5.3. Implementation

5.3.1. Understanding Critical Success Factors

Various benefits (low costs, convenience, global market coverage, community development, sustainable growth, engagement, trust and loyalty, enhanced experience, and support) were identified for an integrated platform (S-Commerce and sharing commerce) in this systematic review. The integrated platform enhances the consumer's interactivity and experience as it is embedded with various social and sharing elements, making it more effective and efficient. Considering these factors, the following proposition is made:

Proposition 8. There are critical factors which will significantly affect the use and adoption of *E-Commerce, S-Commerce, sharing commerce, and integrated platforms.*

5.3.2. Culture and Adoption

Although various benefits and challenges have been identified, individual responses to the integrated platform may vary across the regions. The differences in S-Commerce adoption were identified in previous studies [60,79,149]. Similarly, linking S-Commerce and sharing commerce may be perceived and adopted differently by people across cultures. In this context, the following proposition can be made

Proposition 9. The acceptance and use of E-Commerce, S-Commerce, sharing commerce, and integrated platforms can be affected by different cultures and users' behaviour.

5.3.3. Ethical and Legal Issues

Issues related to privacy and security continued to be in existence through the development of online commerce, from E-Commerce to S-Commerce and sharing commerce. Changes in the technologies, regulations, norms, and culture have led to the rise in the issues related to privacy and security. Accordingly, the following proposition can be made in this context.

Proposition 10. *Issues related to privacy and security would continue to remain one of the major risks in online commerce.*

6. Ideas for Future Research

This study looked at the progress of online commerce based on the development of new technologies and concepts, including social media and networking techniques, social support, and sharing commerce techniques. There is a need for research to evaluate various challenges and issues that would arise in integrating new technologies and concepts. In this context, the following directions for future research are outlined:

- (1) As with E-Commerce and S-Commerce, engagement with and the adoption of new online platforms by users mainly depends on establishing trust. However, the research related to trust establishment, concerns over security, reliability, and privacy in relation to sharing commerce can reveal the efficiency, effectiveness, and acceptance of sharing commerce among consumers.
- (2) The major issues identified in this study are sustainability, policies and strategies, regulations, and ownership/responsibility in the integration of social and sharing commerce, which are yet to be understood, studied, and formulated by the researchers and system developers. Addressing these issues could be another important direction for future research.
- (3) Achieving sustainability in sharing commerce, which focusses on a collaborative approach, is another important challenge, which requires clear policies, regulations, and strategies; future research should focus on these aspects.

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7. Conclusions

This review provided an overview of S-Commerce and sharing commerce, the relation between both the concepts and the issues/challenges and benefits/advantages associated with them. Research questions were formulated to understand both concepts, which were addressed using a systematic review method. Studies conducted between 2008 and 2019 were selected for the systematic review, as this period saw a shift from E-Commerce adoption to S-Commerce adoption as well as the emergence of sharing commerce. By adopting the review protocol, 168 papers were identified using the two-phase search strategy, which was then assessed for quality; 25 papers were eliminated, resulting in a total of 143 studies selected for the systematic review. The studies during this period facilitated an understanding of the change in the definitions of S-Commerce and sharing commerce, the shift from S-Commerce adoption to sharing commerce adoption, and the similarities between both the concepts.

Most of the studies were from journals (93), which was followed by 19 conference papers and one workshop paper. The study found a progression in the areas of research related to S-Commerce and sharing commerce. In the early 2010s, trust and user participation were the main areas of focus. As S-Commerce adoption gained momentum, the focus of the research studies turned to trust, privacy concerns, and consumer behaviour. Sharing commerce has gained momentum since 2016; this review has identified a steep increase in the number of studies focussing on collaboration, sharing commerce, privacy and security, reliability, new technology acceptance, and brand co-creation, reflecting a trend towards collaborative commerce. Similarly, during 2018–2019, research areas such as cooperative behaviour, sustainability, sharing approaches, and business models in sharing commerce were prominent. Thus, there was a shift in the focus from S-Commerce (social constructs such as social support, social influence, social exchange, information sharing) to sharing commerce (value co-creation, brand co-creation, collaborative economy, new technology integration) during 2010–2019.

Accordingly, the major theories adopted by the studies included Planned Behavioural Theory, Technology Acceptance Model, Reasoned Action Theory, Social Support Theory, UTAUT, and Social Exchange Theory. Similarly, the major themes of the studies included customer behaviour, security and privacy, firm performance, business model, and adoption. The theories and themes identified by the systematic review indicated the focus of research in S-Commerce. For example, the studies on sharing commerce looked at topics such as the adoption of new technologies for integrating S-Commerce and sharing or collaborative commerce, the issues of security and privacy, and customer behaviour towards such integration.

Addressing research questions has revealed that the definitions of S-Commerce have changed and evolved with the development of new constructs and theories. In addition, various challenges/issues were identified concerning S-Commerce and sharing commerce adoption, mainly including trust establishment, security and privacy issues, reliability, and usability. Four new and relevant issues identified included sustainability, policies and strategies, regulations, and ownership/responsibility. The aspects of ownership/responsibility, transaction policies and regulatory instruments in the operations of sharing commerce are still unclear, as the responsibility is mainly dependent on the service/platform providers' terms and conditions. In addition, achieving sustainability in sharing commerce, which focusses on a collaborative approach, is another important challenge requiring clear policies and strategies that can be investigated and addressed in future research.

The outcomes of this study have good semantic load, especially in identifying the themes which were considered in previous studies (highlighting the majority focussing on consumer behaviour, followed by security and privacy and firm performance), indicating the shift from technology-centred research to consumer-centred research with areas focussing on firm performance and sustainability. Furthermore, challenges (such as trust, sustainability, responsibility, security, privacy, etc.) and benefits (such as lower costs, global coverage, convenience, ease of access, etc.) provided valuable inputs for the future devel-

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opment and integration of sharing commerce and S-Commerce. However, this study has certain limitations. The application of sharing and social media concepts in E-Commerce is rapidly evolving with the introduction of new business models/frameworks and new strategies. Therefore, the findings in this study should be generalised with care in future studies. Furthermore, the challenges and benefits of linking sharing and S-Commerce may change with the developments in the technology solutions; which should be considered by the future researchers in generalising the findings of this study.

The findings presented in this study can have both practical and research implications. This study contributes valuable knowledge to the academic literature. Students and researchers can study the findings to improve their understanding of social and sharing commerce and use the relevant ideas in their research. Therefore, this study provides valuable contributions to the literature, especially in better formulating and understanding the concepts, sharing and social commerce and how they are interlinked. This would help in the development of new theoretical developments by assessing and interlinking various influencing factors related to the emerging concept of sharing commerce in various sectors.

Furthermore, it can have various practical implications, as it can aid the decision makers, regulatory bodies in better formulating the guidelines of regulating businesses incorporating the concepts of sharing and social commerce. In addition, this study can provide insights into the issues surrounding social and sharing commerce, which can help industry practitioners design and develop more efficient and effective platforms. In conclusion, it can be stated that the future of online commerce would focus on integrating the features of E-Commerce, S-Commerce, and sharing/collaborative commerce, opening new ways of online shopping where the emphasis is identified with the buyer rather than the seller. In addition, this study can be used to identify prospects and ideas for future research in the area of sharing commerce research.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/su142316024/s1, Figure S1: PRISMA flow diagram, Figure S2: PRISMA abstracts checklist. Table S1: PRISMA checklist.

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Appendix A

Table A1. Outcome of the QA assessment for each paper.

Study	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Total
Rong, K., Hu, J., Ma, Y., Lim, M., Liu, Y., and Lu, C. [63]	1	0	0	0	0.25
Nica, E. and Potcovaru, A. [35]	1	2	1	0	1
Wigand, R., Benjamin, R., and Birkland, J. [2]	2	1	1	0	1
Ganapati, S., and Reddick, C. [65]	1	2	1	1	1.25
Jeonghye, K., Youngseog Y. and Hangjung, Z. [14]	1	2	1	1	1.25

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Table A1. Cont.

Study	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Total
Marinkovic, S., Gatalica, B., and Rakicevic, J. [36]	1	2	1	1	1.25
Noor, A., Sulaiman, R. and Bakar, A. [51]	2	1	1	1	1.25
Heinrichs, H. [122]	1	2	1	1	1.25
Abed, S., Dwivedi, Y. and Williams, M. [150]	2	0	2	2	1.5
Bianchi, C., Andrews, L., Wiese, M. and Fazal-E-Hasan, S. [59]	1	2	2	1	1.5
Gregory, A., and Halff, G. [40]	1	2	1	2	1.5
Hamari, J., Sjöklint, M., and Ukkonen, A. [13]	1	2	2	1	1.5
Lutz, C., Hoffmann, C., Bucher, E., and Fieseler, C. [66]	1	2	2	1	1.5
Mohd F. and Rosli M.H.B. [26]	2	2	1	1	1.5
Parves, K. and Jim Q. C. [31]	1	2	2	1	1.5
Pei, Z., and Yan, R. [62]	1	2	1	2	1.5
Habibi, M., Davidson, A. and Laroche, M. [126]	1	2	2	1	1.5
Featherman, M. and Hajli, N. [129]	1	2	1	2	1.5
Liang, T. and Turban, E. [25]	1	2	2	1	1.5
Chen et al. [151]	2	2	1	1	1.5
Martin, C. [123]	1	2	2	1	1.5
Geissinger, A., Laurell, C. Oberg, C. and Sandstrom, C. [92]	1	2	2	1	1.5
Zang, T., Gu, H. and Jahromi, M. [93]	1	2	2	1	1.5
Mody, M., Suess, C. and Lethto, X. [127]	1	2	2	1	1.5
Kim, D. [23]	1	2	2	1	1.5
Biucky, S., Abdolvand, N., and Harandi, S. R. [11]	2	1	2	2	1.75
Escobar-Rodríguez, T., and Bonsón-Fernández, R. [10]	1	2	2	2	1.75
Gibreel, O., AlOtaibi, D., and Altmann, J. [57]	2	1	2	2	1.75
Hajli, N., Lin, X., Featherman, M.S., Wang, Y. [52]	2	1	2	2	1.75
Hashim, N. A., Nor, S.M., Janor, H. [12]	2	2	2	1	1.75
Lal, P. [29]	2	2	1	2	1.75
Lee, Z., Chan, T., Balaji, M., and Chong, A. [62]	1	2	2	2	1.75
Mittendorf, C. [15]	1	2	2	2	1.75
Mohlmann, M. [38]	1	2	2	2	1.75
Rad A. A. and Benyoucef M. [50]	2	1	2	2	1.75
Sheikh, Z., Islam, T., Rana, S., Hameed, Z., and Saeed, U. [144]	2	2	2	1	1.75
Sigala, M. [34]	2	1	2	2	1.75
ter Huurne, M., Ronteltap, A., Corten, R., and Buskens, V. [39]	1	2	2	2	1.75
Wang, Y. and Hajli, M. [54]	2	1	2	2	1.75
Wang, Y. and Yu, C. [58]	2	1	2	2	1.75
Yahia, I., Al-Neama, N., and Kerbache, L. [56]	2	2	2	1	1.75
Chen, A., Lu, Y. and Wang, B. [152]	1	2	2	2	1.75

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Table A1. Cont.

Study	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Total
Hu, T., Dai, H. and Salam, A. [141]	1	2	2	2	1.75
Esmaeili, L. and Hashemi, S. [69]	1	2	2	2	1.75
Liu, H., Chu, H., Huang, Q. and Chen, X. [153]	1	2	2	2	1.75
Shanmugam, M. and Jusoh, Y. [136]	1	2	2	2	1.75
Zheng, X., Zhu, S. and Lin, Z [154]	1	2	2	2	1.75
Stephen, A. and toubia, O. [75]	1	2	2	2	1.75
Ng, C. [76]	1	2	2	2	1.75
Akman, I and Mishra [85]	1	2	2	2	1.75
Bai, Y., Yao, Z. and Dou, Y. [119]	1	2	2	2	1.75
Zhou, H. and Miao, Y. [24]	1	2	2	2	1.75
Chen, X. and Tao, J. [77]	1	2	2	2	1.75
Baghdadi, Y. [135]	1	2	2	2	1.75
Baethge, C., Klier, J. and Klier, M. [121]	1	2	2	2	1.75
Chen, J., Su, B. and Widjaja, A. [133]	1	2	2	2	1.75
Wang, Y., Hsiao, S., Yang, Z. and Hajli, N. [84]	1	2	2	2	1.75
Zhang, K. and Benyoucef, M. [83]	1	2	2	2	1.75
Li, C. and Ku, Y. [137]	1	2	2	2	1.75
Chung, N., Song, H. and Lee, H. [155]	1	2	2	2	1.75
Wang, C. and Zhang, P. [44]	1	2	2	2	1.75
Liang, T., Ho, Y., Li, Y. and Turban, E. [21]	1	2	2	2	1.75
Popescu, G. [78]	1	2	2	2	1.75
Wallsten, S. [82]	1	2	2	2	1.75
Seo, A., Jeong, J. and Kim, Y. [87]	1	2	2	2	1.75
Bansal, G and Chen, L. [46]	2	2	2	2	2
Bilgihan, A., Barreda, A., Okumus, F., and Nusair, K. [16]	2	2	2	2	2
Hajli, M. [48]	2	2	2	2	2
Hajli, N. [1]	2	2	2	2	2
Kim, S., Noh, M. and Lee, K. [45]	2	2	2	2	2
Kim, S., Sun, K. and Kim, D. [23]	2	2	2	2	2
Ko, H. [33]	2	2	2	2	2
Kwahk, K. and Ge, X. [49]	2	2	2	2	2
Lai S.L. [28]	2	2	2	2	2
Lin, J., Luo, Z., Cheng, X., and Li, L. [60]	2	2	2	2	2
Liu, L., Cheung, C., and Lee, M. [32]	2	2	2	2	2
Lu, B., Fan, W., and Zhou, M. [8]	2	2	2	2	2
Saundage, D. and Lee, C.Y. [156]	2	2	2	2	2
Shanmugam, M., Sun, S., Amidi, A., Khani, F. and Khani, F. [55]	2	2	2	2	2
Sharma, S. and Crossler, R. [81]	2	2	2	2	2
Wang, C. and Zhang, P. [44]	2	2	2	2	2

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Table A1. Cont.

Study	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Total
Zhang, H., Lu, Y., Gupta, S. and Zhao, L. [53]	2	2	2	2	2
Zhang, M., Fu, Y., Zhao, Z., Pratap, S., and Huang, G. [37]	2	2	2	2	2
Wang, Y. and Herrando, C. [130]	2	2	2	2	2
Wang, X. Lin, X. and Spencer, M [157]	2	2	2	2	2
Kim, N. and Kim, W [89]	2	2	2	2	2
Aladwani, A. [138]	2	2	2	2	2
Osatuyi, B. and Qin, H [158]	2	2	2	2	2
Zhang, h., Zhao, L. and Gupta, S. [90]	2	2	2	2	2
Fu, S., Yan, Q. and Fen, G. [146]	2	2	2	2	2
Lin, X., Li, Y. and Wang, X [159]	2	2	2	2	2
Ahmad, S. and Laroche, M [117]	2	2	2	2	2
Chen, Y., Lu, Y., Wang, B. and Pan, Z. [91]	2	2	2	2	2
Kong, Y., Wang, Y., Hajli, S. and Featherman, M. [120]	2	2	2	2	2
Tajvidi et al. [88]	2	2	2	2	2
Kim, S. and Park, H. [80]	2	2	2	2	2
Ng, C. [79]	2	2	2	2	2
Friedrich, T. [148]	2	2	2	2	2
Hajli, N and Sims, J. [20]	2	2	2	2	2
Hajli, N., Sims, J., Zadeh, A. H., and Richard, M. O. [86]	2	2	2	2	2
Cheng, X. Gu, Y., and Shen, Y. [118]	2	2	2	2	2
Chen, J and Shen, X. [130]	2	2	2	2	2
Xiang, L., Zheng, X., Lee, M. and Zhao, D. [142]	2	2	2	2	2
Kim, S. and Noh, M. [45]	2	2	2	2	2
Wu, Y. and Li, E. [139]	2	2	2	2	2
Williams, M. [131]	2	2	2	2	2
Wongkitrungruenga, A. and Assarut, N. [134]	2	2	2	2	2
Molinillo, S., Anaya-Sanchez, R. and Liebana-Cabanillas, F. [104]	2	2	2	2	2
Zhang, M., Guo, L. and Liu, W. [143]	2	2	2	2	2
Yu, C., Tsai, C., Wang, Y., Lai, K. and Tajvidi, M. [61]	2	2	2	2	2
Lam et al. [115]	2	2	2	2	2
Bugshan and Attar [100]	2	2	2	2	2
Choi [101]	2	2	2	2	2
Zhai et al. [128]	2	2	2	2	2
Ariesty and Sari [107]	2	2	2	2	2
Su et al. [109]	2	2	2	2	2
Ebrahimi et al. [102]	2	2	2	2	2
Rai et al. [103]	2	2	2	2	2
Liu et al. [112]	2	2	2	2	2
		_	_	_	_

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Table A1. Cont.

Study	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Total
Da Costa and Casais [111]	2	2	2	2	2
Hsieh and Lo [110]	2	2	2	2	2
Liao et al. [161]	2	2	2	2	2
Busalim et al. [105]	2	2	2	2	2
Yang [106]	2	2	2	2	2
Lina and Ahluwalia [162]	2	2	2	2	2
Molinillo et al. [102]	2	2	2	2	2
Hsiao [94]	2	2	2	2	2
Xiang et al. [113]	2	2	2	2	2
Hu et al. [163]	2	2	2	2	2
Goyal et al. [125]	2	2	2	2	2
Dinulescu et al. [164]	2	2	2	2	2
Lăzăroiu et al. [147]	2	2	2	2	2
Abdelsalam et al. [96]	2	2	2	2	2
Xue et al. [97]	2	2	2	2	2
Sohn and Kim [99]	2	2	2	2	2
Esmaeli et al. [98]	2	2	2	2	2
Nadeem et al. [95]	2	2	2	2	2
Leong et al. [124]	2	2	2	2	2
Hu et al. [141]	2	2	2	2	2
Curty, R.G. and Zhang, P [114]	2	2	2	2	2
Shen et al. [145]	2	2	2	2	2
Huang and Benyoucef [165]	2	2	2	2	2

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