The Origins and Evolution of Social Commerce: Enhancing E-Commerce Platforms with Social Features

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Abstract

With technological development and digital transformation, the social commerce model has quickly become the best strategy for delivering a superior shopping experience. Although the history and evolution of the model can be studied, the future of the model is uncertain and may become an even more complex and diverse concept. However, new technologies and tendencies such as Web 3.0, the metaverse, and NFTs may give us a glimpse of the future. In this article, an analysis was conducted on the current scenario and evolution of the model based on the article "A systematic review on social commerce" by Esmaeili and Alireza, which discloses results from 2014 to 2017. Fifty-two journal articles were selected to update the answers to the 5 W´s model presented in the article mentioned above. The results revealed not only the evolution of the model but also the evolution of the approach of the companies when building their social commerce platform.

Keywords
Social commerce, e-commerce, social media, digital platform

1. Introduction

More than a hundred years ago, the emergence of new technologies such as the radio, phones, or TVs began to lay the groundwork for a transformation from a world based mostly on face-to-face interactions into a world full of virtual experiences. However, since this transformation started, there has never been an adaptation as obliged as the one experienced with the COVID-19 pandemic. Suddenly the world was paralyzed and day-to-day activities such as work, education, entertainment, and shopping were obliged to adapt to a virtual environment. Nevertheless, the experience lived through these virtual environments still cannot be compared to physical experiences, mainly because users are motivated by fulfilling 5 different needs: emotional, social, functional, self-oriented, and relational (Yahia et al. 2018). Despite a few virtual industries that satisfy most of these needs, such as the gaming industry, the vast majority won´t meet more than two.

As a result of technological developments and the constant search to satisfy user needs, a new form of commerce that combines the characteristics of traditional electronic commerce (e-commerce) with social networks called social commerce (s-commerce) arises (Wang et al. 2019). This type of commerce intends to provide the consumer with a service or product based on their preferences, interests, and interactions through the web (Gibreel et al. 2018) using Web 2.0 (Yahia et al. 2018) software and new channels. These allow users to make better purchasing decisions and have a better experience thanks to the interaction with each other and the content they generate (Wang et al. 2019).

1.1 Objectives
This study is based on the article "A SYSTEMATIC REVIEW ON SOCIAL COMMERCE" by Esmaeili and Hashemi, which presents the results and main changes that occurred from 2014 to 2017 related to social media platforms and intend to perform an analysis on the current scenario and the evolution of the model.

2. Literature Review
Having customers who develop loyalty towards the business is critical to the success and profitability of any business (Chiu et al. 2009) since, in terms of time and effort, acquiring new customers costs more than retaining existing ones (Chong et al. 2018). E-commerce differs from s-commerce as the latter is assigned commercial objectives, customer

connection, and online interaction whereas social objectives such as networking, collaboration, and information sharing are prioritized with a secondary focus on purchasing (Alonso et al. 2020). Likewise, social commerce not only includes a conversation between members and communities but emphasizes one-to-one interactions and individuals to generate value (Sheikh, et al. 2017). These characteristics in conjunction with the increasing sophistication of social networks have enabled companies to transform passive observers into active participants who collaborate with their platform and generate both new ideas and revenue for the business (Carlson et al. 2018).

Currently, the use of social media in the context of e-commerce has gained more ground in Asia, as products have become increasingly complex, and consumers want to get more feedback or information about them from the experience of other consumers (Sheikh et al. 2017). In China, the large participation of consumers in these social media has encouraged the growth of s-commerce as well as the competition among s-commerce platform vendors (Chiu et al. 2019). It resulted in a new sales channel that provides business opportunities for large brands, retailers, and individuals who wish to take advantage of this potential. It is in this country specifically that the social commerce model evolved in 3 stages: The Infancy stage (2010 onwards), the Booming and experimental stage (2012 onwards), and the Proliferation stage (2019 onwards) (Chan and Lam, 2019).

The Infancy stage began with the appearance of micro-stores on social networks where, through publications and diffusions, which were able to promote their products based on individual experiences, resulted in peer-to-peer e-commerce. In this type of commerce, which has had a wide development due to its impact on cost reduction, customers can buy and sell within the same platform without a transaction moderator (Acampora et al. 2016). However, there are risks related to inexperienced business transactions and prior knowledge of customers' reputations (Xiong and Liu, 2003).

As peer-to-peer e-commerce continued to grow, it became clear that two factors initiated the second stage of social commerce. On one hand, not only knowledge but also opinions and behaviors have been affected by the various information flows and social dynamics available in this type of platform as individuals became increasingly dependent on others in their social networks (Weeks et al. 2017). On the other hand, companies concluded that managing social networks efficiently will improve the future of the business in terms of sales, but also in other more intangible ones such as the projected image, which allows for greater customer acquisition (Morán and Cañarte, 2017).

Due to the first factor, marketers were forced to use an appropriate communication medium for this type of platform: Key Opinion Leaders (KOL). KOLs or also called influencers consider themselves experts in a specific area and have their origin in the word-of-mouth strategy used in the pharmaceutical industry (Setiawati et al. 2018). They are constantly active on social media and interact with their followers and potential consumers to maintain or gain popularity (Choy et al. 2019) from their experiences and advice regarding different products (Chan and Lam, 2019). The magnitude of their influence has made them more effective than mass advertising and other advertising mediums (Setiawati et al. 2018). This strategy has been one of the most significant changes produced in the business environment to maximize the ROI of these (Rodríguez et al. 2017), to the point where in 2018, KOLs marketing generated 11 times more ROI compared to paid advertising in digital media such as Google Ads (Mediakix, 2019). Although each social network has different objectives and targets different audiences, companies took advantage of this opportunity to create an account and have a closer relationship with their consumers, where they not only share offers or new releases but also create and share the content of their audience's interest to establish a relationship with each one of them and increase their level of trust and loyalty.

With the continuous growth of KOLs marketing and peer-to-peer e-commerce, s-commerce has all the potential to become the best option for retail as social media platforms offer opportunities to anyone who wants to sell something. These digital spaces are based on the union of transactions and content sharing and kick off the third and final stage of this evolution (Chan and Lam, 2019). However, while some companies are using social media to develop these insights that lead to successful innovations, many others do not know how to use them to capture opportunities for their business (Carlson et al. 2018).

The third stage of social commerce begins when social media features are added to e-commerce platforms. Most studies focus on the first stages, where social networks acquire e-commerce features and explain how consumers behave when doing business in the context of social networks. However, it is essential to explain consumer behaviors in the third stage (Wang et al. 2019) because, unlike e-commerce platforms, this type of platform integrates new functionalities that focus exclusively on social commerce. Its focus is on generating a space for interaction and

increasing consumer traffic on the platform, leaving the purchase action itself on the background. The main functionalities that differentiate s-commerce platforms are group purchases, live broadcasts, platform gamification, communities, blogs, among many others that generate a social environment. This provides a space where the focus of consumers when shopping ceases to be for necessity and becomes an experience of entertainment and enjoyment itself, as it usually happens in the face-to-face shopping experience.

In addition to the social-technological development from which this evolution by stages originates, certain global events foster the origin of each one of them. First, the emergence of Web 2.0 in 2004 and its progressive development allowed the first step to being taken towards the Infancy stage. Subsequently, the origin of the second stage occurred due to a series of changes in social networking platforms where new functionalities were added that allowed a more fluid trade (Esmaeili and Hashemi G, 2019). Finally, the "Proliferation stage" is influenced by major technological and logistical advances such as the increased use of machine learning and artificial intelligence (Woschank et al. 2020), new payment methods, and alternative online credit models (Cortina and Schmukler, 2018), the evolution of blockchain, among them.

Since social commerce is an emerging and evolving model, current research is based on the first two stages mentioned above, plus a small number of them make a complete analysis of it.

3. Methods

To introduce the main differences between the results of studies that have s-commerce as a research topic, a comparison was made between the bibliometric analyses through VOSviewer for the articles produced between the different stages proposed. The first stage includes the years 2004 to 2013, the second from 2014 to 2017, and the third from 2018 to 2021. A review of the publications identified in this last period, collected from Scopus was carried out following the 5W's model that Esmaeili and Hashemi proposed. The 5 W's model, developed by Harold Lasswell, aims to describe a communication act by answering the questions: "Who?", "What does it say?", "In what channel?", "To whom?", and "With what effect?" (Wenxiu, 2015). This model was adapted as it tends to clearly describe a news item or an investigation based on the questions: "What?", "When?", "Where?", "Who?", and "Why?" This article answers to the same questions proposed by Esmaeili and Hashemi, 2019: the first question is **"What is social commerce?"** and is divided into 2 sub-questions: **"What are the differences between social commerce, e-commerce, and social media?"** and **"What is the main architecture of social commerce systems?"**. The next four are **"When did social commerce emerge?" "Where are the academic and research centers studying social commerce?" "Who is doing research in the field of social commerce?" and "Why is social commerce important?"**.

The article selection process began by searching for the keywords "social commerce", followed by a filter based on the year of publication taking into consideration only those in the final publication phase in the last 4 years (2018 to 2021) resulting in 555 documents. These publications were subjected to a bibliometric analysis in the VOSviewer tool resulting in Figure 1. This figure shows a network of keywords connected by cooccurrence links and was configured so that the minimum number of occurrences of a word should be five to be considered in the analysis. In total 56 keywords were found that were selected in the "Keyword" filter of Scopus.

To answer the questions of the model it is necessary to have access to the whole document and not only the abstract therefore the search was limited to documents in English with "All Open Access", "Article" as document type, and "Journal" as the source. In terms of the areas of study, since this article focuses on the main changes related to digital social commerce platforms, the features that businesses look for before using this type of commerce, the behavior of individuals in this environment, and the interaction they have with other people within it, the search was limited to the areas of "Computer Science", "Business Management and Accounting" and "Social Sciences". The information was not limited by geographic region, nationality of the authors, or the journal because the focus of this research will not be specified in that way and social commerce is still a constantly evolving term, obtaining a total of 63 articles.

Finally, an abstract analysis of the 63 articles was done to select those related to the approach mentioned in this section, which will be reviewed and used as the baseline for the proposed comparison. Based on this analysis, 11 articles were excluded because their approach was not related to s-commerce, but rather the model was analyzed as a complement. The result gave 52 articles to be considered.
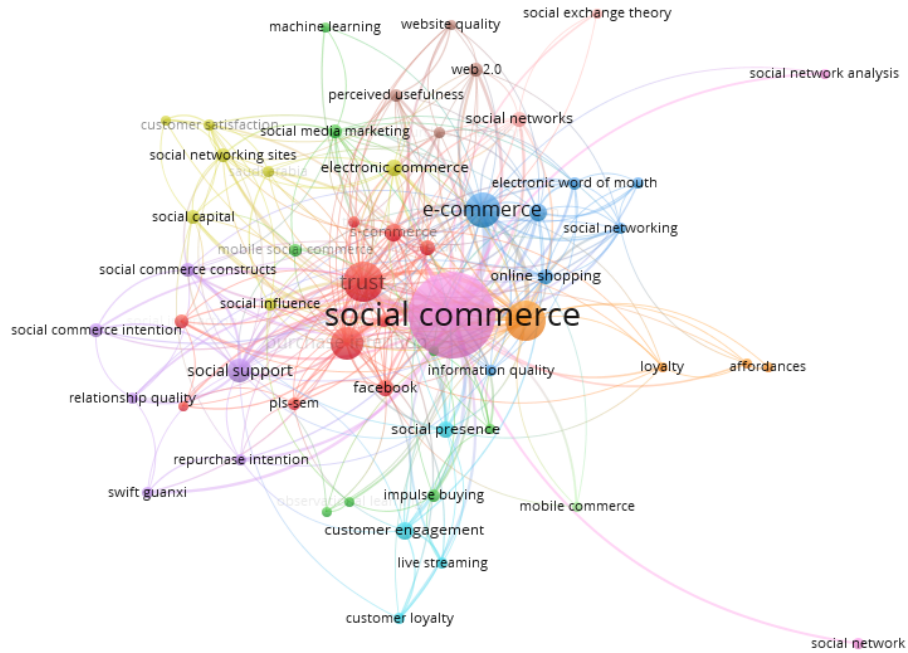
Figure 1. VOSviewer of third stage articles

4. Results

To analyze the results of the VOSviewer progressively, an individual analysis and a comparison of the evolution and development of the different variables and relationships observed at each stage were carried out.

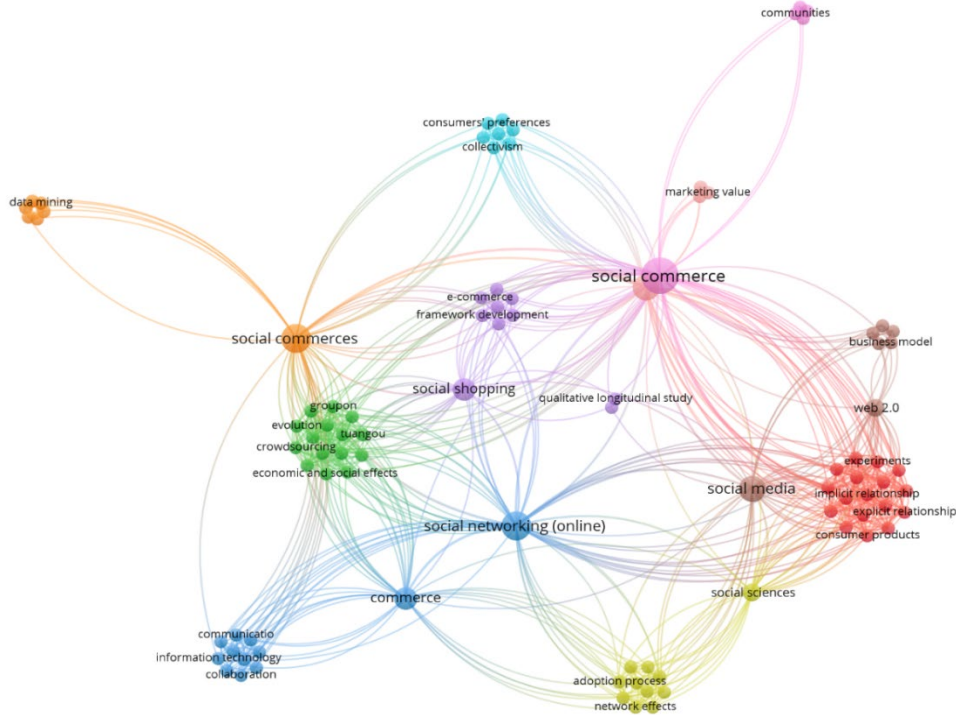Stage 1: Emergence of the Web 2.0 - Infancy Stage

Figure 2. Stage 1 VOSviewer

Considering articles published between 2004 and 2013, in Figure 2 we can observe very few variables and distant relationships between them indicating that the model was in emergence. Among the main variables, we can find Web 2.0 and Social Networking (Online) since their appearance and complement make possible the foundation for the

s-commerce model. It is worth mentioning that one of the most influential social networks worldwide was Facebook, which with its launching in 2004 and a great growth that allowed it to reach one billion active users by the end of 2012, directly and indirectly, promoted this new business model (Statista, 2021).

Likewise, variables such as "data mining", "framework development", "network effects", "information technology" and their respective clusters indicate that research on the model during its first stage was focused on achieving the correct functionality of the model.

Furthermore, there is a secondary focus on the added value given to the users of the model, since there are a reduced number of keywords of minor relative importance such as "Marketing value" and "Costumer preferences", as opposed to the following stages that will be analyzed next.
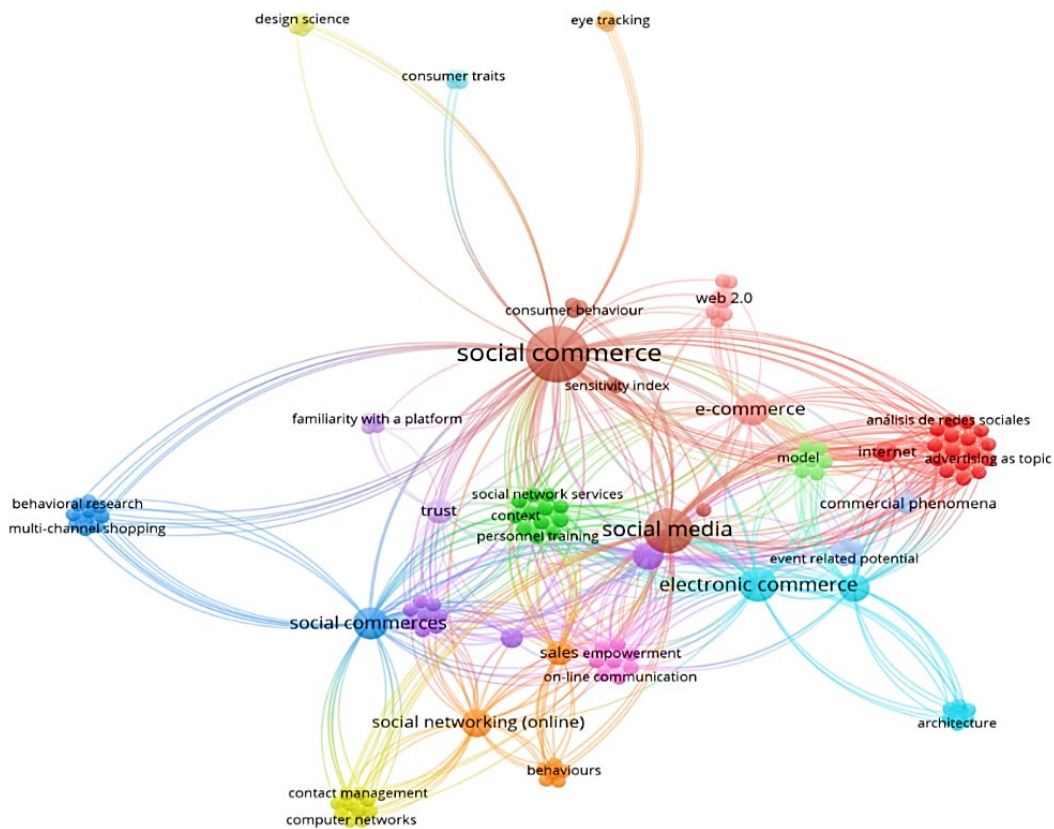Stage 2: Development of social media commerce - Booming Stage

Figure 3. Stage 2 VOSviewer

Figure 3 corresponds to the second stage and was built based on articles published in Scopus between 2014 and 2017 whose focal point is social commerce.

At this stage, a more complete network with complex relationships can be observed. Within these variables, it should be pointed out that "Social media" takes on greater importance, which goes along with the commercial functionalities that social media began to include in their platforms to adapt to this new business model. An example of this is Facebook Marketplace launched in early 2015, Instagram Store in early 2017 in the United States, and Little Red Book in 2014 in China.

In addition to this, and unlike the previous stage, the bibliometric approach shifts from a functional perspective to one more focused on generating value for users. Therefore, a greater number of variables such as "Trust", "Consumer behavior", "Behavioral research", "Consumer traits", and their respective groupings can also be observed.

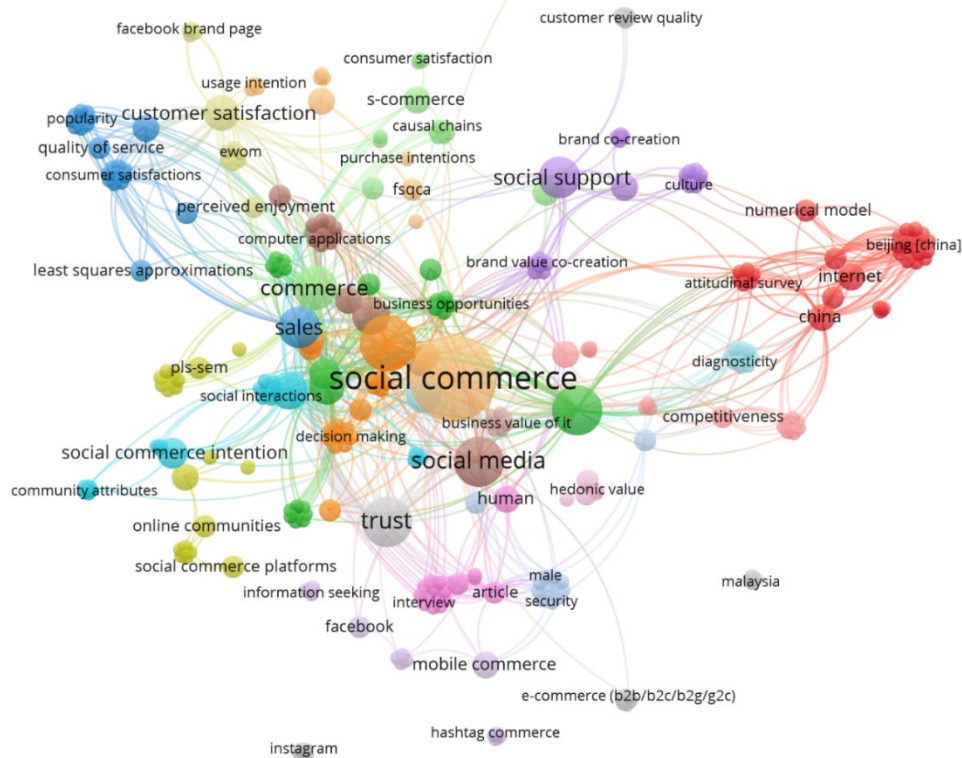Stage 3: Adoption of the model and development of new technologies - Proliferation stage

Figure 4. Stage 3 VOSviewer

At first glance, Figure 4 is a much more complex network, with 327 keywords, 23 clusters, and 2645 relationships between them. Unlike the network observed in Figure 1, this one was carried out only with the 52 articles reviewed to reflect with greater certainty the current panorama of social commerce. In addition, the occurrence filter was decreased to 1 to be able to analyze all the keywords found and their relationships in the selected articles.

Within Figure 4, the new variable "Social Commerce Platforms" should be pointed out. As previously mentioned, the third stage witnessed the emergence of e-commerce platforms that began to focus on social commerce, as opposed to social networks whose purpose is not to be a commerce platform. Some companies that had a significant influence at the beginning of this new stage were Pinduoduo, a pioneering platform dedicated to social commerce, and Amazon, with the launch of new functionalities that promote interaction between users and sellers, such as Amazon Live.

Another variable to be analyzed in the graph is "Mobile Shopping". This shopping channel has intensified over the last few years, to the point that by the third quarter of 2020, 55.4% of people with a cell phone had purchased through it (Statista, 2021). Also, new related keywords such as "Perceived enjoyment", "Quality of service" and "Purchase Intentions" are emerging, demonstrating the transition from a functional technology study approach to a consumer-centered one.

Below are the answers to the questions posed by the model based on the selected articles for the period between 2018 and September 2021:

1. What is social commerce?
From 2004 to 2013, the term social commerce was not frequently used. It is over the years that different businesses have tried to implement new features on their websites to increase word-of-mouth advertising, build loyalty, and retain their customers (Esmaeili and Hashemi, 2019).

Social commerce is an e-commerce business model (Sohaib, 2021) based on conducting activities and transactions on social media and through Web 2.0 software (Molinillo et al. 2018). Esmaeli and Hashemi (2019) indicated that social commerce is a way of adding social layers to e-commerce websites. However, Web 2.0 social media platforms already have the technology and infrastructure to support online interactions and various user contributions to assist in the acquisition of either products or services (Javid et al. 2019).

This model's main advantage is the influence of social interaction (Sohaib, 2021) promoted by the desire of users to share knowledge and information. Vice versa, the more willing users are to share, the greater the growth of the social commerce model (Ghahtarani et al. 2020). In other words, while more information is uploaded by the users the information asymmetry decreases, consequently decreasing perceived uncertainty when shopping online (Kanani and Glavee-Geo, 2021). Furthermore, this information and interactions also influence the behavior and purchase intentions of users to increase sales and reinforce brand values (Tajvidi et al. 2020). This business model represents an opportunity for several companies around the world and by 2020 it was estimated to become an $80 billion global market (Goraya et al. 2021).

1.1. What are the differences between social commerce, e-commerce, and social media?
E-commerce is a business model in which buying and selling products and services is done over the internet resulting in the import or export of products (Javid et al. 2019). As Esmaeli and Hashemi (2019) mentioned, e-commerce has evolved by embracing Web 2.0 technologies and capabilities. In other instance, social commerce is one of the categories that emerged by creating a business model based on social media (Yin et al. 2019) in which users can create an online environment to share and pursue activities, common interests (Al-Tit et al. 2020), and knowledge about products and their shopping experience to help others make better purchasing decisions (Abdelsalam et al. 2020). This model also allows companies to interact with their customers and build relationships that enable them to achieve a competitive advantage and improve their performance (Wang et al. 2019).

Esmaeli and Hashemi (2019) presented in their article the main differences between e-commerce and s-commerce based on five scopes: business objectives, customer relationships, system-customer interactions, business models, and system design. These differences remain valid over the years and can be demonstrated in the article "Validating the factor influencing social commerce adoption in small and medium Enterprise in Malaysia". The authors mention that social commerce is different from e-commerce in terms of the mentioned scopes and that the model currently presents the characteristics proposed in the article that is being taken as a basis for this research (Abdulla Ali et al. 2019). As a way of complementing these differences, four additional characteristics that offer companies the opportunity to improve relations with their customers by understanding their behavior in this social environment to become more competitive and increase their profits have been considered. These characteristics are interactivity, collaboration, community, and social aspects (Abdelsalam et al. 2020).

S-commerce enables social interaction between not only customers but also companies. On the customers' side, it allows them to access information provided through interactions, and for businesses it allows them to obtain customer reviews and ratings to develop products and services that are customized to their needs (Abdelsalam et al. 2020).

Social networks have become the basis of social commerce and a perfect way to share information and interact socially due to their ease of use, thus helping to build interactive communication and having more potential to create value for an organization, as it has a direct impact on usage intention, attitude towards services, and purchase decision making (Hossain and Kim, 2020).

It is through social media that social commerce provides users with a collaborative environment in which they can create content and share it with others, thus contributing to the growth of co-creation activities and improving the consumer experience (Abdelsalam et al. 2020; Olaleye et al. 2018). In this way, a community is being created based on an information network that connects users with their friends with whom they can share products and recommendations that will allow companies to obtain commercial advantages that are measured by the increase of online transactions or by the greater loyalty of their customers (Hossain et al. 2020; Abdelsalam et al. 2020).

Finally, s-commerce allows users to have a sense of social presence in this model developed by the social support they have access to on platforms or websites that lets them make wiser purchasing decisions and motivates them to continue participating in this type of commercial transaction (Abdelsalam et al. 2020; Molinillo et al. 2018).

1.2. What is the main architecture of social commerce systems?

E-commerce is divided into three categories: business to business (B2B), business to consumer (B2C), and consumer to consumer (C2C) (Abdulla Ali et al. 2019). Unlike this, the phenomenon of s-commerce is divided into two configurations. As mentioned by Esmaeli and Hashemi (2019), on the one hand, there are commerce activities that are conducted through social media and use tools such as "Like" and "Share" buttons (for example: Facebook), and on the other hand, there are e-commerce platforms or sites to which social media features and tools are integrated. These platforms, like Amazon, use tools such as rating systems and reviews (Lin et al. 2019; Molinillo et al. 2018).

While these configurations remained constant throughout the evolution between stages, a third configuration can now be considered: a complete social commerce platform or site that aims to serve the commercial and social needs of the user groups involved and their respective interests. The success of these platforms depends on two factors: the outcome of social interactions, which covers recommendations, word-of-mouth advertising, among others, and the outcome of commercial activities, meaning the purchase of products (Kumar et al. 2019). A great example of this is Pinduodo, a Chinese social commerce platform.

2. When did social commerce originate?

The concept of social commerce was established in 2005 and is evolving thanks to academic studies and different market trends (Goraya et al. 2021). This affirmation is consistent with Esmaeli and Hashemi since the origin has been and will always be the same. According to Goraya (2021), s-commerce in its early stage prioritized socialization considerations between users. However, with the last technological advances, social commerce is being reconfigured by leveraging users' behavioral intentions. This reconfiguration has also been influenced by the popularity of social media in commercial activities caused by Web 2.0 use. Likewise, in the case of developing countries, part of the popularity of social commerce is also due to advances in cash applications that allow users to pay using their cell phones (Kanani and Glavee-Geo, 2021).

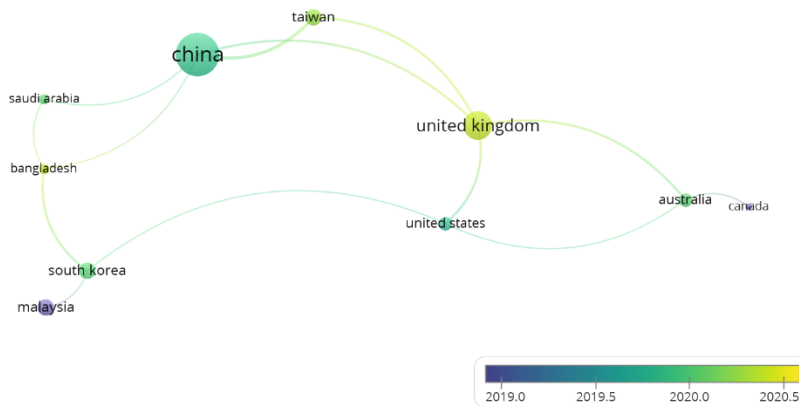**3. Where are the academic and research centers that study social commerce?**

Figure 5. Biblometric segmentation by geographic region

Among the 52 articles selected from Scopus, the countries shown in Figure 5 stand out in terms of the number of research studies. The results match to a large extent with the study elaborated by Esmaeli and Hashemi (2019), the countries shown in the graph are the same as the ones in their study. However, the course of time and the evolution of the model has changed the roles of each of them. The role of the United States and South Korea in the research of the model has been reduced by the large contribution of China in recent years, being the country with the largest contribution to social trade research. From the same graph, it can be appreciated that the research carried out in this country has an average publication date that corresponds to the end of 2019, as do the United States, Australia, and South Korea. This indicates to us a constant publication of articles related to the model throughout these last years. Another difference to notice is that the second country with the highest contribution is the United Kingdom. This is the country with the most current average publication date, which shows great growth in research on the model in recent years and which has allowed it to surpass the United States and South Korea.

4. Who is doing research in the field of social commerce?

As shown in Figure 6, there are three authors and professors at different universities in the UK with significant recent influence in social commerce: Dr. Nick Hajli, Dr. Yichuan Wang, and Dr. Mina Tajvidi. These three authors have a recognized and extensive body of research focusing their expertise on social media, big data, digital marketing, business digitization, and social commerce. They have more than 300 citations in the different articles selected for the research.
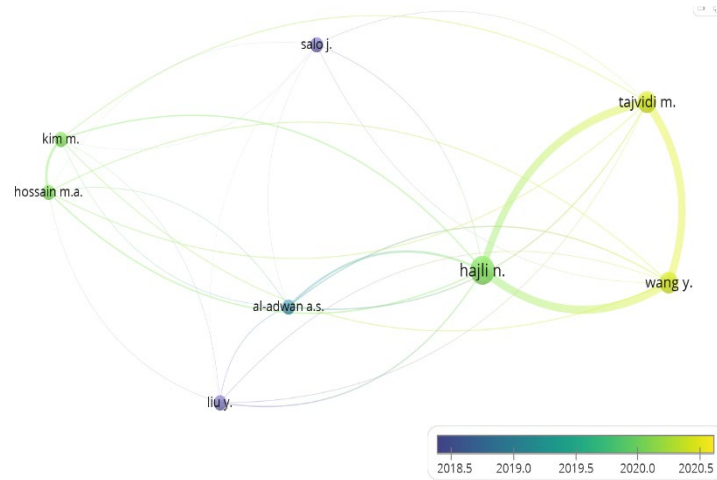

Figure 6. Number of documents by author, relationships with other, and average year of publication

5. Why is social commerce important?

Similar to the study by Esmaeli and Hashemi (2019), the importance of s-commerce will be defined based on the impact it has on the people involved in commercial transactions. These transactions are reflected in various co-creation activities such as co-design, co-ideation, and co-development of new products (Esmaeli and Hashemi, 2019). If these are managed efficiently, stakeholder relationships are strengthened, which helps the company gain a competitive advantage in the market (Yu et al. 2018). This is how s-commerce takes a leading role in the growth of the e-commerce market in general, as it contains features that can be designed by companies to enhance customer-brand engagement (Phan et al. 2020).

Additionally, on social commerce platforms, consumers can exchange all types of information that allows them to obtain better benefits by becoming part of the brand's community. This exchange is the cornerstone of the personalization function of this model and one of the characteristics that make it important, since it allows companies to accurately identify the needs and interests of consumers, thus achieving greater engagement and therefore greater revenue (Phan et al. 2020).

The more functions this model develops, the greater the impact it will have on stakeholders, thus becoming an important issue on companies' agendas.

5. Discussion

This study shows the evolution of the model and the approach of companies looking to build their social commerce platform. The best examples of successful companies that have launched the third stage of social commerce are to be found in Asia, primarily China. Pinduoduo attracted 585.2 million active shoppers in 2020 making it the third largest nationally in terms of e-commerce market share (WARC, 2020). Another company demonstrating the success of the model is JD.com, which attracted approximately 362 million shoppers in the same period as Pinduoduo.
It is worth mentioning that, although 52 articles have been taken as a reference for this research, they are closely related to the model under study and certainly reinforce the general idea of the research. However, the future of the model is very much uncertain. There are different paths through which this model will develop, becoming an even more complex and diverse concept as time goes by. Despite this, through the vision of certain companies and new developing technologies, it is possible to have a certain glance at the future. As a first possibility s-commerce may be influenced by companies such as Metaverse Inc. or Roblox Corporation, which are investing heavily in creating virtual

reality worlds. This might mean a virtual experience almost exactly like physical experiences and only time will say if it would be possible to recreate real-life situations in a virtual environment.

Nevertheless, this is not the only technology that might influence the model. Blockchain technology and Web 3.0 development will revolutionize the evolution of s-commerce, in which each user would be able to manage their decentralized platform instead of relying on technological giants such as Google, Facebook, Twitter, etc. Additionally, s-commerce will probably evolve to commercialize NFTs as digital assets, adding social features to a platform model that already exists such as Opensea, Axie, Binance, amongst many others.

6. Conclusions

The results presented in this study show that the origin and some characteristics of the model have remained constant over the years. However, the main difference that stands out in this comparison is that, although the article by Esmaeli and Hashemi mentions that a third configuration of the model can already be identified, it is in the years following this research that more information has become available that allows us to determine a third stage in the evolution of the model.

This third stage demonstrates a change of focus for companies seeking to utilize their platforms as a center of commerce and betting on social interaction and web traffic. Technological disruptions such as those mentioned in the article will play a fundamental role in the future of social commerce, and it is because of this technological sensitivity and dynamism that a role of curiosity and constant research must be maintained concerning the model, since social commerce and technology can evolve faster than expected.

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