Mapping Omnichannel Retailing Trends: A Review and Bibliometric Analysis

Neena Sinha

University School of Management Studies, Guru Gobind Singh Indraprastha University, Dwarka, Sector 16-C, New Delhi, India
neena@ipu.ac.in

Nikita Kataria

Corresponding author
University School of Management Studies, Guru Gobind Singh Indraprastha University, Dwarka, Sector 16-C, New Delhi, India
nikita.k0608@gmail.com

Garima Kapoor

University School of Management Studies, Guru Gobind Singh Indraprastha University, Dwarka, Sector 16-C, New Delhi, India
garimakapoor997@gmail.com

Abstract

Omnichannel retailing enhances personalized experiences, optimizes supply chain and enables data-driven insights into customer behavior. Understanding this will help retailers innovate and meet evolving customer expectations in a rapidly digitizing market. The objective of this study is to compile and analyze the existing literature and determine the themes on which the omnichannel retailing literature has focused with the aim to propose a framework. A systematic review methodology employing the bibliometric analysis was utilized to ensure the comprehensive examination of the topic under consideration using the Web of Science database. An extensive overview of the current body of literature, highlighting notable authors, significant research themes, and emerging trends is presented. Drawing upon these insights, a conceptual model is proposed, merging the stereotype content model with social exchange theory to elucidate the dynamics of omnichannel retail environments. The findings emphasize the profound implications of various facets of omnichannel retailing on behavioral outcomes, extending beyond logistical considerations. By underlining the role of omnichannel retailing in influencing consumer behavior, this study not only strengthens theoretical understanding but also offers helpful insights for further investigations in this rapidly expanding field and may potentially provide a starting point for future scholars in the area.

Keywords: Omnichannel Retailing, Channel Integration Quality, Customer Engagement, Bibliometric Analysis

Introduction

In an era defined by unprecedented technological advancements and a shifting consumer landscape, the retail sector in particular is experiencing a significant transformation. This innovative retailing strategy strives to seamlessly combine various online and physical channels, providing consumers with an integrated and comprehensive buying experience (Z. Zhang & Wen, 2023). As businesses throughout the world navigate through the challenges as well as opportunities that omnichannel shopping presents, a thorough grasp of its multiple facets becomes crucial.

Omnichannel retailing creates an integrated environment that enables customers to interact with companies through numerous touch points, from online marketplaces to mobile applications, social media platforms and real stores (Verhoef et al., 2015). Technology plays a vital role in improving omnichannel retailing, effortlessly combining different shopping channels to provide a cohesive customer experience. Advanced data analytics and artificial intelligence (AI) empower retailers to collect and analyse consumer data from various sources, providing personalised recommendations and targeted marketing (Behera et al., 2024). Real-time data-driven inventory management solutions guarantee ideal stock levels on all platforms, lowering the possibility of overstocking or stockouts (Silbermayr& Waitz, 2024). In addition, mobile apps and interactive websites ensure a seamless shopping experience on any device, while augmented reality (AR) and virtual reality (VR) create captivating product interactions (Hsu et al., 2021). Payment technologies, like digital wallets and contactless payments, make the checkout process more efficient, providing added convenience and security. CRM systems enhance customer service by providing personalised assistance and facilitating efficient communication, thereby enhancing the overall shopping experience (Anshari et al., 2019). Through the utilisation of these technological advancements, omnichannel retailing seamlessly connects physical and digital storefronts, allowing customers to effortlessly transition between channels while experiencing a consistent and personalised shopping experience. This integration has a significant impact on customer satisfaction and loyalty, as well as improving operational efficiency and giving retailers a competitive edge (Lazaris et al., 2021). In the contemporary business environment characterized by narrowing profit margins, the adoption of an omnichannel approach has emerged as an indispensable strategy. This is particularly significant due to the fact that consumers who engage with omnichannel retail experiences tend to spend between two to threefold more compared to those who exclusively shop in physical stores (KPMG, 2021).

Therefore, it is imperative to delve into the extensive amount of literature that has developed around the subject as the omnichannel retailing landscape continues to evolve. This study attempts to chart the landscape of omnichannel retailing by synthesising and analysing the literature and proposing a conceptual model.

The study proposes the following research objectives:

RO1: To compile and analyse the current literature and determine the theme areas on which the omnichannel retailing literature has focused.

RO2: To determine the gaps in the existing literature and specify prospective study areas for omnichannel retailing from the customer perspective for future research.

RO3: To propose a conceptual framework in the realm of omnichannel retailing from the customer perspective.

The remainder of this paper is structured as: The next section discusses methodology followed by a section presenting bibliometric analysis and literature review. Further sections contain the Conceptual framework and Propositions, discussion and future research directions. The results of this research will add to an improved understanding of how retailers can deal with the multifaceted nature of omnichannel retailing in order to develop meaningful and lasting relationships with their consumers by finding trends, gaps, and opportunities from the body of literature.

Methodology

First, an initial document search was conducted using Web of Science database with the keywords "Omnichannel Retail*" OR Topic "Omni channel Retail*", OR Topic "Channel Integration". Initial search fetched 634 articles. We employed a three-stage approach to refine the search results within the Web of Science database. This involved the systematic application of inclusion and exclusion criteria to curate a collection of articles that were most pertinent to the specific research topic under investigation. The filter for document type and web of science category was applied. Only journal articles from Business, Management and psychology multidisciplinary were selected. After this, the number of articles was reduced to 362. Articles in English language were manually screened and reviewed on the basis of Title, Abstract and relevance to the topic under study and finally, 103 articles were

considered for the review. Figure 1 depicts the full refining procedure that produces the initial results. For the purpose of subsequent analysis, the final set of 103 papers was exported in BibTex format. This file was then imported into the BiblioShiny programme, which works in tandem with the Bibliometrix package. We used the capabilities of BiblioShiny software in this study to accomplish data simplification, analysis, mapping and visualization.

Figure 1: Inclusion-Exclusion Criteria
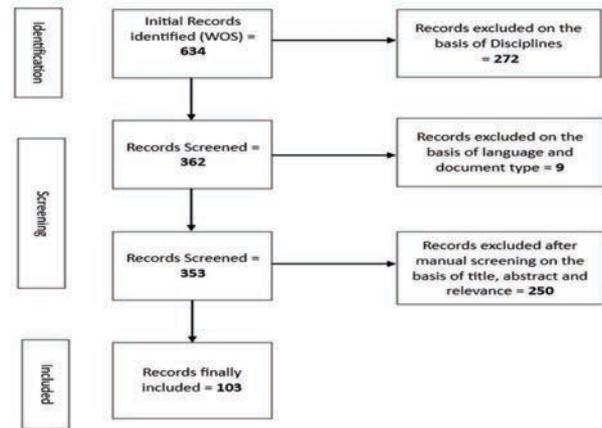
Bibliometric Results
Based on Data Set
General overview and Annual Scientific Production

Table 1: Annual Scientific Production

Description	Results
MAIN INFORMATION ABOUT DATA	
Sources (Journals, Books, etc)	39
Documents	103
Annual Growth Rate %	34.17
Document Average Age	2.02
Average citations per doc	34.88
References	5368
DOCUMENT CONTENTS	
Keywords Plus (ID)	339
Author's Keywords (DE)	401
AUTHORS	
Authors	272
Authors of single-authored docs	7
AUTHORS COLLABORATION	
Single-authored docs	8
Co-Authors per Doc	3
International co-authorships %	33.98
DOCUMENT TYPES	
article	94
article; early access	7
article; proceedings paper	2

It contains the key information from the papers under consideration for this article. On average, the number of citations per document is 34.88. The final batch of 103 papers was compiled from 39 sources. There are 94 articles, 7 early access articles, and 2 proceeding papers. Author keywords are used in this study, which are the collections of phrases and words given by the author that best characterizes the work. This analysis includes 339 keywords and 401 author keywords. With just 8 single-authored research and an average of three coauthors per study, an overwhelming majority of the papers in the data set featured multiple authors. The annual scientific output of omnichannel retailing research papers has continuously increased. The most articles were published in 2022 (30), followed by 21 in 2023. According to Biblioshiny software, the yearly growth rate of omnichannel retailing research is 34.17%.

Based on Sources

Journal Performances

Table 2: Most Productive Sources

Sources	h index	ABDC ranking	Articles	Total Citations
Journal of Retailing And Consumer Services	12	A	22	516
International Journal of Retail & Distribution Management	10	A	16	295
Asia Pacific Journal of Marketing And Logistics	3	A	4	42
Frontiers In Psychology	3	N/A	4	31
Information & Management	2	A*	3	32
International Journal of Logistics Management	2	A	3	59
Journal of Business Research	3	A	3	71
Journal of Enterprise Information Management	2	A	3	49
Journal of Retailing	3	A*	3	1427
Journal of Theoretical And Applied Electronic Commerce Research	3	B	3	46

Table 2 lists the most prolific sources for omnichannel retailing research arranged in descending order on the basis of number of articles. More than 62% of all articles came from the top 10 sources. The data contains the most papers from the "Journal of Retailing and Consumer Services", followed by the "International Journal of Retail & Distribution Management".

Based on Authors

Authors' Influence

The figure 2 depicts the top ten contributing writers in the field of Omnichannel retailing research. The size of the bubbles reflects the quantity of documents, while the horizontal line depicts an author's timeline. The colour intensity correlates to the total number of citations every year. From 2018 onward, there has been a significant increase in activity, with 2022 being the most productive year. The most productive authors from 2018 to 2023 were Zhang and Xu, respectively. Interpretations based on this data may be used to identify contemporary researchers and writers in the field. Additionally, future scholars can utilize the papers that relate to them as reference materials.

Figure 2: Authors' Production over Time
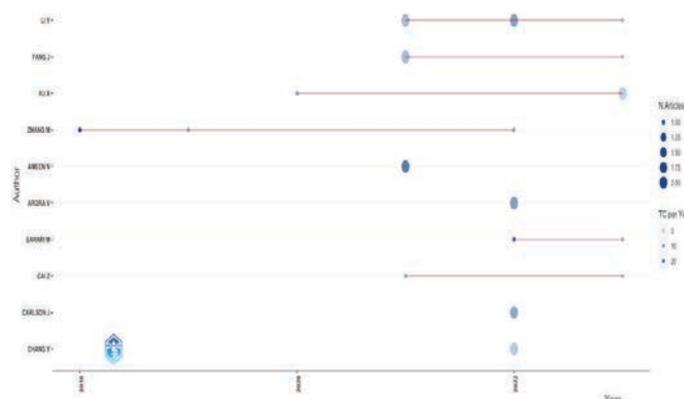
Based on Countries

Country Scientific Production

The figure 3 presents the findings of the contributions of various countries in omnichannel retailing research. The leading nations making the greatest contributions to this current field of study include China, the United States, the United Kingdom, Australia, and South Korea. India does not presently rank in the top 10, however further research is necessary, especially in emerging countries like India.

**Figure 3: Countries' Scientific Production**
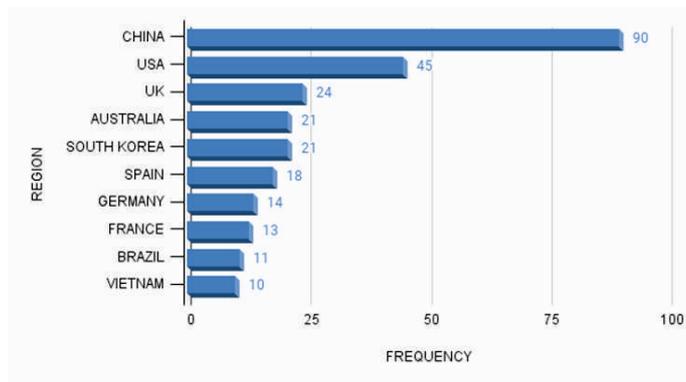
Based on Words

Author Keywords statistics (Treemap)

Figure 4 displays a treemap of the top 20 terms ranked by occurrences. Author keywords, which are terms that most accurately convey the substance of the text from the viewpoint of the author, were selected to list the most used words. These words, however, are frequently strategically selected and must be cleaned before investigation. For instance, the terms "omnichannel," "omni-channel," "omni-channel retailing," and "omni-channel retailing" are each included in Figure 4 along with the number of times they appear in various publications, although they all pertain to the same topic at hand. As a result, the repetition is eliminated, and the phrases are treated as a single phrase. With this in mind, the terms "omnichannel," "channel integration," and "customer experience" were the most often used author keywords and "channel integration quality", "customer engagement" and "customer loyalty" had low usage frequency, presumably because the linkages between concepts are still developing in this field of study.

These might potentially be considered promising study directions in this field.

Figure 4: Tree Map
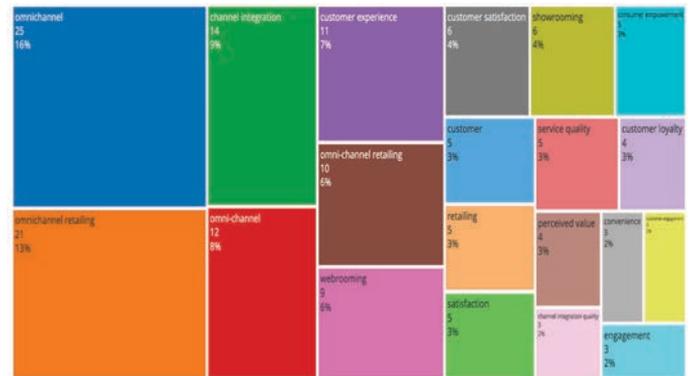
Data Visualisation

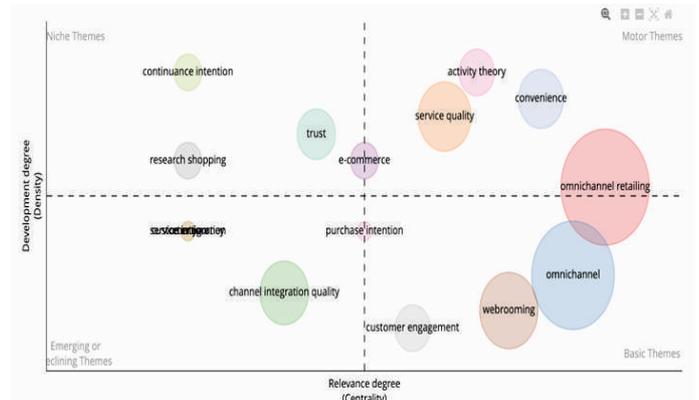### Thematic Map

Figure 5: Thematic Map

Figure 5 illustrates the plot on a bidimensional matrix that was created using the conceptual network and whose axes are determined by the density and centrality of the theme network. The thematic map exhibits themes or clusters, where centrality represents the relevance of the subject within the overall study field, and density indicating the theme's level of development (Cobo et al., 2011). Author keywords were used to construct the thematic map. Every bubble depicted in the illustration symbolizes a network cluster, with its label reflecting the word holding the highest frequency within that particular cluster. The dimensions of each bubble are directly related to the frequency of

occurrences of the respective cluster word. Within the Bibliometrix tool, the placement of these bubbles is influenced by the Callon centrality and density values, as established by (Callon et al., 1983). The map is divided into four quadrants.

Within the upper-left quadrant, the themes exhibit a robust level of development but are spread out, indicating strong internal connections but a lack of external connectivity, thereby limiting their significance. In figure 5, themes like continuance intention, research shopping, trust are present in the niche themes quadrant. The quadrant situated in the lower-left part illustrates themes of either an emerging or declining stage and, consequently, reflecting their limited development. This quadrant includes channel integration quality as one of the themes. The upper-right quadrant showcases the most influential and central themes, which are interlinked with closely associated notions, signifying their strong development and importance in advancing the study area. Motor themes have a significant influence on the research direction and discourse in the discipline. They are crucial for comprehending the core concepts and trends in the field.

On the other hand, the lower-right quadrant includes basic and transversal concepts which, although potentially relevant for the study field, require further development. These themes are often overlooked but are essential for establishing connections between different areas of research and bridging various topics. Examples of such primary and transversal subjects include customer engagement, webrooming, and omnichannel.

The comprehensive bibliometric analysis highlights the significance of customer engagement and Channel integration quality as critical areas of academic research within the realm of omnichannel retailing, both of which are notably characterized by a dearth of comprehensive studies.

Literature Review

Omni channel marketing strategy is a type of strategy where the different channels are integrated to provide a seamless experience to consumers. An omnichannel shopper moves freely between channels. For instance, the customer may search for the product in online mode using the laptop, visit the physical store for the touch and feel of the product and may purchase it using the retailer's mobile application (Silva et al., 2018). When designing an omni-channel system, it is also important for retailers to adopt integrative and unique approaches to achieve the goals of connecting, coordinating, and synchronising widespread channels to remove friction during the purchase journey of consumers (Lim et al., 2022). In recent years, the blurring of channel boundaries has hastened, with traditional brick and mortar stores expanding to provide online services that offer convenience and assortment, whilst online retailers have been investing in offline stores to drive customer experience (Reinartz et al., 2019).

Channel Integration quality and Customer Engagement

For omnichannel retailing to be successfully implemented, the quality of channel integration is essential. Recent studies have higlightedthat positive outcomes (for instance, positive word of mouth, customer loyalty, repurchase intention, etc.) which are essential for businesses' success result from channel integration quality (Gao & Huang, 2021; NGUYEN, 2021). The presence of numerous channels requires a deep understanding of their collective influence on customer engagement. Customer engagement has garnered a lot of attention as a key component of an organization's success and long-term competitive advantage. (Vivek et al., 2014) defined customer engagement as the level of connection and participation a customer or potential consumer feels with a brand's products. Engaged customers are more likely to be loyal, spend more money, and recommend a firm to others, all of which help a business succeed.(Gao & Huang, 2021; Lee et al., 2019)

Theoretical Foundation

Prior research in the omnichannel retailing domain has predominantly used the stimulus-organism-response framework to understand customer behaviour(Cocco & Demoulin, 2022; Xie et al., 2023). However, there has been limited investigation into the various factors that influence consumer behaviour in omnichannel retailing, using the

perspectives of Social Exchange Theory and Stereotype Content Model.

Social Exchange Theory (SET) is appropriate for discussing topics concerning Customer Engagement since it facilitates interactions between companies and their customers (Harrigan et al., 2017). According to the reciprocity principle of the Social Exchange theory, Customer Engagement entails specific investments made by customers when they interact with firms (Hollebeek, 2011). SET has been utilized in earlier studies in the context of customer Engagement in a variety of research situations (Harrigan et al., 2017; Phan et al., 2020).

Thematic analysis of the bibliometric data indicated "Trust" as one of the key emerging themes within the upper left quadrant. Perceived warmth is intricately related to the degree to which consumers place trust in the intentions of others, particularly in assessing if companies have warm intentions towards their customers. As trust emerged as an essential aspect in understanding customer-retailer relations, we have opted to add the Stereotype Content Model (SCM) into our research framework. According to the SCM, the two essential characteristics of social judgement that individuals utilize to develop interpersonal impressions of interaction with others are warmth and competence (Fiske et al., 2002). Although individuals who demonstrate high warmth and competence may breach people's cognitive schemas, the SCM anticipates that they will obtain more favourable evaluations such as admiration. It has been demonstrated by (Cuddy et al., 2007) that warmth and competence together produce favourable emotional outcomes, along with behaviorally-oriented outcomes, such as greater intentions to purchase (J. Aaker et al., 2010). Thus, SCM provides a comprehensive theoretical lens for investigating how perceptions of individuals, particularly stereotypes based on warmth and competence, impact their interactions with retailers.

Figure 6: Proposed Conceptual Framework
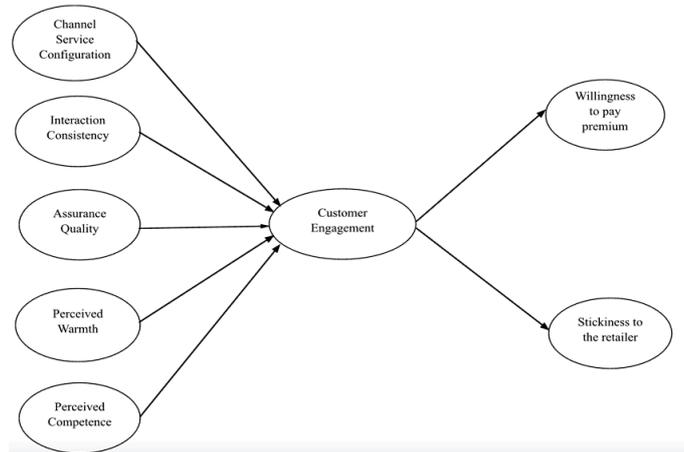
"Channel Service Configuration" and "Interaction Consistency" are two essential components of "channel integration quality"(Shen et al., 2018; Sousa & Voss, 2006a). Additionally, (Hossain et al., 2020) suggested an entirely novel component called assurance quality.

The dimension of "Channel Service Configuration" is assessed by "Channel-Service Choice Breadth" and "Channel-Service Configuration Transparency" (Le & Nguyen-Le, 2020; Lee et al., 2019).The breadth of channel service choice refers to how many alternatives consumers have for a certain service or how many tasks they can complete through a single channel. On the other side, "channel service configuration transparency" may be defined as "the extent to which customers are aware of the available channels and services as well as the differences between such service attributes across channels" (Lee et al., 2019). Customers may readily access a variety of channels for information and services before making a purchase, and they can then make that purchase through the channel that best suits their needs (Shen et al., 2018). The customer enjoys a transparent and efficient buying experience when a company establishes the service channels appropriately (Chen et al., 2022). Therefore, we propose

Proposition 1: Channel Service Configuration will positively impact Customer Engagement.

"Integration consistency", according to (Sousa & Voss, 2006b) refers to the uniformity of interactions across various channels that results in a consistent service experience. When customers have a consistent experience

across all of the channels a business offers, they effortlessly transition between channels (Hsieh et al., 2012). "Content Consistency" and "Process Consistency" are employed to quantify Integration Consistency. "Content consistency" relates to how consistently customers interpret information about prices, products, and promotions throughout all of the retailer's channels, While process consistency is defined as "the degree of consistency of relevant and comparable process attributes across channels, such as the feel, image, and delivery speed of services" (Lee et al., 2019). Consistency across channels is seen by customers to be a crucial advantage since it reduces risk perceptions (Quach et al., 2022). Integrated interactions had a greater impact on customer engagement for high-involvement items than for low-involvement ones (Lee et al., 2019). Therefore, we speculate

Proposition 2: Integrated Interactions will positively impact Customer Engagement.

The term "assurance quality" highlights the dependability of various channel characteristics, such as the security and privacy of customer's personal data across channels and the accessibility of service recovery. Assurance quality was shown to have the most impact on the quality of omnichannel Integration among the major factors. In order to maintain a relationship with the customer throughout the process of customer engagement, assurance is a crucial component of service quality (Hossain et al., 2020). The emergence of concerns about confidentiality and privacy is a direct result of the dependence on extensive data pools from several platforms, such as website data and applications for mobile phones, in order to enhance operations across multiple silos in omnichannel retailing (Cheah et al., 2022). Therefore, we posit

Proposition 3: Assurance Quality will positively impact Customer Engagement.

Warmth perceptions, according to (J. L. Aaker et al., 2012), address the issue "What intentions does this entity have?" Individuals or groups with cooperative intents are viewed as warm, trustworthy, sincere and approachable. Warmth perception determines how much people trust the intentions of others, deciding if businesses have warm intentions towards customers. It has been shown that customer intentions to promote a brand on social media are influenced by perceptions of brand warmth (Bernritter et al., 2016). According to (Kull et al., 2021), individuals respond more honestly to chatbots that use a friendly tone in discussions, and the chatbot's warmth strengthens customers' engagement with the company. (Liu et al., 2021) highlighted that warmth is associated with a greater degree of digital customer engagement than competence. Influencing consumers' impressions of warmth might be a novel technique for omnichannel retailers. As a result, we argue

Proposition 4: Perceived Warmth will positively impact Customer Engagement.

The issue of whether an entity is capable of achieving its goals is answered by competence perceptions. Being viewed as capable of carrying out their plans suggests competence. (J. L. Aaker et al., 2012). Customers who view a company or brand to be competent feel that the business has the requisite skills, experience, and capacities to fulfil their demands effectively (Fiske et al., 2002). Perceived competence has been associated with stronger service provider and customer connections and a lesser risk of stability attributions in the case of service failures. As highlighted by (J. Aaker et al., 2010), high warmth and competence result in greater levels of purchase intent. Therefore, we propose

Proposition 5: Perceived Competence will positively impact Customer Engagement.

Customers may be persuaded to pay a price premium if a company provides great services that exceed their expectations (Izogo et al., 2020). Customers' willingness to pay a price premium (WTPP) manifests itself when they believe a service encounter is worth more than what it costs or when customer-firm exchanges are seen to be customer focused. (Nikhashemi et al., 2021) demonstrated that psychological inspiration and consumer engagement with retail AR applications are important indicators of customers' WTPP and their intention to continue using the AR app. (Gillespie et al., 1999) formulated the concept of stickiness and studied its connection with website revisit intention. In simple terms, according to the authors, stickiness is the ability to persuade customers to stick around longer, delve deeply, and return more frequently. The study by (M. Zhang et al., 2017) indicated that

Customer engagement indirectly impacts customer stickiness through customer value creation. Therefore, on the basis of the arguments presented above, we propose,

Proposition 6: Customer Engagement will positively impact Willingness to Pay Premium.

Proposition 7: Customer Engagement will positively impact Stickiness to the retailer

Discussion and Implications

A bibliometric analysis endeavors to quantitatively assess the research conducted within a specific field of knowledge over time. This study contributes to the omnichannel field in several ways, notably by focusing on the consumer viewpoint within the contemporary landscape of omnichannel retailing. The study also highlights key gap areas in the existing literature in the omnichannel context. Consequently, we presented future researchers with potential avenues for further investigation into the various aspects relatinng to the omnichannel shopping behaviour.

The research facilitates the comprehension of research trends within the area by both scholars and retailers, identifying significant contributors including authors and journals, and delineating the wide-ranging subcategories of research within this domain. There has been a significant increase in the frequency of research publications on the subject in the preceding three years, with a growing number of writers collaborating to produce research articles with multiple contributors. According to the findings, the top ten journals constitute 62% of the articles produced in this discipline. This finding points to a noticeable focus of research publications in these journals.

The findings derived from the bibliometric analysis, coupled with the proposed model integrating Social Exchange Theory (SET) and the Stereotype Content Model (SCM), provide a comprehensive understanding of the intricate relationships between channel integration quality, perceived warmth, perceived competence, customer engagement, WTPP and stickiness to the retailer in omnichannel retailing. The use of SET emphasises the importance of mutual benefit and reciprocity in customer-retailer relationships. The SCM sheds light on how stereotypes based on warmth and competence affect customer-retailer interactions by providing insights into the cognitive components of consumer perceptions. Retailers can distinguish their brand, personalise experiences, establish closer connections with customers, and drive business success in the omnichannel retailing era by recognising and capitalising on perceptions of warmth and competence.

Limitations and Future Research Directions

The ongoing research in the omnichannel domain has attracted significant interest from scholars and researchers. This study endeavors to outline the noteworthy progressions in the realm of omnichannel retailing research, which is still in its initial phases. However, this study has its limitations. Our study focused upon literature retrieved from only one database, i.e., Web of Science. Future studies could incorporate papers from other databases as well. In addition to it, combining quantitative bibliometric analysis with qualitative methodologies such as in-depth case studies and customer interviews can provide a comprehensive understanding of the topic under investigation. The proposed conceptual model has not undergone empirical testing, leaving ample room for future studies to employ it for empirical validation. Furthermore, technology has emerged as an integral component within the retailing industry, particularly in the realm of omnichannel retailing. Therefore, forthcoming research endeavors could undertake both quantitative and qualitative analysis, emphasizing the significance of technology, including the implementation of Augmented Reality (AR) based virtual try-on features in both physical stores and online platforms, Virtual reality (VR) in enhancing interaction with customers across numerous platforms and the examination of the 'endless aisle' notion in omnichannel shopping. Lastly, since retailers collect massive amounts of personal data, such as browsing patterns, purchase histories, and demographic data, in order to personalise marketing efforts and improve customer experiences, the exploration of the privacy paradox within the domain of omnichannel retailing represents an intriguing avenue for research, as it seeks to address the inherent struggle between customers' growing demand for personalised experiences and their concurrent concerns about privacy.

Future Research Areas	Research Questions
Consumer Behaviour in Omnichannel Retailing	• What factors impact the decision-making process of consumers in omnichannel environments? • How do different demographics and psychographics impact consumer behavior in omnichannel retailing?
Technology Adoption and Integration	• How can the use of augmented reality (AR) and virtual reality (VR) technologies in omnichannel retail settings improve product visualisation, customer engagement, and decision-making? • How do emerging technologies such as blockchain, chatbots, and voice assistants contribute to improving omnichannel retail experiences? • How does consumer acceptance and usage of emerging technologies vary among different demographic segments?
Customer Experience and Satisfaction	• What is the impact of the integration of various touchpoints on overall customer experience ? • What are the long-term impacts of favourable omnichannel experiences on advocacy behaviours, brand loyalty, and customer lifetime value?
Leveraging Social Media in Omnichannel Retailing	• How can retailers optimally leverage social media platforms into their omnichannel strategies to enhance customer experience and satisfaction ? • How do peer recommendation, user review and ratings on social media affect customer engagement behaviours?
Addressing Ethical Concerns	• What is the impact of the privacy-personalisation paradox on consumer behaviour and trust in retail environments? • What strategies can retailers employ to effectively manage the trade-off between personalisation benefits and safeguarding consumer privacy rights in omnichannel retailing?

Conclusion

This research investigated the customer-focused aspects of omnichannel retailing by using bibliometric analysis on the data collected from Web of Science. The study uncovered important customer-focused patterns, indicated areas where more research is needed, and put forward a thorough conceptual framework employing the stereotype content model along with social exchange theory within the context of omnichannel retail. Our suggested conceptual framework includes important elements like integration quality, as well as less studied aspects in the context of omnichannel commerce.

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