

THE BIBLIOMETRIC ANALYSIS OF SERVICE RECOVERY RESEARCH BASED ON SCOPUS DATA: NETWORK MAPPING AND TOPIC TRENDS USING VOSVIEWER

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Abstract

This research employed a bibliometric analysis of 170 Scopus-indexed articles from 2020 to 2025 period to map the intellectual landscape and current trends in service recovery research. The analysis revealed that publication trends peaked in 2022, followed by consolidation and deepening of themes in subsequent years. Business, management, and accounting fields dominate (50%), with the United States and China being the main contributors. Keyword network mapping identifies a significant shift in research focus from traditional concepts toward digital technology integration, with artificial intelligence, chatbot, and social media emerging as the most relevant and interconnected topics. This research key findings highlighted the identification of brand-related dimensions (brand trust, brand equity) as increasingly crucial but still fragmented thematic clusters in the literature. Additionally, potential areas for future research were mapped, particularly in underexplored domains such as Generative AI and specific industry contexts. This study, hopefully, complements previous bibliometric research limitations by presenting a more up-to-date temporal scope and a sharper analytical focus on digital and brand contexts.

Keywords: *Service Recovery, Bibliometric Analysis, Digital Transformation, Brand Trust, Artificial Intelligence*

INTRODUCTION

The service industry is currently developing very rapidly, in line with the increasing global competition and the higher consumer expectations. Consumers no longer demand only product quality but also a consistent and satisfying service experience. In this context, service failure has become an unavoidable phenomenon, even for companies with strong reputations. When a service failure occurs, the company's response through service recovery strategies becomes crucial in determining whether consumers remain loyal or switch to another service provider (Babin et al., 2021; Weitzl & Hutzinger, 2019). The impact of service failure can be substantial. Research reports indicate that repeated service failures cause significant annual financial losses and damage a company's public image (Izogo & Jayawardhena, 2018; Koc, 2019). Moreover, the rise of social media and digital platforms has made it easy for consumers' negative experiences to spread rapidly, amplifying reputational risks. Nevertheless, studies also emphasize that effective service recovery strategies can lead to a service recovery paradox—a condition in which consumers who experience service failure but receive effective recovery become more satisfied than those who never experienced service failure at all (Hewagama et al., 2022).

The literature on service recovery has evolved rapidly and has been examined from various disciplinary perspectives, including marketing management, consumer behavior, and human resource management. Unfortunately, the diversity of perspectives has led to research fragmentation. Many previous studies have focused only on narrow issues, such as consumer responses to compensation, the role of frontline employees, or procedural justice. As a result, it is difficult to obtain a comprehensive overview of the entire service recovery research landscape (Vaerenbergh et al., 2019). To address these challenges, bibliometric approaches have increasingly been used over the past decade because they can analyze citation patterns, author connections, and research topic mapping on a large scale. With the help of software such as VOSviewer, researchers can extract the intellectual structure of a scientific field, identify major clusters, and quantitatively and objectively track the latest research trends (Donthu et al., 2021; Ashraf et al., 2022). This approach also reduces the researcher's subjectivity bias, which often arises in traditional literature reviews.

One of the recent influential studies was conducted by Mir et al. (2023), who mapped the service recovery research landscape using a Scopus-based bibliometric analysis. The study successfully identified ten major thematic clusters, ranging from attribution theory and service recovery strategies to organizational relationships and perceptions of justice dynamics. The findings of Mir et al. (2023) are highly valuable because they provide a comprehensive overview and a conceptual framework to guide both researchers and practitioners. However, the focus of the study remains general on service recovery as a whole and has not specifically highlighted the important dimensions related to branding. There are several limitations worth noting. First, the temporal scope of previous studies mostly ended in 2021, thus failing to capture recent dynamics in the post-pandemic era. Second, earlier research tended to be broad and did not explicitly examine the link between service recovery and brand dimensions. Third, existing studies often combine cross-disciplinary issues, resulting in no specific mapping of service recovery.

In the context of modern marketing, brands play a central role in shaping consumers' perceptions of service recovery. Consumers tend to associate their service recovery experiences with the brand image they use. Effective recovery can strengthen brand equity, whereas failure in recovery can damage long-term reputation. Therefore, focusing on service recovery is relevant to be mapped systematically. Moreover, recent research developments after 2020 show an important shift in service recovery practices, especially due to the COVID-19 pandemic, which accelerated service digitalization. Many organizations have adopted AI-based technologies, chatbots, and self-service applications to handle consumer complaints (Babin et al., 2021). This transformation raises new questions about how brands ensure the effectiveness of digital-based recovery strategies — an aspect that has not been widely examined bibliometrically. This study aims to fill that gap by utilizing the Scopus database for the 2020–2025 period to capture the latest dynamics of service recovery research. The analysis employed VOSviewer software to map citation networks, thematic clusters, and research topic trends. It is expected that this approach produces a more focused intellectual landscape while presenting new research directions that enrich the literature and provide practical guidance for companies in strengthening brand-based service recovery strategies.

- RQ1 : How have service recovery research publications developed in the Scopus database during the 2020–2025 period?
- RQ2 : Who are the most active authors, fields of study, and countries in service recovery publications during that period?
- RQ3 : What are the main keywords and emerging research directions in service recovery studies based on bibliometric analysis using VOSviewer?
- RQ4 : What is the contribution of this study in addressing the limitations of previous bibliometric studies that only covered the 1974–2022 period?

LITERATURE REVIEW

In an era of increasingly intense business competition, a brand must excel not only in product quality, but also in managing interactions and relationships with its consumers, especially when service failures occur. Service failure is defined as a situation in which a service does not meet consumer expectations or fails to deliver the promised benefits, resulting in dissatisfaction and potential loss of consumer loyalty (Wei et al., 2022). Service recovery can be understood as an organization's planned response to a service failure incident, aimed at correcting the error and rebuilding consumer trust. This process includes various activities such as offering apologies, providing compensation, improving the service, and maintaining effective communication to reduce the negative impact of the failure (Tran, 2024). Furthermore, service recovery not only seeks to solve immediate problems, but also to rebuild emotional connections, strengthen brand image, and even enhance long-term consumer loyalty (Lim et al., 2025).

Ameen et al. (2025) emphasize that the definition of service recovery in the context of modern business should be viewed as a combination of reactive responses to complaints and proactive, data-driven strategies to prevent future failures. Lim et al. (2025) expand on this definition by highlighting the importance of justice in service recovery. Service recovery is defined as a brand's responsive effort in addressing service failures, with its effectiveness measured through three dimensions of justice: distributive justice (fairness in outcomes), procedural justice (fairness in processes), and interactional justice (fairness in interactions). As a quantitative approach, bibliometrics aims to analyze, map, and evaluate the development of scientific literature comprehensively within a particular research field. This is achieved by utilizing publication and citation data, allowing scholars to trace the dynamics and trends shaping a discipline, uncover emerging research themes, and map collaboration networks and the intellectual structure of a research area (Donthu et al., 2021). This method is not merely about compiling a list of scientific articles but also serves as a data-driven systematic review that provides a comprehensive overview of the

dynamics, trends, collaborations, and intellectual structure of a research topic (Lazarides et al., 2023). In recent years, bibliometric analysis has become an increasingly popular approach for examining the fields of marketing and management, including the topic of service recovery (Mir et al., 2023). Based on these findings, this study has conducted a new bibliometric analysis entitled “The Bibliometric Analysis of Service Recovery Research Based on Scopus Data: Network Mapping and Topic Trends Using VOSviewer.” The data were collected from the Scopus database for the 2020–2025 period, with network and topic trend analyses conducted using VOSviewer software. This approach aims to provide an up-to-date overview of the scientific structure and emerging topics in the global field of service recovery, as well as to identify future research opportunities.

METHOD

This study employed a descriptive bibliometric analysis method consisting of four key stages: identification, screening, eligibility, and inclusion (Mulyani et al., 2024). In the identification stage, the researchers conducted a search using keywords relevant to the research theme, namely “service recovery”, within the Scopus database. Through this process, 57,338 relevant articles were identified. The next stage is screening. At this stage, the researchers filtered the 57,338 articles obtained in the previous step using two criteria, namely the article must contain the keyword only in the title, and it must be published in an indexed journal. Based on these criteria, 55,359 articles did not meet the requirements and were excluded from further analysis, leaving 1,979 articles for the next stage. The following stage is eligibility. Here, the researchers evaluated whether the 1,979 publications that passed the previous screening were suitable for inclusion in the final stage. The researchers decided to include only publications from the 2020–2025 period and those that used the keyword “service recovery” using English language. After applying these criteria, 170 publications met the requirements and proceeded to the inclusion stage.

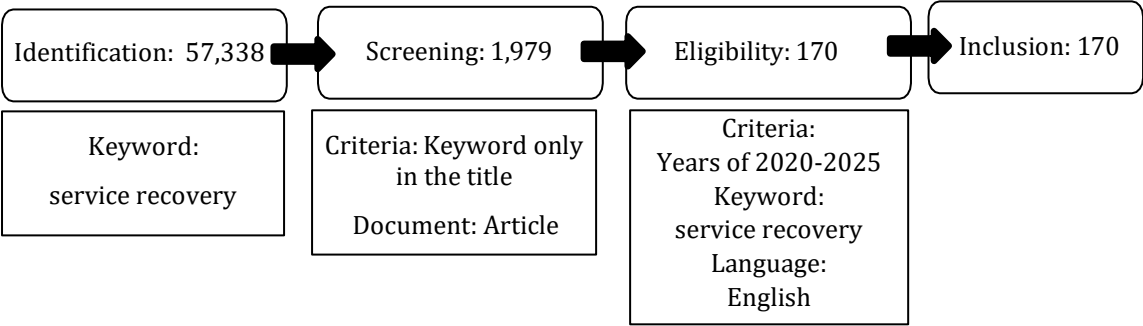


Figure 1. Stages in Data Refinement
Source: Authors (2025)

In this study, VOSviewer served as the primary software tool for data analysis and visualization. Its main role was to map the intellectual landscape of service recovery research through keyword co-occurrence analysis. This technique produced network and density maps revealing key thematic clusters such as the relationships between AI, brand trust, and social media, as well as identifying research areas that were either densely explored or under-researched. Consequently, VOSviewer enables the identification of current trends and deep conceptual connections within the body of literature.

RESULTS AND DISCUSSION

Trends of the Development of Service Recovery Research Publications

Based on Figure 2, which shows the trend of research publication development on service recovery obtained from the Scopus database, it can be concluded that the dynamics of publications over the six-year period from 2020 to 2025 show very significant fluctuations. This trend is not linear; rather, it is marked by a phase of rapid and aggressive growth that eventually reaches a peak before entering a clear contraction or decline period. Thus, the graph not only displays numbers, but also effectively visualizes the life cycle of a research area—from its emergence phase, popularity peak, to its decline phase.

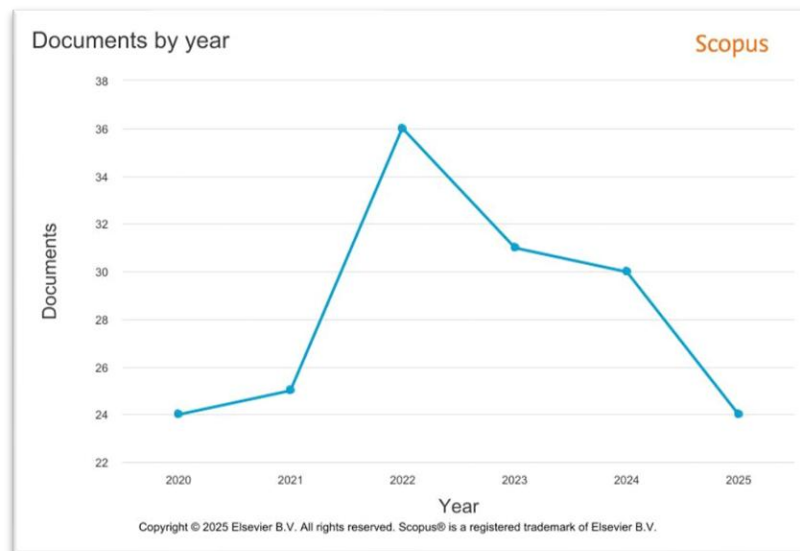


Figure 2. Trend of the Development of Service Recovery Research Publication
Source: Authors' Analysis (2025)

In the initial period, 2020 and 2021, the volume of publications was relatively stable and remained at a basic level. In 2020, there were 24 documents, with a slight increase to 25 documents in 2021. This stability likely reflects the early period of the COVID-19 pandemic, during which research and publication processes may have faced obstacles or research focus was still dispersed. However, the situation changed drastically when entering 2022. These findings align with the research by Gidakovic and Čater (2021), which emphasized that although attention to service recovery increased in post-transition economies, research interest in the early period remained relatively stable. They highlighted that in Eastern European countries such as Slovenia, even though consumer expectations regarding their rights were lower compared to Western Europe, effective service recovery remained key to maintaining consumer loyalty. Additionally, Alzoubi et al. (2020) confirmed that perceived service recovery is one of the critical factors influencing satisfaction and consumer delight, particularly in the telecommunication industry. Therefore, the stable volume of publications during 2020–2021 reflected the early phase of growing awareness of the importance of service recovery strategies, especially in competitive service sectors.

The year of 2022 represented a significant peak, with the number of documents escalating sharply to 36 publications. This substantial increase from the previous year indicates that the topic of service recovery became highly relevant and attracted extensive attention from the academic community in the respective year. It can be observed that research on service recovery has continued to evolve significantly, particularly within the digital platform and the sharing economy context. The high volume of publications in 2022, being the peak of research productivity within the analysis period, clearly reflects this momentum, as scholars have been actively exploring the complexities of service recovery in digital environments. In line with the findings of Mazhar et al., (2022), it is confirmed that responsive and proactive service recovery can mitigate consumers' switching intentions. However, Arsenovic et al. (2023) emphasized that financial compensation alone is ineffective without collaboration during the recovery process. Meanwhile, Kim (2022), in the context of peer-to-peer services, revealed that the effectiveness of recovery strategy highly depends on the configuration of failure characteristics, recovery sources, and consumer profiles. These collective findings direct future research toward the exploration on the roles of artificial intelligence, social media, and brand trust in adaptive service recovery strategies.

After reaching the highest record in 2022, the publication trend began to show a gradual decline. In 2023, the number of documents decreased to 31, and in 2024, it slightly dropped again to 30, following its earlier peak in 2022. Despite this contraction, research focus continuously shifts toward digital and technological contexts, including the roles of artificial intelligence in service recovery. In accordance with this, Rasoulia et al. (2023) affirmed that in service crisis contexts such as data breaches, recovery strategies supported by organizational resources such as company size, profitability, and liquidity can moderate negative market reactions. Meanwhile, Lv et al. (2024) identified that humorous language styles in generative AI services can enhance perceived sincerity and social presence, eventually strengthening users' forgiveness intentions. These findings suggest that although the number of publications has declined, the complexity and depth of research have grown through the integration of

technological and psychological variables in service recovery studies. Notably, the 2025 data indicate that the number of publications has dropped significantly to 24, matching the 2020 level. This decline should be interpreted cautiously, as the 2025 data are likely incomplete, given that the year is still ongoing. Therefore, the current number of 24 documents may not represent the total number of publications recorded by year's end. Nevertheless, recent publications on service recovery continue to reinforce the focus on implementing structured and quality-oriented strategies. Chambers (2025) emphasized the importance of a systematic approach to service recovery through five key steps including prevention, role clarification, active listening to complaints, joint problem resolution, and learning from experience which reflect the growing complexity and depth of the research theme. Similarly, Tseng and Yong (2025) confirmed the empirical significance of recovery satisfaction and the moderating role of service recovery in influencing repurchase intention, demonstrating that research in 2025 remains consistent in testing relationships among core variables while contextualizing recovery strategies within specific industries such as restaurants. These studies represent the continuity of research interest in the effectiveness and implementation of service recovery during this period. Overall, the publication trend in service recovery research reflects an academic response to the challenges of service in the digital era, with a peak in productivity in 2022. Although the 2025 data indicate a decline, this should be interpreted as a temporary condition that remains open to more additions. The trend signals a shift in focus from mere publication volume toward greater depth and strategic adaptation of service recovery within increasingly complex industrial contexts.

Trends of the Development of the Most Active Fields of Study

In the section “Trends of the Development of the Most Active Fields of Study”, the data are presented in the form of a diagram that vividly illustrates a remarkable concentration of publication activity in a single subject area, while other subjects are distributed with considerably smaller proportions. This pattern provides a strong description of current research focus and academic interests.

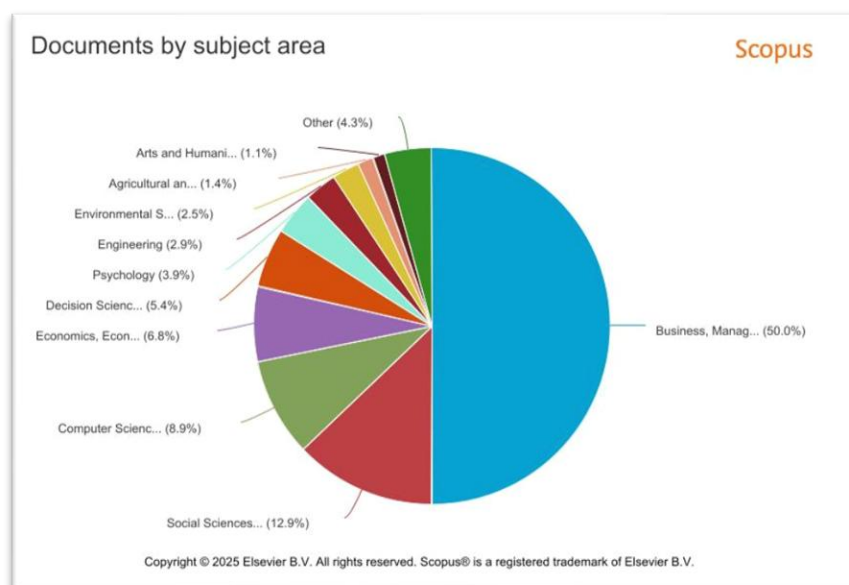


Figure 3. Trends of the Development of the Most Active Fields of Study
Source: Author's Analysis (2025)

Based on Figure 3, it can be observed that the largest share as many as exactly 50.0% of the total documents is dominated by business, management, and accounting, making it the subject area with the highest level of publication activity substantially. The next most active fields, though with considerably smaller proportions, are social sciences (12.9%) and computer science (8.9%). Collectively, these three disciplines contribute approximately 71.8% of all analyzed publications. Other areas such as economics, econometrics and finance (6.8%), decision sciences (5.4%), and psychology (3.9%) follow in descending order of research activity. Meanwhile, subjects such as engineering (2.9%), environmental science (2.5%), agricultural and biological sciences (1.4%), arts and humanities (1.1%), and others (4.3%) represent much smaller proportions in the scientific publication development map.

With the prominent dominance of business, management, and accounting, this analysis strongly indicates that current global research and scientific publication trends are highly concentrated on business- and management-related issues, most likely driven by industrial demands and contemporary market dynamics. Within service recovery research, this focus reinforces the findings from prior empirical studies. As revealed by Al-Ababneh et al. (2021) in the context of service industries such as hospitality, service recovery efforts are greatly influenced by managerial capacity in implementing service innovation and employee empowerment serving as core domains within business and management sciences. Furthermore, in the study of Gidener and Deveci (2020) on logistics sectors, it emphasized the importance of service recovery strategies in maintaining business relationships, reaffirming the strong relevance of this topic in the fields of operations and supply chain management. Therefore, the research focus on business and management aspects does not only reflect practical urgency but also the consistency of findings across diverse service sectors.

Trends of the Most Active Countries

In the section “Trends of the Most Active Countries,” the data provide crucial insights about the dynamics of global research contributions on service recovery by visualizing the volume of documents produced by up to 15 countries. Through the comparison of bar lengths, it can immediately identify which countries currently lead in academic productivity and to what extent the concentration level or distribution of research output among the world’s top contributing countries.

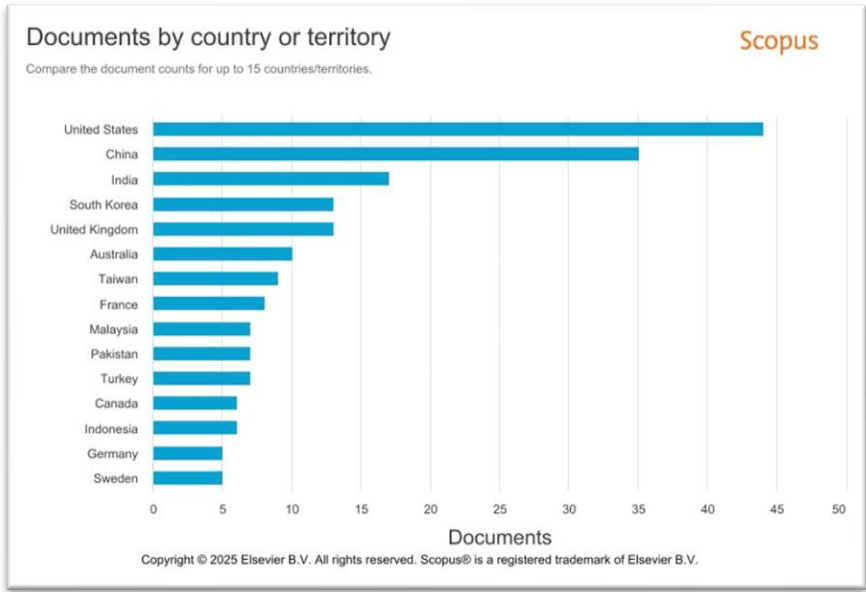


Figure 4. Trends of the Most Active Countries
Source: Authors’ Analysis (2025)

Based on Figure 4, resulted from the Scopus data, it is evident that the United States dominates the publication trend with the highest number of documents, exceeding 40 units indicating its central role in global research. Then, closely following in second place is China, which also demonstrates remarkably high research productivity with nearly 35 documents. India ranks third with a considerable gap, contributing approximately 17 documents, followed by South Korea and the United Kingdom, each ranging from 12 to 15 documents. Countries such as Australia, Taiwan, France, Malaysia, Pakistan, Turkey, Canada, Indonesia, Germany, and Sweden contribute more moderate volumes, ranging from 5 to 10 documents, indicating a relatively balanced level of research activity among this country group. Overall, the data reflect a significant concentration of research activity in the United States and China, followed by several Asian and European countries that also make substantial contributions.

This pattern indicates that while the United States keeps its position as the leading contributor in bibliometric outcomes on service recovery research, the finding aligns with Chambers (2025) highlighting that the service recovery literature has long flourished in countries with mature service systems such as the United States. In this context, a systematic approach to service recovery— starting from prevention to dispute resolution has been a focus of both research and practice. Furthermore, Lim et al. (2025) similarly confirmed the empirical significance of recovery satisfaction and the strategic role of service recovery in influencing brand loyalty, which have been

extensively examined within advanced market context like the United States. As a result, it explains why the country remains the main contributor to the global body of research on service recovery. Meanwhile, China has emerged as a highly competitive research power, with a relatively narrow gap in publication volume compared to the United States. The noticeable disparity between these two leading nations and the rest of the group underlines a global imbalance in indexed publication output volume, which may be attributed to differences in research funding, the number of researchers, and academic policies. This finding is consistent with Lv et al. (2024) and Hu et al. (2024), reporting that Chinese researchers have been focusing on exploring modern service recovery strategies, such as the application of generative artificial intelligence and AI agent realism, to influence consumer satisfaction and behavioral outcomes. This dominance reflects China’s position as a competitive research power in the global landscape.

Trends of the Most Active Authors

In the trends of the most active authors, it presents a vital overview of the concentration of expertise and individual productivity in the analyzed research field. By visualizing the number of documents published by up to the top 15 authors, the comparative length of the bars in the chart quickly reveals which authors currently dominate the academic output. The documents contribution covers their role as both single and collaborative publications. At the same time, it also illustrates the extent to which research contributions are distributed or highly concentrated among a small group of leading researchers in the global academic community.

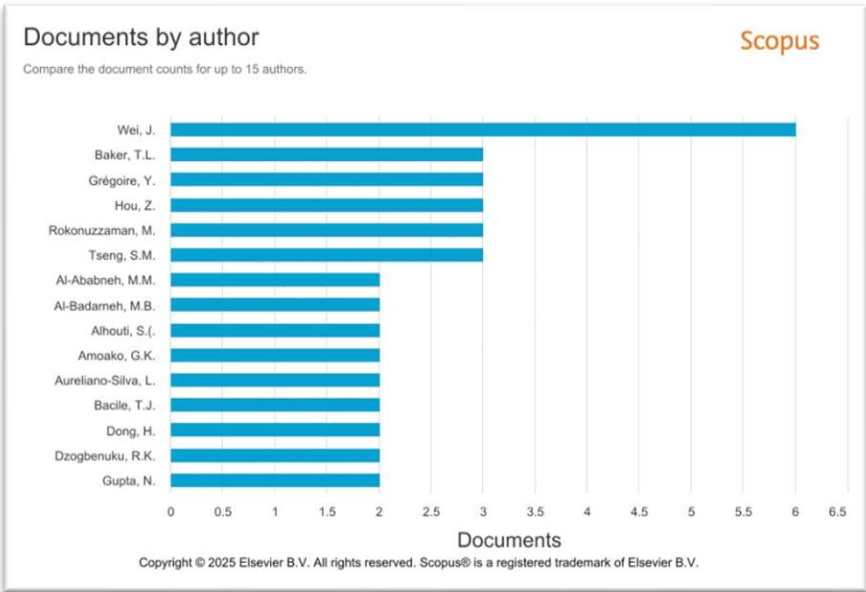


Figure 5. Trends of the Most Active Authors
Source: Authors’ Analysis (2025)

Based on Figure 5, taken from Scopus data, there is a clear variation in productivity levels among contributing researchers. Wei, J. stands out as the most active author, contributing approximately six documents, significantly surpassing other researchers. This productivity is supported by a series of empirical studies conducted in the service recovery context in online shopping services. For example, in their study, Wei et al. (2023) highlighted the role of emotional intelligence and psychological empowerment among online store employees in enhancing the service recovery quality and consumer repurchase intentions. Additionally, in another study, Wei et al. (2022) revisited the mechanisms of service recovery by incorporating the variable of empathy and consumer forgiveness as key determinants of repurchase intention. Simultaneously, both studies do not only reflect Wei’s thematic consistency but also demonstrate a significant contribution in expanding the service recovery literature insights in the digital domain. Meanwhile, there is a group of authors demonstrating moderate productivity represented by Baker, T. L., Grégoire, Y., Hou, Z., Rokonuzzaman, M., and Tseng, S. M. Each is recorded of having contributed approximately 3 (three) documents. It is supported by the contribution of Hou, Z. which can be seen in Wei et al. (2023) exploring the effects of emotional intelligence and psychological empowerment on consumer repurchase intention in the online service recovery context. Meanwhile, Rokonuzzaman, M. plays a significant role in the study by Harun and Rokonuzzaman (2021) examining the role of brand equity and cognitive reappraisal in moderating the

relationship between perceived justice and consumer loyalty following service failure. Both studies do not only reflect each author's thematic coherence but also enrich the body of service recovery literature through contextual empirical approaches. Furthermore, most of the remaining authors from Al-Ababneh, M. M. to Gupta, N. indicate relatively similar levels of research activity by contributing 2 (two) documents per author. Overall, the data underscore the dominance of a single leading author in publication number on the analyzed topic, accompanied by a more even distribution of contributions among most of other researchers. This finding is consistent with Al-Ababneh et al. (2021) emphasizing the critical role of service innovation and employee empowerment in enhancing service recovery performance in the hospitality industry, particularly in the context of five-star hotels in Jordan. Meanwhile, Gupta and Verma (2024) qualitatively explored the “other consumer” perspective on service recovery in shared service environments, highlighting how the observation of service recovery processes can shape perceived justice, emotions, and behavioral intentions among bystander consumers. The contributions of both authors do not only demonstrate thematic consistency but also enrich the service recovery literature through diverse empirical approaches, both quantitative and qualitative, as well as through the contextualization of specific service sectors.

Trends of the Development of Author Keywords and Future Direction

The Scopus documents containing 170 articles was exported into VOSviewer software for a co-occurrence analysis of author keywords, aimed at identifying interrelated research themes and the providing recommendations for potential areas of future exploration that can be developed for researchers focusing on service recovery. As visualized in Figure 6 and 7, the analysis process identifies a total of 710 identified keywords. However, for the need of an effective and meaningful network mapping, VOSviewer was configured by default to display only the most frequently occurring keywords that met the minimum occurrence threshold of one, resulting in a more focused and meaningful term map.

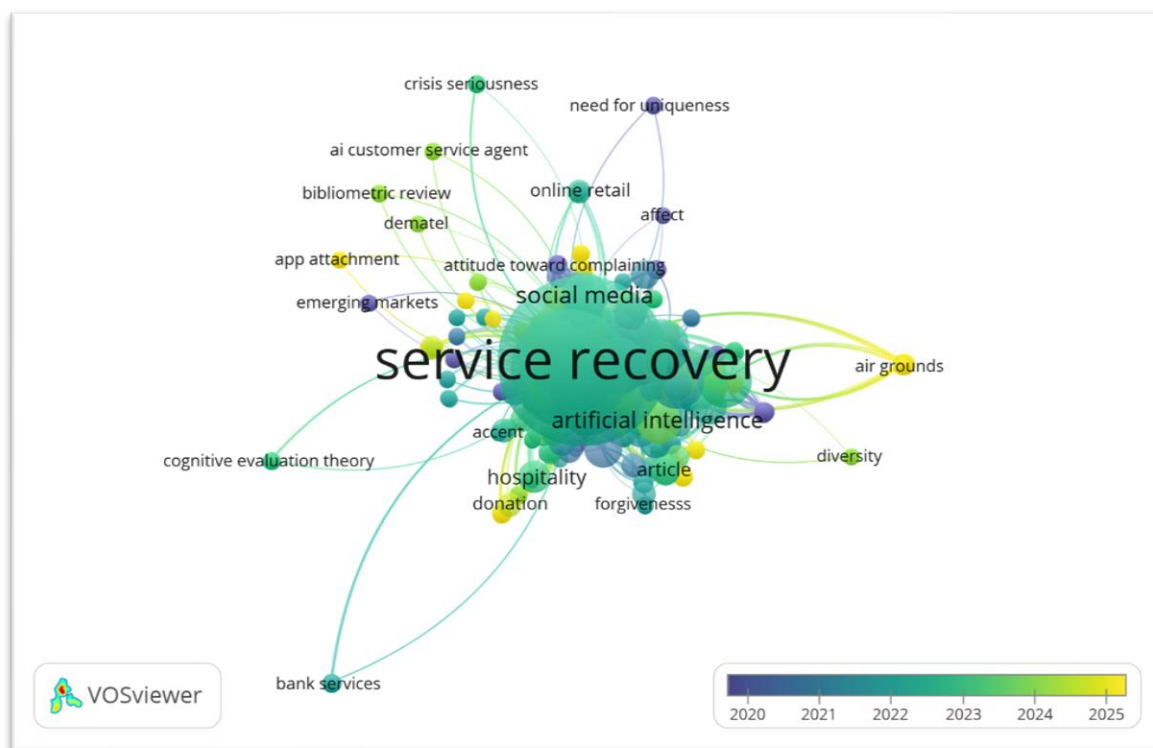


Figure 6. Mode of Overlay Visualization of Service Recovery Knowledge Map Based on Author Keywords Occurrence

Source: Authors' Analysis (2025)

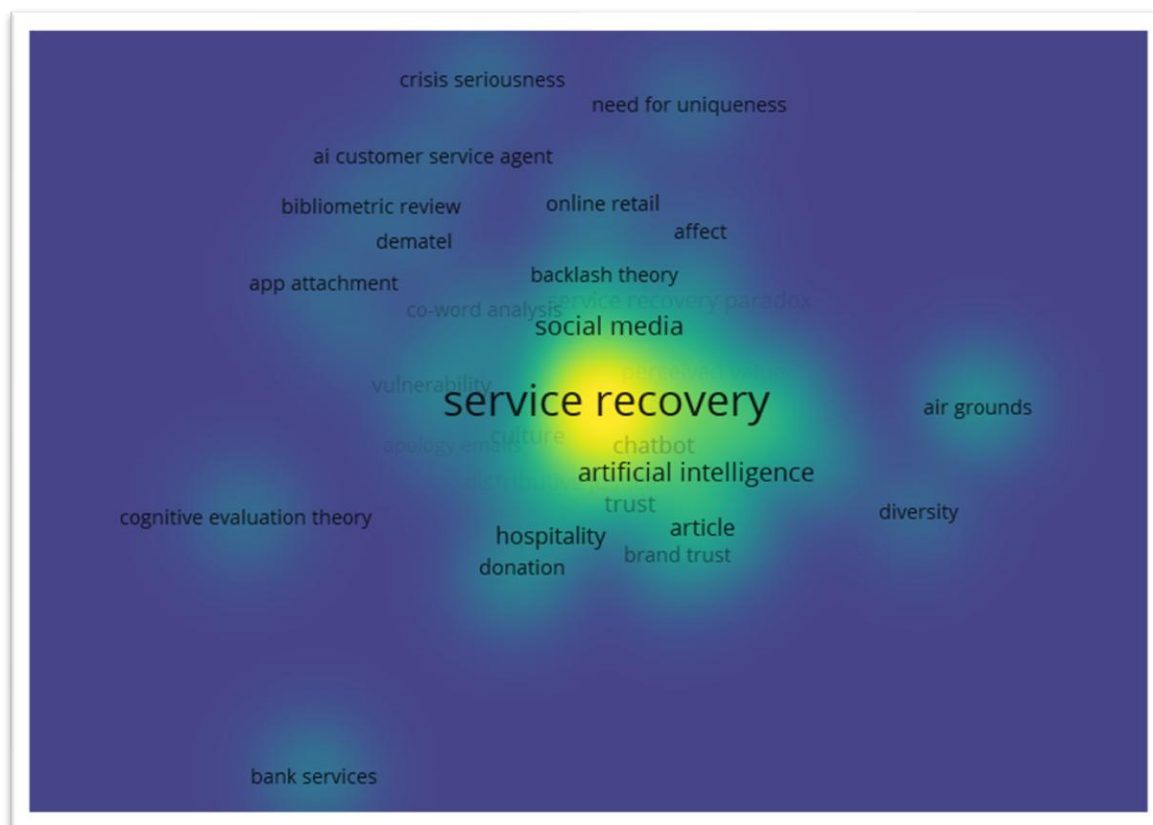


Figure 7. Visualization mode of the bibliometric knowledge map density based on keyword occurrences
Source: Authors' Processing (2025)

The VOSviewer results, as shown in Figure 6, illustrate that service recovery is the most prominent keyword with 709 links, 1081 total link strength, and 170 occurrences. Other most related keywords are service failure (326 links, 508 total link strength, and 75 occurrences), service recoveries (148 links, 197 total link strength, and 13 occurrences), recovery (143 links, 192 total link strength, and 13 occurrences), service quality (111 links, 153 total link strength, and 15 occurrences), satisfaction (69 links, 91 total link strength, and 15 occurrences), consumer satisfaction (62 links, 88 total link strength, and 14 occurrences), justice theory (53 links, 69 total link strength, and 11 occurrences), consumption behavior (75 links, 94 total link strength, and 8 occurrences), and others. The large cluster comprising service recovery, service failure, and service recoveries indicates that this is the most interconnected and frequently researched area concerning service recovery. This finding aligns with the research of Gidener and Deveci (2020), which emphasizes that service failure and its recovery efforts significantly impact business relationships, particularly in the logistics context, where symbolic responses such as apologies and service improvements are still frequently used. Furthermore, Lim et al. (2025) strengthen this argument by showing that effective service recovery, especially that based on distributive and procedural justice, can trigger a service recovery paradox, where consumers actually become more loyal after experiencing a service failure that is successfully recovered.

Thus, the dominance of these three keywords in the research network reflects the urgency and complexity of the topic of service recovery in various industrial contexts. Similarly, service recovery is also related to other focal points such as recovery, service quality, satisfaction, consumer satisfaction, and consumption behavior. These findings align with the research of Bagherzadeh et al. (2020) which states that satisfaction is a key outcome of effective service recovery, and significantly influences consumer behavior, including word-of-mouth intentions. In addition, Liu and Li (2022) also confirm that recovery satisfaction and consumer forgiveness, which fall within the domain of consumer satisfaction and consumption behavior, are influenced by perceptions of service recovery quality, which involves dimensions of warmth and competence. Thus, this keyword cluster reflects the research focus on service recovery outcomes, which is not only oriented towards technical improvements (recovery and service quality), but also on the psychological and behavioral aspects of consumers after a service failure.

Figure 7 shows a keyword density map showing the most frequently appearing and highly relevant research topics in publications related to service recovery. Lighter colors (yellow) indicate areas with high density or the most commonly researched topics. In contrast, darker colours (periwinkle blue) indicate low density or topics that appear relatively less frequently in the literature. This visualization shows that the keyword "service recovery" occupies the central position with the highest density. This indicates that this theme is the main core within the analysed research network. Furthermore, the topics "artificial intelligence" and "social media" also appear at relatively high densities. This finding aligns with research conducted by Agnihotri and Bhattacharya (2024) which confirms that artificial intelligence-based chatbots are not only used as interaction tools but also play a strategic role in increasing the effectiveness of service recovery by enhancing consumers' perceptions of capability, integrity, and benevolence. Thus, this bibliometric analysis confirms the shift in research focus toward integrating digital technology into service recovery strategies. Other findings are also supported by Bozkurt and Gligor (2021) which highlights that consumer communication via social media before a service failure, such as public praise, can significantly influence their service recovery expectations, thus strengthening the relevance of social media as an important context in current service recovery studies.

Keywords such as "chatbot," "trust," "brand trust," and "hospitality" are found around the core, indicating a close relationship between service recovery and consumer trust and the application of technology in the service industry, particularly hospitality. This finding aligns with the research by Wang et al. (2025), revealing that chatbots with a social communication style that includes empathy and emotional support have been shown to increase affect- and cognition-based trust, which ultimately influences service recovery satisfaction. Aureliano-Silva et al. (2022) also confirmed that service recovery mediates the relationship between brand love and brand trust, reinforcing the importance of building brand trust through effective recovery strategies, including in the context of digital applications. This finding is reinforced by Liu and Li (2022), which emphasizes that in hospitality, characteristics such as a service provider's babyface can influence perceptions of warmth and competence, thus impacting satisfaction and relationship recovery after service failure.

Several other keywords, such as "bibliometric review," "online retail," "cognitive evaluation theory," and "bank services," appear scattered in areas with medium to low density. This indicates that while these topics are relevant, their research intensity is still not as strong as that of the core topics. Meanwhile, keywords like "air grounds" and "diversity" are located in the peripheral areas with a dimmer colour, indicating that these topics are still rarely researched or are relatively new areas within the context of service recovery research. Overall, this density map illustrates that research focus during the analysis period was heavily concentrated on service recovery as it relates to technological developments, particularly artificial intelligence and social media. Topics on the periphery of the map may offer new research opportunities to expand the study into underexplored areas, thereby contributing to the diversification and deepening of future literature.

CONCLUSION

Based on the analysis conducted, this study concludes that the service recovery research landscape in the 2020–2025 period exhibits complex and evolving dynamics, with a growing focus on the integration of digital technologies and brand dimensions. Publication trends peaked in 2022, reflecting the academic response to the accelerated digitalization of services post-pandemic, before consolidating in the following years. The dominance of the business, management, and accounting field (50%) and countries such as the United States and China indicates that service recovery research remains heavily influenced by the business context and developed markets, despite a thematic shift toward artificial intelligence, chatbots, and brand trust. As revealed by Mir et al. (2023), the development of service recovery research is increasingly influenced by the digital and technological context, which has shifted the focus from conventional recovery to automation-based strategies and brand trust. This finding is also in line with Lv et al. (2024), emphasizing that an empathetic AI communication style can increase perceived sincerity and strengthen users' forgiveness intentions, indicating that the effectiveness of service recovery now relies heavily on human-machine interaction and brand image. In particular, this study makes a significant contribution by filling three major gaps that have not been addressed in previous bibliometric studies, including the study of Mir et al. (2023), which only covers the period up to 2021. First, from a temporal perspective, this study covers the most recent period (2020–2025), documenting the impact of the COVID-19 pandemic and digital transformation on service recovery strategies. Second, in terms of focus, this study explicitly highlights the relationship between service recovery and brand dimensions (brand trust, brand equity), which have so far been fragmented into general clusters. Third, this study maps the latest developments in topics such as Generative AI, social media, and chatbots in the context of service recovery, which have not been widely discussed in previous bibliometric studies. As emphasized

by Van Vaerenbergh et al. (2019), a comprehensive understanding of service recovery requires an approach that is not only multidisciplinary but also responsive to changing technological and consumer contexts. Thus, this study not only updates the research landscape but also enriches the research direction by adding brand and digital perspectives that are increasingly relevant in the contemporary era.

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