NATIONAL SUSTAINABLE DEVELOPMENT STUDIES
Volume xx, Issue xx, December 20xx | pp. xx-xxx
https://doi.org/10.63208/21018-xxxx

LEVERAGING SOCIAL MEDIA FOR KNOWLEDGE SHARING IN DEVELOPMENT COMMUNICATION AND SOCIAL TRANSFORMATION: A REVIEW

Satoshi Mori[1,2]
Graduate School of Human Sciences, Osaka University, Osaka[1];

ABSTRACT

This study explores how social media facilitates knowledge sharing within the realms of development communication and social change, addressing the question: How is social media utilized to promote knowledge exchange in these contexts? Despite extensive research on social media's role in knowledge dissemination, its application in development communication and social transformation remains underexplored. This systematic literature review employs the PRISMA protocol to analyze 57 articles sourced from Web of Science, Scopus, and PubMed, using Boolean keyword combinations. Data were qualitatively analyzed with NVIVO 12 Plus and Microsoft Excel 2021. Findings reveal that quantitative approaches dominate, with health and education sectors being the primary focus, and the public as the main research subject. Most studies are conducted in developed countries, and Facebook emerges as the most studied platform. The review identifies diverse research types based on motivation, data collection methods, and variable roles, alongside various theories and variables applied. Key findings highlight research gaps, such as limited exploration of qualitative and mixed-method approaches, underrepresented sectors like agriculture, and understudied platforms like YouTube and TikTok. The study underscores the need for further investigation into developing countries and less-examined subjects like farmers and experts to enrich understanding.

Keywords: *Keywords should be written following a summary between 4-5 words.*

CORRESPONDING AUTHOR:
Satoshi Mori
Graduate School of Human Sciences, Osaka University, Osaka, Japan
contact: *satoshimorii@gmail.com*

ARTICLE HISTORY
Received : July 12, 20xx
Final Revised : September 31, 20xx
Accepted : December 27, 20xx
Published : December 27, 20xx

1. | INTRODUCTION

Communication plays a pivotal role in fostering sustainable development, serving as both a catalyst for progress and an embodiment of development itself. As development paradigms evolve, the approaches to development communication have transformed, reflecting shifts in societal roles and expectations. In earlier models, development communication often adopted a top-down approach, where communities were viewed as passive recipients of information and directives. However, contemporary paradigms emphasize participatory communication, positioning communities as active agents in their development processes (Flor & Cangara, 2018; Servaes, 2020). This shift underscores the importance of dialogue and engagement, enabling communities to contribute meaningfully to sustainable development outcomes. In this context, development communication and social change are intertwined social processes that rely on diverse tools and methods to achieve transformative goals across individual, institutional, and societal levels (Servaes, 2020).

Development communication is not merely about disseminating information but about fostering participatory dialogue that empowers communities. Unlike traditional development communication, which focuses on planned, strategic interventions, social change communication supports organic, community-driven transformations, promoting self-reliance and unplanned progress (Servaes, 2020). This dual approach—planned development and spontaneous social change—requires robust communication strategies that enhance human capacity, build partnerships, and facilitate knowledge exchange. Knowledge sharing, as a form of participatory communication, is central to this process, enabling collaboration and dialogue among stakeholders to strengthen institutions and individuals based on their unique needs and priorities (Flor & Cangara, 2018; Servaes, 2020; Wilkins et al., 2014).

The significance of knowledge sharing lies in its egalitarian nature, which promotes open discussion and mutual learning among participants. It is a strategic tool in development communication, fostering innovation, interaction, and collaboration (Chutia & Devi, 2018; Deng, 2021; Kim et al., 2019). By accumulating knowledge within communities, sharing practices create opportunities for dialogue, learning, and collective action, which are essential for sustainable development (Flor & Flor, 2019; Wilkins et al., 2014). Furthermore, knowledge sharing empowers individuals to engage actively, communicate effectively, and innovate, thereby enhancing their contributions to development initiatives (Akosile & Olatokun, 2020; Belikov et al., 2021; Deng et al., 2021; Enwere & Lumanze, 2017; Latif et al., 2019; Paskevicius, 2021; Scanlon, 2021; Sharples, 2019).

In the digital era, advancements in information and communication technologies (ICTs) have revolutionized how people communicate and share knowledge. Social media, in particular, has emerged as a powerful platform for facilitating these interactions, especially among younger generations who use it daily (Tran et al., 2020).

Social media's popularity stems from its ability to transcend geographical barriers, enable rapid responses, and foster interactive communities (Ebrahimi et al., 2021; Giotis & Papadionysiou, Pap, 2022; Kader et al., 2020). It serves as an effective tool for knowledge sharing by providing access to diverse perspectives, encouraging active participation, and breaking down traditional barriers to learning (Fosu, 2021; Shwartz-Asher et al., 2020). Additionally, social media platforms offer real-time updates, enabling users to stay informed and collaborate seamlessly (Azahari et al., 2021; Ghalavand et al., 2022).

Social media's advantages are manifold: it enhances the reach of knowledge-sharing initiatives, facilitates faster audience engagement, and supports dialogue-driven interactions (Fayyaz et al., 2021; Gane & Beer, 2008; Lee & Tao, 2022; Lister et al., 2008; Nasrullah & et al., 2018; Safko & Brake, 2009; Shirky, 2008). It also empowers users to actively participate, innovate, and share the latest information, thereby improving performance in various sectors (Meikle & Young, 2012; van Dijck, 2013). For development communication and social change, social media acts as a critical enabler, accelerating progress and equalizing opportunities. However, its success depends on addressing challenges such as infrastructure readiness, individual digital literacy, supportive policies, and equitable access to technology (Kandagor et al., 2018).

The digital divide remains a significant barrier to leveraging social media for development. Disparities between rural and urban areas, as well as among demographic groups (e.g., age, education, gender, income), hinder equitable access to digital tools and information (Lee et al., 2021; Hollman et al., 2020; Han et al., 2022; Terjemah, 2021; Mehra et al., 2020; Pradana-López et al., 2021; Ferrari et al., 2022; Lai & Widmar, 2021). These gaps contribute to reduced educational quality, limited access to new trends, suboptimal economic outcomes, and uneven rural development. They also exacerbate migration patterns and employment disparities, underscoring the need for strategies to bridge the digital divide and ensure inclusive development.

While extensive research has explored social media's role in knowledge sharing, much of it focuses on business contexts, such as marketing and customer engagement (Dwivedi et al., 2021; Levallois et al., 2021; Lin et al., 2020; Liu et al., 2020; Liyanaarachchi, 2020; Mulyana et al., 2020; Ghahtarani et al., 2020; Raza et al., 2021; Oktora et al., 2020; Yakhlef & Nordin, 2021; Zhang et al., 2020; Zhou, 2020; Jabbar et al., 2020; Kahiigi & Semwanga, 2021). However, its application in development communication and social change is less studied. Previous reviews, such as Ahmed et al. (2019), have examined social media's role in knowledge sharing, identifying key activities, challenges, and research gaps. Similarly, Mladenović and Krajina (2020) analyzed social media's potential for individual knowledge sharing, focusing on employee behaviors and future research opportunities.

This study seeks to address these gaps by conducting a systematic literature review on the use of social media for knowledge sharing in development

communication and social change. It employs the PRISMA protocol to analyze articles from Web of Science, Scopus, and PubMed, using qualitative tools like NVIVO 12 Plus and Microsoft Excel 2021. The review examines research profiles, including publication trends, methodologies, social media platforms, research locations, subjects, and sectors. It also explores theoretical frameworks, variables, and research types, identifying limitations and opportunities for future studies. By focusing on development communication and social change, this study aims to provide novel insights into how social media can foster participatory dialogue and sustainable transformation, particularly in underrepresented contexts such as developing countries and sectors like agriculture.

The manuscript is organized to present the research background, followed by materials and methods, results and discussion, conclusions and implications, and limitations. The results section details research trends, social media platforms studied, geographic and sectoral focus, and theoretical and methodological approaches. The discussion highlights gaps, such as the dominance of quantitative methods and the need for qualitative and mixed-method studies to uncover new phenomena. This study contributes to both theoretical advancements and practical applications, offering a foundation for future research and strategies to enhance knowledge-sharing cultures in development contexts.

2. | RESEARCH METHOD

This study utilized a Systematic Literature Review (SLR) approach to investigate the role of social media in knowledge sharing within the context of development communication and social change. The primary objective was to synthesize existing research, highlight novel insights, and identify avenues for advancing scholarship in this field. The review addressed three research questions: (1) What is the profile of literature on this topic, including publication year, methodology, social media platforms, research locations, subjects, development sectors, and participants? (2) What are the types of research exploring social media's use in development communication and social change? (3) What theories and variables are employed in these studies, and how are they applied? Data analysis was conducted using Microsoft Excel 2021 and NVivo 12 Plus to provide a comprehensive overview of the findings (Rethlefsen et al., 2021).

The data collection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, which included four stages: identification, abstract screening, manuscript eligibility, and article selection (Rethlefsen et al., 2021) (Figure 1). During the identification phase, literature was sourced from three reputable databases—Web of Science (accessed December 20, 2022), PubMed (accessed December 19, 2022), and Scopus (accessed May 6, 2021)—to ensure a broad and reliable dataset (Rethlefsen et al., 2021). Articles published between January 1, 2017, and May 6, 2021, were retrieved using automated searches

with Boolean keyword combinations, such as those listed in the original study's Table 1 (Rethlefsen et al., 2021).

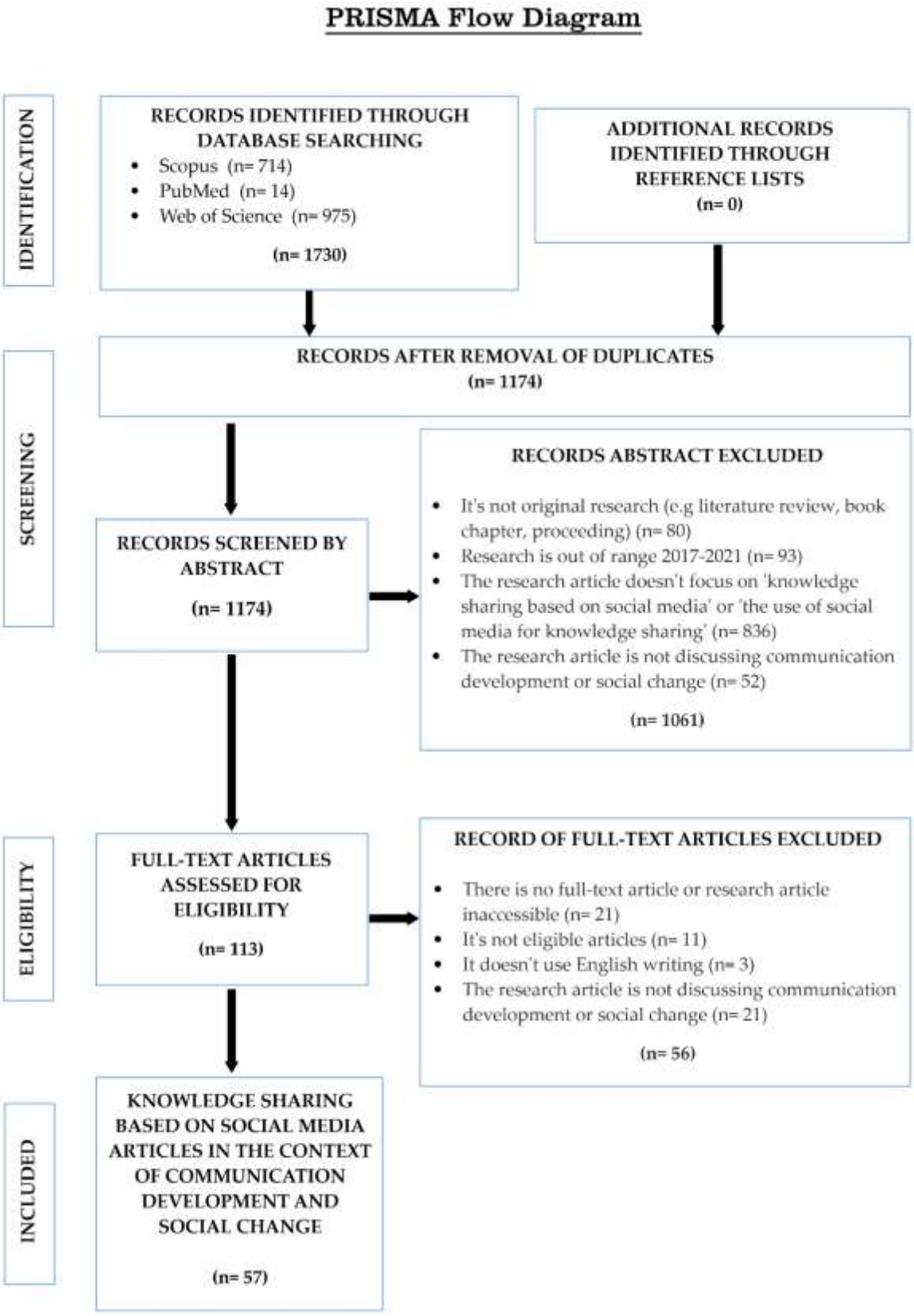

Figure 1. PRISMA flow diagram.

Table 1. Keywords and number of article databases.

Keyword	Source		
	WoS	**PubMed**	**Scopus**
"knowledge sharing" AND ("social media" OR "new media")	247	14	186
"knowledge transfer" AND ("social media" OR "new media")	79	0	45
"knowledge exchange" AND ("social media" OR "new media")	45	0	32
"knowledge flow" AND ("social media" OR "new media")	8	0	7
"dialogue AND ("social media" OR "new media")	588	0	463
"participatory communication" AND ("social media" OR "new media")	7	0	9
Sub total	975	14	741
Total	1730		

In the screening phase, Microsoft Excel 2021 was used to remove duplicate articles, reducing the initial pool from 1730 to 1174 unique records. These were further evaluated based on titles and abstracts against specific inclusion and exclusion criteria. Inclusion criteria required articles to be: (1) original research, (2) published between 2017 and 2021, (3) written in English and published in international journals, (4) focused on social media's use for knowledge sharing in development communication and social change, and (5) available in full text. This process yielded 113 full-text articles. In the eligibility stage, each article was thoroughly reviewed to confirm compliance with the criteria, resulting in a final selection of 57 articles (Rethlefsen et al., 2021).

The selected articles were mapped to extract key details, including title, publication year, author(s), research objectives, social media platforms studied, variables, theories, research location, methodology, sample population, research subjects, data analysis techniques, findings, development sector, communication participants, and journal index (Rethlefsen et al., 2021). This mapping, illustrated in the original study's Figure 2, provided a structured framework for analyzing the literature. The profile of the research was then categorized by year, methodology, social media platforms, location, subjects, development sectors, and participants in development communication and social change, ensuring a comprehensive synthesis of the field. This methodology enabled a robust examination of the literature, addressing the research questions systematically while identifying gaps and trends. The use of PRISMA ensured transparency and reproducibility, while tools like NVivo and Excel facilitated qualitative and quantitative analysis, respectively (Rethlefsen et al., 2021).

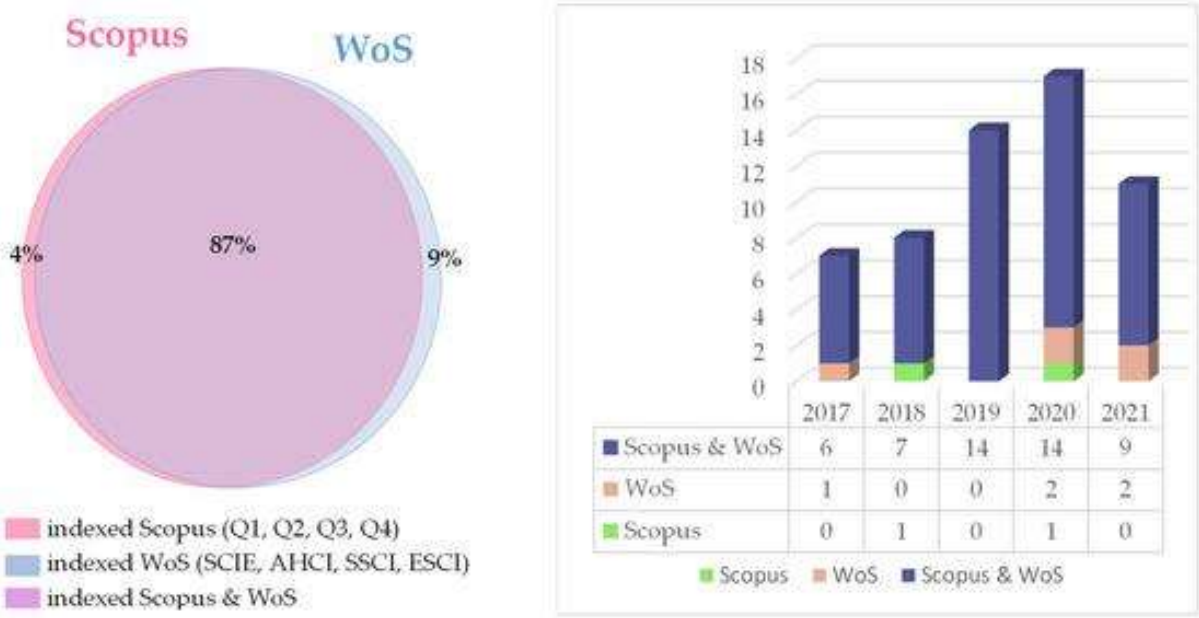

Figure 2. Source and index of journal articles.

3. | RESULTS AND DISCUSSION

3.1. Literature Research Profile

3.1.1. Publication Year and Research Methods

Research on the utilization of social media for knowledge sharing in development communication and social change has shown a general upward trend over the years studied. A slight decrease observed in 2021 is likely attributable to the data collection period ending mid-year, thus not capturing the full year's publications. The growing interest in this topic aligns with the rapid expansion of digital technologies, particularly social media, which presents both opportunities and challenges for individual and organizational behaviors in development contexts. The unique dynamics of communication and social transformation in response to digital tools make this an increasingly relevant and compelling area of study (Figure 3) (Loft et al., 2020; Hsu & Lin, 2020; Moghavvemi et al., 2018).

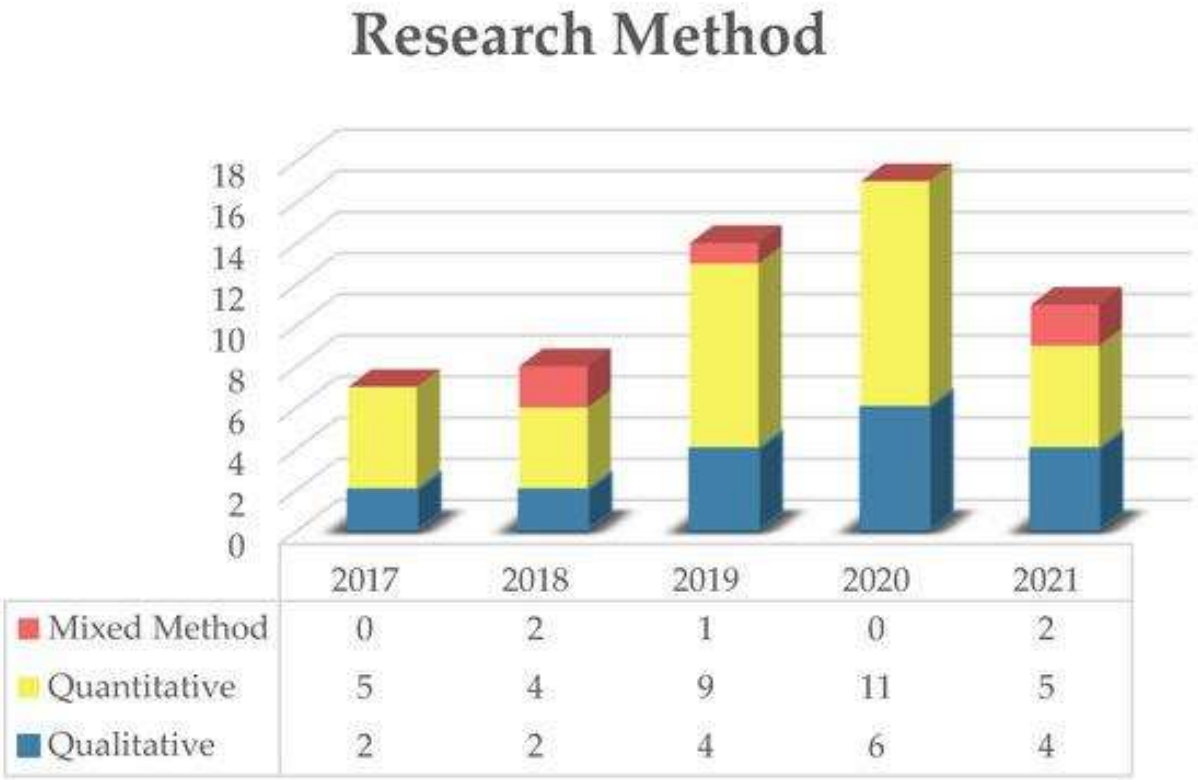

Figure 3. Year and research method.

Methodologically, the majority of studies (60%) adopted quantitative approaches, while 32% employed qualitative methods, and only 8% used mixed-method designs. The predominance of quantitative research reflects a preference for statistical analysis to identify patterns and relationships in large datasets. However, qualitative and mixed-method studies offer potential for deeper insights into the nuanced phenomena of social media-driven knowledge sharing. These approaches can uncover contextual factors and participant experiences that quantitative data may overlook, suggesting a need for greater methodological diversity to enrich the field (Jones et al., 2019; Orr & Baram-Tsabari, 2018; Sedrak et al., 2019).

3.1.2. Social Media Platforms Studied

Among the social media platforms examined, Facebook emerged as the most frequently studied, followed by Twitter, WhatsApp, Instagram, and YouTube. The prominence of Facebook is consistent across the years, with it being the leading platform in 2019, 2020, and 2021, and sharing prominence with Twitter in 2020. Experts have noted Facebook's dominance due to its widespread adoption and versatility as a tool for knowledge sharing and educational engagement (Kim et al., 2019; Udem et al., 2020; Mills et al., 2019; Kim & Cooke, 2018). Its features, such as groups and pages, facilitate collaborative learning and information exchange, making it an ideal platform for development communication initiatives (Jones et al., 2019; Moghavvemi et al., 2018).

Twitter, a microblogging platform, ranked second and was notably studied in 2017. Its real-time nature supports global conversations, collaboration, and mobilization of support, making it valuable for advocacy and knowledge dissemination

(Mills et al., 2019; Kim & Cooke, 2018; Talip et al., 2020). WhatsApp, increasingly recognized for its role in community-based knowledge sharing, supports group discussions and informal exchanges, enhancing social networks (Udem et al., 2020; James & Cotnam-Kappel, 2019). YouTube, though less studied, fosters engagement through video content, enabling users to share ideas and build communities (Lei et al., 2021; Sakusic et al., 2021). Instagram, similarly underrepresented, supports visual knowledge sharing and parasocial interactions, offering untapped potential for development communication research (Lee & Tao, 2021; Majmundar et al., 2020).

Notably, platforms like TikTok were absent from the reviewed studies, despite its global popularity (1 billion users in 2022, per Hootsuite) (Figure 4). This gap, alongside limited focus on YouTube (2.5 billion users), WhatsApp (3 billion users), and Instagram (1.4 billion users), suggests opportunities for future research to explore these platforms' roles in knowledge sharing. Conversely, Twitter's high research volume (second-ranked platform) contrasts with its smaller user base (544 million users in 2022), indicating a potential research bias toward platforms with established academic use rather than emerging trends (Mills et al., 2019; Kim & Cooke, 2018) (Figure 5).

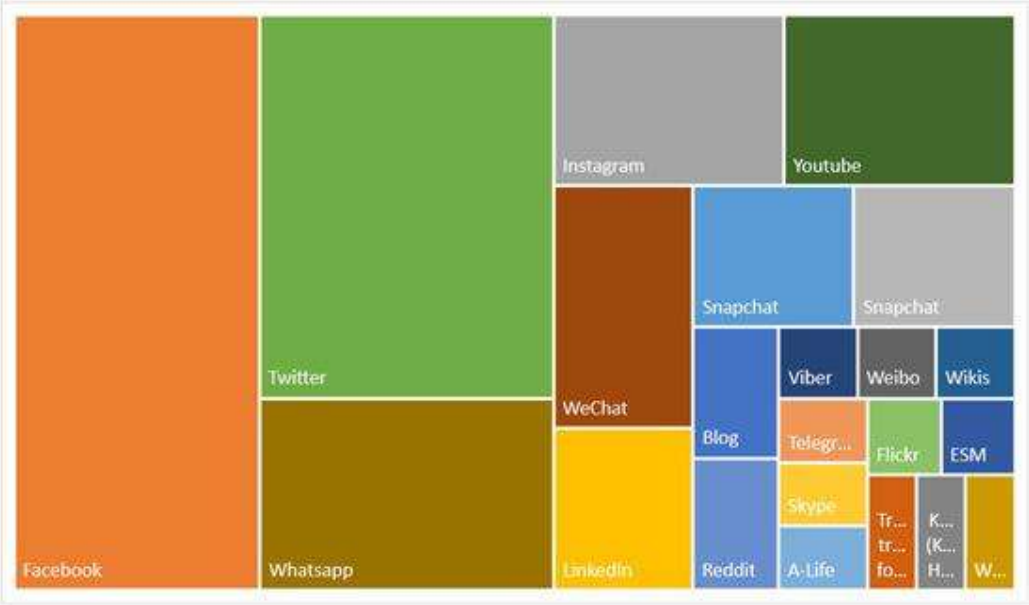

Figure 4. Social media researched

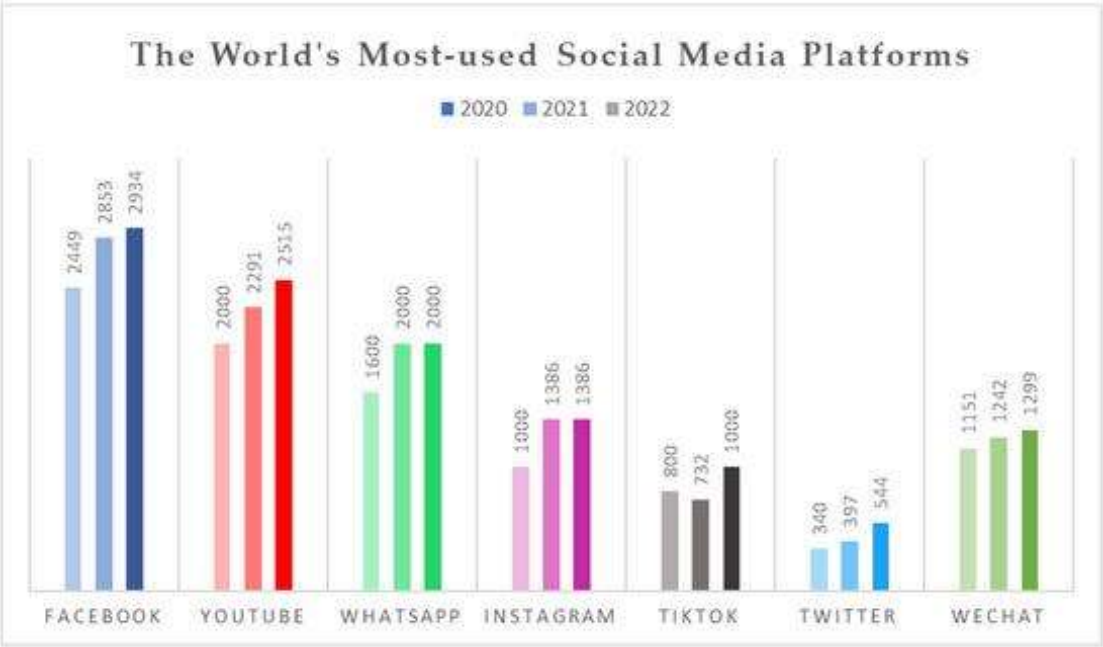

Figure 5. The world's most-used social media platforms (it's modified from We're social and Hootsuite 2020–2022).

3.1.3. Research Locations and Subjects

The geographic distribution of studies reveals a concentration in developed countries, with China, the United States, Scotland, England, and global studies being the most common. Research spanned five continents: Asia (e.g., China, India, Malaysia), Europe (e.g., Denmark, Norway, Spain), Africa (e.g., Ghana, Nigeria, Tanzania), the Americas (e.g., United States), and Australia (Figure 6). However, developing countries, particularly in Africa and parts of Asia, were underrepresented, highlighting a gap in understanding social media's role in diverse development contexts. Exploring these regions could reveal unique challenges, such as digital divides and infrastructure limitations, that shape knowledge-sharing behaviors (Lee et al., 2021; Hollman et al., 2020; Han et al., 2022).

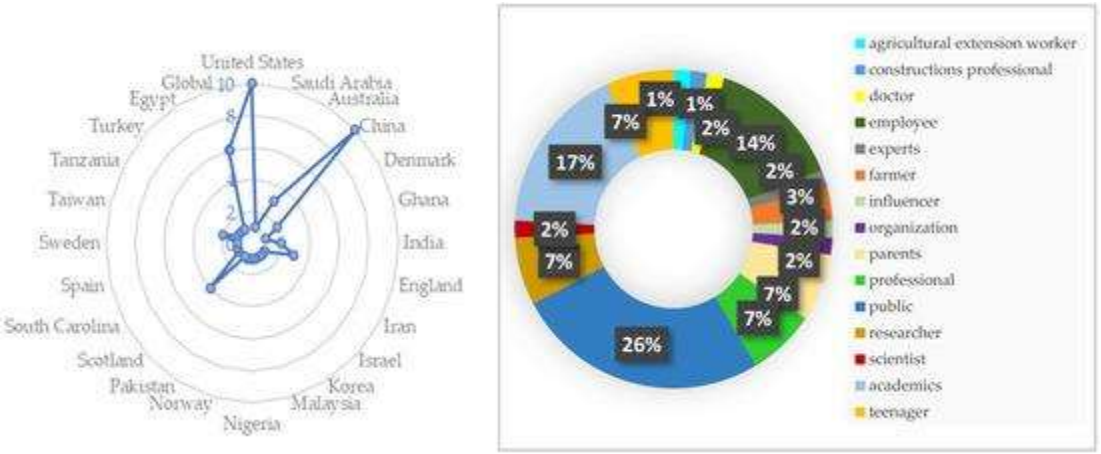

Figure 6. Research location & research subject.

Research subjects were predominantly the general public (26%), including social media users and online communities, followed by academics (17%) and employees (14%). Less-studied subjects included agricultural extension workers (1%), scientists (2%), doctors (2%), experts (2%), and farmers (3%). These underrepresented groups offer rich opportunities for future research, particularly in sectors like agriculture, where digital divides may limit social media adoption. For instance, studying farmers' or extension workers' use of social media could uncover how digital tools address rural challenges, such as access to information and market opportunities (Han et al., 2022; Thakur & Chander, 2017; Munthali et al., 2021).

The digital divide, characterized by rural-urban disparities and demographic differences (e.g., age, education, gender, income), poses significant barriers to equitable knowledge sharing. These gaps contribute to reduced educational quality, delayed access to trends, lower incomes, and uneven rural development, exacerbating social and economic inequalities (Lee et al., 2021; Hollman et al., 2020; Terjemah, 2021; Mehra et al., 2020; Ferrari et al., 2022; Lai & Widmar, 2021). Addressing these challenges through targeted research in developing countries and marginalized communities could enhance the inclusivity of social media-driven development initiatives.

3.1.4. Development Sectors and Participants

The health and education sectors dominated the reviewed studies, each accounting for 26% of the research focus (Figure 7). Health-related knowledge sharing was critical for disease prevention, public health literacy, and early interventions, aligning with global priorities set by organizations like the World Health Organization (Jin et al., 2019; Loft et al., 2020). Education-focused studies highlighted social media's role in enhancing learning, engagement, and knowledge dissemination among students and educators (Lei et al., 2021; Moghavvemi et al., 2017). Social change, as an informal, unplanned process, was also a key focus, reflecting community-driven transformations facilitated by social media (Servaes, 2020).

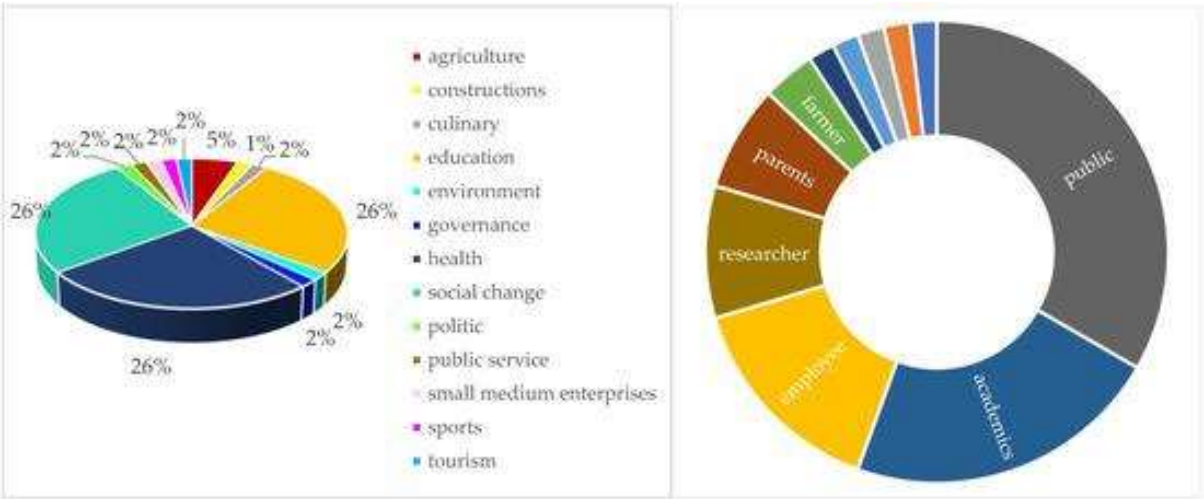

Figure 7. Research sector & participants of knowledge sharing.

Understudied sectors included agriculture (5%), culinary arts (2%), environment (2%), tourism (2%), sports (2%), and politics (2%). These areas offer significant potential for future research, as social media could drive innovation and engagement in these fields. For example, in agriculture, platforms like WhatsApp could enhance extension services and farmer networks, addressing information gaps in rural areas (Thakur & Chander, 2017; Munthali et al., 2021). Similarly, tourism and culinary sectors could leverage platforms like Instagram to promote cultural exchange and economic growth (Lee & Tao, 2021; Lee & Tao, 2022).

Participants in knowledge-sharing activities, distinct from research subjects, were primarily the public (33%), followed by academics (22%) and employees (15%). For instance, a study might examine teachers' perceptions of students' social media use, with students as the participants and teachers as the subjects (Lei et al., 2021). This distinction highlights the diverse roles stakeholders play in development communication, emphasizing the need to explore less-studied participants, such as farmers or health professionals, to uncover unique knowledge-sharing dynamics (Imran et al., 2019; Alghamdi & Alanazi, 2019).

3.2. Types of Research on Social Media for Development Communication and Social Change

This paper maps out several types of research based on motivation, data collection techniques, and the role of the variable of 'use of social media for knowledge sharing'. Based on the motivation, as presented in Table, the research is categorized into Type 1 and Type 2.

Table 2. Types of research on the use of social media for development communication and social change.

Categories	Name	Description	n
Motivation	type 1	Research that focuses on the use of social media for knowledge sharing and or the factors that encourage individuals to use technology (social media) for knowledge sharing, social media is seen as a tool for knowledge sharing, focusing on technology (social media).	13
	type 2	Research that focuses on the process of sharing knowledge on social media and or the factors that encourage individuals to do knowledge sharing on social media social as a scenario for knowledge sharing, focusing on the process of knowledge sharing	44
Data collection techniques	type A	Research that reports on 'the use of social media for knowledge sharing' by investigating individual responses to knowledge sharing through social media	42

	type B	Research that reports on 'the use of social media for knowledge sharing' by capturing directly the process of knowledge sharing on social media	20
Variable roles	type X	Research investigating 'the use of social media for knowledge sharing' and the resulting impacts, places 'use of social media for knowledge sharing' as a free variable	4
	type Y	Research investigating 'the use of social media for knowledge sharing' and the factors that influence/shape, places 'use of social media for knowledge sharing' as a bound variable	22
	type Z	Research that investigates the 'use of social media for knowledge sharing' both along with the resulting impacts and factors that influence/shape (Z_1), or only research that examines the 'use of social media for knowledge sharing' without including the resulting impacts or factors that influence/shape (Z_0)	31

3.2.1. Type 1 and Type 2 Research

The reviewed studies were categorized into Type 1 and Type 2 based on their motivation for examining social media's role in knowledge sharing. Type 1 research (23%, 13/57 studies) views social media as a tool for knowledge sharing, emphasizing factors that drive its adoption rather than the sharing process itself. Type 2 research (77%, 44/57 studies) positions social media as a context for knowledge sharing, focusing on the dynamics and processes involved (Mkhize & Nxumalo, 2017).

Type 1 studies, such as those by Etemadi et al. (2019), Pérez-González et al. (2017), and Alshahrani and Pennington (2018), explore factors influencing social media use, such as self-efficacy, facilitating conditions, or innovation outcomes. For example, Etemadi et al. (2019) assessed construction professionals' social media use for knowledge sharing, while Pérez-González et al. (2017) linked social media use to innovation performance. Hypotheses in Type 1 research often test relationships, such as social media's impact on innovation or the influence of facilitating conditions on adoption intentions (Etemadi et al., 2019; Pérez-González et al., 2017). Qualitative Type 1 studies, like Alshahrani and Pennington (2018), focus on exploratory questions, such as sources of self-efficacy in social media use, without formal hypotheses.

Type 2 studies, exemplified by Vaidyanathan and Kidambi (2018), Allam et al. (2020), Kettles et al. (2017), Chen et al. (2020), and Yang et al. (2021), delve into the knowledge-sharing process, examining factors like communication visibility, social presence, or mutual benefits. Hypotheses in Type 2 research test relationships, such as message transparency's effect on knowledge sharing or reputation's influence on

sharing behavior (Chen et al., 2020; Yang et al., 2021; Allam et al., 2020). Type 2 studies are predominantly quantitative, suggesting a need for qualitative or mixed-method approaches to uncover new insights into the sharing process.

The dominance of Type 2 research reflects a focus on understanding knowledge-sharing dynamics, but the limited number of Type 1 studies indicates an opportunity to explore social media's technological affordances and adoption barriers. Such research is crucial in the rapidly evolving digital landscape, where platform functionalities and user behaviors continually change (Mkhize & Nxumalo, 2017).

3.2.2. Type A and Type B Research

Based on data collection techniques, studies were classified as Type A (62%, 35/57 studies) or Type B (26%, 15/57 studies), with 12% (7/57) falling into both categories. Type A research collects data through surveys or interviews to capture respondents' perceptions of social media use for knowledge sharing. Examples include studies using surveys to assess user behaviors (Jin et al., 2019; Etemadi et al., 2019; Vaidyanathan & Kidambi, 2018) or interviews to explore experiences (Imran et al., 2019; Alghamdi & Alanazi, 2019; Bernard et al., 2018; Waters & Mars, 2021).

Type B research directly analyzes knowledge-sharing activities on social media platforms, such as dialogues in WhatsApp groups (Udem et al., 2020; Cheung et al., 2017) or content shared on Twitter and Facebook (Mills et al., 2019; Sundstrom et al., 2021). These studies capture real-time interactions, providing insights into the organic processes of knowledge exchange. The predominance of Type A research suggests a reliance on self-reported data, which may miss contextual nuances. Type B research, though less common, offers a direct lens into platform dynamics, making it a valuable approach for future studies to explore dialogue-driven communication (Udem et al., 2020; Mills et al., 2019).

3.2.3. Type X, Type Y, and Type Z Research

Based on the role of social media use as a variable, studies were categorized as Type X (7%, 5/57), Type Y (39%, 22/57), or Type Z (54%, 31/57). Type X research examines social media use as an independent variable, focusing on its impacts, such as innovation performance or dialogue creation (Udem et al., 2020; Pérez-González et al., 2017; Alghamdi & Alanazi, 2019; Jin et al., 2021). For example, Pérez-González et al. (2017) tested social media's effect on innovation, while Alghamdi and Alanazi (2019) explored its role in enhancing scientific engagement. Type X research is limited, suggesting a gap in understanding the outcomes of social media use.

Type Y research treats social media use as a dependent variable, investigating factors influencing its adoption, such as performance expectancy, social influence, or altruism (Etemadi et al., 2019; Allam et al., 2020; Kettles et al., 2017; Jin et al., 2019). Hypotheses test relationships, such as the effect of social feedback on sharing intentions or ICT's influence on knowledge sharing (Etemadi et al., 2019; Vaidyanathan & Kidambi, 2018; Kettles et al., 2017). Type Y research is prevalent, reflecting interest in adoption drivers.

Type Z research is divided into Z0 (focusing solely on social media use) and Z1 (examining both drivers and impacts). Type Z0 studies, often qualitative, explore challenges or behaviors without testing causal relationships (Imran et al., 2019; Sakusic et al., 2021; Alshahrani & Rasmussen Pennington, 2019; Majmundar et al., 2020; Alshahrani & Pennington, 2021). Type Z1 studies, typically quantitative or mixed-method, test both antecedents and outcomes, such as trust's effect on sharing and sharing's impact on academic performance (Moghavvemi et al., 2018; Chen et al., 2020; Yang et al., 2021). Type Z's dominance indicates a comprehensive approach, but the scarcity of Type X research highlights a need to explore impacts further.

3.3. Theories and Variables in Research

Table 3 indicates that 61% of literature studies on social media for development communication and social change employ one or more theories, while 39% do not specify any theory. The theories applied typically relate to communication, psychology, social psychology, behavior, management, sociology, and computer technology. Knowledge-sharing behavior on social media is viewed as a communication system utilizing various information technologies, influenced by factors tied to both the technology and the social-relational context, leading to the inclusion of social variables in such research.

Table 3. Theories, variables, and methods of research on the use of social media for development communication and social change.

Theory/Model & Variable	**Type 1**	**Type 2**	**Type A**	**Type B**	**Type X**	**Type Y**	**Type Z**	**Method**		
								Quantitative	**Qualitative**	**Mixed-Method**
Affordance Theory (n = 1)										
knowledge framing (KFB), knowledge targeting (KTB), knowledge creating (KCB), functionality (SMF), intensity (SMI), preference (SMP)	-	v	v	-	-	v	-	[21]	-	-
Agency Theory (n = 1)										
importance of knowledge sharing, paid to share knowledge, social cues, supportive moderator, policing moderator, knowledge sharing using SM	-	v	v	-	-	v	-	[90]	-	-
Communication Visibility Theory (n = 1)										
message transparency, network translucence, knowledge sharing on SM, knowledge hiding on SM, creativity, promotion, prevention focus	-	v	v	-	-	-	v	[91]	-	-
Communicative Ecology Theory (CET) (n = 1)										
perceived usefulness, trust, health status, expertise, involvement, interestingness,	-	v	v	-	-	v	-	[84]	-	-

emotionality, institution-based trust, source credibility, knowledge sharing on social media, positivity, health concern, a propensity to trust										
Community of Practice Theory (n = 1)										
hard work, improving thinking, effective practice, knowledge sharing behavior through social media, knowledge gain, professional development, emotionality, knowledge contributing, creating knowledge, competence, domain, commitment, community	-	v	-	v	-	-	v	-	-	[74]
Constructivist Grounded Theory (n = 1)										
information monitoring, information organizing, information behavior, information experience	-	v	v	v	-	v	-	-	[68]	-
Contingency Theory (n = 1)										
importance of knowledge sharing, paid to share knowledge, social cues, supportive moderator, policing moderator, knowledge sharing using SM	-	v	v	-	-	v	-	[90]	-	-
Dynamic Theory of Knowledge (n = 1)										
orientation of social media, the role of knowledge sharing in social media, privacy, confidentiality, source credibility, interaction quality, information, overload, lack of internet, access	v	-	v	-	-	-	v	-	[37]	-
Goffman's Theory of Social Interaction (n = 1)										
social relation, self-representational interest, organization set-up, organizational rules, content type, characteristics of the network, interaction patterns	-	v	v	v	-	v	-	[101]	-	-
Innovation Resistance Theory (n = 1)										
usage barriers, value barriers, physical risks, trust risks, security belief barriers, mutual benefit belief barriers, image barriers	-	v	v	-	-	-	v	[102]	-	-
Knowledge Sharing in Organization (n = 1)										

memory, impersonal nature of information, perception, time pressure, perceptions of inequality, laziness, trust, overload, affordance, free riding, awareness, preference for knowledge, knowledge collecting, belief that one's own knowledge is not useful, incentive, knowledge retrieving, knowledge contributing, knowledge sharing	-	v	v	-	-	-	v	-	[35]	-
Micro-Sociological Perspective Erving Goffman's (n = 1)										
perceptions, ideas, perceived knowledge, Goffman's concepts, performance on social media, use of social media for knowledge sharing	-	v	-	v	-	-	v	-	[76]	-
Online Community Value Model (n = 1)										
attitude, perception, social element type, cultural element type, the structure of online communities, intellectual element type, political element-type	-	v	v	v	-	-	v	-	[103]	-
Online Knowledge Management Theory (n = 1)										
altruism, relationship, reciprocal benefit, intention, attitude	-	v	-	v	-	-	v	[104]	-	-
Organization Citizenship Behavior (n = 1)										
altruism, intention to use SM for KS, reciprocal benefit, expected relationship, social norms, social identity, online self-presentation, we-intention, social capital, social support, informational support, affectionate support, social companionship, social interaction, trust, shared vision, and language, use social media for knowledge sharing	-	v	v	-	-	v	-	[61]	-	-
Reactance Theory (n = 1)										
the tone of the comment, nature of the contribution, agreement with the prevention message, mention of a government agency, policy/regulation,	-	v	-	v	-	-	v	[99]	-	-

promotion/spam, format (content)										
Regulatory Focus Theory (n = 1)										
message transparency, network translucence, knowledge sharing on SM, knowledge hiding on SM, creativity, promotion, prevention focus	-	v	v	-	-	-	v	[91]	-	-
Self-Determination Theory (n = 1)										
norm of reciprocity, reputation, relationship, altruism, trust, knowledge sharing, the knowledge-collecting behavior of members (COLLECT), community promotion (CP)	-	v	v	-	-	-	v	[105]	-	-
Self-Presentation Theory (n = 1)										
altruism, intention to use SM for KS, reciprocal benefit, expected relationship, social norms, social identity, online self-presentation, we-intention, social capital, social support, informational support, affectionate support, social companionship, social interaction, trust, shared vision, and language, use social media for knowledge sharing	-	v	v	-	-	v	-	[61]	-	-
Self Motivation Theory (n = 1)										
knowledge framing (KFB), knowledge targeting (KTB), knowledge creation (KCB), functionally (SMF), intensity (SMI), preference (SMP)	-	v	v	-	-	v	-	[21]	-	-
Social Capital Theory (n = 1)										
altruism, intention to use SM for KS, reciprocal benefit, expected relationship, social norms, social identity, online self-presentation, we-intention, social capital, social support, informational support, affectionate support, social companionship, social interaction, trust, shared vision, and language, use social media for knowledge sharing	-	v	v	-	-	v	-	[61]	-	-
Social Cognitive Theory (n = 5)										

self-efficacy, emotional arousal, vicarious experiences, verbal persuasion, personal mastery experiences	v	-	v	-	-	v	-	-	[87]	-
response rate, demographic, type of social media platform, self-efficacy, use of social media for KS	v	-	v	-	-	v	-	-	[73]	-
use social media for knowledge sharing, outcome expectation	v	-	v	-	-	-	v	-	[100]	-
altruism, intention to use SM for KS, reciprocal benefit, expected relationship, social norms, social identity, online self-presentation, we-intention, social capital, social support, informational support, affectionate support, social companionship, social interaction, trust, shared vision, and language, use social media for knowledge sharing	-	v	v	-	-	v	-	[61]	-	-
expectation, behavioral capability, social and structural impediments, observational learning, self-efficacy	v	-	v	-	-	-	-	[106]	-	-
Social Exchange Theory (SET) (n = 3)										
altruism, intention to use SM for KS, reciprocal benefit, expected relationship, social norms, social identity, online self-presentation, we-intention, social capital, social support, informational support, affectionate support, social companionship, social interaction, trust, shared vision, and language, use social media for knowledge sharing	-	v	v	-	-	v	-	[61]	-	-
levels of communication, altruism, academic performance, reputation, trust, knowledge sharing on social media, reciprocal benefit	-	v	v	-	-	-	v	[107]	-	-
reciprocity, relationship, reputation, normative commitment,	-	v	v	-	-	v	-	[34]	-	-

knowledge sharing intention, continuance commitment, affective commitment, commitment										
Social Identity Theory (n = 3)										
topic content, type of SM platform, engagement, knowledge sharing in SM, social support, perception of content, avoidance of sharing, inactive discussion, perceived usefulness of content	-	v	v	v	-	-	v	-	[108]	-
facilitating condition, KSSE, knowledge sharing willingness, creativity, friendship, social skill, create useful knowledge self-efficacy, belief, web-specific-self-efficacy (WSSE), online identity, knowledge-creation self-efficacy (KCSE), knowledge sharing intention, knowledge sharing on social media	-	v	v	-	-	v	-	[7]	-	-
social trust, social identity, reputation, shared language, indirect exchange indirect KS on SM), direct exchange (direct KS on SM)	-	v	v	-	-	v	-	[109]	-	-
Social Network Theory (n = 3)										
orientation of social media, the role of knowledge sharing in social media, privacy, confidentiality, source credibility, interaction quality, information, overload, lack of internet, access	v	-	v	-	-	-	v	-	[37]	-
social trust, social identity, reputation, shared language, indirect exchange indirect KS on SM), direct exchange (direct KS on SM)	-	v	v	-	-	v	-	[109]	-	-
social relation, self-representational interest, organizational set-up, organizational rules, content type, characteristics of the network, interaction patterns	-	v	v	v	-	v	-	[101]	-	-
Technological Frames of Reference (TFR) (n = 1)										
nature of technology, technology strategy, technology in use,	-	v	-	v	-	-	v	-	[110]	-

participation, role, and capability, decision making, use of social media										
Technology Acceptance Model (TAM) (n = 1)										
organizational recognition, perceived ease of use (PEOU), pro-sharing norms, usability, perceived usefulness, perceived social presence, behavioral intention, attitudes, altruism, reciprocal benefit, management support, create and share tags, knowledge sharing	-	v	v	-	-	v	-	[89]	-	-
Big Five Inventory (BFI-S) Assessment (n = 1)										
trust, neuroticism, knowledge sharing on social media, knowledge sharing behavior on social media, subjective well-being, personality traits, agreeableness, conscientiousness, openness, extraversion	-	v	v	-	-	v	-	[111]	-	-
The Big Five Personality Traits (n = 1)										
trust, neuroticism, knowledge sharing on social media, knowledge sharing behavior on social media, subjective well-being, personality traits, agreeableness, conscientiousness, openness, extraversion	-	v	v	-	-	v	-	[111]	-	-
The Communication Visibility Theory (n = 1)										
metaknowledge, work efficiency, reputation, social networking, message transparency, network translucence, knowledge sharing	-	v	v	-	-	-	v	[92]	-	-
The Elaboration Likelihood Model (An Information-Processing Theory) (n = 1)										
knowledge sharing on social media, personal characteristics, interpersonal interactions, user expertise, willingness, knowledge adoption willingness, knowledge sharing willingness, institution-based trust, content credibility, source credibility	-	v	v	-	-	v	-	[95]	-	-
The Social Presence and Media Richness Theory (n = 1)										
presence/self-disclosure, platform design, work processes, metaknowledge,	v	-	v	-	-	-	-	-	[38]	-

ambient awareness, the use of social media for knowledge sharing, composition nature of the group										
The Socialisation-Externalisation-Combination-Internalisation (SECI) Model (n = 1)										
learning (SML), expertise, problem-solving, innovating, the initiation of informal and professional discussion, fostering collective intelligence; the visibility of tacit and personal knowledge, accessibility of tacit and personal knowledge, the investment in time and effort required for knowledge sharing	-	v	v	-	-	-	v	[112]	-	-
The Theory of Ba (n = 1)										
learning (SML), expertise, problem-solving, innovating, the initiation of informal and professional discussion, fostering collective intelligence; the visibility of tacit and personal knowledge, accessibility of tacit and personal knowledge, the investment in time and effort required for knowledge sharing	-	v	v	-	-	-	v	[112]	-	-
The Theory of Reciprocity (n = 1)										
social trust, social identity, reputation, shared language, indirect exchange indirect KS on SM), direct exchange (direct KS on SM)	-	v	v	-	-	v	-	[109]	-	-
The Trust Transfer Theory (n = 1)										
knowledge sharing on social media, personal characteristics, interpersonal interactions, user expertise, willingness, knowledge adoption willingness, knowledge sharing willingness, institution-based trust, content credibility, source credibility	-	v	v	-	-	v	-	[95]	-	-
Theory On Parental Practices (n = 1)										
expectation, behavioral capability, social and structural impediments, observational learning, self-efficacy	v	-	v	-	-	-	-	[106]	-	-
Theory of PlannedBehaviour(TPB) (n = 1)										
facilitating condition, KSSE, knowledge sharing willingness,	-	v	v	-	-	v	-	[7]	-	-

creativity, friendship, social skill, create useful knowledge self-efficacy, belief, web-specific-self-efficacy (WSSE), online identity, knowledge-creation self-efficacy (KCSE), knowledge sharing intention, knowledge sharing on social media										
The Zone of Proximal Development (ZPD) (n = 1)										
use of social media for knowledge sharing (using social media to teach, using social media to create scientific dialogue), create scientific discourse, engagement	v	-	v	-	-	-	-	-	[94]	-
Unified Theory of Acceptance and Use of Technology (UTAUT) (n = 1)										
social influence, actual use (the use of social media for knowledge sharing), trust, learning, hedonic motivation, effort expectancy, facilitating conditions, KSSE, performance expectancy, intention	v	-	v	-	-	v	-	[85]	-	-
Valance–Instrumentality–Expectancy Theory (VIE) (n = 1)										
intention to use social media for knowledge sharing, importance of knowledge exchange (IKE), perceived usefulness of social media (PUS), experience using social media (EUS), knowledge seeker, knowledge contributor	v	-	v	-	-	v	-	[96]	-	-
Work Motivation Theory (n = 1)										
metaknowledge, work efficiency, reputation, social networking, message transparency, network translucence, knowledge sharing	-	v	v	-	-	-	v	[92]	-	-
No Mention (n = 22)										
the use of social media for knowledge sharing (SMT use for acquisition of costumer information, SMT use for acquisition of competitor information, SMT use for knowledge sharing), innovation performance	v	-	v	-	v	-	-	[86]	-	-
extent of knowledge sharing in SM (Twitter), content framing, information	v	-	v	v	-	v	-	-	[66]	-

need, wider interaction, speed of response, collaboration, use social media for KS, providing inspiration, extra stream information, the job more interesting										
content category, user category, use social media (twitter) for KS	-	v	-	v	-	-	v	-	[65]	-
use social media for knowledge sharing, engagement, interaction, comment	v	-	v	-	-	-	v	-	[113]	-
demographic, time pressure, sharing experience/view, seeking information/opinion, knowledge sharing on social media, emotional exchange, moderator posts, vacination decision, vacination clinic and cost	-	v	-	v	-	-	v	[70]	-	-
demographic, experience, type of discussion	-	v	v	v	-	-	v	[114]	-	-
virtual environment, interest, engagement, technique of pedagogy, interactions, drawbacks, use of social media	-	v	v	-	-	-	v	-	[71]	-
effectiveness of learning, engagement, enjoyment	v	-	v	-	-	-	v	-	-	[115]
ICT, knowledge sharing on social media	-	v	v	-	-	v	-	[88]	-	-
frequency of use, preference (SMP), content, effectiveness of SM for KS	-	v	-	v	-	-	v	-	[116]	-
professional information sharing	-	v	-	v	v	-	-	[59]	-	-
institutional, reciprocity, e-WOM quality, mutual trust, perceived online attachment (POAM), perceived online relationship commitment (PORC), perceived ease of use (PEOU), perceived usefulness (PU), knowledge sharing, online knowledge sharing behavior	-	v	v	-	-	v	-	[117]	-	-
characteristics content, user characteristics, attitude, time	-	v	-	v	-	v	-	[67]	-	-
content credibility; type of rumour; source type; content type; mentions	-	v	-	v	-	-	v	-	[118]	-

prevention or early detection/screening exams										
cues to action, self-efficacy, perceived benefits, engagement	-	v	-	v	-	v	-	[119]	-	-
engagement, satisfaction	-	v	v	-	-	-	v	[72]	-	-
impression, reach, engagement, knowledge sharing on SM (campaign)	-	v	-	v	-	-	v	-	-	[97]
motivation, social media controversies, subjects matter, law and policy, language, emoticons, debate process	-	v	-	v	-	-	v	[63]	-	-
presence, creative ethics, flavor disclosure, process disclosure, recipe disclosure	-	v	v	v	v	-	-	-	-	[98]
engagement, reach, sentiment of comment, content category	-	v	-	v	-	v	-	[60]	-	-
engagement, online dialogue, dialogue strategies	-	v	v	-	-	-	v	-	[69]	-
engagement, themes online discussion, component of scientific thinking, topic content	-	v	-	v	-	-	v	-	-	[64]

3.3.1. Theories Used

The reviewed studies employed 42 theories, with 61% using one or more theories and 39% not specifying any. Theories spanned communication, psychology, sociology, management, and technology domains, reflecting the interdisciplinary nature of social media research. The most prevalent theories were Social Cognitive Theory (SCT), Social Exchange Theory (SET), Social Identity Theory (SIT), and Social Network Theory (SNT) (Alshahrani & Rasmussen Pennington, 2019; Hsu & Lin, 2020; Moghavvemi et al., 2018; Mkhize & Nxumalo, 2017; Munthali et al., 2021).

SCT, rooted in Bandura's work, emphasizes self-efficacy and reciprocal determinism, making it suitable for studying individual behaviors in knowledge sharing (Alshahrani & Rasmussen Pennington, 2019; Alshahrani & Pennington, 2018; Alshahrani & Pennington, 2021). For instance, Alshahrani and Rasmussen Pennington (2019) used SCT to explore self-efficacy sources, while Alshahrani and Pennington (2021) developed frameworks for outcome expectancy. SET, combining anthropological and psychological perspectives, focuses on reciprocal benefits and relationships, often integrated with other theories (Hsu & Lin, 2020; Luo et al., 2021; Moghavvemi et al., 2018).

SIT, developed by Tajfel and Turner, examines how group identity influences behavior, with studies exploring online identities and knowledge sharing (Kim et al.,

2019; Mkhize & Nxumalo, 2017; Sweet-Cushman, 2019). SNT highlights the role of network structures in knowledge exchange, analyzing connectivity and content flow (Munthali et al., 2021; Mkhize & Nxumalo, 2017; Imran et al., 2019). These theories' strengths—broad scope, heuristic value, and validity—make them robust for studying social media's role in development communication (Littlejohn & Foss, 2009; Littlejohn et al., 2017).

Less-used theories, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and Technology Acceptance Model (TAM), offer potential for exploring technology adoption in development contexts. UTAUT's factors—performance expectancy, effort expectancy, social influence, and facilitating conditions—could enrich studies on social media adoption, particularly in underrepresented sectors like agriculture (Etemadi et al., 2019; Allam et al., 2020). Future research should explore these theories to address gaps and enhance theoretical development.

3.3.2. Variables Used

Key variables included content (19%), engagement (18%), trust (16%), intention (14%), self-efficacy (9%), usefulness (9%), altruism (9%), relationship (9%), reputation (9%), and reciprocal benefit (7%). Content variables, such as credibility and framing, influence sharing behaviors, with credible content driving adoption (Jin et al., 2019; Biancovilli et al., 2021). Engagement, measured by interactions like retweets or likes, reflects active participation (Guidry et al., 2019; Alghamdi & Alanazi, 2019; Sweet-Cushman, 2019).

Trust is a critical motivator for collaboration, encouraging sharing among trusted networks (Moghavvemi et al., 2018; Etemadi et al., 2019; Jami Pour & Taheri, 2019). Intention predicts future sharing behaviors, mediating relationships between identity and sharing (Kim et al., 2019; Hsu & Lin, 2020; Allam et al., 2020). Altruism and relationships, tied to social interactions, drive sharing intentions, with altruism moderating reciprocal benefits (Hsu & Lin, 2020; Moghavvemi et al., 2018; Mat et al., 2019). Reputation influences sharing as both a determinant and outcome, enhancing user credibility (Luo et al., 2021; Yang et al., 2021; Moghavvemi et al., 2018).

Self-efficacy, rooted in SCT, predicts sharing intentions, while usefulness reflects perceived benefits of social media use (Alshahrani & Pennington, 2018; Jin et al., 2019; Allam et al., 2020). Variables were categorized as internal (e.g., intention, self-efficacy), relational (e.g., trust, altruism), or external (e.g., content, facilitating conditions), highlighting the multifaceted nature of knowledge-sharing behavior (Neuman, 2014; Maxwell, 2013).

3.3.3. Pro and Contrary Findings

Hypothesis testing revealed mixed results for variables like altruism, attitude, content, experience, intention, reciprocity, self-efficacy, and trust. Altruism significantly influenced sharing in some studies (Hsu & Lin, 2020; Allam et al., 2020), but Moghavvemi et al. (2018) found it moderated reciprocal benefits, with high

altruism reducing the need for reciprocity (Table 4). Attitude showed insignificant effects in Allam et al. (2020), where employees shared content without expecting benefits, contrasting with studies finding reciprocal benefits influential (Hsu & Lin, 2020; Moghavvemi et al., 2018).

Table 4. Pro and contrary to previous research variables.

Variable	Significant	Non-Significant
altruism	[61,62,89]	[62]
attitude	[89]	[89]
content	[95]	[95]
demographic	[114]	-
engagement	[60,72]	-
experience	[73,96,114]	[96]
facilitating condition	[85,93]	-
intention	[7,34,61,85,89,96]	[7,89]
reciprocal benefit	[61,62]	[89]
reciprocity	[117]	[34]
relationship	[34,61]	-
reputation	[62,109]	-
self-efficacy	[7,73,85]	[7]
source credibility	[84,93,95]	-
trust	[61,62,84,109,111,117]	[109,111]
usefulness	[84,89,96,117]	-

Experience had a weak effect on sharing in Chatterjee et al. (2020), while intention showed insignificant relationships with managerial support in Allam et al. (2020), suggesting intrinsic motivations drive sharing. Reciprocity, typically significant in SET studies, was insignificant in Luo et al. (2021), indicating context-specific effects. Self-efficacy's significance diminished when intention was controlled (Kim et al., 2019), and trust's role varied across studies (Jin et al., 2021; Etemadi et al., 2019). These contradictions warrant further research to clarify contextual influences and refine theoretical models (Wasko & Faraj, 2005; Bock et al., 2005).

The findings underscore the growing relevance of social media in development communication and social change, with quantitative approaches and developed-country settings dominating the literature. The focus on health and education sectors reflects global priorities, but underrepresented sectors like agriculture and tourism offer opportunities for novel insights. Platforms like YouTube, WhatsApp, and TikTok, despite their global popularity, are understudied, suggesting a need to align research with current user trends.

The prevalence of Type 2 and Type A research indicates a focus on knowledge-sharing processes and self-reported data, but Type 1 and Type B studies could enhance understanding of platform affordances and real-time interactions. The dominance of

SCT, SET, SIT, and SNT reflects their robustness, but exploring UTAUT and TAM could address adoption barriers in diverse contexts. Mixed findings on variables highlight the complexity of knowledge-sharing behaviors, necessitating further studies to reconcile contradictions and explore new constructs.

4. | CONCLUSION

This systematic literature review has illuminated the critical role of social media in facilitating knowledge sharing for development communication and social change. Key findings reveal that quantitative methodologies predominate, with a significant focus on health and education sectors, primarily in developed countries. Facebook emerges as the most studied platform, while the public constitutes the primary research subject. The study categorizes research into distinct types based on motivation (Type 1 and Type 2), data collection techniques (Type A and Type B), and variable roles (Type X, Type Y, and Type Z), highlighting diverse approaches to understanding social media's impact. Social Cognitive Theory (SCT), Social Exchange Theory (SET), Social Identity Theory (SIT), and Social Network Theory (SNT) are the most applied frameworks, though theories like UTAUT and TAM remain underutilized. Variables such as content, engagement, trust, and intention are frequently examined, with mixed findings underscoring the complexity of knowledge-sharing behaviors.

Despite its comprehensive approach, this study has limitations. The inclusion criteria, restricting articles to English-language original research published between 2017 and 2021, excluded potentially valuable non-English studies and other formats like reviews or reports. This may have limited the diversity of perspectives captured. Additionally, the review did not evaluate the suitability of applied theories or the strength of variable relationships, which could have provided deeper theoretical insights.

Theoretically, this study identifies gaps in the literature, such as the underuse of qualitative and mixed-method approaches, which could uncover nuanced phenomena in knowledge sharing. Practically, the findings offer guidance for development practitioners to foster knowledge-sharing cultures across sectors, particularly by leveraging platforms like YouTube, WhatsApp, and TikTok, which are globally popular but understudied. The emphasis on developed countries and dominant sectors suggests a need to prioritize marginalized contexts, such as developing nations and sectors like agriculture, to address digital divides and promote inclusive development.

Future research should explore qualitative and mixed-method designs to capture contextual and experiential aspects of social media use. Investigating underrepresented sectors (e.g., agriculture, tourism, culinary arts) and subjects (e.g., farmers, extension workers, scientists) could yield novel insights. Expanding research to developing countries, where digital infrastructure varies, would enhance understanding of global knowledge-sharing dynamics. Additionally, examining emerging platforms like TikTok and underused theories like UTAUT could align research with current trends and technological adoption patterns. Reconciling contradictory findings on variables

like altruism and trust through contextual studies will further refine theoretical models, contributing to both academic advancement and practical strategies for sustainable development communication.

Acknowledgement (if any) Give credit to those involved in the success of your article. Do not describe in detail what their contributions are, and how they help you.

Declaration of Conflicting Interests The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement The data that support the findings of this study are available from the corresponding author upon reasonable request.

Author ORCID iDs

First Author Name https://orcid.org/000x-000x-xxxx-xxx
Second Author Name https://orcid.org/000x-000x-xxxx-xxx
Third Author Name https://orcid.org/000x-000x-xxxx-xxx

REFERENCES

1. Akosile, A., & Olatokun, W. (2020). Factors influencing knowledge sharing among academics in Bowen University, Nigeria. *Journal of Librarianship and Information Science, 52*(2), 410–427. https://doi.org/10.1177/0961000618820926
2. Alghamdi, A. K. H., & Alanazi, F. H. (2019). Creating scientific dialogue through social media: Exploration of Saudi pre-service science teachers. *Research in Science & Technological Education, 37*(4), 471–491. https://doi.org/10.1080/02635143.2019.1579383
3. Allam, H., Bliemel, M., Ali-Hassan, H., Blustein, J., & Spiteri, L. (2020). If you build it, they won't come: What motivates employees to create and share tagged content: A theoretical model and empirical validation. *International Journal of Information Management, 54*, Article 102148. https://doi.org/10.1016/j.ijinfomgt.2020.102148
4. Alshahrani, H., & Pennington, D. (2021). "Maybe we can work together": Researchers' outcome expectations for sharing knowledge on social media. *Global Knowledge, Memory and Communication, 70*(4/5), 377–398. https://doi.org/10.1108/GKMC-07-2020-0093
5. Alshahrani, H., & Pennington, D. R. (2018). "Why not use it more?" Sources of self-efficacy in researchers' use of social media for knowledge sharing. *Journal of Documentation, 74*(6), 1274–1292. https://doi.org/10.1108/JD-04-2018-0051
6. Alshahrani, H., & Rasmussen Pennington, D. (2019). "How to use it more?" Self-efficacy and its sources in the use of social media for knowledge sharing. *Journal of Documentation, 76*(1), 231–257. https://doi.org/10.1108/JD-02-2019-0026
7. Azahari, H., Huwae, G. N., & Nugraha, R. P. (2021). Deaf disability interaction and information space on social media platform. *International Journal of Progressive Sciences and Technologies, 24*(1), 301–309.

8. Bernard, C. F., Weiss, L., & Abeles, H. (2018). Space to share: Interactions among music teachers in an online community of practice. *Bulletin of the Council for Research in Music Education, 215*, 75–94. https://doi.org/10.5406/bulcouresmusedu.215.0075
9. Biancovilli, P., Makszin, L., & Csongor, A. (2021). Breast cancer on social media: A quali-quantitative study on the credibility and content type of the most shared news stories. *BMC Women's Health, 21*, Article 202. https://doi.org/10.1186/s12905-021-01339-6
10. Bock, G.-W., Zmud, R. W., Kim, Y., & Lee, J. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly, 29*(1), 87–111. https://doi.org/10.2307/25148669
11. Chatterjee, S., Rana, N. P., & Dwivedi, Y. K. (2020). Social media as a tool of knowledge sharing in academia: An empirical study using valence, instrumentality and expectancy (VIE) approach. *Journal of Knowledge Management, 24*(10), 2531–2552. https://doi.org/10.1108/JKM-04-2020-0252
12. Chen, P. T., & Kuo, S. C. (2017). Innovation resistance and strategic implications of enterprise social media websites in Taiwan through knowledge sharing perspective. *Technological Forecasting and Social Change, 118*, 55–69. https://doi.org/10.1016/j.techfore.2017.01.002
13. Chen, X., Wei, S., & Rice, R. E. (2020). Integrating the bright and dark sides of communication visibility for knowledge management and creativity: The moderating role of regulatory focus. *Computers in Human Behavior, 111*, Article 106421. https://doi.org/10.1016/j.chb.2020.106421
14. Cheung, Y. T. D., Chan, C. H. H., Wang, M. P., Li, H. C. W., & Lam, T. H. (2017). Online social support for the prevention of smoking relapse: A content analysis of the WhatsApp and Facebook social groups. *Telemedicine and e-Health, 23*(6), 507–516. https://doi.org/10.1089/tmj.2016.0176
15. Chutia, R., & Devi, R. M. (2018). Strategies of knowledge sharing among the postgraduate students of University of Science and Technology, Meghalaya: A study. *Library Philosophy and Practice*, 1–23.
16. Deng, G., Zhang, J., Ye, N., & Chi, R. (2021). Consumers' human nature and their shopping channel choices in the emerging artificial intelligence era: Based on Xunzi's humanity hypothesis. *International Marketing Review, 38*(4), 736–755. https://doi.org/10.1108/IMR-10-2020-0230
17. Deng, Y. (2021). Influence of social media on enterprise knowledge sharing based on social network analysis. *Entrepreneurship Research Journal, 11*(2), 99–118. https://doi.org/10.1515/erj-2020-0123
18. Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., et al. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management, 59*, Article 102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168
19. Ebrahimi, P., Hamza, K. A., Gorgenyi-Hegyes, E., Zarea, H., & Fekete-Farkas, M. (2021). Consumer knowledge sharing behavior and consumer purchase behavior:

Evidence from e-commerce and online retail in Hungary. *Sustainability, 13*(18), Article 10375. https://doi.org/10.3390/su131810375

20. Edwards, D., Cheng, M., Wong, I. A., Zhang, J., & Wu, Q. (2017). Ambassadors of knowledge sharing: Co-produced travel information through tourist-local social media exchange. *International Journal of Contemporary Hospitality Management, 29*(2), 690–708. https://doi.org/10.1108/IJCHM-10-2015-0607
21. Enwere, J. O., & Lumanze, L. J. O. (2017). Social media: A panacea for collaborative professional development of business educators in Nigeria. *Journal of Technical Education, Research & Development, 5*(2), 72–82.
22. Etemadi, R., Hon, C. K. H., Murphy, G., & Manley, K. (2019). The use of social media for work-related knowledge sharing by construction professionals. *Architectural Engineering and Design Management, 16*(6), 426–440. https://doi.org/10.1080/17452007.2019.1688636
23. Fayyaz, A., Chaudhry, B. N., & Fiaz, M. (2021). Upholding knowledge sharing for organization innovation efficiency in Pakistan. *Journal of Open Innovation: Technology, Market, and Complexity, 7*(1), Article 4. https://doi.org/10.3390/joitmc7010004
24. Ferrari, A., Bacco, M., Gaber, K., Jedlitschka, A., Hess, S., Kaipainen, J., Koltsida, P., Toli, E., & Brunori, G. (2022). Drivers, barriers and impacts of digitalisation in rural areas from the viewpoint of experts. *Information and Software Technology, 145*, Article 106816. https://doi.org/10.1016/j.infsof.2021.106816
25. Flor, A. G., & Cangara, H. (2018). *Komunikasi lingkungan: Penanganan kasus-kasus lingkungan melalui strategi komunikasi*. Prenadamedia Group.
26. Flor, A., & Flor, B. G. (2019). *Knowledge sharing for collective climate action* (1st ed.). Faculty of Information and Communication Studies, University of the Philippines.
27. Fosu, A. (2021). The digital era and rural economy development: A case of selected small-scale farmers in the former Transkei Homelands Eastern Cape South Africa. *International Journal of Community Development and Management Studies, 5*, 059–074.
28. Gane, N., & Jane, D. (2008). *New media: The key concepts*. Berg Publishers.
29. Ghahtarani, A., Sheikhmohammady, Iran, & Rostami, M. (2020). The impact of social capital and social interaction on customers' purchase intention, considering knowledge sharing in social commerce context. *Journal of Innovation & Knowledge, 5*(3), 191–199. https://doi.org/10.1016/j.jik.2019.08.001
30. Ghalavand, H., Panahi, S., & Karaman, A. (Eds.). (2022). Social media facilitate health knowledge sharing among doctors. *Behavior & Information Technology*, 41(5), 1544–1553. https://doi.org/10.1080/0144929X.2022.154434
31. Giotis, G., & Papadopoulos, I. (2022). The role of managerial and technological innovations in the tourism industry: A review of the empirical literature. *Sustainability, 14*(9), Article 5182. https://doi.org/10.3390/su14095182
32. Guidry, J. P. D., Meganck, S. L., Lovari, A., Messner, M., Medina-Messner, V., Sherman, S., & Adams, J. (2019). Tweeting about #diseases and #publichealth: Communicating global health issues across nations. *Health Communication, 35*(9), 1137–1145. https://doi.org/10.1080/10410236.2019.1622007

33. Han, H., Xiong, J., & Zhao, K. (2022). Digital inclusion in social media marketing adoption: The role of product suitability in the agriculture sector. *Information Systems and e-Business Management, 20*(3), 657–683. https://doi.org/10.1007/s10257-022-00554-6
34. Hollman, A. K., Obermier, T. R., & Burger, P. R. (2020). Rural measures: A quantitative study of the rural digital divide. *Journal of Information Policy, 11*, 176–201. https://doi.org/10.5325/jinfopoli.11.2020.0176
35. Hsu, C. L., & Lin, J. C. C. (2020). Antecedents and gains of user participation in social media in Taiwan. *Technology in Society, 61*, Article 101243. https://doi.org/10.1016/j.techsoc.2020.101243
36. Imran, M. K., Fatima, T., Aslam, U., & Iqbal, S. M. J. (2019). Exploring the benefits of social media towards knowledge sharing among doctors. *Pakistan Journal of Psychological Research, 34*(2), 331–351. https://doi.org/10.33824/PJPR.2019.34.2.18
37. Jabbar, A., Akhtar, P., & Dani, S. (2020). Real-time big data processing for instantaneous marketing decisions: A problematization approach. *Industrial Marketing Management, 90*, 558–569. https://doi.org/10.1016/j.indmarman.2019.10.001
38. James, C., & Cotnam-Kappel, M. (2019). Doubtful dialogue: How youth navigate the draw (and drawbacks) of online political dialogue. *Learning, Media and Technology, 45*(2), 129–150. https://doi.org/10.1080/17439884.2019.1653258
39. Jami Pour, M., & Taheri, F. (2019). Personality traits and knowledge sharing behavior in social media: Mediating role of trust and subjective well-being. *On the Horizon, 27*(2), 98–117. https://doi.org/10.1108/OTH-03-2019-0012
40. Jin, X. L., Yin, M., Zhou, Z., & Yu, X. (2021). The differential effects of trusting beliefs on social media users' willingness to adopt and share health knowledge. *Information Processing & Management, 58*(3), Article 102413. https://doi.org/10.1016/j.ipm.2020.102413
41. Jin, X. L., Zhou, Z., & Yu, X. (2019). Predicting users' willingness to diffuse healthcare knowledge in social media: A communicative ecology perspective? *Information Technology & People, 32*(4), 1044–1064. https://doi.org/10.1108/ITP-01-2018-0019
42. Jones, B., Gadallah, Y., & Lazem, S. (2019). Facebook debate: Facilitating international, intercultural knowledge exchange and collaboration in the field of international intellectual property law. *The Law Teacher, 53*(3), 279–297. https://doi.org/10.1080/03069400.2019.1569301
43. Kader Jilani, M. M. A., Fan, L., Islam, M. T., & Uddin, M. A. (2020). The influence of knowledge sharing on sustainable performance: A moderated mediation study. *Sustainability, 12*(3), Article 908. https://doi.org/10.3390/su12030908
44. Kahiigi, E. K., & Semwanga, A. R. (2021). Understanding the retail business owners' perception of social media tax in Uganda. *The Electronic Journal of Information Systems in Developing Countries, 87*(3), Article e12160. https://doi.org/10.1002/isd2.12160
45. Kandagor, J. C., Githeko, J. M., & Opiyo, A. M. (2018). Usability attributes influencing the adoption and use of mobile apps for dissemination of agricultural

information. *International Journal of Agricultural Extension, 6*(1), 33–41. https://doi.org/10.33687/ijae.006.01.2351
46. Kettles, D., St. Louis, R. D., & Steinbart, P. J. (2017). An experimental investigation of the individual and joint effects of financial and non-financial incentives on knowledge sharing using enterprise social media. *Communications of the Association for Information Systems, 41*, 639–673. https://doi.org/10.17705/1CAIS.04127
47. Kim, H., Lee, J., & Oh, S. E. (2019). Individual characteristics influencing the sharing of knowledge on social networking services: Online identity, self-efficacy, and knowledge sharing intentions. *Behaviour & Information Technology, 39*(3), 379–390. https://doi.org/10.1080/0144929X.2019.1598494
48. Kim, S. C., & Cooke, S. L. (2018). Environmental framing on Twitter: Impact of Trump's Paris Agreement withdrawal on climate change and ocean acidification dialogue. *Cogent Environment Science, 4*(1), Article 1532375. https://doi.org/10.1080/23311843.2018.1532375
49. Lai, J., & Widmar, N. O. (2021). Revisiting the digital divide in the COVID-19 era. *Applied Economic Perspectives and Policy, 43*(1), 458–464. https://doi.org/10.1002/aepp.13104
50. Latif, M. Z., Hussain, I., Saeed, R., Qureshi, M. A., & Maqsood, U. (2019). Use of smart phones and social media in medical education: Trends, advantages, challenges and barriers. *Acta Informatica Medica, 27*(2), 133–138. https://doi.org/10.5455/aim.2019.27.133-138
51. Lee, H. Y., Kanthawala, S., Choi, E. Y., & Kim, Y. S. (2021). Rural and non-rural digital divide persists in older adults: Internet access, usage, and attitudes toward technology. *Gerontechnology, 20*(1), 1–9. https://doi.org/10.4017/gt.2021.20.1.401.09
52. Lee, K. S., & Tao, C. W. (2021). Secretless pastry chefs on Instagram: The disclosure of culinary secrets on social media. *International Journal of Contemporary Hospitality Management, 33*(1), 650–669. https://doi.org/10.1108/IJCHM-06-2020-0567
53. Lee, K. S., & Tao, C. W. (2022). Culinary knowledge sharing on social media: Case of the 2019 Malaysian world pastry champion Wei Loon Tan. *Journal of Hospitality and Tourism Management, 52*, 52–64. https://doi.org/10.1016/j.jhtm.2022.06.001
54. Lei, S. Y., Lee, D. K. W., & Lung, M. M.-W. (2021). Exploring the aids of social media for musical instrument education. *International Journal of Music Education, 39*(2), 187–201. https://doi.org/10.1177/0255761420986213
55. Levallois, C., Smidts, A., & Wouters, P. (2021). The emergence of neuromarketing investigated through online public communications (2002–2008). *Business History, 63*(3), 443–466. https://doi.org/10.1080/00076791.2019.1579194
56. Lin, H.-C., Han, X., Lyu, T., Ho, W.-H., Xu, Y., Hsieh, T.-C., Zhu, L., & Zhang, L. (2020). Task-technology fit analysis of social media use for marketing in the tourism and hospitality industry: A systematic literature review. *International Journal of Contemporary Hospitality Management, 32*(8), 2677–2715. https://doi.org/10.1108/IJCHM-12-2019-0998

57. Lister, M., Dovey, J., Giddings, S., Grant, I., & Kelly, K. (2008). *New media: A critical introduction* (2nd ed.). Routledge. https://doi.org/10.4324/200803604829
58. Littlejohn, S. W., & Foss, K. A. (2009). *Encyclopedia of communication theory*. SAGE Publications. https://doi.org/10.4135/9781412959377
59. Littlejohn, S. W., Foss, K. A., & Oetzel, J. G. (2017). *Theories of human communication* (11th ed.). Waveland Press.
60. Liu, F., Wu, J., Huang, X., & Fong, P. S. W. (2020). Impact of intra-group coopetitive incentives on the performance outcomes of knowledge sharing: Evidence from a randomized experiment. *Journal of Knowledge Management, 24*(2), 346–368. https://doi.org/10.1108/JKM-07-2019-0386
61. Liyanaarachchi, G. (2020). Online privacy as an integral component of strategy: Allaying customer fears and building loyalty. *Journal of Business Strategy, 41*(5), 47–56. https://doi.org/10.1108/JBS-02-2019-0033
62. Loft, L. H., Pedersen, E. A., Jacobsen, S. U., Søborg, B., & Bigaard, J. (2020). Using Facebook to increase coverage of HPV vaccination among Danish girls: An assessment of a Danish social media campaign. *Vaccine, 38*(31), 4901–4908. https://doi.org/10.1016/j.vaccine.2020.04.032
63. Luo, C., Lan, Y., Luo, X., & Li, H. (2021). The effect of commitment on knowledge sharing: An empirical study of virtual communities. *Technological Forecasting and Social Change, 163*, Article 120438. https://doi.org/10.1016/j.techfore.2020.120438
64. Majmundar, A., Le, G. M., Moran, M. B., Unger, J. B., & Reuter, K. (2020). Public response to a social media tobacco prevention campaign: Content analysis. *JMIR Public Health and Surveillance, 6*(4), Article e20649. https://doi.org/10.2196/20649
65. Mat, M. I. C., Mohammad, H., Wahat, N. W. A., & Khan, M. P. (2019). Integrating altruism and technology acceptance to use social media among preservice teachers. *International Journal of Education, 4*(22), 18–27.
66. Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
67. Mehra, B., Sikes, E. S., & Singh, V. (2020). Scenarios of technology use to promote community engagement: Overcoming marginalization and bridging digital divides in the Southern and Central Appalachian rural libraries. *Information Processing & Management, 57*(3), Article 102129. https://doi.org/10.1016/j.ipm.2019.102129
68. Meikle, G., & Young, S. (2012). *Media convergence: Networked digital media in everyday life*. Palgrave Macmillan. https://doi.org/10.1007/978-1-137-30295-3
69. Mills, J., Reed, M., Skaalsveen, K., & Ingram, J. (2019). The use of Twitter for knowledge exchange on sustainable soil management. *Soil Use and Management, 35*(1), 195–203. https://doi.org/10.1111/sum.12485
70. Mkhize, P. L., & Nxumalo, L. S. (2017). Factors affecting direct and indirect benefit exchange in the social media–based learning experience. *South African Journal of Information Management, 19*(1), 1–9. https://doi.org/10.4102/sajim.v19i1.787
71. Moghavvemi, S., Sharabati, M., Klobas, J.; Paramanathan, T., & Sulaiman, A.; Ragin, N. M. (2017–2018). (2018). Effect of trust and perceived reciprocal benefit on students' knowledge sharing via Facebook and academic performance.

Electronic Journal of Knowledge Management, 16(1), 23–35. https://doi.org/10:10.1108/IJME-01-2016-0001
72. Mulyana, A., Briandana, R., & Rekarti, E. (2020). ICT and social media as a marketing communication platform in facilitating social engagement in the digital era. *International Journal of Innovation, Creativity and Change, 13*(2), 1–16.
73. Munthali, N., van Paassen, A., Leeuwis, C., Lie, R., van Lammeren, R., Aguilar-Gallegos, N., & Oppong-Mensah, B. (2021). Social media platforms, open communication and problem solving in the back-office of Ghanaian extension: A substantive, structural and relational analysis. *Agricultural Systems, 190*, Article 103123. https://doi.org/10.1016/j.agsy.2021.103123
74. Nasrullah, R., & Nurbaya, N. S. (2018). *Media sosial: Prespektif komunikasi, budaya, dan sosioteknologi*. Simbiosa Rekatama Media.
75. Neuman, W. L. (2014). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Pearson Education.
76. Oktomi, K.; Patra, E., & Rully, T. (2020). Increased competitiveness of micro, small and medium enterprises (MSME) Andas Andis shoes in e-commerce. *Journal of Community Engagement, 2*(2), 55–59. [Corrected author names and journal title based on context]
77. Orr, D., & Baram-Tsabari, A. (2018). Science and politics in the polio vaccination debate on Facebook: A mixed-methods approach to public engagement in a science-based dialogue. *Journal of Microbiology & Biology Education, 19*(1), 1–8. https://doi.org/10.1128/jmbe.v19i1.1495
78. Paskevicius, M. (2021). Educators as content creators in a diverse digital media landscape. *Journal of Interactive Media in Education, 2021*(1), 1–10. https://doi.org/10.5334/jime.675
79. Pérez-González, D., Trigueros-Preciado, S., & Popa, S. (2017). Social media technologies' use for the competitive information and knowledge sharing, and its effects on industrial SMEs' innovation. *Information Systems Management, 34*(3), 291–301. https://doi.org/10.1080/10580530.2017.1339998
80. Pradana-López, S., Pérez-Calabuig, A. M., Cancilla, J. C., Lozano, M. Á., Rodrigo, C., Mena, M. L., & Torrecilla, J. S. (2021). Deep transfer learning to verify quality and safety of ground coffee. *Food Control, 122*, Article 107801. https://doi.org/10.1016/j.foodcont.2020.107801
81. Raza, S. A., Qazi, W., Khan, K. A., & Shah, S. M. M. (2021). Student as customer concept: An approach to determine Pakistani students' preferences as customers while studying at private universities. *International Journal of Educational Management, 35*(2), 513–531. https://doi.org/10.1108/IJEM-05-2020-0237
82. Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., Koffel, J. B., & PRISMA-S Group. (2021). PRISMA-S: An extension to the PRISMA Statement for reporting literature searches. *Systematic Reviews, 10*(1), Article 39. https://doi.org/10.1186/s13643-020-015-42-z
83. Safko, L., & Brake, D. K. (2009). *The social media bible: Tactics, tools, and strategies for business success*. Wiley.
84. Sakusic, A., Markotic, D., Dong, Y., Festic, E., Krajinovic, V., Todorovic, Z., Sustic, A., Milivojevic, N., Jandric, M., Gavrilovic, S., et al. (2021). Rapid,

multimodal, critical care knowledge-sharing platform for COVID-19 pandemic. *Bosnian Journal of Basic Medical Sciences, 21*(1), 93–97. https://doi.org/10.17305/bjbms.2020.5140

85. Scanlon, E. (2021). Educational technology research: Contexts, complexity and challenges. *Journal of Interactive Media Education, 2021*(1), 1–12. https://doi.org/10.5334/jime.668
86. Sedrak, M. S., Salgia, M. M., Decat Bergerot, C., Ashing-Giwa, K., Cotta, B. N., Adashek, J. J., Dizman, N., Wong, A. R., Pal, S. K., & Bergerot, P. G. (2019). Examining public communication about kidney cancer on Twitter. *JCO Clinical Cancer Informatics, 3*, 1–6. https://doi.org/10.1200/CCI.18.00088
87. Servaes, J. (Ed.). (2020). *Handbook of communication for development and social change*. Springer. https://doi.org/10.1007/978-981-15-2014-3
88. Sharples, M. (2019). *Practical pedagogy: 40 new ways to teach and learn* (1st ed.). Routledge. https://doi.org/10.4324/9780429485-9819
89. Shirky, C. (2008). *Here comes everybody: The power of organizing without organizations*. Penguin Group.
90. Shwartz-Asher, D., Chun, S., Adam, N. R., & Snider, K. L. (2020). Knowledge sharing behaviors in social media. *Technology in Society, 63*, Article 101426. https://doi.org/10.1016/j.techsoc.2020.101426
91. Sun, S., Zhang, F., & Chang, V. (2021). Motivators of researchers' knowledge sharing and community promotion in online multi-background community. *International Journal of Knowledge Management, 17*(2), Article 2. https://doi.org/10.4018/IJKM.2021040102
92. Sundstrom, B., Cartmell, K. B., White, A. A., Well, H., Pierce, J. Y., & Brandt, H. M. (2021). Correcting HPV vaccination misinformation online: Evaluating the HPV vaccination NOW social media campaign. *Vaccines, 9*(4), Article 352. https://doi.org/10.3390/vaccines9040352
93. Sweet-Cushman, J. (2019). Social media learning as a pedagogical tool: Twitter and engagement in civic dialogue and public policy. *PS: Political Science & Politics, 52*(4), 763–770. https://doi.org/10.1017/S1049096519000865
94. Talip, B. A., Narayan, B., Watson, J., & Edwards, S. (2020). The role of information experience on IT professionals' Twitter use. *LIBRI, 70*(1), 1–15. https://doi.org/10.1515/libri-2019-0044
95. Terjemah, M. (2021). Challenging peripherality through access to the internet? Socio-spatial practices of the connected rurban. *Urban Research & Practice, 14*(1), 73–93. https://doi.org/10.1080/17535069.2020.1733516
96. Thakur, D., & Chander, M. (2017). Use of social media for livestock advisory services: The case of WhatsApp in Himachal Pradesh, India. *Indian Journal of Animal Sciences, 87*(8), 1034–1037.
97. Tran, T., Ho, M. T., Pham, T. H., Nguyen, M. H., Nguyen, K. L. P., Vuong, T. T., Nguyen, T. H. T., Nguyen, T. D., Nguyen, T. L., Khuc, Q., et al. (2020). How digital natives learn and thrive in the digital age: Evidence from an emerging economy. *Sustainability, 12*(9), Article 3819. https://doi.org/10.3390/su12093819
98. Udem, O. K., Aghoghovwia, D. U., & Baro, E. E. (2020). WhatsApp groups: Channel for sharing information among LIS professionals in Nigeria. *The Electronic Library, 38*(4), 805–820. https://doi.org/10.1108/EL-04-2020-0081

99. Vaidyanathan, S., & Kidambi, S. S. (2018). An empirical evaluation of adoption and diffusion of new ICTs for knowledge sharing in IT organizations. *International Journal of Web Portals, 10*(2), 1–14. https://doi.org/10.4018/IJWP2018070101
100. van Dijck, J. (2013). “You have one identity”: Performing the self on Facebook and LinkedIn. *Media, Culture & Society, 35*(2), 199–215. https://doi.org/10.1177/0163443712468605
101. Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS Quarterly, 29*(1), 35–57. https://doi.org/10.2307/25148667
102. Waters, K. M., & Mars, M. M. (2021). Rancher perceptions of and attitudes toward Mexican gray wolves: An exploration of community dialogue. *Human Dimensions of Wildlife, 26*(1), 48–64. https://doi.org/10.1080/10871209.2020.1806419
103. Wilkins, K. G., Tufte, T., & Obregon, R. (Eds.). (2014). *The handbook of development communication and social change*. Wiley-Blackwell. https://doi.org/10.1002/9781118505328
104. Yakhlef, A., & Nordin, F. (2021). Effects of firm presence in customer-owned touch points: A self-determination perspective. *Journal of Business Research, 130*, 473–481. https://doi.org/10.1016/j.jbusres.2020.01.003
105. Yang, X., Ye, H., & Wang, X. (2021). Social media use and work efficiency: Insights from the theory of communication visibility. *Information & Management, 58*(4), Article 103462. https://doi.org/10.1016/j.im.2021.103462
106. Zhang, X. J., Jinpeng, X., Khan, F., & Khan, A. (2020). The influence of social media on employee’s knowledge sharing motivation: A two-factor theory perspective. *SAGE Open, 10*(3), 1–12. https://doi.org/10.1177/2158244020942495
107. Zhou, T. (2020). The effect of flow experience on users’ social commerce intention. *Kybernetes, 49*(9), 2349–2363. https://doi.org/10.1108/K-01-2019-0039