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The Mediating Role of Trust between Social Networking and Knowledge Sharing among Physicians in North Central Nigeria

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Abstract

In elegant quantitative research, the study examines the mediating role of trust between social networking and knowledge sharing of physicians in tertiary healthcare institutions in north-central Nigeria. The research methodology is practically a descriptive survey and a cross-sectional study using structured questionnaires. The study population was 2030 physicians at tertiary healthcare institutions in north central Nigeria and the sample size was 333. The sampling technique is the multi-stage sampling. Data were analysed using Smart-PLS 4.0. The results of the study show that social networking strongly influences knowledge sharing (β=0.592, t=16.479, p=0.000), trust is impacted by social networking (β=0.634, t=18.320, p=0.000), and trust significantly affects knowledge sharing. (β=0.304, t=7.224, p=0.000), trust strongly influences the link between social networking and knowledge sharing (β=0.188, t=6.368, p=0.000). With these findings, physicians are more likely to engage in knowledge sharing, leading to better diagnosis, treatment, and patient outcomes. The study recommends that further studies should take into consideration other sectors of the economy, such as the manufacturing, technological, and educational sectors. Again, a longitudinal study and mixed method should be carried out and other regions in the country should be studied to compare the results.

Keywords: Social Networking, Knowledge Sharing, Trust, Healthcare, Physicians.

Introduction

Knowledge sharing is the process of exchanging information, ideas, and experiences among individuals or groups within the organizational framework. Organizations that maintain knowledge sharing can improve creativity, innovation and performance. Knowledge sharing takes place between colleagues or among a wider team in one department or with professionals from another hospital and, it is through various activities, such as lectures, workshops, meetings, and conferences. Knowledge-sharing in healthcare institutions has a positive impact on institutional performance (Almashmoum et al., 2024), improving knowledge-sharing practices among healthcare professionals allows them to learn and use resources efficiently, Effective knowledge-sharing practices among healthcare professionals contribute to a positive overall knowledge-sharing culture. Knowledge sharing has several benefits related to increasing successful patient outcomes,

such as innovation, critical thinking, problem-solving, reducing medical errors, avoiding repetitive medical errors, increasing performance, and gaining competitive advantages.

In Nigeria, leveraging SN and KS in healthcare service delivery presents an opportunity to address longstanding challenges. Social media platforms such as WhatsApp, LinkedIn, and Facebook have already demonstrated their ability to promote information exchange and foster relationships among healthcare stakeholders (Kazemian & Grant, 2020). Through these platforms, healthcare professionals can collaborate on innovative approaches to improve patient outcomes, reduce costs, and increase efficiency. However, to achieve this, trust among physicians and a robust knowledge-sharing culture must be established. Trust-encompassing dimensions such as ability, benevolence, and integrity have been shown to enhance collaboration and positively influence KS behaviour (Gillani et al., 2018).

Despite the potential benefits of SN, empirical studies examining their impact on KS in healthcare are limited. Existing research highlights the value of SN in promoting KS and improving healthcare outcomes (Ahmed et al., 2018; Ntibi & Ibok, 2020), but few studies explore the mediating roles of trust in the relationship between SN and KS. Addressing this gap, this study develops a conceptual model to investigate the predictive role of SN in KS, emphasising the mediating effects of trust among physicians in Nigeria. By providing empirical evidence, the study aims to enhance understanding and implementation of KS in healthcare, ultimately improving outcomes and rebuilding trust in the Nigerian healthcare system.

Social networking plays a vital role in enabling innovation by facilitating collaboration and knowledge exchange among healthcare professionals. Robust social networks among physicians, nurses, administrators, and policymakers create platforms for exchanging best practices, discussing new technologies, and addressing common challenges. For instance, global networks like the International Hospital Federation provide valuable forums for collaboration and learning, enabling healthcare stakeholders to innovate and improve service delivery.in Nigeria, leveraging such networks at a local level could foster the diffusion of best practices and drive systematic improvements.

Trust is another fundamental element that strengthens social networks and KS. Trust in colleagues' competence, goodwill, and ethical standards is also critical in encouraging collaboration, the adoption of innovative practices through KS, and the sharing of sensitive information (Li et al., 2025). Research has shown that high levels of trust among healthcare teams correlate with better patient outcomes, enhanced job satisfaction, and a greater willingness to embrace change. However, in Nigeria's healthcare sector, mistrust exacerbated by corruption, resource mismanagement, and bureaucratic inefficiencies often undermines efforts to foster collaboration and innovation.

Trust plays a crucial role in facilitating KS among physicians, particularly within social networking circumstances. In north central Nigeria, understanding this dynamic is vital for enhancing healthcare delivery. Physicians in north central Nigeria face challenges in effective KS through SN platforms. Mostly due to trust-related matters. These challenges

hinder collaborative practices, constant medical education, and overall quality of patient care. Though trust is known as a factor in KS, few studies analyse how trust mediates the relationship between SN and KS among physicians in Nigeria.

This study seeks to examine the interplay between social networking, knowledge sharing, and trust, among physicians in north-central Nigeria. By exploring these relationships, the research aims to provide insights into how healthcare systems can be strengthened through collaborative and trust-based practices, ultimately enhancing the delivery of healthcare services across the country. This paper assesses the predictive role of SN on KS among physicians of tertiary healthcare institutions in north-central Nigeria with trust in mediating the relationship between SN and KS. The work is organised as follows: it initiates with an introduction to the study, followed by the theoretical foundation and hypothesis development, methodology, results and discussion, and conclusion of the study.

This study adopted social capital theory which provides a theoretical foundation that informs our understanding of social networking, knowledge sharing and trust. Social capital refers to "features of social organization, such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam, 1995) It involves "actual and potential resources embedded within, available through and derived from "the network (Nahapiet & Ghoshal, 1998) and social structures that facilitate action within the network (Coleman, 1988). It is now seen as essential to enhancing performance at all levels (Coleman, 1988). Putnam (1993) concluded that nations with high levels of social capital with generalized reciprocity and trust are more likely to enjoy sustained economic progress Social capital is multi-dimensional, and largely divided into three dimensions: structural, relational and cognitive. Structural social capital refers to the presence and strength of social ties within the physicians' network and a robust network increases the flow of resources, knowledge, and ideas fostering innovation. (García-Villaverde et al., 2017). Relational social capital refers to where trust, shared norms, and mutual respect within networks encourage collaboration and the willingness to experiment with new approaches. The cognitive dimension looks at shared goals and understanding within a network to enhance coordination and the co-creation of solutions assets created and leveraged through relationships based on respect, friendship, trust, norms, sanctions, obligations and expectations (Coleman, 1988; Putnam, 1993; Uzzi & Gillespie, 2002). Social capital in all its dimensions has been understood to significantly influence organizational performance and innovation.

Literature Review

Knowledge Sharing

The concept of knowledge sharing is widely discussed in the management literature. It is one of the key processes in knowledge management that precedes the exploitation of knowledge. Knowledge sharing is viewed as a behaviour (process or operation) through which individuals mutually exchange their knowledge (information, skills, and expertise; (Mirzaee & Ghaffari, 2018; Van Den Hooff & De Ridder, 2004).

Nguyen (2020) defines knowledge sharing as the process of exchanging information, skills, or experiences among individuals. In healthcare settings, sharing knowledge within hospitals enhances the effectiveness and efficiency of healthcare delivery and serves as a valuable tool in addressing daily challenges faced by medical professionals (Surve & Natarajan, 2015). In practical terms, healthcare professionals are regarded as knowledge workers (Maheshwari et al., 2020). Knowledge sharing among physicians in hospitals can yield significant benefits and is essential for thriving in competitive healthcare environments (Chen & Wu, 2025). Nurses, as key knowledge-intensive professionals in hospitals, possess both practical and theoretical expertise that is crucial to patient care. Knowledge sharing among nurses is therefore essential, as it enables them to stay creative, research-driven, and open to new opportunities for acquiring medical knowledge through various mechanisms (Ayyad et al., 2024). Ultimately, the goal of nurses' knowledge sharing in hospitals is to enhance the quality and efficiency of patient care.

Knowledge sharing is seen as a process or behavioural activity through which individuals exchange their knowledge, including information, skills, and expertise (Mirzaee & Ghaffari, 2018; Van Den Hooff & Ridder, 2004). In organizational settings, it involves the exchange of valuable tacit or explicit knowledge among employees, which leads to the creation of new knowledge, enhances organizational knowledge, and brings benefits to the organization. Specifically, knowledge sharing fosters innovation at both the individual (Kim & Park, 2020) and organizational (Michna, 2018; Pittino et al., 2018) levels. Cummings (2004) defines knowledge sharing as "the provision of task information and know-how to help others and to collaborate with them to solve problems, develop new ideas, or implement policies or procedures." Knowledge sharing is a multi-directional process that involves both the donor and recipient of knowledge, meaning it is not just about collecting knowledge, but also about donating it to others. In this study, knowledge sharing is conceptualized as both knowledge donating and knowledge collecting. Knowledge donating refers to "one's spontaneous and deliberate communication to transfer their intellectual capital," while knowledge collecting is defined as "an attempt to persuade others to share their intellectual capital or what they know" (van den Hooff & De Ridder, 2004). These two processes differ in nature, as knowledge donating involves dynamic communication to transfer knowledge, whereas knowledge collecting focuses on consulting others to encourage them to share their intellectual capital (Alhady et al., 2011; Akram et al., 2018).

Social Networking

A social network is a social structure made up of a group of social players (i.e., individuals or organisations). It consists of a group of players with a network of relationships (Ortiz et al., 2004). Ellison and Boyd (2013) cited in (Ali et al., 2020), define Social networking as a communication platform where users can: 1) create, produce, and/or interact with streams of user-generated content provided by their connections on the site; 2) publicly articulate connections that can be viewed and traversed by others; and 3) have uniquely identifiable

profiles made up of user-supplied content, content provided by other users, and/or system-level data. Conversely, it is described as an individual's signature of social interaction and approachability. Similarly, Ghali et al (2016) state that a social network refers to social connections and interconnections between users with the potential to reach individuals. Web-based services that let users build public or semi-public profiles within a domain so they can communicate with other users within the network are referred to as social networks.

A social network enables individuals to identify people who are experts in a specific body of knowledge when it comes to the sharing of tacit knowledge. A social network brings experts and non-experts together in a circle where they can interact. This interaction is necessary for discussion to take place, and it is during this discussion that knowledge is shared (Selamat & Choudrie, 2004). This interaction also fosters strong bonds between experts and non-experts, which is required for tacit knowledge sharing (Ryan & O'Connor, 2013).

This study views social networking as how people connect with others, particularly within the same social network, which is necessary for knowledge sharing to collaborate towards achieving a particular purpose. We define a social network as an application of social media, the primary focus of which is on users' social connection and networking. In other words, a social network is a form of social media that is primarily focused on networking, but social media is not necessarily a social network. As a result, not all of the aforementioned examples are social networks. For example, blogs aim primarily to publish content (e.g., case studies, opinions, news), whereas YouTube or Flickr aim to promote the sharing of videos or photos, respectively. Social networks can incorporate other social media functions to extend their primary focus and provide users with complementary services. Networking is only an addition to these functions, and it is not always the primary goal of a social media platform. In this study, the term "Social Media" refers to any kind of social media platform, including social networks. However, the term "Social Network" refers exclusively to social media platforms whose primary aim is networking.

Trust

Trust is defined by Mayer et al (1995) as "the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, regardless of the ability to monitor or control that other party." (Schurr & Ozanne 1985) define trust as one's belief in the exchange party's ability and willingness to establish the business's adherence to relationship norms and keep promises. Trust in others is based on the person's ability, benevolence, and integrity. Ability refers to the skills, knowledge, and competencies to perform a task or job. Benevolence refers to the belief that a person wants to do good to another. Integrity reflects the belief that a person adheres to a set of principles and values that another finds acceptable. (Gubbins & Dooley, 2021).

Trust is a key factor in relationships between team members, which makes it the most determinant factor in team knowledge sharing. Trust is vital since it helps to reduce the

psychological distance between the team members (Flavian et al., 2019). When team members trust their partners, the social ties are strong and the contribution to sharing knowledge is increased (Navimipour & Charband, 2016).

There are three types of trust: Calculus-based trust, knowledge-based trust, and identity-based trust. The initial establishment of the trust is very important in the establishment of knowledge-based trust. Trust is fragile within the virtual team (VT). According to the social exchange theory, once swift trust is established, trust depends on the knowledge gained from team members as well as on the positive and negative events that have occurred or may occur (Jaakson et al., 2019). Trust has long been regarded as an important factor in the exchange, communication, and development of relationships (Fukuyama, 1995). The Internet is a volatile environment with many different types of players, and every online user faces some level of risk. As a result, trust has emerged as a strategy for dealing with uncertain outcomes or the future, and it is regarded as one of the most reliable predictors of online behaviour (Gefen, 2000).

Trust is defined as a set of specific beliefs regarding another party's integrity, benevolence, and capability (Chiu et al., 2006). Some scholars suggest that trust-based relationships enhance individuals' willingness to share valuable information (Akhavan et al., 2015). Additionally, trust helps reduce perceived uncertainty, encourages risk-taking behaviours, and fosters a supportive environment that promotes knowledge sharing (Akhavan & Mahdi Hosseini, 2016). Consequently, members of a community of practice may be more inclined to share knowledge via social media if they trust their peers.

According to (Ringberg & Reihlen (2008) and Staples and Webster (2008), interpersonal trust develops through repeated social interactions between individuals. The role of trust in knowledge sharing has often been examined through the theoretical frameworks of social exchange theory and social cognition. Within organizations, interpersonal trust among colleagues is considered a crucial factor that significantly impacts knowledge sharing (AlShamsi & Ajmal, 2018). Casimir et al (2012) found that interpersonal trust positively influences knowledge-sharing practices within organizations. For effective knowledge exchange, trust must exist among co-workers, enabling them to share and respond openly to information (Luciano et al., 2018). Furthermore, knowledge-sharing capabilities among organizational members have been shown to significantly enhance organizational innovation and performance (Migdadi, 2022).

Furthermore, organisational trust promotes interdepartmental knowledge sharing (Yuan et al., 2020). Similarly, Ouakouak and Ouedraogo (2018) assert that both affective commitment and professional trust have positive effects on knowledge sharing and utilisation. On the other hand, Kipkosgei et al (2020) state that co-worker trust is related to knowledge sharing. A high level of interpersonal trust between customers and employees may increase employee innovative behaviours (M. Li & Hsu, 2018). Afsar and Umrani (2020) believe that thriving nurses exhibited a greater degree of innovative work behaviour when they trusted their head nurses.

Ability is defined as a "set of skills, competencies, and characteristics that enable a party to exercise control over a specific domain" (Mayer et al., 1995). A person or organisation may have greater ability in one domain or related to specific tasks while having less ability in others. At the interpersonal or inter-organisational level, we define ability as a set of skills, competencies, and characteristics that enable an individual or organisation to exert influence in a specific domain. At the general network level, we define ability as how members perceive the member organisations of a network in terms of skills, competencies, and other characteristics that may be of interest to them. Physicians will therefore trust these members and apply the knowledge shared based on skills, competencies, characteristics and how they perceive the network's ability. As a result, this study will adopt this type of trust.

Social Networking and Knowledge Sharing

Social networking refers to the use of digital platforms, online communities, or in-person interactions to build relationships, share interests, and engage with others, whether in personal (friends, family), professional (colleagues, business contacts), or interest-based (academic circles) contexts (Boyd & Ellison, 2007). It serves as a mechanism through which information is exchanged, and knowledge dynamics play a key role in advancing innovation, particularly in the health sector. Researchers have examined knowledge transfer concepts from a network perspective in various fields (Raisi et al., 2020; Valeri & Baggio, 2021). Knowledge sharing itself involves the exchange of expertise, insights, and information between individuals or groups to improve understanding and decision-making, occurring within organizations, communities, or social networks. Social networking enhances knowledge sharing by creating environments where individuals can collaborate, seek advice, and access diverse perspectives. In professional settings, effective networking supports learning, problem-solving, and innovation. For physicians, networking enables them to acquire more knowledge and improve healthcare practices through the sharing of experiences, exchanging opinions, and expanding professional relationships (Lau et al., 2011).

In the context of undergraduate students, studies have shown that factors like file sharing, perceived enjoyment, perceived reciprocal benefits, and information and communication technology all positively influence knowledge sharing through social networking (Ahmad et al., 2021). The introduction of social media tools has significantly enhanced students' academic lives, offering valuable platforms for the dissemination of scholarly knowledge. It has been found that platforms like WhatsApp, Facebook, and email are frequently used by students to share academic content (Mngwengwe & Dlamini, 2020). In research by (Omotayo & Orimolade, 2020), it was revealed that doctors regularly share knowledge through social media, formal discussions, and informal conversations. The study highlighted that doctors benefit from exchanging information, although challenges in knowledge sharing often arise due to negative social factors. Social media applications have been shown to foster knowledge sharing by facilitating job-related information transfer and

voluntary sharing of tacit knowledge and experiences among doctors (Imran et al., 2019) . Based on SCT, individuals who are involved in SN build connections that give them access to valuable knowledge. These networks give opportunities for exchanging ideas, expertise, and experience, thereby facilitating KS.

According to the studies reviewed, social networking is positively related to knowledge sharing. This indicates that their findings are consistent. As a result, it is expected that social networking among physicians will result in knowledge sharing if they interact and network with one another. Based on the explanation above, a hypothesis for the study is proposed as follows: H1: Social networking relates positively to knowledge sharing.

Social Networking and Trust

Trust is defined by Mayer et al (1995) as "the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, regardless of the ability to monitor or control that other party." (Schurr and Ozanne (1985) define trust as one's belief in the exchange party's ability and willingness to establish the business's adherence to relationship norms and keep promises. Trust in others is based on the person's ability, benevolence, and integrity. Ability refers to the skills, knowledge, and competencies to perform a task or job. Benevolence refers to the belief that a person wants to do good to another. Integrity reflects the belief that a person adheres to a set of principles and values that another finds acceptable. (Gubbins & Dooley, 2021).

Social networking and trust are dynamic and reciprocal. Social networks facilitate trust building, while trust strengthens and sustains social networks. (Umar et al., 2023) state that trust and social networks boost tacit knowledge sharing while trust and social networks are significant predictors of tacit knowledge sharing among academicians. Hamid et al (2024) also indicated that social media activities have a significant direct effect on building trust, self-perceived creativity and satisfaction. Social media marketing has a greater influence than trust in purchase intentions through social networking sites (Manzoor et al., 2020). According to (Seo et al., 2020), trust has been shown to have a statistically significant effect on brand awareness and brand image. Social networking helps create and build relationships, which, over time, foster mutual trust. As individuals' network and build social ties, they develop a sense of reliability and confidence in each other, strengthening the trust factor in their relationships. Studies have found that social networking and trust have a significant relationship with social networking. Based on the explanation above, a hypothesis for the study is proposed as follows: H2: Social networking relates positively with Trust.

Trust and Knowledge Sharing

The assurance that valid information can flow freely between co-workers is critical for a successful operation in an organization. Conversely, a lack of trust among co-workers may

seriously hamper the sharing of important information, potentially damaging the effectiveness of business processes. The relationship between trust and knowledge sharing has received much attention among scholars. Different authors have strived to empirically validate the effects of trust on knowledge sharing. Some have discovered an empirically validated positive correlation between trust and knowledge sharing (Chang & Chuang, 2011).

Trust, knowledge sharing, and affective commitment are closely linked to organizational innovation performance (Games & Rendi, 2019). Empirical studies have demonstrated that both vertical and horizontal trust are positively associated with knowledge donating and knowledge collecting (Kmieciak, 2021). Research has also highlighted the importance of trust in knowledge sharing and business efficiency, showing that trust plays a significant role in achieving high-performance levels (Kacperska & Łukasiewicz, 2020). This is consistent with the findings of Ogunmokun et al (2020), who found that trust is positively related to knowledge-sharing behaviour among Nigerian restaurant employees. Their empirical analysis revealed that trust, organic organizational structure, and service innovation are interconnected. Zhang et al (2019) further emphasized that trust among employees leads to a higher rate of knowledge sharing. In their study of cognitive and affective trust in knowledge sharing, they concluded that when members trust one another or the source of information, knowledge is more likely to be shared freely. Trust is a key element in SCT because it reduces doubt and the fear of unscrupulous behaviour, when trust is high, individuals are more likely to share knowledge freely without fears about misuse. Trust improves sincerity, making KS more effective.

Based on these findings, the following hypothesis is proposed: H_3: Trust has a positive relationship with knowledge sharing.

H_4: we hypothesise that trust mediates the relationship between social networking and knowledge sharing.

Conceptual framework of the study can be seen in figure 1

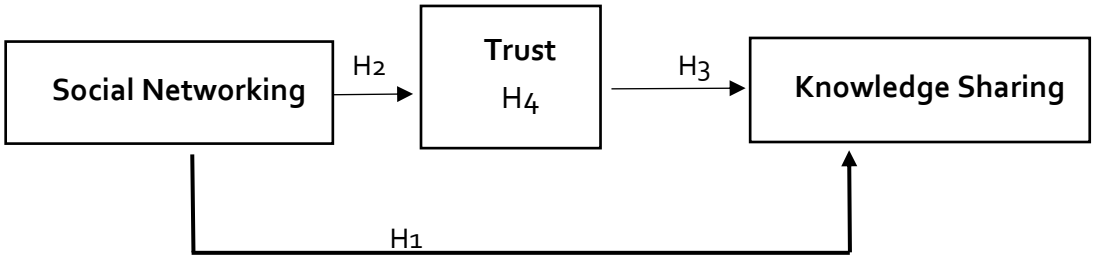

Figure 1. Conceptual framework

Research Method

Sample and Data Collection

This study employed a descriptive and cross-sectional research approach where data was collected at a particular point in time in different stages. The study also employed a quantitative method as a preferred approach to understand the effect of SN, trust on KS of Physicians in North Central Nigeria. The target population comprised all the Physicians working in hospitals in North Central Nigeria who are the unit of analysis. Determining the sample of a study is dependent on the nature of the data and the study's objective (Orsaah, 2009). The prerequisite to sampling determination is identifying the target population under investigation, (Salant & Dillman, 1994). Hence, this study adopted Krejcie and Morgan (1970) to arrive at a sample size of 322 physicians. Thus, the study draws the participants from the pool of Physicians working in North Central Nigeria.

To mitigate the non-response rate as much as possible, to deal with the possibility of non-response that often renders research invalid (Groves, 2006). Thus, to reduce the non-response rate, the present study adhered to Salkind's view for adjusting sample size, which is commonly used in survey research (Salkind, 2011). Hence, in the present study, the sample size was increased by 40% percent which is 450.

Measurement

The variables of the study were operationalised using a unidimensional scale. The survey questions in this study were modified from those in other studies based on their applicability to this one. The independent variable (IV) is social networking (SN); knowledge sharing (KS) is the dependent variable (DV). Trust (TR) is the mediating variable. However, these variables were measured using the scale of items developed by previous scholars in their literature and theories. The questionnaire items were modified to suit the study context. To measure social networking, the study adapted the measuring scale questionnaire developed by Gupta and Bashir (2018), and has an aggregate Cronbach Alpha of 0.830. For knowledge sharing, the study adapted the questionnaire developed by Harb et al (2021) with an aggregate Cronbach Alpha of 0.75. Trust was adapted from Mayer and Davis (1999) with an aggregate Cronbach Alpha of 0.930.

Results and Discussion

Method of Data Analysis

Data analysis was conducted using partial least square (PLS) software version 4.0, an approach to structural equation modelling, and presented as required. The PLS-SEM in the study tested for the measurement and structural models. The justification for the use of PLS-SEM is that, Unlike CB-SEM, PLS-SEM can handle complex structural models and easily incorporate reflective and formative measurement models (Hair et al (2021). PLS-SEM makes no assumptions about data distribution and can generate robust model estimation with data that have normal and extremely non-normal distributional properties

(Hair et al., 2021). Though, it has some limitations like low statistical efficiency, limited model fit indices, and overemphasis on prediction.

Measurement Model

We examined the confirmatory factor analysis data to evaluate the measurement model. This allowed us to calculate the composite reliability (CR) and convergent validity (AVE) (Hair et al., 2013). The CR and AVE values are shown in Table 1, and the outcome demonstrates that factor loadings of at least 0.661, which is about equivalent to or more than the threshold of 0.7 by (Nunnally & Bernstein, 1994), do not violate the criterion. Similarly, the constructs' CR and convergent validity coefficient (AVE) are higher than the thresholds of 0.7 and 0.5, respectively, so the conditions are not broken (Hair et al., 2017).

Table 1. Assessment of Factor loading, Composite Reliability and AVE

Construct	Items	Factor loading	Cronbach Alpha	Composite Reliability	AVE
Knowledge Sharing	KS1	0.682			
	KS2	0.838			
	KS3	0.744			
	KS4	0.811			
	KS5	0.689	0.811	0.826	0.569
Social Networking	SN1	0,809			
	SN2	0.619			
	SN3	0.829			
	SN4	0.892			
	SN5	0,790			
	SN6	0.874			
	SN7	0.811			
	SN8	0.730			
	SN9	0.681			
	SN10	0.866			
	SN11	0.731	0.938	0.941	0.623
Trust	TR1	0.884			
	TR2	0.854			
	TR3	0.863			
	TR4	0.895			
	TR5	0.911	0.928	0.937	0.937

Note: *Criteria: Factor Loading/CR >0.70 (Nunally & Bernstein,1978; Fornell & Larcker, 1981) AVE> 0.5 (Hair et al.,2011; Hair et al.2014).*

Source: primary Data (2024)

The Heterotrait and Monotrait (HTMT) criterion was used to examine discriminant validity to determine whether the constructs in the study are different from one another within the framework (Henseler et al., 2014). The decision was influenced by (Henseler et al., 2015) use of Monte Carlo simulation research to show the method's superiority. Our choice for the approach in this study stems from the fact that HTMT can obtain greater specificity and sensitivity rates (97 per cent to 99 per cent) compared to the cross-loadings criterion (0.00 per cent) and Fornell and Larcker (1981) criterion (20.82 per cent). Since all values fall within the allowed range of 0.85, the results in Table 2 show that discriminant validity was established among the constructs (Franke & Sarstedt, 2019).

Table 2.

	1	2
TR		
KS	0.757	
SN	0.671	0.922

Note: *Criteria: HTMT inference (-1<HTMT)*

Source: Primary Data (2024)

Structural Model Evaluation

In evaluating the structural model, a bootstrapping method using 5,000 resamples was done using Smart-PLS 4.0 to establish the path coefficient (), while other recommended analyses were used to decide the model fit, R2, and effect size, f2 (F. Hair et al., 2014; Yeap et al., 2016). Presently, Smart-P standardized root mean square residual (SRMR) or root mean square residual covariance (RMS theta) (Henseler et al., 2014; Hair et al., 2017). The goodness of fit indices such as SRMR and RMS theta are fixed at a threshold value of 0.08 and 0.12, respectively. Meanwhile, the current model establishes an SRMR value of 0.079, which is 0.08, and an RMS theta value of 0.153 is 0.12, confirming the model's fitness.

The synopsis of the structural model outcome is enclosed in Table 4. The most important findings are as follows: the direct relationship between social networking and knowledge sharing 2672.021 is significant at 0.05 level p (0,000), while the NFI is 0.693, affirming the model is fit. This suggests that SN on KS is partially enough; the hypothesis that links SN with KS reveals a =0.592, t-value=16.479, which is powerfully supported. This implies that an increase in SN can enhance physicians' KS.

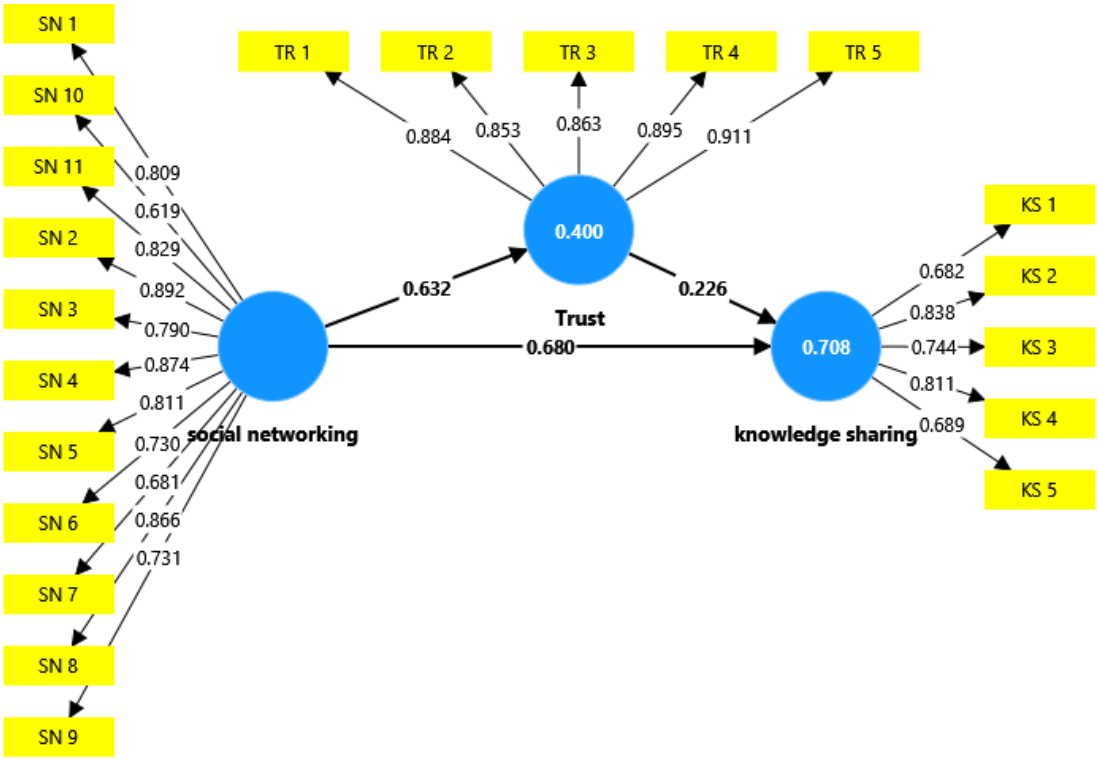

Figure 2: PLS-Structural Model

Table 3: Results of Hypotheses Testing

Hypothesis	Relationship	Std beta	Std error	t-value	p-value	F^2	Decision
H1	SN→ KS	0.592	0.036	16.479	0.000	0.635	Significant
H2	SN→TR	0.634	0.035	18.320	0.000	0.672	Significant
H3	TR→KS	0.304	0.042	7.224	0.000	0.168	Significant
R^2	TR=0.402, KS=0.670						
GoF	SRMR=0.079, RMS theta=0.153						

****p<0.000 where SN= Social Networking, KS= Knowledge Sharing, TR=Trust*

Source: primary Data (2024)

To determine the coefficient of determination and the substantive importance of the structural correlations, additional analyses (R2 and F2) were also undertaken. The results shown in Table 3 demonstrate the coefficient of determination R2, which according to Hair et al. (2017), the model's predictive power is moderate or weak, as being 0.326 and 0.193, respectively. The F2 (effect size), which reveals a latent variable's influence on the structural model, was also calculated. Cohen's criteria for effect size of weak, moderate, and moderate, in that order, were satisfied by the coefficients of 0.027, 0.240, and 0.276.

More studies were done to determine the mediated role of innovation capability. PLS-SEM employed the bootstrapping approach to examine the implications of the direct path in the model (Preacher & Hayes, 2004; Preacher & Hayes, 2008) to analyse the mediating influence between customer relationship management and performance. Table 4 indirect impact shows that = 0.218, with a t-value of 3.561, is well supported. This suggests that the relationship between social networking and knowledge sharing among physicians is mediated by trust. Additionally, the second criterion from Preacher and Hayes (2008) shows that zero did not cross the upper- and lower-class intervals (LCI = 0.126, UCI = 0.318). Thus, the link is significantly mediated by trust.

Table 4: PLS-SEM Result for Social Networking, Trust and Knowledge Sharing

Hypothesis	Indirect relationship	Std beta	Std error	t - value	P-value	LCI	UCI	Decision
H4	SN -> TR-> KS	0.188	0.030	6.368	0.000	0.126	0.318	Significant

Source: primary Data (2024)

Discussion of Results

The relationship between social networking and knowledge sharing among physicians was examined in this study. The researchers used a quantitative method to assess the mediating role of trust as a mechanism of the connection between the study's results. It is interesting to note that a thorough search reveals that this study is one of the few that empirically assesses the role of trust in the relationship between SN and knowledge sharing among physicians in Plateau State Nigeria.

The hypothesis that suggests a direct connection between SN and KS among physicians is supported. The findings suggest that increasing SN activities will greatly improve KS for innovative services among physicians which improve performance, reduce cost, and create competitive advantage. The findings are consistent with a prior study by Ahmad et al., (2021), Dlamini and Siphamandla (2020), and Imran et al., (2019), which revealed that SN enables Physicians to share knowledge and best practices to provide the best possible care for their patients. Using the social exchange theory, social networking deals with the exchange of resources and information between individuals. By participating in social networking, individuals can engage in knowledge sharing and reap the benefits of social exchange such as access to new information and knowledge, improved social relationships, and increased opportunities for collaboration. Knowledge sharing is a key driver of the exchange process. Shared knowledge can be used to solve problems, make decisions, and achieve goals by Physicians in their innovative service delivery.

From the result of the analysis, trust has a significant mediating influence on the relationship between social networking and knowledge sharing. Hence, it suggests that

Physicians' social networking and knowledge sharing are influenced by their trust as professionals. The result is in line with the findings of Naeem et al (2021), Shateri and Hayat, (2020), Jami Pour & Taheri (2019), Umar et al (2023)

Social networking can be strengthened through trust-building activities such as team-building exercises and social events. The findings revealed that trust is the instrument through which social networking influences knowledge sharing among Physicians of tertiary hospitals in North Central Nigeria. Therefore, the existence of trust among Physicians serves as a way through which social networking influences knowledge sharing among Physicians.

Conclusion and Recommendations

The study examines the mediating role of trust between social networking and knowledge sharing among physicians in Plateau State Nigeria. The results show that social networking strongly influences knowledge sharing (β=0.592, t = 16.479, p = 0.000), trust is impacted by NS (β= 0.634, t = 18.320, p = 0.000), and trust significantly affects knowledge sharing. (β= 0.304, t = 7.224, p = 0.000), trust strongly influences the link between social networking and knowledge sharing (β= 0.577, t = 13.852, p = 0.000). The study recommends that further studies consider other sectors of the economy, such as the manufacturing, technological, and educational sectors. Again, a mixed method should be used in other states and countries to compare the results.

Limitation

Attempts were made to ensure that this study makes significant contributions to theory, methodology, practice and policy; however, its findings are threatened by some limitations, thus identifying the gaps for further research.

The study focuses on physicians practising in tertiary hospitals in North Central Nigeria. However, physicians in Nigeria share similar characteristics in terms of practice. The results obtained may be slightly different if other zones had been included in the study. Therefore, the findings of this study should be cautiously generalised to physicians practising in other parts of the country. Additionally, whilst this research targeted all physicians, there is a need to examine the innovative service delivery of other professionals in the health sector. Hence, the study is limited by neglecting other professionals in the health sector.

The current study adopted quantitative method and relied on a single method of data collection. In other words, questionnaire was the only instrument used in gathering the data in this study. The respondents may not always be willing to answer questions. Thus, the responses may not consistently and accurately measure the study variables.

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