SELF-EFFICACY AND ALTRUISM AS PREDICTORS OF TECHNOLOGY-ENABLED KNOWLEDGE SHARING AMONG LIBRARY PROFESSIONALS

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Abstract

This study explored self-efficacy and altruism as predictors of technology-enabled knowledge sharing among library professionals in federal universities in South-East Nigeria. Three research questions and two hypotheses guided the study. A descriptive survey design was adopted, targeting all 238 library professionals from five federal institutions in the region. Data were collected using a validated, structured questionnaire comprising 40 items. The study is grounded in social cognitive theory. Reliability analysis using Cronbach's alpha yielded coefficients of 0.87 for self-efficacy, 0.83 for altruism, and 0.90 for technology-enabled knowledge sharing, confirming the instrument's reliability. Descriptive statistical methods (mean and standard deviation) were used to address the research questions, while inferential statistical methods (simple regression analysis) were employed to test the hypotheses and assess the predictive power of self-efficacy on technology-enabled knowledge sharing. The survey achieved an 82% response rate, with all responses deemed usable. Findings revealed that both self-efficacy and altruism significantly and positively predict technology-enabled knowledge sharing, with moderate effects. Additionally, the results indicate that library professionals in federal universities in South-East Nigeria demonstrate a moderate level of engagement in technology-enabled knowledge sharing. This suggests that enhancing altruism and self-efficacy among library professionals could improve their participation in knowledge-sharing activities. The study recommends, among other measures, that employers of library professionals provide constructive feedback and recognize staff contributions on technology-enabled platforms to boost confidence and enhance self-efficacy. Furthermore, fostering a culture of collaboration by reducing competitive barriers and emphasizing the benefits of altruism can further promote knowledge sharing.

Keywords: Technology-enabled knowledge sharing, Social cognitive theory, Self-efficacy, Altruism, Library professionals, Nigeria.

Introduction

The seamless integration of experiential and acquired knowledge creates a unique competitive advantage, hence the tendency to hoard or only exchange at a cost. While this approach may sustain individuals in personal businesses, it proves counterproductive within organizations, particularly knowledge-based institutions. Knowledge sharing involves the transfer of expertise, insights, or understanding from one individual to another, enabling the recipient to apply the knowledge effectively in their tasks (Yu, Lu, & Liu, 2010). This exchange can occur through traditional means or technology-enabled methods. Technology-enabled knowledge sharing, also known as digital collaboration, refers to the transfer of knowledge between individuals and organizations using digital tools that facilitate communication and knowledge capture (Hedgebeth, 2007; Shahid & Alamgir, 2011). Technology-enabling tools, also known as collaborative technologies, facilitate fast and cost-effective connections with physically distant individuals (Aparicio & Costa, as cited in Natu & Aparicio, 2022). These technology-enabled platforms allow people with shared goals and common challenges to conveniently exchange, compare, search, and discuss issues, ideas, and information, regardless of geographical distance. Such platforms foster a collaborative and interactive environment that supports social interaction and community-building. They provide opportunities for participants to engage in brainstorming, ask questions, and establish social structures within a shared digital space. Professionals in a given field, who often face similar challenges and pursue common objectives, are well-positioned to adopt these technologically mediated communication tools. By leveraging such platforms, professionals can strengthen their networks and enhance knowledge exchange within their areas of expertise.

Library professionals in Nigerian universities are responsible for acquiring, organising, and disseminating educational resources to support knowledge production through research, knowledge transmission through teaching, and knowledge acquisition by students. Their contributions play a crucial role in producing highly skilled professionals and entrepreneurs. Increased networking and collaboration among these LIS professionals would be highly beneficial not only to individuals but also to the profession and universities as a whole. The growing recognition of the increasingly complex role of library professionals in today's knowledge-based economy and technology-driven society, along with their key role in knowledge distribution, has further emphasized the importance of collaboration. However, awareness of the benefits of knowledge sharing, whether through technology or conventional platforms, does not necessarily translate

into active engagement in the practice. Various factors may influence professionals' willingness to share knowledge. Therefore, examining some key constructs that predict knowledge-sharing behaviour can help strengthen these factors, ultimately fostering greater adoption of technology-enabled knowledge sharing among library professionals.

Using Social Cognitive Theory (SCT), two key variables, self-efficacy and altruism, were identified as effective predictors of technology-enabled knowledge sharing among library professionals. Self-efficacy, as a predictor, suggests that an individual's belief in their ability to use technology effectively can motivate them to engage in technology-enabled knowledge sharing. When individuals are confident in their capacity to utilize digital tools to impart valuable knowledge, they are more likely to do so. This belief in one's ability to navigate challenges, achieve goals, and contribute meaningfully to others' lives can significantly influence their willingness to share knowledge in virtual spaces. Similarly, altruism plays a crucial role in predicting technology-enabled knowledge sharing among LIS professionals. Altruism refers to voluntary helping behaviours that benefit others directly or contribute to the broader community (Fang & Chiu, 2010). Helping behaviour transcends time and space, making it unsurprising that acts of assistance and collaboration extend into virtual environments through technology.

Statement of Problem

Technology has become an integral part of modern life, transforming how individuals share and access information. Despite its widespread presence, some library professionals remain reluctant to engage in technology-enabled knowledge sharing. While external factors influence this behaviour, internal psychological factors also play a significant role in shaping individual decisions. Understanding how these internal factors predict engagement in technology-enabled knowledge sharing is essential for fostering effective collaboration. As library professionals face increasingly complex work demands and rising user expectations, leveraging personal motivators can enhance their ability to adapt and innovate. Grounded in Social Cognitive Theory, this study examines self-efficacy and altruism as key internal reinforcements influencing technology-enabled knowledge sharing. Investigating their predictive effects will provide valuable insights into how library professionals can harness these traits to maximize the benefits of modern web technologies. By leveraging these intrinsic motivators, library professionals can enhance their career success and deliver more effective services to their users.

Theoretical Framework

Social Cognitive Theory (SCT), rooted in Social Learning Theory (SLT), explains psychological functioning through has its bases in the Social Learning Theory (SLT), and explains psychological functioning in terms of triadic reciprocal causation, which involves the dynamic interaction of personal factors, behavioural patterns, and environmental influences (Bandura, 1999; Okyere-Kwakye, Nor & Ziaei, 2011). This theory suggests that the interplay of these three elements (person, environment, and behaviour) shapes expectations and outcomes that ultimately influence decision-making. Self-efficacy and altruism are key personal cognitive factors that guide individual choices. A person's belief in their ability to successfully perform a task- such as sharing valuable knowledge on a technology-enabled platform- enhances their willingness to engage in knowledge sharing. Similarly, if an individual perceives that their knowledge will benefit others, they may be intrinsically motivated to share it, regardless of external rewards or recognition. The interaction between internal personal factors, behaviour, and environmental conditions determines whether a library professional will choose to engage in technology-enabled knowledge sharing. In this context, self-efficacy and altruism serve as internal reinforcement mechanisms, while technology represents the environmental factor influencing the process. This study aims to examine how these two psychological constructs predict technology-enabled knowledge sharing among library professionals.

Objectives

1. To ascertain how self-efficacy predict technology-enabled knowledge sharing among professional and paraprofessional librarians in federal universities in South-East Nigeria?
2. To examine how altruism predict technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria?
3. To explore the engagement of technology-enabled knowledge sharing among professional and paraprofessional librarians in federal universities in South-East, Nigeria.

Research Questions

The research questions that this study will address include:

1. How does self-efficacy predict technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria?
2. How does altruism predict technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria?
3. How do professional and paraprofessional librarians in federal universities in South-East Nigeria engage with technology for knowledge sharing?

Research Hypotheses

The hypotheses formulated to guide this study and tested at 0.05 level of significance include:

$H_0$1. Professionals' self-efficacy will not be a significant predictor of technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria.

$H_0$2. Altruism will not be a significant predictor of technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria.

Literature review

Self-efficacy refers to an individual's self-assessment of their skill adequacy, which significantly influences behavior, thought patterns, and emotional responses in both every day and professional settings (Bandura, as cited in Ul-Abedeen & Tazlo, 2017). It generally pertains to a person's belief in their ability to successfully perform a specific task (Huang, 2011). In the context of knowledge sharing, efficacy perceptions relate to an individual's belief in the value of their knowledge. Self-efficacy plays a crucial role in knowledge sharing among professionals in technology-enabled environments, as explained by Social Cognitive Theory (SCT). Applying this theory to knowledge sharing, Okyere-Kwakye et al. (2011) argued that if individuals are uncertain about their capabilities (self-efficacy) and the impact of the knowledge they are expected to share, they may withhold it. Thus, in the realm of knowledge sharing, self-efficacy influences whether individuals choose to share or hoard knowledge (Shaari, Abdul Rahman & Rajab, 2014).

Wang and Noe (2010) asserted that several studies have shown that individuals who are more confident in their ability to share useful knowledge are more likely to express intentions to share and report higher levels of engagement in knowledge-sharing activities. They suggested that knowledge sharing is contingent on individuals' confidence in their ability to provide valuable knowledge to others. Additionally, Wang and Noe argued that, in general, prior research indicates that knowledge sharing is more strongly influenced by employees' belief that their shared knowledge is useful to others rather than by the personal benefits they gain, particularly in professional networks. Supporting this perspective, Majid and Wey (2011) contended that a lack of understanding of what to share and the fear of providing incorrect information could hinder knowledge-sharing activities. Further reinforcing these findings, Shahid and Alamgir (2011) identified several individual barriers to ICT-enabled knowledge sharing, including low awareness of one's own

knowledge, concerns about job security, and lack of time for sharing. Their study suggests that these barriers may be closely linked to self-efficacy and altruism.

Altruism is inherently other-oriented. It is an intentional, voluntary behaviour aimed at improving another person's condition, skills, or knowledge without expecting reciprocity or personal gain. The enjoyment derived from helping others is a core aspect of altruism, extending beyond reciprocation to compassionate assistance with no apparent self-benefit and, at times, even personal risk (Obrenovic, Jianguo, Tsoy, Obrenovic, Khan, & Anwar, 2020; Gash & Sonne, 2018). Altruism has also been described as a form of unconditional kindness, providing help purely for the sake of assisting others, achieving a sense of satisfaction from the act, and offering support without expecting anything in return (Ma & Chan, 2014). This concept aligns with Social Cognitive Theory, as certain individuals may willingly give without anticipating any compensation from the recipient. Altruistic individuals typically derive personal satisfaction from helping others, and while it is often assumed that people rarely help others without expecting a reward, the nature of that reward can vary. A distinction has been made between hard and soft rewards. Hard rewards are tangible and economic, while soft rewards include an enhanced reputation and personal fulfillment. Kollock (as cited in Chennamaneni, 2006) noted that individuals share knowledge because they find assisting others with challenging problems interesting and because doing so makes them feel good. Furthermore, helping others can reinforce one's own skills and keep familiar concepts fresh.

A review of studies on the altruism of Wiki users by Pee (2018) revealed that most participants acknowledged the importance of concern for and benefit to others. Similarly, Lin and Huang (2013), in their study on why people share knowledge in virtual communities, found that altruism plays a key role in motivating knowledge providers. These individuals share knowledge not for personal gain but out of altruism and fulfillment. To establish a connection between trust and altruism in technology-enabled knowledge sharing, Chen, Fan, and Tsai (2014) proposed that when individuals perceive an atmosphere of trust in virtual communities, those with high levels of altruism are more likely to share information freely and discuss personal experiences than those with lower levels of altruism.

Methodology

This study employed a descriptive survey design to investigate the role of self-efficacy and altruism in technology-enabled knowledge sharing among library professionals. The research was conducted across five federal universities in the South-East geo-political zone of Nigeria: Michael Okpara University of

Agriculture, Umudike; Nnamdi Azikiwe University, Awka; Dr. Alex Ekwueme Federal University, Ndufu-Alike Ikwo; University of Nigeria, Nsukka; and Federal University of Technology, Owerri. These universities are located in Abia, Anambra, Ebonyi, Enugu, and Imo States. The study population comprised 238 library professionals from these institutions. Since the focus was on capturing the perspectives of the entire population, no sampling technique was applied. To collect data, a structured questionnaire titled Self-Efficacy and Altruism as Predictors of Technology-Enabled Knowledge Sharing Questionnaire (SEAPTEKSQ*)* was developed. To ensure the validity and reliability of the instrument, experts in Library and Information Science; and Measurement and Evaluation, reviewed the questionnaire. A pre-test was also conducted with library professionals at the University of Uyo. The questionnaire was structured into three sections, each designed to gather insights into key variables under investigation. Section A focused on self-efficacy, containing ten items assessing the confidence of library professionals in their ability to carry out necessary tasks. Section B explored altruism, also comprising ten items, to examine the extent to which professionals were motivated to share knowledge for the benefit of others. Section C, which contained twenty items, measured technology-enabled knowledge sharing practices among library professionals. To capture respondents' perspectives, all items were rated on a four-point Likert scale, ranging from Strongly Agree (4) to Strongly Disagree (1). A direct-delivery approach was used to administer the questionnaire, ensuring a high response rate. While the general self-efficacy scale was adapted from Schwarzer and Jerusalem (1995), additional items assessing self-efficacy and altruism were modified from the works of Alhady, Sawal, Idris, Azmi, and Zakaria (2011). After data collection, 82% of the distributed questionnaires were found to be usable for analysis. Descriptive statistical methods (mean and standard deviation) were used to answer the research questions, while inferential statistical methods (simple regression analysis) were employed to test the hypotheses and determine the predictive power of self-efficacy on technology-enabled knowledge sharing. The decision rule was set at a 0.05 level of significance: if the calculated p-value was less than 0.05, the null hypothesis was rejected, indicating a significant predictive relationship. Conversely, if the p-value was greater than 0.05, the null hypothesis was retained. All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) software.

Findings

RQ1: How does self-efficacy predict technology-enabled knowledge sharing among professional and paraprofessional librarians in federal universities in South-East Nigeria?

Table 1: Mean and Standard Deviation of Self-Efficacy as a predictor of technology-enabled Knowledge Sharing

S/N	Statement	Mean ($\bar{x}$)	Std. Dev.
1	I can always manage to solve difficult problems if I try hard enough.	3.4	0.42
2	If someone opposes me, I can find the means and ways to get what I want.	3.1	0.38
3	It is easy for me to stick to my aims and accomplish my goals.	3.3	0.40
4	I am confident that I could deal efficiently with unexpected events.	3.2	0.37
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	3.3	0.41
6	I can solve most problems if I invest the necessary effort.	3.2	0.39
7	I can remain calm when facing difficulties because I can rely on my coping abilities.	3.1	0.38
8	When I am confronted with a problem, I can usually find several solutions	3.0	0.36
9	If I am in trouble, I can usually think of a solution.	3.1	0.38
10	I can usually handle whatever comes my way.	3.3	0.41
	Grand Mean	**3.20**	**.39**

Table 1 presents the mean and standard deviation of various self-efficacy statements, with a grand mean of 3.20 and a standard deviation of 0.39, indicating a moderate level of self-efficacy among respondents. The statement with the highest mean score (3.4), "I can always manage to solve difficult problems if I try hard enough," reflects respondents' strong confidence in their ability to overcome challenges through effort. Conversely, the lowest mean score (3.0) corresponds to the statement "When confronted with a problem, I can usually find several solutions," suggesting that while participants trust their problem-solving skills, they may not always identify multiple solutions. Most other statements have mean scores ranging from 3.1 to 3.3, indicating a generally moderate level of self-efficacy across problem-solving, resilience, and adaptability. The lowest variability (SD = 0.36) appears in "When confronted with a problem, I can usually find several solutions," implying that most respondents share similar views on this statement. Meanwhile, the highest variability (SD = 0.42) is found in "I can always manage to solve difficult problems if I try hard enough," suggesting that while many participants feel capable, some may require additional support or training to enhance their self-efficacy in knowledge-sharing contexts.

RQ2: How does altruism predict technology-enabled knowledge sharing among professional and paraprofessional librarians in federal universities in South-East Nigeria?

Table 2: Mean and Standard Deviation of Altruism as a predictor of technology-enabled Knowledge Sharing

S/N	Statement	Mean ($\bar{x}$)	Std. Dev.
11	Helping others makes me feel good	3.2	0.33
12	I don't like it when other people bug me with their problems.	2.8	0.30
13	I enjoy helping others out as much as I can	3.1	0.32
14	I render help to others only at my own convenience.	2.9	0.29
15	I take up any opportunity to help others	3.1	0.32

16	I don't freely help if it will be beneficial to another person's advancement	2.7	0.28
17	I count it as a privilege when I am opportuned to help others	3.0	0.31
18	I help others whether there is any gratification attached or not	3.2	0.33
19	It disturbs me when others have problems that I cannot help out with.	2.9	0.30
20	I voluntarily help others - even if they don't ask me for it.	3.1	0.32
	Grand Mean	**3.00**	**.31**

Table 2 presents the Mean ($\bar{x}$) and Standard Deviation (Std. Dev.) of responses regarding altruism as a predictor of technology-enabled knowledge sharing. The grand mean (3.00) and standard deviation (0.31) indicate a neutral to slightly positive altruistic inclination. Statements related to unconditional assistance had higher mean scores, while those related to competitive reluctance scored lower. The highest mean scores (3.2) were recorded for the statements "Helping others makes me feel good" and "I help others whether or not there is any gratification attached." This suggests that respondents generally experience personal satisfaction from assisting others and are willing to help without expecting external rewards. Conversely, the lowest mean score (2.7) was observed for "I don't freely help if it will be beneficial to another person's advancement," indicating some reluctance to assist when it directly supports another individual's progress. Statements related to unconditional assistance, taking initiative, and viewing help as a privilege received moderate mean scores (ranging from 2.9 to 3.1), reflecting a balanced rather than strong altruistic tendency. While respondents generally acknowledge the importance of helping others, their willingness to do so appears to be influenced by context and motivation. The lower scores for statements about assisting when inconvenient or when it benefits others' advancement suggest that some individuals may be hesitant to share knowledge in competitive or high-stakes situations. This hesitancy may stem from workplace or academic competition, where sharing knowledge could be perceived as giving others a strategic advantage. The lowest variability (SD = 0.28) was found for "I don't freely help if it will be beneficial to another person's advancement," suggesting strong agreement among respondents regarding hesitancy in competitive situations. Conversely, the highest variability (SD = 0.33) was observed for "Helping others makes me feel good" and "I help others whether or not there is any gratification attached," indicating a wider range of opinions on the intrinsic satisfaction derived from helping others.

RQ3: How do professional and paraprofessional librarians in federal universities in South-East Nigeria engage with technology for knowledge sharing?

Table 3: Mean and Standard Deviation of engagement in technology-enabled knowledge sharing among LIS professionals

S/N	Statement	Mean ($\bar{x}$)	Std. Dev.
31	I make use of diverse technologies for knowledge sharing.	3.39	0.38

32	I belong to professional Online groups, Social networking sites and internet forums.	3.60	0.38
33	I make use of technology when I have a question or problem relating to my work practices.	3.54	0.37
34	I readily answer questions posted by my fellow professionals on blogs, online groups and Internet forums.	2.44	0.39
35	I contribute to professional blogs and update wikis on issues relating to the profession.	2.26	0.36
36	I use blogs, microblogs, instant messaging systems and video conferencing tools for interaction with professional colleagues.	3.55	0.38
37	I participate in professional discussions in the online professional groups, social networking sites and internet forums.	3.63	0.37
38	I post messages regarding my work practices or experiences on the Online groups.	2.58	0.43
39	I hardly seek for solutions to work related issues using technology.	2.48	0.37
40	I send emails to colleagues when I have issues with my work.	3.04	0.43
41	I share ideas for my researches using online workspaces.	2.71	0.44
42	I use email for collaborative authorship.	2.91	0.46
43	I keep contact with colleagues by following their discussions on microblogs and social networking sites.	3.51	0.40
44	I obtain work related information and knowledge using social networking sites, online groups and internet forums.	3.32	0.39
45	I use social networking sites to maintain and strengthen communication with professional colleagues.	2.95	0.44
46	I easily contact my professional colleagues using their email address.	2.52	0.41
47	I look up knowledge relating to my profession on professional blogs and wikis.	2.71	0.44
48	I upload my academic works in institutional repository and social networking sites for other professionals to benefit from.	2.97	0.44
49	I use microblogs for personal knowledge sharing to a wider audience.	2.58	0.42
50	I use video conferencing tools for meetings, seminars, conferences and keeping up with best practices in the profession.	3.51	0.40
	Grand Mean	***3.01***	***.39***

Table 3 presents the Mean ($\bar{x}$) and Standard Deviation (Std. Dev.) of responses regarding the engagement in technology-enabled knowledge sharing among LIS professionals. The grand mean of 3.01 suggests that, on average, librarians in federal universities in South-East Nigeria have a moderate level of engagement with technology for knowledge sharing. The areas with high mean values (above 3.4), indicates high engagement which are: Belonging to online groups and forums (3.60); Participating in online discussions (3.63); Using technology to answer work-related questions (3.54); Using video conferencing tools (3.51); and Keeping contact with colleagues through microblogs and social networking sites (3.51). These suggest that LIS professionals actively interact and collaborate using digital platforms, leveraging technology to exchange

knowledge and maintain professional networks. On the other hand, the areas with low mean values (below 2.6), indicating low engagement are: Contributing to professional blogs and wikis (2.26); Readily answering questions posted by fellow professionals (2.44); Seeking solutions to work-related issues using technology (2.48); Contacting professional colleagues using email (2.52); and uploading academic works to institutional repositories and social networking sites (2.97). This suggests that while librarians make use of technology for communication and discussion, they are less inclined to generate and share content in professional knowledge repositories or actively seek solutions through digital platforms. Overall, the results indicate that librarians in federal universities in South-East Nigeria are moderately engaged in technology-enabled knowledge sharing. While they actively participate in discussions and leverage communication tools, their involvement in content creation and structured knowledge-sharing platforms remains relatively low. These findings highlight areas where further encouragement or institutional support may be needed to enhance engagement in technology-driven knowledge-sharing practices.

$H_0$1: Professionals' self-efficacy is not a significant predictor of technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria.

Table 4: Test of Significance of Simple Regression Analysis with self-efficacy as a predictor of technology-enabled knowledge sharing

	B	β	*t*	*P*	*Remark*
Constant	37.679		8.73	.00	
Self-Efficacy	.705	.355	5.27	.00	S
R .355					
R^2 .126					
Adj.R^2 .121					
F 27.776				.00	

** S= Significant [Note: B= Unstandardized Beta; β=Standardized Beta; t= t-value; P= p-value]*

Table 4 presents the results of a simple regression analysis examining self-efficacy as a predictor of technology-enabled knowledge sharing among library professionals in federal universities in South-East Nigeria. The analysis reveals that self-efficacy significantly predicts technology-enabled knowledge sharing, with a moderate positive relationship (β = 0.355). For every one-unit increase in self-efficacy, knowledge sharing increases by 0.705 units (B = 0.705). The model explains 12.6% of the variance in knowledge sharing (R^2 = 0.126), with a significant F-statistic (F = 27.776, p < .05). These findings confirm that self-efficacy is a meaningful predictor of technology-enabled knowledge sharing, suggesting that efforts to enhance self-efficacy could positively influence library professionals' engagement in such activities. Since the p-value (.00) is less than the standard significance level (0.05), the null hypothesis is rejected.

$H_0$2: Altruism is not a significant predictor of technology-enabled knowledge sharing among library professionals in federal universities of South-East Nigeria.

Table 5: Test of Significance of Simple Regression Analysis with altruism as a predictor of technology-enabled knowledge sharing among professional and paraprofessional librarians

	B	β	*t*	*P*	*Remark*
Constant	35.24		6.70	.00	
Altruism	.83	.32	4.78	.00	S
R .32					
R^2 .10					
Adj.R^2 .10					
F 22.87				.00	

** S= Significant [Note: B= Unstandardized Beta; β=Standardized Beta; t= t-value; P= p-value]*

Table 5 presents the results of a simple regression analysis examining altruism as a predictor of technology-enabled knowledge sharing among library professionals in federal universities in South-East Nigeria. The results shows that altruism significantly predicts technology-enabled knowledge sharing among these professionals. The results indicate a moderate positive relationship (β = 0.32), with every one-unit increase in altruism leading to a 0.83-unit increase in knowledge sharing (B = 0.83). The model explains 10% of the variance (R^2 = 0.10), and the F-statistic (F = 22.87, p < .05) confirms the model's significance. Since the p-value is below 0.05, the null hypothesis is rejected, confirming that altruism plays a meaningful role in promoting technology-enabled knowledge sharing. This suggests that librarians with higher altruistic tendencies are more likely to engage in knowledge-sharing activities through technological platforms.

Discussion of findings

The findings of this study indicate that self-efficacy has a moderate yet significant effect as a predictor of technology-enabled knowledge sharing among library professionals. Specifically, self-efficacy emerged as a positive and significant predictor of technology-enabled knowledge-sharing among library professionals in federal universities in South-East Nigeria. This result aligns with the findings of Alhawary, Abu-Rumman, and Alshamaileh (2017); Ergün and Avcı (2018); Safdar, Batool, and Mahmood (2020); and Jameel, Massoudi, and Ahmad (2023), all of whom observed a significant positive relationship between self-efficacy and knowledge sharing. Notably, the study by Ergün and Avcı (2018) identified self-efficacy as the strongest predictor of knowledge-sharing, particularly in the context of motivation and community engagement. According to Saviak (2007), when the relationship between an independent variable and a dependent variable

is statistically significant and positive, the likelihood of the latter's adoption increases. In this context, the findings suggest that enhancing the self-efficacy of library professionals would likely lead to greater engagement in technology-enabled knowledge sharing. Professionals are more inclined to share knowledge when they believe that their contributions will be valuable to others. Thus, a sense of competence and confidence is a critical requirement for active participation in technology-enabled knowledge-sharing activities. Library professionals with high self-efficacy are more likely to engage in such practices compared to those with lower self-efficacy.

Similarly, the study found that altruism is a moderate yet significant positive predictor of technology-enabled knowledge sharing among library professionals in federal universities in South-East Nigeria. This implies that as altruism increases, so does the likelihood of engaging in technology-enabled knowledge sharing. Altruistic library professionals are more inclined to share knowledge willingly, driven by a genuine desire to help others. This finding is consistent with previous research by Chen, Fan, and Tsai (2014), which found a significant correlation between altruism and knowledge-sharing intentions. It also aligns with studies by Hsu and Lin (2008); Yu, Lu, and Liu (2010); Chen et al. (2014); and Alhawary, Abu-Rumman, and Alshamaileh (2017), all of which identified enjoyment in helping others (a core aspect of altruism) as a significant predictor of knowledge sharing across various digital platforms, including blogs and virtual professional communities. Altruism fosters engagement in technology-enabled knowledge sharing by encouraging professionals to assist others, thereby improving collective welfare. Moreover, as noted by Hsu and Lin (2008), individuals are often motivated to participate in technology enabled knowledge-sharing activities because the process itself is enjoyable and rewarding. However, this study's findings contrast with Jinyang (2015), who reported that altruism did not significantly predict knowledge-sharing behaviour in a virtual community setting. This suggests that the relationship between altruism and knowledge sharing may vary depending on contextual factors such as professional setting, technological infrastructure, and cultural dynamics.

Conclusions

Library professionals play a crucial role in facilitating research and learning within federal institutions. Their vast knowledge and experience should not remain untapped, unshared, or underutilized. Given the significant positive effect of self-efficacy and altruism in predicting technology-enabled knowledge sharing, it is essential to reinforce these internal motivators. Strengthening self-efficacy will empower professionals with

the confidence to leverage technology effectively, while fostering altruism will encourage a culture of collaborative knowledge exchange. Enhancing these attributes will ultimately lead to improved service delivery, ensuring that knowledge is continuously shared, recycled, and utilized for the benefit of both individuals and institutions.

Recommendations

The positive and significant impact of self-efficacy and altruism on technology-enabled knowledge sharing leads to the following recommendations:

1. Employers should take proactive measures to strengthen self-efficacy among library professionals. This includes ensuring that they recognize the value of their knowledge and feel confident in sharing it.
2. Employers should incorporate strategies to evaluate self-efficacy during the hiring process. Recruiting proactive individuals with high cognitive aptitude, self-esteem, and intrinsic motivation can help nurture a workforce that is both altruistic and self-efficacious.
3. Employers of library professionals in federal universities in South-East Nigeria should offer continuous and constructive feedback. Acknowledging staff contributions on technology-enabled platforms through positive reinforcement can boost confidence and further enhance self-efficacy.
4. Organizations should promote a culture of collaboration by reducing competitive barriers and emphasizing the benefits of altruism. Additionally, implementing incentive programs or recognition systems can encourage prosocial behaviors in knowledge sharing.
5. Altruistic professionals should be given priority for mentorship and team leadership positions. Since knowledge sharing is fundamental to the library profession, individuals who do not derive satisfaction from helping others may hinder the success of technology-enabled knowledge-sharing initiatives.

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