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Research Article

Factors Affecting Adoption of Online Community Water User Participation

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Social networks are the most extensively utilized online virtual communities. It is a technology platform that is currently used to interact with other members of any virtual online community, including preserving social ties. This study is aimed at determining the elements that influence the participation of water users in the online community. It suggests combining the commitment-trust theory with the technology acceptance model (TAM) to include stakeholders, social networks, and transparency about content and user perceptions to better understand the elements that influence the online community and user participation. A questionnaire with a five-point Likert scale was issued to 1,000 community water consumers, and the researcher received 627 valid responses. Data were collected using a basic random sampling technique with a sampling ratio of 14 villages. Subsequently, descriptive statistics characterize the data (frequency distributions, percentages, averages, medians, and standard deviations). Furthermore, PLS-SEM was utilized to study the interactions between variables and launch the conceptual model via partial least square (PLS) path modeling. This study reveals that community water user engagement is founded on a commitment-trust paradigm that acts as an effective role model for community participation behavior. The results and consequences are discussed at length in the discussion section, which offers valuable recommendations. This article discusses overcoming ethical divisions in community water management through increased communication between customers and community water management teams using social media networks. Additionally, several elements contribute to the monitoring and supervision advancement, boosting the openness of community water management.

1. Introduction

Online knowledge communities can aggregate fragmented information and knowledge, enabling users to tap into a large amount of easily accessible knowledge and expertise through social media platforms. Social networking is critical in today's digital world. This means that technology can assist everyone in more efficiently and successfully meeting their social requirements. The best way to think about technology is to think of it as the materialization of socially important activities [1]. However, spending a large amount of time on the Internet could have a detrimental effect on your mental health and well-being [2]. Through crowdsourcing and collaborative problem solving through social media platforms, online knowledge communities can aggregate disparate pieces of information and knowledge, enabling users

to tap into a large pool of readily available knowledge and experience. Individuals can connect, learn, and collaborate more effectively when participating in online communities, as the costs of knowledge search and acquisition have decreased [3]. These benefits will continue to accrue as long as voluntary payments are made. The long-term viability of online communities may be compromised if not all members contribute significantly to developing and distributing vital information in a technological context, rather than adding frequently to the publicly and freely available online knowledge base. For example, those who contribute infrequently to an online community comprise the bulk of its membership [4]. It is critical to note that if knowledge contributions decline, the value of the online community may be questioned, resulting in a self-defeating cycle of decreased engagement and membership attrition. Moreover, online

community water user participation faces the same issue, even more so when online community user involvement is considered. A significant contributor to this problem is the lack of participation of the community or the stakeholder. By the way, this study will focus primarily on ethical issues. Additionally, this is an enthralling subject because ethics is intricately related to economic and social classifications. This will have a detrimental effect on the economy of the community and discourage participation. Increased involvement has been found to help resolve ethical dilemmas through the use of good governance and transparency technologies available through social networks today. According to the evaluation [5], the "ethics" of the water supply company is a serious concern. Numerous articles call for the convergence of good governance and business management to create trust and deliver solutions. Also, Mansoor [6] describes social networks as a form of governance as the process of selecting, holding accountable, and removing government officials; the safeguarding individual rights; and the competence of the government to design and implement policies. Effective government occurs when it addresses the collective concerns of its constituents and meets their needs. Participation is a necessary requirement for successful governance. Salminen highlights the importance of fully implementing good governance for the common good. Existing research has examined user participation in online communities using a variety of theoretical frameworks, including the technology acceptance model (TAM) and commitment trust theory (CTT). The authors discover that user behavior is significantly influenced by perceived usefulness, trust, and self-efficacy. However, little attention has been paid to the aggregate influence of an online community on user behavior. A virtual community is made up of people who share common interests. Tevapitak and Helmsing [7] explain why stakeholders are a critical success factor in environmental management. They communicate with each other to resolve issues, exchange ideas, and ask for assistance. Thus, an individual member's conduct might be influenced not just by other water users' incentives, such as perceived utility, but also by the behavior of other members and the community. By the way, no previous study has investigated every significant feature of a single workplace. They did not attempt to determine the relationship between social networks, transparency, stakeholders, and the creation of community value in the community water industry. The goal of this study is to investigate online community water user engagement through the lenses of TAM and CTT. In particular, this investigation identified a previously unknown relationship between three factors: social media, transparency, and stakeholders, all of which contribute to the engagement of water users in the online community, significantly raising the value of local goods and services. As a result, the following research question was created:

RQ: how can online community water consumers be encouraged to participate in order to improve management ethics?

To answer this question, we conducted a review of the existing literature and theoretical foundations. Subsequently, the research model and hypotheses for the proposed study are described. Next, we experimentally validate the suggested model by applying it to a large dataset that we have compiled. Finally, we discuss how our research adds to theory building and attempts to further our knowledge of how users continue to participate in online community activities through user engagement.

2. Theoretical Background

2.1. Community Water Supply Business. A literature review of community water supply business community water is determined. To begin with, public utilities operate under a more traditional management model, with the government constructing and managing all communities. It is a style of bureaucratic management defined by a highly complicated organizational structure. Additionally, Banister [8] explains that central government policies were incompatible with the context of each location, resulting in the community water supply system's being unable to address the community's desired issues. As mentioned by [9], a management issue comprises the exercise of authority and responsibilities in order to benefit specific groups of people in order to obtain preferential access to water. Second, privatized utilities are those that are subsidized by the government to be managed by private companies. The benefit is that the organization is highly adaptable and self-managing. On the other hand, Leviäkangas et al. [10] discovered issues with pricing transparency and a lack of public sector checks and balances, resulting in people not receiving equitable access to water and selling at prices we could not verify. If this is the case, private companies may be allowed to establish water delivery prices without recourse to the public sector for a better deal. Third, PPPs (public-private partnerships) are a modern management paradigm that is well-suited to large-scale infrastructure and public service projects across a variety of industries. Operational costs are substantial and may be insufficient if completely funded by the public sector. One of these types of joint ventures, however, has several drawbacks, one of which is governance. Formal investment projects are more challenging to organize than negotiating with state-owned firms. Without a properly written and implemented policy, the PPP will fail and become ineffective. This is because risk must be shared between the public and private sectors [11, 12].

The purpose of this study was to identify strategies to close some of the gaps in the current community water supply business by increasing online community water user involvement, with a particular emphasis on the extent to which water customers can participate via online communities. Because social networks have become more accessible, the way online communities encourage users to participate has changed.

2.2. Commitment-Trust Theory (CTT). When it comes to long-term relationships between commercial partners, the commitment-trust idea attempts to explain how they emerge. According to the definition, commitment is defined as the parties' "continuous desire" to preserve a valuable and critical relationship [13]. In other words, it is a set of needs

to maintain a desired connection and avoid the breakdown of a relationship. Confidence in the honesty and integrity of another is a broad notion that refers to when one party has faith in the honesty and integrity of another. Morgan and Hunt [14] identified a total of five antecedent variables (relationship termination costs, benefits, shared values, communication, and opportunistic behavior), and five outcome variables (acquiescence, proclivity to leave, cooperation, functional conflict, and decision-making uncertainty) were identified by [14], with commitment and trust serving as key mediators between the antecedent variables and the outcome variables. Furthermore, in competitive contexts, rapid trust and mistrust encourage cooperation by quickly fostering trust and distrust. In addition to that, Schiffling et al. [15] discovered that social presence has an impact on trust and participation. Morgan and Hunt [16] presented an evaluation of the commitment-trust fundamental in the business perspective that has aligned relationship marketing, despite the fact that it is not a new concept. To be successful, it needs three interconnected sets of characteristics: economic benefits, practical collaboration, and the maintenance and long-term sustainability of these links. Take a look at the relationship-based competitive advantages (RBCAs) of growing relationships, and you will see what I mean. The following is a summary of what has been discovered through reviewing relevant literature: a significant number of gaps have been observed in prior studies on trust-commitment theory. It is clear that no research has been done on water supply business elements that promote improved collaboration that has been uncovered via theory synthesis. This is the first and most comprehensive research to focus exclusively on the water supply business. Several ideas have been used to develop the terms "social networking," "stakeholder," and "transparent."

Most critically, no research has been conducted on the extent to which water consumers may participate via online communities, due to the fact that social media use is more accessible than it was in the past, which implies that the way online communities encourage user interaction now is different than it was in the past.

2.3. Technology Acceptance Model (TAM). The TAM is a behavioral model first established to understand computer usage [17]. Because of its resilient features, the TAM is the most often used model to characterize an individual's adoption of a particular information system. Davis [18] presented the notion, which has since been used in an avalanche of research to predict and explain why consumers accept or reject information technology [19]. To this end, the TAM introduced two new factors: perceived utility (PU) and perceived ease of use (PEOU), which were significant predictors of attitudes toward certain technologies. Davis [18] suggested that new external factors be constructed to account for perceived usefulness and perceived ease of use. The components PEOU and PU, identified by [20] to be the most relevant in explaining system usage, are the most significant in the model. Although it is widely used, some researchers have suggested that it is necessary to include additional variables to construct a more robust model. Venkatesh and Davis [21] proposed the removal of attitudes against a particular technology from their planned expansion owing to the low predictive capacity of attitudes toward that technology for behavioral intention and actual system use. Many further investigations have supported and substantiated the findings. Several research investigations have been carried out on this subject [22]. Since a broad group of people first used it, the TAM has been used in many technologies, in many locations, and with a wide range of different control components. The study by [23] has shed more light on that the TPB explains why people act the way they do, while the TRA explains why people act the way they do. In their carefully designed study, Yan [24] found that the technology acceptance model enables scientists to better understand how humans use technology. The model illustrates how people's perceptions of how valuable and convenient a new piece of information technology is influencing their decision on whether or not to adopt it. It has a well-deserved reputation for being reliable [19]. Additionally, the authors pointed out that the TAM is a comprehensive mediating model that primarily accounts for the effect of PEOU on behavioral intention via the use of probability. TAM has a well-established theoretical framework, significant research, and an inventory of measuring scales that have been independently confirmed. Third, due to prolonged research, the model has collected a large amount of empirical data to support its explanatory powers and characteristics. Consequently, it is often the prevailing paradigm for user acceptance of technological innovations. According to the examination of relevant literature, the existing study on TAM should be argued with the commitment-trust theory and the new principal constructs in this study.

3. Research Model and Hypotheses

As discussed previously in Sections 1 and 2, the existing community water supply industry has encountered a number of administrative and management obstacles. To begin with, all organized public, private, and public-private partnerships have advantages and disadvantages, offer limited options, and preclude independent businesses from competing. Second, Figure 1 shows the research model developed to examine the participation of water users in the online community through the lens of TAM and CTT, which includes three constructs (social media, transparency, and stakeholders) that reflect participation and behavior influence constructs.

3.1. Stakeholders. According to stakeholders or participants, an actor's influence within a network depends on the other actors' dependence on the resources they manage [25]. In addition, stakeholders are a factor in the success of an information system according to IS participation theory. Participants are subgroups of stakeholders who are invited to participate in the creation and/or implementation of the solution. Participants and stakeholders may vary in a number of ways. Additionally [26], it might be tough to pick appropriate individuals from the makeup of the participating group. Multiple stakeholders are also becoming more common in a new business model called the local innovation business model, which is used in the community energy sector [27]. There may be a link between solution development success and solution implementation success. Additionally,
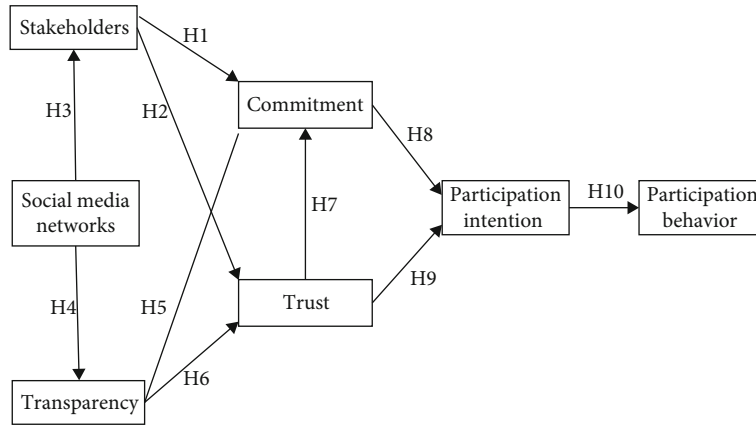
FIGURE 1: The research model.

stakeholders are essential success elements because they produce substantial new information and insights about the conditions, constraints, and opportunities of stakeholders. Thus, we have the following hypotheses:

(i) H1. Stakeholders positively influence commitment

(ii) H2. Stakeholders positively influence trust

3.2. Social Network. Law et al. [28] provide a detailed analysis of social media use and have a wide range of results, as well as the implications of technology on behavior, experience, and society. Besides, results reported by Franco & Carrier [29] suggest that the usage of the internet has a psychological effect on how we utilize technology and social media. The study also found that social media influences social and economic disparities, as well as other forms of use of the Internet. A social network may be described as a collection of connections between people, things, and events; due to the variety of relationship types, multiple networks can be built using the same components [30]. When a firm develops an information technology system, the centralization of the network is a vital component. Individuals in the network center have the ability to control the flow of resources and associated knowledge. Individuals are not influenced by others; instead, they exert influence over their own authority and resource control inside an organization. Czepiel [31] started integrating social network notions into an organization's diffusion model of technological innovation. Additionally, social exchange theory is employed in a variety of research [32] to explain how social networks function in exchange for social benefits and community support. Furthermore, significant favorable correlations between the CTT and the social exchange theory (SET) for cocreating brand value in the social commerce community were observed. Businesses are increasingly promoting their goods and services through social commerce. Therefore, the research considers social networks to be significant. As a result, we established the following hypotheses:

(i) H3. Social network positively influences stakeholders

(ii) H4. Social network positively influences transparency

3.3. Transparency. According to a survey of the literature, as indicated in Table 1, a key challenge in the management of the water supply company is ethics, with social and legal difficulties inextricably linked to ethical issues. In their widely acclaimed work, Zhao [33] discussed technological and social network improvements can boost economic activity. Additionally, because new technology has such a significant impact on society, it is critical to have a robust governance system in place to regulate it. To address this problem [5], we found multiple publications suggesting that incorporating openness, good governance, and social networks into the management process could help resolve ethical difficulties and increase trust [34]. According to fascinating research [35], a leader's optimism and transparency increased followers' perceptions of trust and evaluations of the leader's effectiveness. Numerous positive relationships between transparency and trust have been established to promote confidence in a leader or organization and to illustrate that an ethical dilemma such as this may be resolved via good administration. Therefore, the study considers transparency to be critical. We thus have the following hypotheses:

(i) H5. Transparency positively influences commitment

(ii) H6. Transparency positively influences trust

3.4. Commitment. Trust not only has a direct effect on the quality of relationships, but it also has an indirect effect through CTT [14]. Commitment to a relationship is a term that refers to an individual or organization's continual desire to maintain a mutually beneficial trade relationship [36]. Commitment to a relationship arises when an exchange partner believes that maintaining the relationship is critical and will require the greatest effort or commitment [37]. It is crucial to keep in mind, however, that not all social interactions culminate in trusting, committed partnerships. To encourage commitment, the exchange partner must regard the connection as substantial and worthwhile. That is, the resources exchanged must add concrete value to the exchange partner in order for reciprocity to be justified. Several studies have explored the commitment and trust in higher education, albeit with a limited sample size. Student commitment to their institution is determined by perceived

TABLE 1: Demographic data of main testing respondents, total (N = 627).

Characteristics	Values	Frequency	Percent (%)
Gender	Male	269	42.9
	Female	358	57.1
Age (years)	18-30	101	16.1
	30-40	182	29.0
	41-50	187	29.8
	>50	157	25.0
Education	<bachelor	446	71.1
	Bachelor	148	23.6
	>bachelor	33	5.3
Community water usages (years)	<5	38	6.1
	5-10	128	20.4
	11-15	79	12.6
	>15	382	60.9

benefits of attendance, perceived similarity between the school and students, faculty-student trust, and the quality of communication between the students and the institution, according to [38, 39]. This contributes to our understanding of how relationships and communities affect customer engagement behavior. The findings will contribute to a better understanding of how to structure service organizations to maximize service value and brand loyalty over time. Furthermore, social media alters the dynamic between trust and commitment [40]. As a result, hypotheses are expressed as follows:

  (i) H7. Commitment positively influences participation intention

3.5. Trust. According to the CTT and related research, trust is necessary for long-term relationship effectiveness. Furthermore, Moorman et al. [13] have been associated with other desirable attributes such as consistency, competence, honesty, fairness, accountability, helpfulness, and compassion. Individuals and institutions that exhibit these characteristics are more likely to be viewed as trustworthy. This results in the formation of stronger interpersonal ties, a greater likelihood of reciprocal "good faith" behavior, and, ultimately, a greater likelihood of building high-quality relationships. According to [41], in higher education, new students view students who receive trust directly from institutions via social media as trustworthy. Nonetheless, trust is impacted by an individual's faith in the government, which is decided by the importance of event attachment in creating ties between them. Their faith in the government encapsulates their support [42]. The emotional reactions to a particular incident have an effect on their actions, attitudes, and support. The social exchange theory and research on its application show how rewards, costs, and trust affect solver participation. Numerous studies have proven a link between the notion of social exchange, involvement, and trust. The following hypothesis is stated in this manner:

  (i) H8. Trust positively influences commitment

  (ii) H9. Trust positively influences participation intention

3.6. Participation Intention and Participation Behavior. Yousafzai et al. [43] discovered that three main characteristics contribute to TAM's popularity. The TAM was developed expressly for information technology and is a great tool to analyze and forecast the adoption of a wide variety of technologies by a large user population in a variety of organizational structures, cultural settings, and degrees of competence. Then, the TAM is based on a well-established theoretical framework, extensive research, and an inventory of independently confirmed measurement scales. Afterward, Lee et al. [19] discussed how the TAM has amassed a substantial amount of empirical data to support its explanatory power and characteristics as a result of extensive research. Technology also fosters interaction and reintroduces individuals to their communities as members [44]. As a result, it is often the dominant paradigm for determining user approval of technical advancements. The TAM focuses on computer users as role models and demonstrates how they can embrace and adopt new technologies. It is intended to forecast user acceptance of new technologies. Models of technology adoption are frequently used to generate predictions [20]. This implies that there are only two factors that influence the user's computer system's acceptance. Two factors that influence computer adoption are the system's perceived utility and simplicity of use. In the TAM, a positive attitude toward the system is fostered by users' feelings and perceptions of its utility. As indicated previously, it is perceived usefulness (PU) in terms of increasing their own performance. Additionally, consumers perceive and believe that the system is simple to use. Perceived ease of use refers to the perception that no effort is required to realize that the system is still useful. As a result, the following hypotheses exist:

  (i) H10. Participation intention positively influences participation behavior

4. Research Methodology

4.1. The Scope of Survey. According to the population statistics report for 2021, almost 80% of the residents of Nakhon Phanom province used community water supplies. Additionally, the report stated that the Phanom district was experiencing issues with the quality of water used for domestic use, particularly in the Na Thon Subdistrict (2,584 houses), which is not served by the Provincial Waterworks. A simple random sampling approach was adopted for this study based on the sampling ratio of 14 villages (every village in the Na Thon Subdistrict was sampled), which included all samples living in the study region for at least 12 months. This means that samples were taken from all communities in the Na Thon Subdistrict. The questionnaire (see Supplementary Information) was used to collect data from individuals who expressed an interest in participating.

4.2. Questionnaire Design. The questionnaire consisted of 21 items extracted from the relevance synthesized in 7 constructs. Each family was instructed to return it to a return box located in an easily accessible location, such as the village multipurpose facility. The Taro Yamane formula was used to determine the required number of samples. It considered 2,584 homes and the allowable margin of error, $e =$ 0.05. According to estimates, the sample size should have been 347 respondents, which is what was required to collect this research, but thanks to the incredible participation of communities, we received 627 respondents (180%), providing sufficient data to proceed to the next level to evaluate the model and the research hypothesis. The research model's hypotheses are demonstrated quantitatively. The following sections comprise the following questions: gender and age (in years), degree of education, and the time they want to use the common water supply must be provided. There are factors affecting the degree to which thriving communities collaborate. How well communities collaborate is contingent upon how well communities collaborate.

4.3. Data Testing and Institutional Review Board: IRB. Data collection is done through surveys. Individuals in the community can complete them and return them at a suitable time. This study sampled fourteen villages, one from each village in the Na Thon Subdistrict. The number of villages selected was determined by the number of residents in the research region for at least 12 months. To guarantee that all questions are legitimate, the Ethics Review Committee of Mahidol University considered study methods and research equipment. The Institutional Review Board of Mahidol University authorized the questionnaire and assigned it the approval number MU-CIRB 2021/362.1108. The original document was printed in 1,000 copies and delivered to each household's mailbox on even-numbered days between October 1 and October 31, 2020, following pilot testing and refinement to ensure the questionnaire was accurate. The sampling ratio for each village in the study area was derived from the sample size of all residents in the study zone. Participants in this study completed 627 questionnaires. They double-checked to ensure that they were all correct.

4.4. Statistical Data Analysis. The questionnaire data was imported and cleaned up for use in the structural equation modeling (SEM) testing process. It will be utilized to perform partial least squares-structural equation modeling (PLS-SEM) using the SmartPLS 3.3.0 software [45], which will contain the measurement model, structural model, and model fit [46], as described in Section 5. Following the collection, processing, and analysis of questionnaire data in Section 5, the final step of the research is to examine descriptive and inferential statistical analysis, which will be reviewed and explained in Section 6. Then, they will be more comprehensible and precise. In order to assess the reliability and validity of the research model and questionnaire, SmartPLS is being utilized to assess some of the least square datasets that have been obtained. Specifically, this approach was selected for this inquiry because it is an element-based statistical tool for creating causal models that may be applied

to the research topics under consideration [47]. The PLS is a structural equation modeling approach that evaluates both measurement data and structural models in a single phase, saving time and effort. Compared to covariance-based SEM approaches such as LISREL, we chose PLS since it needs a lower sample size and indicator distribution, while also being more accurate in its estimations [48–50]. An iterative two-stage data analysis approach is used to analyze the reliability and validity. The first stage analyzes the measurement model's reliability and validity of the measurement model. Then, the structural model is tested to see whether it can represent a hypothetical connection as closely as possible.

5. Results

5.1. Descriptive Analysis. Table 1 presents the demographic characteristics of 627 community water users, explaining that the proportion of male participants represented 42.9% of the population, while 57.1 percent of the participants were women. The majority of respondents (60%) were aged between 30 and 50 years old. When considering education level, it was found that almost 71% of the participants had a qualification lower than a bachelor's degree. Finally, considering the community water usage experience, approximately 61% of the total participants have had community water usage experience for more than 15 years. The data used in this study came from those who had lived in areas that had used community water since birth, and there was a statistically appropriate distribution in each group in terms of gender and age in order to be able to survey the situation. There is a strong correlation between the factors that affect the research objectives.

5.2. The Measurement Models. According to the approach [50], we got Cronbach's alpha scores of between 0.778 and 0.820 during the assessment of the proposed research model, which is above the acceptable threshold of 0.7. A composite reliability (CR) was calculated using the model's internal consistency testing results, and a score of 0.869–0.893 was obtained, which is acceptable since it is above the 0.70 threshold. The extracted average variance (AVE) should have convergent validity greater than 0.50, and the model output provided AVE values between 0.689 and 0.736. Table 2 contains particular information. Additionally, Table 3 provides information on the validity and reliability of the responses obtained from question items, including the median, mean, standard deviation, loading, and variance inflation factor (VIF). Each of the 21 questions is open-ended. The two parts include questions about general characteristics and questions about the proposed model. A score must also have a Cronbach alpha value greater than 0.7. Cronbach's alpha of 0.970 confirmed the questionnaire's reliability and validity as follows: standard deviations range from 0.626 to 0.854, with the mean being 3.829 to 4.155. The chart shows that factor loading values ranging from 0.764 to 0.879 are greater than the allowed threshold of 0.70. Outside VIF scores vary from 1.533 to 2.163, with a criterion of less than five, as shown in Table 3. As a result, the fact that all predictive variables have an association

TABLE 2: Establish the reliability and validity.

Constructs	Item code	Cronbach's alpha (>0.70)	Composite reliability (CR) (>0.70)	AVE (>0.50)
Commitment	CO	0.804	0.884	0.718
Participation behavior	PB	0.778	0.869	0.689
Participation intention	PI	0.820	0.893	0.736
Social media networks	SO	0.791	0.877	0.705
Stakeholders	ST	0.783	0.874	0.698
Transparency	TA	0.816	0.891	0.731
Trust	TR	0.815	0.890	0.729

coefficient of less than 5 [51, 52] explains why they are all appropriate. As a result, no variable used in this investigation to construct predictions was multicollinear.

Additionally, we assessed the model's discriminant validity by Fornell & Larcker [53]. Each diagonal value inside a construct must be more than the total of the column values, with a minimum of 0.70. For example, in commitment (CO), the square root of AVE equals 0.847, which is more than the correlation with the other constructs, which varied between 0.511 and 0.636. As such, the research model meets the definition of a model. The Fornell-Larcker criteria produce the results summarized in Table 4. Additionally, discriminant validity testing has gained widespread acceptance as a criterion for analyzing latent variable connections. Two of the most commonly used techniques for demonstrating discriminant validity are the Fornell-Larcker criteria and cross-loading analysis. Table 5 also shows another way to use the multitrait-multimethod matrix, which is called the "Heterotrait-Monotrait ratio (HTMT)." The term "HTMT" denotes the total of the cross-variable correlations of all indicators. As suggested by [54], the HTMT should be less than 0.85; all conditions are satisfied based on the readings in Tables 2–5, confirming discriminant validity.

5.3. Structural Model. After obtaining acceptable results from the prior evaluation, we used SmartPLS 3.3.0 to undertake hypothesis testing and goodness of fit (GoF). The hypotheses underlying the suggested research model discussed in Section 3.2 are tested in this section. We used a bootstrapping approach to 5,000 samples as suggested by Hair et al. [49] resamples with a significance level of 0.05 for the path coefficient, the t value, and p value. Acceptance conditions for the path coefficient (β) (>0.10), t value (>1.96), and p value (<0.05) are, respectively, [48–50]. As a result, the findings indicate that all the remaining hypotheses have been accepted: H1, H2, H3, H4, H5, H6, H7, H8, H9, and H10. Table 6 summarizes the findings, and Figure 2 depicts the model's output with an indication of hypothesis testing from the SmartPLS application. In terms of model fit, we received a goodness of fit (GOF) score of 0.494.

5.4. Model Fit. As discussed in Section 5.2, the findings of each construct included in the proposed model have been

presented. The findings of the structural model using SmartPLS have been examined in this part, utilizing data from all constructions of the proposed model, as shown in Figure 2. The results of the structural model using SmartPLS are presented in Table 6. In a research model, the model fit is comprised of the following three components: first and foremost, the coefficient of determination (R^2) is unacceptable when it is less than 0.19, poor when it is between 0.19 and 0.33, moderate when it is between 0.33 and 0.67, and excellent when it is greater than 0.67 [47]. A moderate influence is exerted by all of the components. CO, PB, PI, SO, ST, TA, and TR are around 0.718, 0.689, 0.736, 0.705, 0.698, 0.731, and 0.729. Second, standardized root refers to square residual (SRMR), and it should not be greater than 0.080 in order to be considered normalized [48–50]. This results in an acceptable value of 0.065 for the calculation result. The goodness of fit (GoF) is a measure of how well a model fits its data. As shown in (1), it can be classified as low (less than 0.10), small (between 0.10 and 0.25), moderate (0.25–0.36), or high (more than 0.36). Depending on this output, it is using the same measurement method as [70–72]. This results in a high level of GoF, which is 0.494. The result of GoF can be determined using equation (1) provided in the following:

$$\text{GoF} = \sqrt{\overline{R^2} \times \overline{\text{AvE}}} = \sqrt{0.342 \times 0.715} = \sqrt{0.244} = 0.494.$$

(1)

6. Discussion

This section will elaborate on comparisons between a proposed research model and prior research works, as well as their implications for theories and practice, based on the findings.

6.1. Analyzed Results. The results of the PLS algorithm reveal unequivocally that the three new variables included in the study, stakeholders (ST), transparency (TP), and social media network (SO), strongly correlate with and promote commitment (CO) and trust (TR). When commitment (CO) and trust (TR) are evaluated, participation intentions and behavior can be predicted. The hypothesis accepted all the findings and interpreted all the links as true, which corresponded to the number of reviews of the literature reviewed previously in the second session. The following relationship exists between the PLS algorithm's results: to begin with, online social media networks that have evolved into technology-based platforms, such as Facebook, Instagram, and WhatsApp, encourage participation in social communities, which promotes transparency and also facilitates communication among all stakeholders. As can be seen from the present, complaints about any product or service obtained by individuals in the public or private sector will be used to publish messages or video clips on social media with the option of tagging someone whose organization is primarily responsible for that product or service. As a result, this provides an impression of rapid access to problem solving compared to the past, when individuals were required to draft a complaint letter while performing several

TABLE 3: The reliability and validity of the results.

Construct		Question items	Mean	S.D.	Loading (>0.70)	VIF (<5.00)	Adapted from
Commitment	CO1	You are always willing to help with community events.	4.056	0.755	0.866	1.788	([55]; [56]; [57])
	CO2	You are proud to be a community member.	3.952	0.767	0.856	1.803	
	CO3	You believe that it is important to build and maintain positive relationships with local agencies.	3.829	0.829	0.764	1.634	
Participation behavior	PB1	You think participation should be easy and pleasant.	4.104	0.809	0.879	1.606	([58]; [59])
	PB2	You think that online communication might be more convenient.	4.131	0.827	0.875	1.730	
	PB3	You communicate with your college frequently via online communication.	3.994	0.795	0.818	1.533	
Participation intention	PI1	You think that community collaboration assures the success of all community activities.	4.041	0.817	0.855	2.163	([60]; [61]; [62])
	PI2	You think community collaboration is good.	4.016	0.808	0.848	2.112	
	PI3	You think a joyful community can develop and promote local goods and services.	4.037	0.764	0.838	1.566	
Social media networks	SO1	You are always on social media.	3.841	0.822	0.847	1.670	([63]; [64])
	SO2	You use social media to stay informed and connect with loved ones.	4.094	0.716	0.855	1.733	
	SO3	You think social networks make life easier.	4.155	0.626	0.814	1.607	
Stakeholders	ST1	You think bringing people together for activities helps the community's image.	4.019	0.723	0.864	1.834	([65]; [66]; [67])
	ST2	You think that local and community activities help the community's cohesiveness and economic well-being.	3.939	0.766	0.828	1.575	
	ST3	You think it is vital to share responsibility for the community and environment.	4.064	0.794	0.811	1.583	
Transparency	TP1	The community should know and understand the rules before they are implemented, you believe.	4.062	0.834	0.863	1.852	([68]; [69])
	TP2	You think everyone should consider public topics like income and expenses.	4.121	0.854	0.862	1.963	
	TP3	You think public agencies should share accurate data in an easy-to-read format.	4.072	0.816	0.840	1.679	
Trust	TR1	You can discuss your concerns with members of the community.	3.842	0.818	0.832	1.716	([61]; [14])
	TR2	You know that most people in the community will go out of their way to help others.	3.951	0.814	0.859	1.802	
	TR3	You trust that community members will always help you.	3.858	0.848	0.869	1.900	

TABLE 4: Fornell-Larcker criterion.

Constructs	CO	PB	PI	SO	ST	TA	TR
Commitment (CO)	0.847						
Participation behavior (PB)	0.511	0.830					
Participation intention (PI)	0.636	0.499	0.858				
Social media networks (SO)	0.543	0.456	0.513	0.840			
Stakeholders (ST)	0.624	0.573	0.671	0.519	0.835		
Transparency (TA)	0.599	0.466	0.657	0.493	0.624	0.855	
Trust (TR)	0.557	0.457	0.528	0.956	0.536	0.514	0.854

TABLE 5: Heterotrait-Monotrait ratio (HTMT).

Constructs	CO	PB	PI	SO	ST	TA	TR
Commitment							
Participation behavior	0.630						
Participation intention	0.783	0.607					
Social media networks	0.677	0.574	0.637				
Stakeholders	0.787	0.725	0.841	0.657			
Transparency	0.738	0.568	0.803	0.609	0.781		
Trust	0.688	0.570	0.644	0.841	0.667	0.628	

TABLE 6: Results of the structural model.

Hypothesis	Path	Path coefficient (β) (>0.10)	t value (>1.96)	p value (<0.05)	Inner VIF (<5)	Decision
H1	Stakeholders->commitment	0.325	7.354	0.000	1.825	Supported
H2	Stakeholders->trust	0.352	8.015	0.000	1.637	Supported
H3	Social media networks->stakeholders	0.519	14.260	0.000	1.000	Supported
H4	Social media networks->transparency	0.493	12.940	0.000	1.000	Supported
H5	Transparency->commitment	0.271	6.958	0.000	1.768	Supported
H6	Transparency->trust	0.294	6.056	0.000	1.637	Supported
H7	Commitment->participation intention	0.496	12.690	0.000	1.451	Supported
H8	Trust->commitment	0.244	5.806	0.000	1.515	Supported
H9	Trust->participation intention	0.251	5.467	0.000	1.451	Supported
H10	Participation intention->participation behavior	0.499	14.130	0.000	1.000	Supported

responsibilities. Second, communities now have a useful instrument in the form of a social media network that enables more transparent (TR) management. This would boost any firm's internal commitment (CO) and trust (TR). Finally, the intention of the community to participate increases as a result of commitment (CO) and trust (TR). This improves the community's willingness to participate, which in turn supports increased participation in all communities and groups.

6.2. Theoretical Implications. This research study expands the scope of the investigation and clarifies the relationships between the numerous input variables by relying on theories to predict the results, resulting in notable findings and new knowledge for future research projects as follows.

To begin, this research sought to expand the TAM by incorporating elements of trust and commitment from trust-commitment theory, as well as the TAM's perceiving utility (PU) and perceived ease of use (PEOU). The three new variables identified in this study, stakeholders (ST), transparency (TP), and social media network (SO), all significantly correlate with and encourage commitment (CO) and trust (TR), followed by favorable support for participation intention and growing participation behavior. This results in the development of a novel conceptual paradigm to understand the participation of users in the online community.

Second, this research is aimed at generating new knowledge and conclusions by introducing theoretically correlated variables that are likely to be promoted in order to integrate knowledge from related theories: TAM and CTT. This work
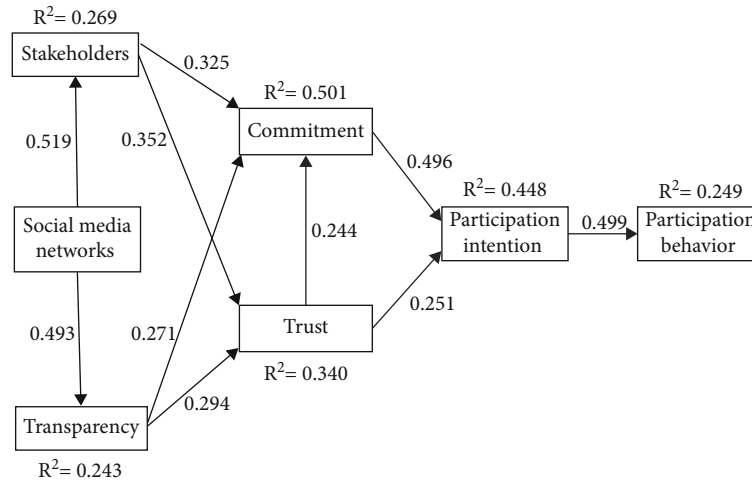
FIGURE 2: PLS algorithm results.

adds to our understanding of the conceptual model for controlling online involvement in any community by explaining and demonstrating their connection using internationally accepted advanced statistical methodologies.

Finally, this research updated and maintained the original TAM to reflect the changing environment by including crucial variables such as stakeholders (ST), transparency (TP), and social media networks (SO). These three additional variables were developed after an examination of pertinent literature and theories. This article presents the experiments that will be conducted to support the claims and demonstrate that the study is vital to understanding online community user engagement.

6.3. *Practical Implications.* This research study provides actionable insights into the participation of online community through participatory management, which incorporates management by allowing individuals within the company or those participating in the decision-making process to participate. Management must demonstrate innovation and skill to achieve objectives or resolve the numerous issues that arise due to joint management. This has several benefits for both the public and private sectors.

To begin with, this research study introduces online community involvement that can be utilized to record and distribute relevant information for community engagement and cooperation rapidly and simply. Because social media's ability to disseminate information rapidly and completely about breaking news or significant events is two ways, I believe this can improve efficiency. There is a technique for administering departments that is efficient and is transparent and always available for inspection by all parties. Departments can collaborate more effectively if they consider the use of social networks. In this way, everyone may contribute ideas and draw on the creativity and operational expertise of others to assist the agency in achieving its goals and resolving challenges within its current organization or area.

Second, this study gives models for engagement in online communities that can serve as a mobile conference room for multiteam collaboration. Meetings or brainstorming ses-

sions are required. To share their ideas about the event, users can create groups on online social media platforms such as WhatsApp or Facebook and chat, call, video call, and live stream within the group. As a result, it is an excellent venue or medium for meetings, conversations, voices, and coordination. Because meetings can be attended regardless of your location, distance is not an impediment to meetings. Plus, you will save money on meeting arrangements.

Finally, this conceptual model applies to online community involvement as a route for establishing new enterprises in a community, as social media is a relatively new sector that may be leveraged to develop commerce and marketing. Online marketing, colloquially referred to as "online marketing," is exploding in popularity because of how integrated social media is into people's lives nowadays. As a result, most entrepreneurs have fulfilled their objectives.

7. Conclusions

On this basis, the researchers developed an understanding of the online community water users' model to increase participation in the community water supply business. The study found that including stakeholders, transparency, and social networks in the overall functioning of a system increases trust and commitment. When individuals have greater trust in one another, it fosters participation and cooperation within the community, which fosters unity and increases the likelihood that the community will participate in intentions and behavior. Today, information exchange and cooperation have become easier. Due to the variety of accessible social technologies, social networks are becoming more receptive to communication and cooperation. An important outcome is that management be ethical and transparent, ensuring that all stakeholders, including owners, customers, and employees, benefit equitably. This means that the models for understanding online community water user participation discussed in this article are considered another way to increase the likelihood and benefit of developing participation intentions and behaviors that align with the needs and expectations of stakeholders and the community. It

helps any organization avoid risk and ensure smooth operation by cultivating positive relationships with all those who work together. The paper recommends combining a commitment-trust-based model with the TAM to create a robust model capable of increasing benefits and participation in all aspects of community business administration while mitigating risks for entrepreneurs who not only run community water supply businesses but also adapt to any organization to be more successful. Future studies should include as much variation as feasible in the research field, which might be accomplished by using qualitative research from different subject areas and in-depth interviews. Additionally, the statistical tools and methodologies used in this investigation were chosen according to the study's objectives and findings of the relevant literature reviews. A conceptual framework should be developed, and the appropriate tools should be utilized to evaluate and refine it, so that more studies into providing value-added community services based on a sustainable business framework may be conducted.

Data Availability

The original contributions presented in the study are included in the article/supplementary material; further inquiries can be directed to the corresponding author.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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