Student Engagement in Informal Social Media Based Peer Learning Communities in the Digital Age Motivation and Challenges

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Abstract

The proliferation of social media platforms has transformed the landscape of education, fostering the emergence of peer learning communities within these digital spaces. This research investigates the dynamics of student engagement in social media-based peer learning communities, focusing on motivations, the influence of unique platform features, and the challenges that shape the learning experiences and outcomes. A mix-method was used to explore the most commonly used social media platforms for peer learning and their learning experiences within these communities among students from FPT University in Danang, Vietnam. The results shed light on the drivers of student engagement, the ways in which these motivations manifest in their interactions, and the obstacles students encounter in their learning journey. This study contributes to the existing body of knowledge, offering practical insights into the selection of platforms, strategies for fostering motivation, and the design of interventions to address challenges. The data collected from FPT University in Danang, Vietnam, adds a unique perspective to the global conversation on student engagement in the digital age.

Keywords: *E-education, social media, peer-learning community, collaborative learning, online knowledge sharing, communication.*

1   Introduction

In today's digital age, social media platforms have emerged as dynamic and interactive spaces where individuals connect, share, and collaborate [1]. As per the 2022 social media report from Statista, there are roughly 4.2 billion active users of social media platforms globally [2, 3]. The global outbreak of the COVID-19 pandemic necessitated the use of digital platforms for various interactions, contributing to their significance by ensuring continuity in diverse urban and rural settings, including work, education, family life, and leisure activities [4-6]. This shift also extended to interactions among students [7]. Many authors have acknowledged the value of social networking sites in both formal and informal learning contexts [8]. In the field of education, the integration of social media has given rise to a new form of learning: social media peer learning communities. These virtual communities such as Coursera Discussion Forums, Facebook Study Groups, Reddit's Subreddits, WhatsApp Study Groups provide students with opportunities to engage in collaborative learning, share knowledge, and collectively navigate the complexities of contemporary education [9-11]. As educators and learners increasingly recognize the potential of these digital communities, it

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becomes imperative to invesitgate the dynamics of student engagement within them.

Student engagement, a multifaceted concept, lies at the heart of educational experiences [12]. It is the driving force behind learning, participation, and the creation of meaningful connections. The extent to which students are engaged in their learning directly influences their academic success, their perception of the learning process, and their personal and professional growth [13, 14]. Understanding the motivations and challenges of students in knowledge sharing in social media peer learning communities in the digital age is vital for educators, policymakers, and researchers [15]. It empowers them to adapt and improve education, leveraging the benefits of digital platforms while addressing the unique challenges that arise in this evolving educational landscape.

This study focuses on an exploratory journey into the motivations that drive students to participate in peer learning communities on social media and the unique challenges they encounter on this educational landscape. The exploration is guided by three core research questions.

1. Which social media platforms are most commonly used by students for peer learning, and how do the unique features of these platforms impact their learning experiences within the communities?
2. What are the primary motivations driving students to participate in peer learning communities on social media, and how do these motivations influence their level of participation and interaction within these communities?
3. What are the primary challenges and barriers students encounter when participating in peer learning communities on social media, and in what ways do these challenges affect their overall engagement and learning outcomes?

The scope of this study is centered on investigating and understanding the dynamics of student engagement in online peer learning communities, with a particular focus on students from FPT University in Danang, Vietnam.

Significance of this study

In an era where social media has become an integral part of our lives, the current educational literature mainly focuses around the integration of social media and education in formal learning settings, leaving a significant literature gap in our understanding of informal learning within these social media-based peer learning [16-18]. Unlike formal social media-based communities, which are structured and often guided by educational institutions, informal peer learning communities on these platforms evolve organically, driven by the interests and needs of the participants themselves [19, 20]. Therefore, this research addresses the knowledge gap in the literature by shedding light on the dynamics of informal social media-based peer learning communities in the digital age, providing a comprehensive understanding of how students engage, motivate themselves in these unstructured environments.

Additionally, current research on informal learning communities primarily directed their focus toward the content shared by participants, the analysis of the network structures or participants behaviors based on textual information available in the social media learning communities [18, 21, 22]. Meanwhile, limited attention has been paid to insiders' perspective including participants perception on their learning experiences within the communities, particularly, the insight from those joining the communities but being shy away from sharing, interacting in

social media learning community [23]. Therefore, this research will contribute to the existing educational literature by providing the insight of how university students, particularly, lurkers perceive learning in informal digital peer learning communities. This will offer valuable insights for educators, researchers, and policymakers seeking to harness the potential of digital platforms for learning.

Moreover, prior studies have primarily centered on the dynamics of knowledge sharing and interaction between teachers and students in online learning communities [24-26] while little attention has been paid to the dynamics of knowledge sharing among students themselves in this context. Therefore, this research will not only enrich our comprehension of how students engage with one another in these digital spaces but also emphasize the importance of peer-to-peer knowledge sharing in the modern educational landscape.

2 Literature Review

2.1 Theoretical framework

Self-Determination Theory (SDT) has played a pivotal role in educational research by shedding light on student motivation and the barriers they encounter when engaging in learning activities [27, 28]. SDT, developed by Deci and Ryan, posits that individuals have innate psychological needs for autonomy, competence, and relatedness [29, 30]. In an educational context, this theory has been widely employed to understand why students participate in learning activities and what factors contribute to their sustained engagement [27, 31-33]. Particularly, SDT has revealed that when students feel a sense of autonomy—having choices and control over their learning—they are more intrinsically motivated and actively engaged in the learning process [30]. Competence, the second pillar of SDT, highlighted the importance of students feeling capable and effective in their learning endeavors [28]. Lastly, relatedness, the third pillar, highlights the significance of forming meaningful connections with peers and instructors, which can significantly impact engagement [29].

2.2 Social media in education

Social media has become an integral part of our daily lives, transforming the way we connect, share information, and interact with the world [34]. Its defining features, such as user profiles, interconnections with other users, sharing of user-generated content, and dynamic content updates, have led to a new era of communication and knowledge sharing [35]. In recent years, the educational landscape has witnessed a significant transformation with the integration of social media into learning environments. Students at all levels, from primary school to university, are now active users of social media platforms [2]. This shift can be traced back to the early 2000s when online discussion boards and forums were the precursors to the integration of social media into education [36]. The emergence of Web 2.0 technologies introduced platforms like Facebook and Twitter, which have been adapted for educational purposes, promoting student collaboration, communication, and information sharing in a digital space [34, 36, 37].

Existing literature highlights a multitude of advantages associated with the incorporation of social media in education. Learning through social network sites, particularly Facebook, has been found to afford interaction, collaboration, information sharing, participation, and critical thinking [36, 38]. These platforms have also shown potential in enhancing peer support, intercultural language learning, and the development of digital literacies [39]. Moreover, social

media has a significant role in enhancing student engagement [40, 41].

Despite the many benefits, researchers have also issued warnings about the use of social media in education. Studies have shown that excessive time spent on social media, particularly on platforms like Facebook, can negatively affect academic performance [42]. Students who multitask with Facebook while doing schoolwork tend to have lower overall grade point averages [43]. Extracurricular use of social media has been found to be distracting, especially for weaker students [44]. Additionally, students are often hesitant to adopt social media as a formal learning tool, preferring to use it for course-related communication or socializing [35, 45].

2.3 Learning communities

Learning is inherently an individual process, yet it is enriched through social interactions [19]. The digital age has challenged the traditional approach in learning and facilitated a wider peer-to-peer communication as well as learning communities [20]. These communities may operate in both face-to-face settings and virtual spaces, adapting to the specific educational context and available technology, emphasizing active learning, peer interaction, and the exchange of ideas [46, 47]. Educators often play a pivotal role in facilitating and guiding the learning process in traditional learning communities, offering support, structure, and resources [47].

2.4 Social media-based peer learning communities (SMPLC)

Particularly, social media peer learning communities, which is a subset of learning communities, transcend traditional educational boundaries by leveraging social media platforms to foster knowledge sharing and peer interaction [48]. In fact, they operate within digital environments and feature student-driven, collaborative, technology-mediated learning experiences [16]. Interaction takes center stage, with students participating in discussions, collaborative projects, and activities that foster a sense of belonging [49]. These communities can operate in both physical classrooms and virtual spaces, adapting to the educational context and the available technology. SMPLC find application in both formal and informal learning settings.

Prior studies mainly focus on formal contexts of these communities, which provide a platform for collaborative learning, enhancing students' academic performance and promoting higher levels of cognitive literacy, and creativity [50]. Meanwhile, SMPLC also exist in informal settings. In fact, this peer-to-peer learning process typically unfolds informally, with minimal direct involvement from teachers, and tends to be especially advantageous for those students who demonstrate effective learning skills [45, 49]. When students face challenges or difficulties, they are more likely to turn to their peers for assistance rather than relying on the teacher [49]. These informal social media learning communities enables students share knowledge and information based on the shared interest and affinities [49, 51].

The digital participatory culture makes social media-based communities great places for community members to get information and learn because they offer various features to support online discussions [52, 53]. Examples of these communities are "English learning" group on Facebook, Coursera learners' community on Facebook discussion group, Tech Enthusiast Forums, Student Research Forums, International Exchange Preparation Forums, etc [35]. Ito and colleagues (2013) investigated several "connected learning" case studies to understand how young individuals involved in various online communities, such as an online fiction-writing group, the creation and development of an online comic, and the interaction in

an online civil action community [54]. These communities facilitate a shift in the educational emphasis from content-based learning to process based-learning [35].

However, one of the primary challenges lies in the reliability and quality of information shared within these communities [55, 56]. Given the open and unregulated nature of social media platforms, misinformation and inaccuracies can easily spread [57]. Another challenge is the potential for distractions. Social media platforms are designed to be engaging and interactive, but this can also lead to learners being sidetracked by unrelated content [58]. The same platform that provides educational resources can also offer an endless stream of entertainment, which may impact concentration and focus [59]. Moreover, informal social media-based learning communities lack the formal structures and accountability mechanisms of traditional education [22, 60]. This can result in inconsistent learning experiences and progress tracking.

2.5 Motivation for student engagement in online learning environments

Motivation refers to the inner drive or stimulus that initiates, directs, and sustains individual behaviors. It is the force that direct individuals to take action, work towards goals, and persist in their efforts [61, 62]. Motivation can be influenced by various factors related to their intrinsic and extrinsic motivation [63]. These can be personal desires, external rewards, societal expectations, and individual beliefs. In the context of education, motivation is the incentive or reason that propels students to engage in learning activities, complete assignments, and pursue academic goals [64]. Understanding student's motivation for active engagement in online learning environments is important because it not only impacts the learning experience but also affects student retention, satisfaction, and long-term educational and career outcomes [64, 65]. Particularly, motivated learners are more likely to actively participate, collaborate, and contribute to learning communities. Interaction and participation in learning create a co-creative ecosystem, empowering participants [8].

Notably, previous research emphasizes that students are highly motivated by their grades, often serving as the primary driver for engagement [66], meanwhile it is not always the main reason for student active engagement in informal social-media peer learning communities. Students in these learning communities are often united by common educational goals, shared interests that fuels their intrinsic motivation [60]. The sense of belonging to a community of peers who share similar aspirations and objectives can be a powerful motivational factor [67-69]. Furthermore, the collaborative nature of these communities offers students a sense of accountability to their peers, enhancing their commitment to contributing positively to the collective learning experience [70]. Whether in traditional or online settings, motivation within learning communities fosters a dynamic, engaging, and effective educational experience, ultimately driving students toward academic success and personal growth.

2.6 Challenges for student engagement in online learning environments

Student engagement in online learning environments, particularly in SMPLC is negatively affected by several factors. Firstly, it often stems from psychosocial factors that influence students' knowledge-sharing behaviors [71]. Students who have a strong need for social approval may be more motivated to engage, while those who lack it may face challenges in active participation [2]. Moreover, students with low self-efficacy may doubt their capacity to effectively engage in social media discussions or collaborative activities [72]. They might feel overwhelmed by the technology or lack confidence in their ability to contribute meaningfully. Another factor is privacy concern. Students may have reservations about sharing academic-

related content or personal information in open social media spaces due to privacy and security concerns [73]. Understanding the challenges for student engagement in informal SMPLCs is vital for optimizing informal online education, promoting student success, and creating a more inclusive and supportive learning environment.

3   Methodology

3.1 Research design

This study employed a mixed-method research design, combining both qualitative and quantitative approaches. The use of interviews and surveys provided a holistic investigation into the motivations and challenges within online peer learning communities, providing both in-depth insights and a broader perspective on the research questions. It is particularly suitable for this study due to its multifaceted nature. The qualitative component (interviews) allows for a deep exploration of individual experiences and perspectives, uncovering nuanced insights. Simultaneously, the quantitative component (surveys) provides a broader view, enabling the identification of prevalent trends and patterns across a larger sample of students. This methodological choice ensures the research is well-rounded, addressing the complexity of the research questions.

4   Data collection and analysis

For the qualitative component, 22 students from FPT University's Danang campus were selected for in-depth interviews. The selection of participants followed a purposeful sampling strategy. Specific criteria were used to identify interviewees, focusing on those with relevant experiences in online peer learning communities including diversity of participants, relevance of experience, willingness to participate. Individuals from various academic disciplines, grade levels, and backgrounds were chosen to ensure a broad representation of student experiences. Additionally, selected participants had engaged in at least two social media peer learning communities, ensuring their experiences were pertinent to the research questions.

The quantitative component involved the administration of a survey to 128 students from FPT University in Danang, Vietnam. The selection of participants for the survey was based on random sampling, chosen from a larger pool of university students. This random sampling approach enhances the external validity of the study's quantitative findings, enabling the results to be generalized to a more extensive student population.

The data collected through qualitative interviews will be subjected to thematic analysis to uncover patterns and themes within participants' narratives. For the survey data, statistical analysis, will be applied to identify trends and correlations within a larger student population. The integration of these data analysis methods ensures a comprehensive exploration of student motivations and challenges in informal social media peer learning communities.

4.1 Research context

FPT University holds a distinct commitment to technology and IT-related programs, fostering an environment where students are frequently tech-savvy and proficient in digital platforms [74]. This emphasis on technology aligns seamlessly with the research's focus on online peer learning communities. Furthermore, FPT University boasts a diverse student body,

encompassing individuals from a wide array of backgrounds, regions, and even international students. It's noteworthy that FPT University operates under the ownership of the FPT Corporation, Vietnam's largest information technology company. This unique affiliation provides exceptional prospects for specialized job training, internships, and professional networking, making it an ideal setting for conducting research on student engagement in online peer learning communities.

5   Findings and Discussion

5.1. Research question 1: Which social media platforms are most commonly used by students for peer learning, and how do the unique features of these platforms impact their learning experiences within the communities?

The research findings reveal that students at FPT University Danang commonly use Facebook and Zalo as social media platforms for peer learning (as shown in Figure 1). Among these platforms, Facebook stands out as the preferred choice for peer learning activities. Students tend to join Facebook groups and communities to engage in knowledge sharing and informal learning experiences, emphasizing its role in supporting their educational journey. Facebook offers a wide range of group types, including open, closed, and secret groups [75]. This diversity allows students to choose the level of privacy and exclusivity that aligns with their specific learning needs and preferences [76]. Additionally, Facebook enables the sharing of various media formats, such as text, images, videos, documents, and links [77]. This versatility in media sharing enhances the learning experience, making it more interactive and engaging for participants [78].
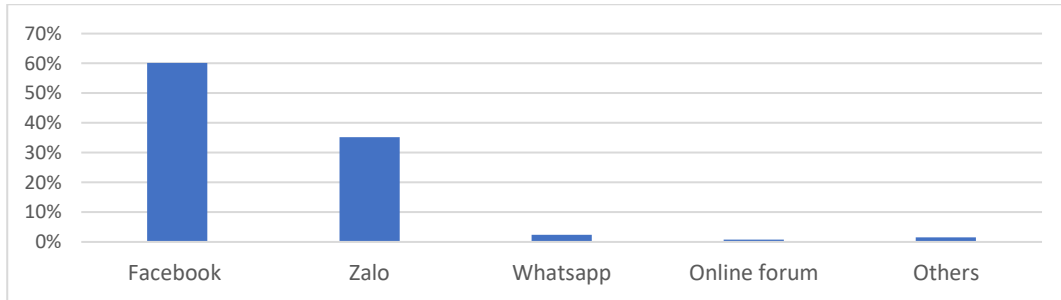

Figure 1. The most prefered social media platform for peer learning communities
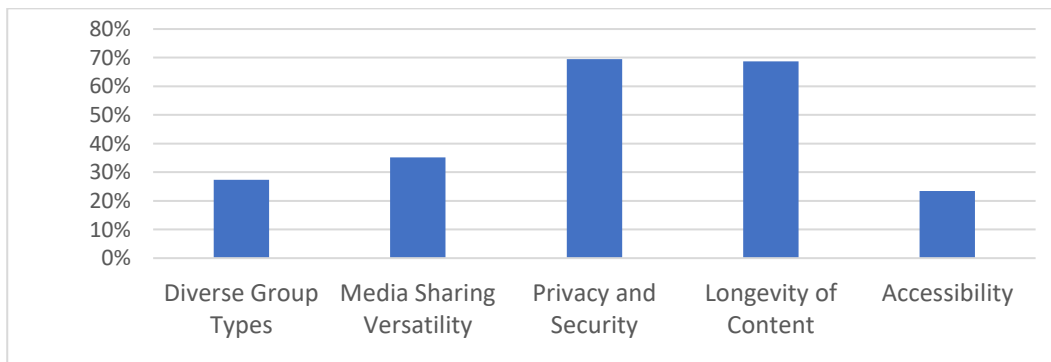

Figure 2. The unique features that make Facebook stands out as the preferred choice for peer learning

In addition, students mentioned that one key advantage of Facebook is the ability to **connect with peers** without revealing their phone numbers. In contrast, on Zalo, users are typically required to share their phone numbers to connect and add friends to their network or groups. The ability to connect with peers on Facebook without sharing phone numbers is an important feature that contributes to its popularity among students in peer learning communities. This feature aligns with the desire for privacy and online security while still facilitating social interaction and knowledge sharing [73]. It allows students to establish connections based on shared interests, academic goals, or mutual learning objectives. Facebook's approach to friend connections, which primarily relies on usernames and email addresses, provides an added layer of privacy and security. This finding is consistent with prior studies regarding the concern for privacy and security in using online learning communities [79, 80]. Students prefer to interact and collaborate within peer learning communities without the need to disclose personal contact information. This feature fosters a safe and comfortable environment for students to engage in informal learning and knowledge sharing.

Moreover, students mentioned **the longevity of content** (as shown in Figure 2) as another factor that influences their choice of platform. They noted that content shared within Facebook groups or chats tends to be saved for a longer duration, whereas files and images shared on Zalo may be deleted after a few months. Facebook's feature that allows content to be saved for an extended period provides several advantages. It ensures that the valuable resources, discussions, and shared knowledge within peer learning groups remain accessible to students over time. This feature is particularly beneficial when students wish to revisit past conversations, review study materials, or refer to previously shared files and images. On the other hand, Zalo's practice of potentially deleting content after a few months could result in the loss of valuable information and resources, which can be frustrating for students who rely on these materials for their learning and academic progress. It also highlights the difference in content management between the two platforms, with Facebook offering more robust content retention options [81].
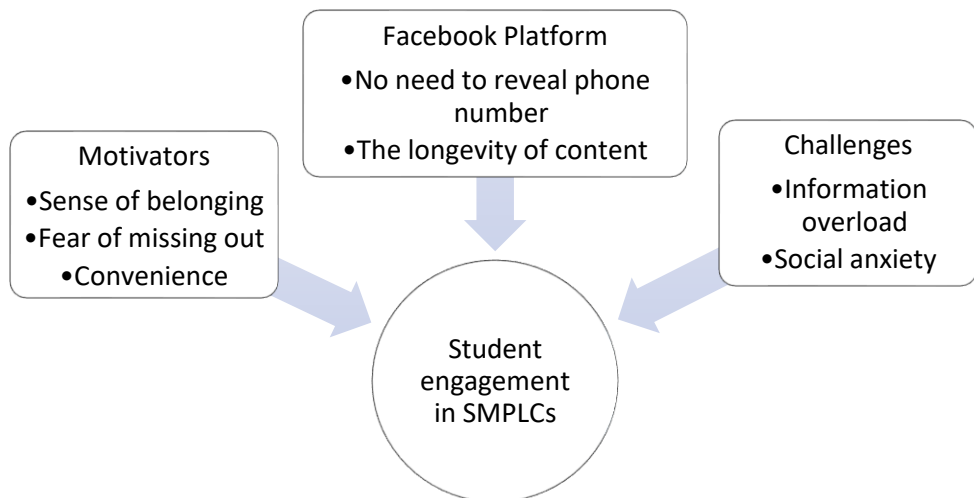

Figure 3. Student engagement in SMPLCs: Motivators and Challenges

5.2. Research question 2: What are the primary motivations driving students to participate in peer learning communities on social media, and how do these motivations influence their level

of participation and interaction within these communities?

Our research reveals that students are primarily motivated to participate in SMPLCs by the following factors. Firstly, a sense of belonging and the opportunity to connect with peers who are pursuing similar learning goals act as strong motivators. According to Self-Determination Theory, these students are driven by the need for autonomy, competence, and relatedness in their academic pursuits [32]. The autonomy to connect with like-minded peers and openly discuss questions and concerns empowers students, fostering a sense of control [29]. Engaging with like-minded peers enhances their competence, as they recognize their shared struggles and gain confidence. Moreover, the sense of belonging and relatedness within these communities alleviates feelings of isolation and encourages open discussion, meeting their need for relatedness [29]. When individuals within these communities share questions or concerns that mirror their own, students no longer feel isolated or harbor negative self-perceptions, thus fulfilling their psychological needs. As one student put it, *"Realizing that other members of the community had the same questions as me made me feel like I wasn't alone in my struggles"*. Consequently, they become more inclined to openly discuss their issues and are less fearful of concealing them. This interplay between the SDT factors of autonomy, competence, and relatedness underpins their motivation to actively participate in these SMPLCs.

Additionally, another factor motivating students is the fear of missing out (FOMO). They worry that not joining these communities will result in *"the exclusion from important academic discussions and collaborative opportunities"*. This fear of missing out on real-time updates and the latest developments in the academic field reflects the broader issue of social influence and psychological motivations. It aligns with the concept of staying current within the community, as students are drawn to ongoing conversations and the need to stay informed.

Thirdly, the convenience of accessing study-related information and engaging with peers on a familiar platform like Facebook serves as a significant motivator for students. This convenience aligns with the modern learning landscape, where digital platforms play a pivotal role. As a result, students find it more accessible to connect with peers, share insights, and stay informed about the latest developments in their academic circles, ultimately enriching their educational experience.

5.3. Research question 3: What are the primary challenges students encounter when participating in peer learning communities on social media, and in what ways do these challenges affect their overall engagement and learning outcomes?

The research reveals several challenges for student engagement in SMPLC. Firstly, information overload on these group chats can make students feel overwhelmed. One participant shared *"The flood of information sometimes made it difficult to stay engaged in the conversations"*. When there's an overwhelming amount of information and discussions happening within these communities, students might experience the following challenge. When students are overloaded with information, they might struggle to grasp the core concepts and take away meaningful insights from discussions. This reduced comprehension can discourage them from participating more actively as one respondent shared *"I hesitate because I'm not sure if I really understand what we're talking about"*.

One notable challenge is social anxiety, which can manifest as a fear of judgment or negative evaluation by peers, even in digital spaces. This fear of criticism often hinders students' willingness to contribute openly within these virtual learning environments. Consequently, they may resort to selective sharing, confiding only in trusted friends within these online

communities. *"I felt more at ease when I received validation and support from my close friends in the community".*

Such students tend to experience heightened comfort and confidence when they receive validation and support from their close-knit circles, eventually allowing them to share their ideas with the larger community. This finding aligns with SDT's relatedness aspect. Socially anxious students may be particularly sensitive to relatedness, seeking connections and support from friends to fulfill this need [27, 82]. To overcome this barrier, it's essential to create a supportive and non-judgmental environment that fosters relatedness and autonomy [83]. Small group discussions within the larger community can act as a steppingstone for socially anxious students to gain competence and build connections with peers [78, 84]. Encouraging them to embrace imperfection and gradually work toward more substantial contributions aligns with the principles of autonomy and competence. Additionally, peer support and mentoring systems can offer relatedness and guidance, empowering socially anxious students to engage more actively [85].

6   Limitations

The study focused on a specific group of students from FPT University Danang, Vietnam, thus the findings may not be generalizable to a broader or more diverse student population. Future research should consider a larger and more diverse sample to enhance the external validity of the findings. The study was conducted within the cultural and contextual framework of Vietnam. Student engagement in peer learning communities may be influenced by cultural factors, educational systems, and societal norms that differ from those in other regions. Future research should explore these variations to gain a more global perspective.

7   Implications and Conclusion

The findings of this study provide several important implications for educational institutions and online learning communities. Firstly, recognizing the popularity of Facebook and Zalo as platforms for peer learning highlights the importance of incorporating these platforms into educational strategies. Institutions can leverage the diverse group types and media-sharing capabilities of Facebook to create tailored learning environments that cater to students' privacy and engagement preferences. Moreover, emphasizing the longevity of content in Facebook groups can promote the preservation of valuable educational resources and enhance the overall learning experience. Additionally, considering the privacy and security concerns of students, educational institutions should prioritize the development of platforms that allow for peer connections without the need to disclose personal contact information, further promoting a safe and comfortable learning environment.

In conclusion, this research sheds light on the dynamics of student participation in Social Media Peer Learning Communities. It reveals the pivotal role of social media platforms such as Facebook and Zalo in facilitating peer learning and informal knowledge sharing. Students are primarily motivated by a sense of belonging, and relatedness, all of which align with Self-Determination Theory. The fear of missing out (FOMO) and the convenience of accessing study-related information further drive their active participation. However, the challenges of information overload and social anxiety may hinder their engagement. These findings highlight the need for educational institutions to harness the potential of social media platforms while addressing the

associated challenges to create inclusive, effective, and supportive peer learning environments.

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