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PAPER

Perceptions of University Teachers on Microsoft Teams for Online Instruction: A Case Study in Vietnam

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ABSTRACT

In recent years, Vietnam has experienced a surge in the popularity of online education. Microsoft (MS) Teams has been selected by numerous universities as a platform for online instruction. However, there is a scarcity of research on the perspectives of university educators on the use of this platform. This mixed-methods case study aims to examine the perceptions of Vietnamese university lecturers regarding the platform's simplicity of use and utility in the delivery of online courses. The study also seeks to determine whether there is a substantial disparity in perceptions between male and female instructors and to investigate the obstacles associated with utilizing MS Teams for online instruction. Sixty-two instructors from a university in the northern region of Vietnam, who have expertise in teaching online courses, were provided with an online questionnaire. Additionally, semi-structured interviews were conducted with nine lecturers to gather more detailed information. According to the findings, the educators demonstrate a significant level of admiration for the platform, particularly in terms of its functionality and user-friendliness. The simplicity of learning to operate the platform is a significant distinction between the two gender categories. The results also indicate that lecturers face psychological, physical, and technological difficulties when employing the platform.

KEYWORDS

online instruction, Microsoft (MS) Teams, platform, university lecturers' perceptions

1 INTRODUCTION

The future trajectory of education is shifting towards online platforms, both in Vietnam and worldwide [1]. Online learning has been more popular in Vietnam due to two main factors: the broad impact of the COVID-19 pandemic and the government's aggressive efforts to incorporate technology into the education sector [2]. Online learning has increasingly become a crucial element for several Vietnamese instructors and students [3]–[5].

In the first quarter of 2020, Vietnam was hit by the COVID-19 epidemic, causing significant disruption and transformation in the economy, society, and specifically

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the education sector [4]. Vietnam has enforced a requirement for all educational institutions to shift from face-to-face teaching to online learning. Around 22 million students in 40 out of the total 63 provinces and cities in the nation have switched to online education [6]. This is a remarkable achievement that paves the way for important improvement and expansion in online learning, transitioning from successful trial research to general use [7], [8].

Recently, the Vietnamese government has made efforts to promote the integration of technology in education [6], and technology is playing a crucial role in shaping this progress [9]. The Ministry of Education and Training (MOET) has released important law papers to provide guidance and support for the progress of information technology in educational institutions, namely for the purpose of teaching and learning. Circular 21, released by the MOET on September 6, 2017, establishes the regulations that regulate the use of information technology in web-based training for teachers, staff, and educational administrators [10]. On June 6, 2020, the Prime Minister gave official support to Decision 749, which grants approval to the national digital transformation initiative with a focus on promoting digital transformation in education [11]. While government programs aimed at expediting the deployment of technology have partially addressed the issues of inequality and subpar quality in education, there are still significant concerns over the practical efficacy of their implementation [12], [13]. There is still a problem for educators about the absence of adequate instruments for ensuring high-quality online education [6].

A number of Vietnamese colleges have opted for Microsoft (MS) Teams, a platform built by Microsoft, as a technology solution for online teaching in order to address the COVID-19 epidemic and align with the government initiative to digitize education [14]. As to Microsoft [9], at the beginning of January 2020, a total of 22 million pupils in Vietnam started remote learning due to a lockdown implemented to combat COVID-19. Microsoft collaborated with MOET to provide remote learning to educational institutions throughout 61 provinces in Vietnam, including more than three million Office 365 accounts [9].

Existing literature indicates that there is a significant amount of study on students' viewpoints about MS Teams in online learning. Nevertheless, there is a global shortage of data about the perspectives of university instructors on MS Teams as an e-learning platform [15]. Moreover, with the growing number of educational institutions using the platform, it is necessary to conduct research to assess its effectiveness in supporting online learning [16]. Assessing the usability and user experience of an online learning platform is a significant area of focus [17]. The effectiveness of instructional technology relies significantly on the attitudes and openness of educators [18], [19]. There is a direct correlation between a user's favorable attitude towards a product or technology and their desire to utilize it [17]. In order to assess the efficacy of e-learning technologies, it is essential to comprehend the perspectives of important stakeholders, particularly students and instructors [20]. In the higher education setting of Vietnam, current research predominantly examines students' impressions of MS Teams, with less attention given to instructors' perceptions of MS Teams in online teaching [21].

Scholars in the field of social studies highlight the lack of focus on gender disparities in technology integration and call for more investigation into this area [22]. Furthermore, Zhou and Xu [23] assert that there is a scarcity of research examining gender disparities in the use of technology in higher education. Therefore, it is crucial to examine any gender discrepancies in the adoption and exploitation of technology [24].

Despite the increasing significance of online education and the widespread use of MS Teams by Vietnamese institutions, there is a noticeable absence of thorough study investigating university instructors' views on this platform. More precisely, there is a lack of knowledge on the practicality and user-friendliness of MS Teams as seen by lecturers. Additionally, there is a need to explore possible variations in these views based on gender, as well as the difficulties encountered by educators while using the platform for online teaching. This literature gap emphasizes the need to conduct a thorough examination of the experiences and attitudes of university lecturers towards MS Teams. This inquiry will provide valuable insights for the development of future implementation and support strategies for online education platforms.

This study aims to address the research problem by establishing three objectives: (1) to ascertain the perceptions of university educators regarding the efficacy and ease of use of MS Teams for online instruction; (2) to examine potential gender-based disparities in teachers' perceptions of MS Teams; and (3) to identify the challenges faced by lecturers when utilizing MS Teams as an online learning platform. The study employs a questionnaire, derived from Davis's [25] technology acceptance model (TAM), and semi-structured interviews as its primary methods of data gathering.

2 LITERATURE REVIEW

2.1 Microsoft Teams as a platform for online teaching and learning

In the evolving landscape of digital education, MS Teams has emerged as a pivotal platform for online learning in Vietnam. Organizations and local governments worked with MS to reduce the digital gap and educate every young person on digital literacy [26]. MS introduced Teams online and mobile in 2017 [27]. Qualified schools may utilize the platform for free. Paid subscriptions unlock features [28]. MS Teams promotes online education in Vietnam, which is vital for education and government policy [9]. MS Teams was an internationally known digital learning tool before and during the pandemic [20], [29], [30], [31], [32]. Users have grown significantly over the past few years [28], [33]. The platform is an excellent integrated learning environment with capabilities that may outperform internet alternatives [17]. MS Teams was a key online learning platform in Vietnam during and after COVID-19 [8], [34]. Asynchronous and synchronous lectures and courses are available via different media platforms [35], [36]. MS Teams is popular for its synchronous learning, simple grade submission, and high-quality live classrooms with full broadcast control [18].

2.2 Teachers' perceptions of technology application in education

The TAM is a widely used framework for evaluating the perceptions of technology and products among users [17]. The TAM is a valid measure for evaluating perceived usability [3], [18], [24], [37], [38], and [39]. Perceived utility (PU) and simplicity of use (PEOU) are the foundations of the model. Davis [25] describes PEOU as "the degree to which a person believes that using a particular system would be free of effort" in addition to PU as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p. 321). The belief in these two factors increases individuals' intention to use [17].

Educators generally favor technology in the classroom [40], [41]. Malaysian educators' approval of e-learning in English instruction was investigated by

Hu and AlSaqqaf [38]. The investigation comprised 144 English instructors from 18 educational institutions in Malaysia. A 15-item TAM questionnaire was employed to gather data. E-learning was broadly supported by teachers in PU (mean = 3.92) and PEOU (mean = 3.79). The TAM was employed by Tan [42] to investigate the perspectives of TESL pre-service instructors regarding multimedia content creation. Tan [42] investigated perceived utility (PU), ease of use (PEOU), satisfaction (SN), and intention to use. Blendspace, a Web 2.0 application, was employed to generate media. The investigation was bolstered by quantitative analysis and survey data. The study comprised 69 pre-service TESL teachers from public institutions in Sabah, East Malaysia. Moderate acceptance was demonstrated by the observed PU (mean = 3.82), PEOU (3.52), SN (mean = 3.35), and IN (mean = 3.82). The adoption of technology by English instructors in Türkiye was examined by Kirmizi [43]. This investigation implemented the TAM with seven constructs: perceived utility, convenience of use, facilitating conditions, attitude toward computer use, technological complexity, computer self-efficacy, and behavioral intention. The study comprised 213 Turkish pre-service English instructors who instructed pupils in the first through fourth grades. A computer attitude scale was employed to gather data. The mean value of the technology attitudes of first-grade instructors was the lowest among all seven TAM constructs. Lavidas et al. [44] explore how Greek college instructors embrace Moodle, an open-source learning management system. This study explores instructors' views, unlike earlier studies on students. A sample of 85 Moodle-using instructors was studied. According to the TAM, perceived ease of use, perceived utility, behavioral intention to use, self-efficacy, subjective norms, and technical complexity were examined. Perceived usefulness and simplicity of use predicted 68.3% of lecturers' behavioral intention to use Moodle. Also important were subjective standards, self-efficacy, and technical complexity. The report suggests training and technical assistance for academic staff to improve Moodle's usability and uptake in higher education.

2.3 Teachers' perceptions of Microsoft Teams in online instruction

Regarding teachers' perceptions of MS Teams in online learning, in many studies, it has been observed that instructors frequently hold a favorable opinion of it, regarding it as a practical and user-friendly platform for delivering online assignments.

A study was conducted by Olugbade and Olurinola [45] in the southwestern region of Nigeria to investigate the perspectives of educators regarding the implementation of MS Teams as a remote learning platform in fifty-one institutions. A questionnaire consisting of 22 items was employed by the authors to gather data from the participants. Teachers had extremely positive perceptions of MS Teams' efficacy with regard to grading and assignment management, student-teacher interaction, and classroom administration, according to the findings. The study also revealed that two major challenges encountered by the teachers were management of students' attention and poor student engagement. Similarly, Al Enezi et al. [18] evaluated the perspectives of 230 teachers at a Kuwaiti college using a 16-question survey based on the TAM. The findings revealed that instructors rated MS Teams highly across all dimensions, with mean scores ranging from average to exceptionally high. In another study, Sayeh et al. [36] surveyed 157 university professors in Morocco using a ten-item attitude rating scale. The results indicated that teachers held favorable opinions about the features provided by MS Teams for online instruction.

Contrarily, Sayeh and Razkane [46] surveyed 171 high school English teachers in Morocco and found that their attitudes toward the platform's usefulness were unfavorable.

2.4 Teachers' challenges of using Microsoft Teams for online instruction

Effective online learning faces several obstacles, including inadequate teaching materials, poor internet infrastructure, lack of proper equipment, and unprepared academic institutions [20]. Teachers also encounter challenges such as reduced interaction, decreased motivation, technical issues, and data privacy concerns [47]. Dinc [48] categorizes these barriers into external and internal. External barriers include insufficient funding, limited equipment, poor administrative support, unreliable equipment, and time constraints. Internal barriers involve inadequate competence, unwillingness to adopt new technologies, and lack of confidence. Research highlights specific challenges with MS Teams. Alainati et al. [49] found that 161 teachers at a training center in Kuwait faced obstacles such as inadequate help desk support, insufficient training, lack of motivation from management, and absence of electronic instructional resources. In Vietnam, Pham [21] studied 35 English instructors at a vocational school, finding that while teachers had favorable opinions of MS Teams, they did not report specific difficulties. This indicates that challenges can vary based on the context and support systems in place.

2.5 Gender differences in teachers' technology acceptance in education

Research on gender differences in teachers' acceptance of technology is equivocal. In their work, Teo et al. [24] used the TAM to evaluate gender disparities in pre-service teachers' technology adoption. The study involved 339 instructors from a Southeast Asian training institution. The researcher employed 11 five-point Likert scale questions to gather research data. While there was no statistical difference in perceived usefulness, attitudes toward technology, or intention to use technology, female pre-service teachers scored lower on perceived ease of use, suggesting that technology use is harder for them.

Zhou and Xu [23] studied technology adoption at a notable Canadian institution. Its goal was to improve understanding of gender's role in university instructional technology adoption. The authors used a 30-question survey to collect data from 341 full-time and sessional academics. Females were less confident and proficient in using technology for training. Women learned technology from outside sources, whereas men learned from their own experiences. The results imply that professional development programs for women should include showcases and experiences, whereas training for men should emphasize hands-on activities.

To explore gender differences in social studies, Bervell et al. [50] examined senior high school teachers' views on technology usage in education in Cape Coast, Ghana. Social construction and essentialism underpin the research. The study employed a questionnaire to collect data from 50 technology-integrated social studies professors. Data analysis used an independent t-test at 0.05. The mean answers for training, competence, and technological integration were higher for women than males.

3 METHODOLOGY

3.1 Context

The research was conducted by a university in a province in northern Vietnam that used to be a teacher training college and was upgraded to full status as a university in 2007. The university is under the administrative management of the provincial authority with the mission of training a highly educated workforce for the province and the surrounding areas. There are six departments and two faculties. The university's training focuses on two main fields: pedagogical and non-pedagogical. The first field is for teacher education training, and the latter is for other types of training, including economics, business administration, accounting, tourism, culture, and technology. This study was carried out during the second semester of the academic year 2022–2023. MS Teams has been the technological platform of choice for the university to deliver online courses since 2018, as it lacks its own exclusive online learning platform. The institutions selected Microsoft's free A1 plan for Office 365 Education. This subscription includes MS Teams, OneNote, Excel, and Word. Microsoft accounts were issued to both teachers and students, which allowed them to access the application from any location and at any time. The majority of university courses transitioned to an online format during the COVID-19 pandemic, with MS Teams serving as the primary platform for instruction and learning. MS Teams remained the primary instrument for online teaching and learning for educators and students in the aftermath of the epidemic.

3.2 Participants

This case study involves 62 instructors who work as members of the university's academic personnel using MS Teams for teaching online courses. Table 1 presents participants' demographical information. The lecturers work in five different departments (Department of Foreign Languages and Information Technology, Department of Tourism, Department of Economics, Department of Primary Teacher Training, Department of Secondary Teacher Training) and two faculties (Faculty of Political Theory Education and Faculty of Psychology in Education and Physical Education). The participants' ages range from 31 to 50, among which the majority are in the range of 31–40. In terms of gender, there are 24 males and 38 females. The online courses the instructors delivered cover a wide range of subjects consisting of English, basic information technology, philosophy, advanced mathematics, business administration, accounting, Vietnamese culture, and psychology in education. All of the participants have experience teaching at least one online course using MS Teams.

Table 1. Demographical information of participants *(N = 62)*

Categories		Frequency	Percent
Gender	Male	24	39
	Female	38	61
Age	31–35	12	19
	36–40	35	56
	41–45	10	16
	45–50	5	8

(Continued)

Table 1. Demographical information of participants *(N = 62) (Continued)*

Categories		Frequency	Percent
Departments/Faculties	Foreign Languages and Information Technology	19	31
	Tourism	8	13
	Economics	13	21
	Primary Teacher Training	2	3
	Secondary Teacher Training	3	5
	Political Theory Education	10	16
	Psychology in Education and Physical Education	7	11

3.3 Research questions

The paper will address the following research questions:

1. What are the lecturers' overall perceptions of MS Teams with regards to the usefulness and the ease of use in online instruction?
2. Is there a significant difference in the lecturers' perceptions according to gender?
3. What are the difficulties the lecturers encounter when using MS Teams?

3.4 Data collection instruments and procedures

The study utilized a mixed-methods research methodology to investigate two research inquiries, employing a questionnaire to gather quantitative data and interviews to collect qualitative data. Cohen et al. [51] assert that one can quantitatively evaluate quantitative data to understand the patterns and frequency of the issue, and qualitative data from interviews can provide detailed insights.

In order to gather quantitative data for the first research question regarding instructors' perspectives on MS Teams, a survey consisting of two parts is employed. Part one has the purpose of collecting demographical information of the participants on their gender, age range, departments, and courses. Part two consists of 12 Likert scale items. The scale ranged from 1 (strongly disagree) to 5 (strongly agree). The questionnaire items are derived from two primary elements of the TAM model: Items one to six pertain to perceived usefulness, while Items seven to 12 pertain to perceived ease of use. The questionnaire was sent to the participants' emails using Google Forms links two weeks prior to the conclusion of the semester. To obtain the participants' consent, a brief introduction about the study was provided at the beginning of Google Forms, explaining the objective of the research and the nature of the questions, emphasizing the voluntary nature of participation. 62 lecturers completed and responded to the questionnaire within a week.

Semi-structured interviews with nine volunteer instructors were undertaken through phone calls to address the second research question, which focused on the challenges that teachers had when using MS Teams. The interview schedule set between the researcher and the participants was agreed upon based on the interviewees' convenience. All the interviews were conducted during the daytime of working days. Vietnamese was used as the language for the interviewer and the interviewees, which enabled the interviewees to share their thoughts comfortably. Each interview lasted about 15 minutes, which was audio recorded with the interviewees' permission.

3.5 Data analysis

The quantitative data collected for research questions one and two were downloaded onto a Microsoft Excel spreadsheet and subsequently transferred and analyzed using SPSS version 25. Means and standard deviations (SD) were calculated using descriptive statistics to measure the overall perceptions, and independent sample t-tests were used to find significant differences in the perceptions regarding gender. The acceptable statistical significance was set at < 0.05. The arithmetic mean, based on five levels ranging from extremely low to remarkably high, determines the technological acceptance level [18]. The range for the extremely low level is 1–1.8, the low level is 1.81–2.6, the average level is 2.61–3.40, the high level is 3.41–4.20, and the remarkably high level is 4.21–5.

As for the analysis of the qualitative data gathered from the interviews for research question three, the audio data was transcribed and underwent content analysis. Content analysis was chosen as the approach to data analysis because it allowed for a systematic and objective means of making valid inferences from verbal data, facilitating the identification of themes and patterns within the data set [52]. This approach was particularly suitable for this study as it aimed to uncover the challenges the instructors faced when using MS Teams, which are best explored through qualitative, descriptive data. The process involved several steps: familiarizing oneself with the data through repeated readings and interpreting and categorizing the labels into similar themes. As the results of the process, three main topics of the lecturers' difficulties were identified, which matched with the themes in the literature: 1) psychological, 2) physical, and 3) technical.

4 FINDINGS

4.1 Research question 1: What are the lecturers' overall perceptions of MS Teams with regards to the usefulness and the ease of use in online instruction?

A descriptive statistics test was used to examine the results of the data analysis for the lecturers' overall perceptions of MS Teams with reference to its usefulness and ease of use. The results of the survey suggest that the lecturers have a high degree of perception of the usefulness (mean = 4.01) and ease of use (mean = 3.94) of MS Teams when it comes to the delivery of online classes (refer to Table 2).

Table 2. Lecturers' perceptions on the usefulness and ease of use of MS Teams

Items for Perceived Usefulness	N	Mean	SD	Level	Rank
1. Using MS Teams in my job would allow me to accomplish tasks more quickly.	62	4.05	.818	high	3
2. Using MS Teams would improve my job performance.	62	4.02	.735	high	4
3. Using MS Teams in my job would increase my productivity.	62	3.97	.768	high	5
4. Using MS Teams would enhance my effectiveness on the job.	62	4.10	.762	high	2
5. Using MS Teams would make it easier to do my job.	62	4.34	.599	remarkably high	1
6. I would find MS Teams useful in my job.	62	3.61	.797	high	6
Overall	**62**	**4.01**	**.746**	**high**	

(Continued)

Table 2. Lecturers' perceptions on the usefulness and ease of use of MS Teams *(Continued)*

Items for Perceived Ease of Use	N	Mean	SD	Level	Rank
7. Learning to operate MS Teams would be easy for me.	62	3.84	.729	high	5
8. I would find it easy to get MS Teams to do what I want it to do.	62	3.95	.688	high	3
9. My interaction with MS Teams would be clear and understandable.	62	3.77	.777	high	6
10. I would find MS Teams to be flexible to interact with.	62	4.05	.756	high	2
11. It would be easy for me to become skilled at using MS Teams.	62	3.94	.787	high	4
12. I would find MS Teams easy to use.	62	4.06	.698	high	1
Overall	**62**	**3.94**	**.739**	**high**	

Although both PU and PEOU are at a high level of evaluation, it is clear that the average mean of perceived usefulness (mean = 4.01) is slightly greater than that of perceived ease of use (mean = 3.94). What this indicates is that the lecturers place a higher value on the utility of MS Teams than they do on its simplicity of use.

Regarding the ranking of items based on perceived usefulness, it is evident that Item 5 has the highest mean score (4.34), which is understood as extremely high according to the criteria on mean score ranking established by Al Enezi et al. [18]. This is what can be seen when looking at the ranking of items presented in Table 1. According to the mean, lecturers have a positive opinion of the usefulness of MS Teams in terms of making online teaching easier. The second place goes to Item 4, which has a mean score of 4.10 and is considered by the lecturers to be an effective way to improve the effectiveness of the teaching practice. With corresponding means of 4.05, 4.02, and 3.97, Items 1, 2, and 3 are ranked in the following positions, which are third, fourth, and fifth, respectively. With a mean of 3.61, Item 6 stays at the bottom of the ranking.

In terms of the components of perceived ease of use, Table 1 demonstrates that the teachers are strongly in agreement regarding the simple usability of MS Teams. All the items have means that fall within the range of 3.77 to 4.06, which is significant. The item with the highest mean is Item 12, which has a mean of 4.06. In the order of ranking, items 10, eight, 11, and seven are placed in the second, third, fourth, and fifth positions, with means of 4.05, 3.95, 3.94, and 3.84, respectively. Item 9 stands at the bottom of the ranking with a mean of 3.77.

4.2 Research question 2: Is there a significant difference in perceptions of the teachers according to gender?

Table 3, which covers all 12 items, presents the gender differences in lecturers' perceptions of MS Teams. The results were evaluated using an independent sample t-test. The findings reveal that there was almost no significant difference in perceptions between male and female lecturers regarding the use of MS Teams for online instruction. However, among six items of perceived ease of use, it was discovered that there was a significant difference in the perceptions of ease of learning to operate MS Teams among lecturers in Item 7 ($p < 0.05$). Specifically, male lecturers (mean = 4.13) had higher perceptions than female lecturers (mean = 3.66).

The remaining 11 items showed no statistically significant difference. However, the results of the two categories were clearly different. There appeared to be a higher degree of consensus among female lecturers regarding aspects of perceived usefulness. In contrast, with regard to the perceived ease of use, male lecturers appeared to hold higher perceptions than their female counterparts.

Table 3. Gender difference in lecturers' perceptions of MS Teams

Items	Gender	N	Mean	SD	Sig.
1. Using MS Teams in my job would allow me to accomplish tasks more quickly.	Male	24	4.00	.933	.991
	Female	38	4.08	.749	
2. Using MS Teams would improve my job performance.	Male	24	4.00	.834	.772
	Female	38	4.03	.677	
3. Using MS Teams in my job would increase my productivity.	Male	24	3.88	.850	.898
	Female	38	4.03	.716	
4. Using MS Teams would enhance my effectiveness on the job.	Male	24	4.08	.881	.908
	Female	38	4.11	.689	
5. Using MS Teams would make it easier to do my job.	Male	24	4.50	.511	.758
	Female	38	4.24	.634	
6. I would find MS Teams useful in my job.	Male	24	3.79	.833	.980
	Female	38	3.50	.762	
7. Learning to operate MS Teams would be easy for me.	Male	24	4.13	.537	.013
	Female	38	3.66	.781	
8. I would find it easy to get MS Teams to do what I want it to do.	Male	24	4.08	.584	.157
	Female	38	3.87	.741	
9. My interaction with MS Teams would be clear and understandable.	Male	24	3.96	.859	.757
	Female	38	3.66	.708	
10. I would find MS Teams to be flexible to interact with.	Male	24	4.13	.741	.445
	Female	38	4.00	.771	
11. It would be easy for me to become skilled at using MS Teams.	Male	24	3.92	.776	.933
	Female	38	3.95	.804	
12. I would find MS Teams easy to use.	Male	24	4.13	.680	.710
	Female	38	4.03	.716	

4.3 Research question 3: What are the difficulties the lecturers encounter when using Microsoft Teams?

The qualitative data collected from the interviews was analyzed and categorized based on similar themes. There were three main topics found in the data related

to the obstacles the teachers encountered during the use of MS Teams. The topics included psychological, physical, and technical difficulties.

The psychological difficulties were found to be evident among the participants. Several lecturers shared that they faced unwillingness (Lectures 1 and 3) and lack of confidence (Lecturer 6). Here are their responses:

"I always try my best to give effective lessons by preparing teaching contents carefully on MS Teams on the regular schedule. But honestly, I am used to traditional face-to-face teaching in classrooms. So, I feel uncomfortable delivering lessons online via MS Teams. Teaching is my life profession, but I wish I could only have traditional face-to-face courses. I think that's my problem." (Lecturer 1)

"I think I teach better when I deliver lessons in the traditional classroom with the physical presence of my students than I do on MS Teams. I usually feel that I am reluctant to give lessons. Although I believe that any teaching mode can benefit students," (Lecturer 3)

"I think teaching MS Teams is a good app for both teaching and learning. I have been using MS Team for several years. But I am actually not confident with using technology and not confident enough to teach online with MS Teams." (Lecturer 6)

The results from the interviews also revealed that they suffered from physical difficulties that prevented them from using MS Teams for online teaching. It can be noticed that both the lecturers (2 and 7) mention the problems that teaching online with MS Teams causes for their physical health (pain and sore eyes). Here are the lecturers' responses:

"I feel it is really difficult for me to work long hours to deliver lessons online. I can't sit for a long time. I like moving around while teaching. After an online lesson, I often feel pain all over the body. So, teaching online with MS Teams is sometimes a troublesome thing for me." (Lecturer 2)

"Teaching in front of the computer screen makes me uncomfortable. My eyesight is not particularly good. Teaching online for long hours with MS Teams makes my eyes hurt. So, I hate teaching online with MS Teams because of that." (Lecturer 7)

Besides the psychological and physical difficulties, the gathered data also found that the lecturers encountered technical difficulties. Here are the responses:

"The unpleasant thing I usually meet when I use MS Teams for online instruction is a few technical glitches causing my old laptop lag." (Lecturer 4)

"I think I don't have quality equipment for online teaching which makes the teaching ineffective. My webcam produces bad images. And the microphone is of bad quality about which my students often complain. Every time I start an online lesson, I often have to have someone check it. That is my problem." (Lecturer 5)

"I think MS Teams software is a bit sluggish. It often takes me longer to start the application. That's the only problem I have with it." (Lecturer 8)

"My problem with MS Teams is that I have yet made the most use of its functionality. We have been trained and have used it for a long time. But I still feel that my teaching is not as effective as it should be." (Lecturer 9)

From the presentation of the responses above, it is obvious that the technological problems cited by the respondents were clearly tied to several factors. Lecturer 4 discussed issues with her laptop (glitches), Lecturer 5 noted the poor quality of his teaching equipment (webcam and microphone), Lecturer 8 mentioned the slow performance of the system, and Lecturer 9 acknowledged his limited technological skills in enhancing teaching effectiveness.

5 DISCUSSION

In the context of online training, the purpose of this research is to analyze the viewpoints of the instructors about the use of MS Teams. It was necessary to find answers to three study questions concerning the perceptions of the lecturers, the issue of whether or not there are disparities in perceptions between men and females, and the difficulties that the lecturers encountered.

The results showed that university lecturers were strongly in accord with the value of MS Teams as well as its simplicity of use. This was indicated in terms of the overall views that the lecturers had. These investigations came to the same conclusions as those of other studies [18], [36], [38], [42], and [45], which discovered that instructors had favorable views regarding MS Teams in their teaching practice. This was shown by high means for both PU and PEOU items. The results of these investigations were consistent with those of those earlier studies. During the same time period, the results reflected views that were presented by earlier authors [40], [41], suggesting that educators are in favor of using technology in the process of education. On the other hand, the findings of this study found that they were in direct contrast to the conclusions of [43] and [46]. According to the findings of research conducted by Kirmizi [43], instructors who were responsible for teaching first-grade students had a negative attitude toward the incorporation of technology into academic settings. According to the results of Sayeh and Razkane [46], it was also discovered that educators had unfavorable feelings about the usefulness of having access to Microsoft Teams.

Regarding the gender disparities in views among the lecturers, the findings of the research revealed that there was a statistically significant difference ($p < 0.05$) with respect to Item 7 concerning the ease of learning to administer MS Teams. When compared to female professors, who had a mean score of 3.66, men lecturers displayed a greater degree of perception (mean = 4.13). Furthermore, the study found that females displayed more pleasant perceptions of PU items, whilst men demonstrated more favorable viewpoints on PEOU items. According to the findings of this investigation, the findings of Zhou and Xu [23] and Teo et al. [24] seemed to be consistent with one another. In the course of their investigation, Teo et al. [24] brought attention to two discoveries that were particularly noteworthy. In the first place, there was not a statistically significant difference between the gender groups in terms of the perceived utility of the item. It was also shown that female teachers had a lower perception of how easy it was to use. According to the findings of Zhou and Xu's study [23], females demonstrated lower levels of self-confidence and restricted abilities in the use of technology for educational reasons. On the other hand, the findings of this study did not seem to corroborate the findings of Bervell et al. [50], which said that females had higher means than men in terms of perceptions of training, competence, and technological integration. Therefore, the findings of this study did not appear to confirm the findings of the previous study.

In addition, the findings of the study highlighted a wide range of difficulties that were faced by instructors when they attempted to integrate MS Teams in their classes. There were three main categories that were used to classify all of the challenges: 1) the psychological, 2) the physical, and 3) the technological. A lack of confidence and a reluctance to cooperate were two of the psychological problems that were associated with the situation. There is a negative impact on health because of the physical challenges, which include aches and pains throughout the body as well as discomfort in the eyes. Technical difficulties may be attributed to a number of factors, including but not limited to errors in the equipment, low-quality technological

instruments used for instruction (such as a camera and microphone), delayed performance, and inadequate technological skills. The results of these investigations were in line with those of previous research projects that had been carried out in the past [20], [47], [48], and [49]. Regarding the psychological challenges, Dinc [48] emphasized the lack of confidence and desire for engagement, while Almahasees et al. [47] highlighted the absence of motivation from the participants. These factors were related to the psychological hurdles. When it comes to the challenges that are linked with technology, Al-Hail et al. [20] said that there was a shortage of appropriate equipment and gadgets, while Dinc [48] claimed that there was an insufficient degree of technical skill. Both issues were about the challenges that are related to technology. In contrast to the findings of Pham [21], which suggested that instructors did not encounter any problems while employing MS Teams for online education, the results of this study seemed to imply that the opposite was true.

6 CONCLUSION

This study investigated the perceptions of MS Teams as a platform for online instruction among Vietnamese university lecturers, emphasizing the platform's perceived simplicity of use and utility. The results indicated that instructors, regardless of their gender, generally held favorable opinions of MS Teams in terms of their functionality and simplicity. Nevertheless, male lecturers reported a substantially greater simplicity of learning to operate the platform than their female counterparts. The platform's full utilization was also impeded by psychological, physical, and technical barriers, as identified in the study.

By applying the TAM to the context of Vietnamese university lecturers, this study broadens the existing literature and offers novel insights into the ways in which gender differences influence the adoption of technology. This study is essential for enhancing the efficacy of online instruction by concentrating on the perspectives of academics, which contributes to a more profound comprehension of educators' adoption of e-learning platforms. Furthermore, the investigation provides a nuanced perspective on the role of psychological and somatic factors in the successful integration of online platforms, a dimension that has been inadequately investigated in TAM-based studies. This investigation is not without its constraints. The generalizability of the findings to other educational contexts may be influenced by the fact that the sample was restricted to lecturers from a singular university in northern Vietnam. In addition, the investigation prioritized lecturers' self-reported perceptions, neglecting to evaluate the influence of their technological capabilities on student outcomes. The scope of future research could be broadened to encompass a variety of universities in various regions of Vietnam and other countries. Furthermore, investigating the long-term implications of continuous professional development programs on the technological incorporation of lecturers would offer valuable insights into the maintenance of effective online teaching practices.

The study's primary findings indicate that lecturers place a high value on MS Teams' ability to simplify their teaching duties and improve pupil interaction, despite the fact that they encounter numerous obstacles to completely utilizing the platform. These results emphasize the necessity of resolving these obstacles in order to enhance the overall online teaching experience. The findings also suggest that the efficacy of MS Teams and comparable platforms could be improved by addressing gender-specific requirements, particularly through targeted training and support. Specifically, this study addresses the experiences of lecturers, which are frequently

disregarded in favor of student perspectives, thereby contributing to the expanding corpus of knowledge on the integration of technology in higher education. The identification of psychological, physical, and technical challenges introduces a new dimension to the discussion regarding the incorporation of technology in education, thereby facilitating the development of more comprehensive strategies to assist lecturers in the digital era. Future digital transformation policies and training programs that are designed to improve the efficiency of online education platforms can be informed by the insights obtained from this study.

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