

MS Teams Acceptance Factors Among Polish and Ukrainian Students

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Abstract: This paper presents study results regarding university students' MS Teams acceptance. The purpose of the presented results is to compare students' acceptance of the MS Teams referring to its components, i.e. self-efficacy (SE), facilitating conditions (FC), perceived ease of use (PEU), perceived usefulness (PU), and intention to use (IU) in the context of the Polish and Ukrainian education systems. There were 486 respondents - students from Polish and Ukrainian universities. The study follows the design of a survey based on the Technology Acceptance Model. The results of the study revealed that the scores for the 5 components of the acceptance of MS Teams were different in the Polish and Ukrainian subsamples. Significantly higher results were found for the Polish compared to the Ukrainian students regarding the SE and FC. In addition, Polish students assumed that MS Teams was easier to use than their Ukrainian peers. There were no differences in the ratings of the PU and IU between students from Poland and Ukraine. For the Polish subsample, PU and IU correlate positively with age. In contrast, regarding the Ukrainian students, only SE correlated with age, but the relationship was negative. Considering the variable frequency of use of MS Teams, it was positively associated with all components of the MS Teams acceptance in the Ukrainian subsample, whereas in the Polish subsample, it was only associated with PU and IU.

Keywords: MS Teams acceptance, university students, Poland, Ukraine

1. Introduction

The COVID-19 pandemic has greatly accelerated the development and implementation of virtual collaboration and learning platforms dedicated to remote education (Hodges et al., 2020). As a response to the urgent need to provide stable conditions for education universities and schools have implemented a whole range of different remote education platforms. MS Teams has emerged as the most commonly used tool for remote education and communication in European universities (Mahmud & Wong, 2023). The study objective is to explore the concept of students' MS Teams acceptance referring to its components, i.e. self-efficacy (SE), facilitating conditions (FC), perceived ease of use (PEU), perceived usefulness (PU), and intention to use (IU) in the context of the Polish and Ukrainian education systems (Venkatesh & Davis, 2000).

Two research questions guide this study: (1) what are the differences and similarities in the MS Teams acceptance between students from Ukrainian and Polish universities, taking into account the identified components?, and (2) to what extent do the socio-demographic variables vary the MS Teams' acceptance in the two subsamples?

2. Method

2.1 Participants

This paper presents an international preliminary study with university students (n=486) regarding the acceptance of MS Teams as an educational tool. The survey was conducted at Polish (n=287; females = 250, males = 32) and Ukrainian (n=199; females = 191, males = 8) educational institutions during the academic year 2023-2024. The age of the both subsamples ranged from 18 to 54 years. Among Ukrainians 37% represented STEAM and the rest HS majors, while among Poles the ratio was 23% to 77%. The subsamples were organized following a voluntary sampling scheme. The sample size was calculated based on the G*Power v. 3.9.1.6 software estimates for the independent groups t-tests (α err prob = .05, power = .95, effect size d = .5). Min N = 176.

2.2 Instrument and Procedure

The content of the items corresponds to the concepts of the TAM model (Venkatesh & Davis, 2000). The reliability of the tool for specific components varied from .748 to .937 among Poles and from .902 to .961 among Ukrainians. Data collection was anonymous to improve the validity of responses and lasted from October 2023 to May 2024. Statistical analysis was carried out as follows. First, the result profiles for the subsamples concerning 5 components of the MS Teams acceptance were analyzed using the Student's t-tests. Second, the correlation analyses between background variables and the components of the MS Teams acceptance were carried out. Considering the content of the research problems, quantitative analyses were carried out.

3. Results

3.1 Differences in the MS Teams acceptance between Poles and Ukrainians

The profiles of the scores for the 5 components of the acceptance of MS Teams were different in the Polish and Ukrainian sub-samples (tab1.1).

Table 1. Mean Scores and differences in the acceptance of MS Teams among the Polish and Ukrainian students

Components	Subsample				t	Cohen's d
	Polish		Ukrainian			
	M	SD	M	SD		
SE	4.086	.647	3.440	1.021	8.518*	.786
FC	3.905	.630	3.353	.980	7.548*	.696
PEU	4.208	.588	3.502	.987	9.851*	.909
PU	3.639	.890	3.490	1.101	1.642	.151
IU	3.586	.975	3.492	1.094	.992	.092

Note: * p < .001, df for all comparisons = 484

Significant differences between groups of respondents were observed for SE, FC, and PEU, with higher results among Polish students. In contrast, no differences were found for PU and IU.

3.2 Correlations between background variables and components of the MS Teams acceptance

To examine how MS Teams acceptance correlates with background variables, the following were included in the analysis: age and frequency of MS Teams being use as a learning and communicative online platform. Relationships were analyzed using Pearson's correlations. Significant results are summarized in Table 2.

Table 2. *Correlations between components of MS Teams acceptance and some background variables among Polish and Ukrainian students*

Components	Correlations			
	Subsample			
	Polish		Ukrainian	
	Age	FMTU	Age	FMTU
SE	0.014	0.090	- 0.149*	0.260**
FC	0.087	0.088	0.100	0.290**
PEU	0.051	0.082	0.097	0.302**
PU	0.140*	0.193**	0.096	0.266**
IU	0.165**	0.142*	0.032	0.302**

Note: FMTU - frequency of MS Teams using; * $p < 0.05$, ** $p < 0.01$.

For the Polish subsample, PU and IU correlate positively with age. However, the associations found were not very strong. In contrast, for the Ukrainian students, only SE had a correlation with age, but the relationship was negative. The relationship shown turns out to be quite weak. Considering the variable frequency of use of MS Teams, the indicated variable was positively associated with all components of the MS Teams acceptance in the Ukrainian subsample, whereas in the Polish subsample, it was only associated with PU and IU. As the frequency of use of MS Teams increased, acceptance of it was increasingly higher in the indicated dimensions. Among Ukrainian students, the strength of relationships ranged from 0.260 to 0.302, and among Polish students from 0.142 to 0.193.

4. Discussion and Conclusions

Due to the similar theoretical construct used by the authors to construct the research tool, the results obtained are comparable to those presented by Mahmud & Wong (2023). The authors identified the same components of MS Teams acceptance. However, the raw scores obtained by Mahmud & Wong (2023) on a sample of Malaysian students appear to be lower because of the measurement scale used. Results were below average across all components. Polish and Ukrainian students tended to score higher, as they tended to be above the midpoint of the scale used. For the Malaysian students, SE was the most valued component and PU the least valued, while for the Polish students, it was PEU and IU respectively, and for the Ukrainian students it was PEU and FC respectively. Looking at the reasons first, it seems that Malaysian students in 2020 are only just now settling on MS Teams for distance learning in the face of the global COVID 2019 epidemic. In contrast, students from the Polish and Ukrainian groups surveyed in 2023 may have had competencies systematically developed during and just after the COVID-19 pandemic. Secondly, the prolonged and forced use of MS Teams during the period of distance education caused by military aggression may have led Ukrainian students to rate the functionality of the platform lower, especially the external technical support (FC component), which is usually not available in a home environment.

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