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Acceptance of Digital Learning Tools in Higher Education: A Case Study of Microsoft Teams

Yükseköğretimde Dijital Öğrenme Araçlarının Benimsenmesi: Microsoft Teams Uygulamasına Yönelik Bir Vaka Çalışması

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ABSTRACT

This study explores the adoption of Microsoft Teams within a higher education setting using the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. It specifically examines how performance expectancy, effort expectancy, social influence, and facilitating conditions influence the platform's usage. Data were collected through a survey involving 143 participants and analyzed via structural equation modeling. Findings reveal that performance expectancy, social influence, and facilitating conditions significantly impact the intention to use Microsoft Teams, whereas effort expectancy does not. The results underscore that students and educators alike are more likely to adopt Microsoft Teams if it enhances their performance and productivity, if social influences (such as peer and faculty encouragement) are favorable, and if the required technological infrastructure is in place. Effort expectancy's lack of influence suggests that users may find the platform sufficiently intuitive, thus minimizing the perceived effort required to engage with it. This insight is particularly valuable for institutions focusing on seamless user experiences. Educational institutions planning digital transformations should prioritize performance-enhancing features, support social collaboration, and ensure robust infrastructure to promote successful adoption. By aligning their strategies with user expectations and infrastructure needs, institutions can create a more conducive environment for effective digital learning.

JEL Codes: I23, M15, O33

Keywords: Microsoft Teams, Technology Acceptance, Higher Education, UTAUT, Video Conference

ÖZ

Bu çalışma, Birleşik Teknoloji Kabul ve Kullanım Teorisi (UTAUT) çerçevesini kullanarak bir yükseköğretim ortamında Microsoft Teams'in benimsenmesini araştırmaktadır. Özellikle performans beklentisi, çaba beklentisi, sosyal etki ve kolaylaştırıcı koşulların platformun kullanımını nasıl etkilediğini incelemektedir. Veriler 143 katılımcıyı içeren bir anket aracılığıyla toplanmış ve yapısal eşitlik modellemesi ile analiz edilmiştir. Bulgular performans beklentisi, sosyal etki ve kolaylaştırıcı koşulların Microsoft Teams'i kullanma niyetini önemli ölçüde etkilediğini, buna karşın çaba beklentisini etkilemediğini ortaya koymaktadır. Sonuçlar, performanslarını ve üretkenliklerini artırması, sosyal etkilerin (akran ve fakülte teşviki gibi) olumlu olması ve gerekli teknolojik altyapının mevcut olması durumunda hem öğrencilerin hem de eğitimcilerin Microsoft Teams'i benimseme olasılıklarının daha yüksek olduğunun altını çizmektedir. Çaba beklentisinin etkisinin olmaması, kullanıcıların platformu yeterince sezgisel bulabileceğini ve böylece onunla etkileşim kurmak için gereken algılanan çabayı en aza indirebileceğini göstermektedir. Bu içgörü, sorunsuz kullanıcı deneyimlerine odaklanan kurumlar için özellikle değerlidir. Dijital dönüşümler planlayan eğitim kurumları, performansı artıran özelliklere öncelik vermeli, sosyal işbirliğini desteklemeli ve başarılı bir şekilde benimsenmesini sağlamak için sağlam bir altyapı sağlamalıdır. Kurumlar, stratejilerini kullanıcı beklentileri ve altyapı ihtiyaçları ile uyumlu hale getirerek etkili dijital öğrenme için daha elverişli bir ortam yaratabilirler.

JEL Kodları: I23, M15, O33

Anahtar Kelimeler : Microsoft Teams, Teknoloji Kabulü, Yükseköğretim, UTAUT, Video Konferans

Introduction

In the digital age, educational institutions strive to transform their educational processes through the use of information and communication technologies. Notably, the COVID-19 pandemic accelerated this transformation, leading to the widespread adoption of remote learning practices. In this context, online collaboration platforms like Microsoft Teams play a significant role in education. Microsoft Teams, with its tools for document sharing, online meetings, and various communication options, aims to provide both students and academic staff with an effective and efficient learning environment.

This study seeks to examine the use of Microsoft Teams in higher education institutions through the lens of the Unified Theory of Acceptance and Use of Technology (UTAUT). It is designed to understand and assess the factors influencing the acceptance and usage of Microsoft Teams. During the COVID-19 pandemic, the use of online platforms in education increased substantially; however, challenges and uncertainties remain regarding the adoption and effective use of these platforms. This study aims to investigate the underlying factors affecting the acceptance and usage of Microsoft Teams within higher education institutions.

The utilization of Microsoft Teams in educational settings gained considerable attention, particularly during the COVID-19 pandemic. Several studies have explored the intentions of students and academic staff to use Microsoft Teams. Microsoft Teams has been characterized as a valuable platform for facilitating communication and interaction between teachers and students (Laurencia & Sudarto, 2021; Yansyah, 2022). It has been noted that Microsoft Teams can create a virtual classroom environment that mimics face-to-face interactions, thereby enhancing engagement and collaboration (Rojabi et al., 2022). Additionally, the platform has proven effective in promoting student engagement and autonomy in the learning process (Almodaires, Almutairi, & Almsaud, 2021). Studies have also highlighted students' positive perceptions of learning through Microsoft Teams, drawing attention to its user-friendly interface and extensive features (Wijayanto, Andayani, & Sumarwati, 2021). Microsoft Teams is recognized as a cloud-based interactive portal supporting various educational activities, such as workshops and file sharing (Mardhiyyah et al., 2022). Furthermore, the platform has been used as an alternative for distance learning, providing an environment conducive to effective teaching and learning processes (Wijayanto et al., 2021).

The UTAUT model has been applied to assess the acceptance and use of Microsoft Teams in higher education environments (Or & Chapman, 2022). UTAUT has gained acceptance as it synthesizes previous technology theories and offers a comprehensive framework to understand technology adoption. Moreover, studies comparing students' learning experiences with Microsoft Teams to other platforms emphasize the benefits of collaborative learning and student engagement (Sobaih et al., 2021). The literature review indicates that Microsoft Teams plays an essential role in enhancing online learning experiences for both students and academic staff. Its user-friendly interface, interactive features, and ability to simulate face-to-face interactions contribute to its broad acceptance and adoption in educational settings.

In this study, UTAUT is employed to evaluate the acceptance and usage of Microsoft Teams. UTAUT addresses key factors influencing technology acceptance and use, such as performance expectancy, effort expectancy, social influence, and facilitating conditions. Data were collected through a survey, and structural equation modeling was used for data analysis. The findings indicate that Microsoft Teams is widely adopted and effectively utilized by both students and academic staff in higher education institutions. Performance expectancy, social influence, and facilitating conditions were found to significantly impact the use of Microsoft Teams.

This study provides valuable insights into the impacts and acceptance of Microsoft Teams usage in higher education institutions. The findings may assist educational institutions in encouraging the use of online collaboration platforms like Microsoft Teams as part of their digital transformation processes. Additionally, the results of this study could serve as a foundation for future research and offer new perspectives within the field of educational technologies.

Literature Review

The COVID-19 pandemic has significantly influenced the digital transformation of education globally, leading to the widespread adoption of online learning platforms. Microsoft Teams has been one of the prominent tools utilized during this period, making a substantial impact on student collaboration, satisfaction, and adoption in educational settings. Leticia Rodriguez-Segura et al. (2020) found that Microsoft Teams provided high satisfaction in terms of organizing class sessions and activities. Mahmud and Wong (2021) showed that integrating the platform

with the jigsaw teaching method had a positive impact on performance by increasing student interaction and collaboration. Furthermore, studies such as those by Gharaibeh (2023) and Oliemat et al. (2024) highlighted that factors like performance expectation and technical support play a crucial role in the platform's adoption. Jacques et al. (2021) emphasized that while students with sufficient technical facilities were satisfied with Microsoft Teams, others faced challenges due to the digital divide. Similarly, Marcinkovic et al. (2021) identified that teachers' age and prior technology experience influenced their satisfaction levels. These findings underline both the opportunities and challenges associated with the adoption of Microsoft Teams in education, offering valuable insights into the dynamics of its usage.

In the context of Türkiye, the Educational Information Network (EBA) has served as the primary platform for distance learning in primary and secondary schools during the pandemic. Keskinkılıç and Kuk (2023) highlighted the critical role of EBA in maintaining educational continuity and fostering teachers' and students' engagement during this challenging period. They emphasized that analyzing the digital transformation processes, such as EBA, is crucial to understanding its effectiveness in education. Their study measured teachers' awareness of EBA to evaluate its impact and identified areas for improvement, such as enhancing the platform's content quality and addressing discrepancies in awareness among teachers based on gender, tenure, and educational levels. These findings resonate with international studies on digital platforms, such as Microsoft Teams, further highlighting the importance of addressing technical, pedagogical, and content-related challenges to maximize the potential of digital education systems.

Together, these studies demonstrate the global shift toward digital learning platforms during the pandemic and underscore the need for comprehensive strategies to address both their benefits and limitations.

Conceptual Model and Hypotheses

The UTAUT model is a widely used theoretical framework for understanding technology acceptance and usage. The model is based on four key factors: performance expectancy, effort expectancy, social influence, and facilitating conditions. These factors influence individuals' intentions to use a technology as well as their actual usage behavior (Venkatesh et al., 2003).

Performance Expectancy

This factor reflects users' perceptions of how using a technology will enhance their job performance. In this study's context, students and academic staff assess how Microsoft Teams contributes to the educational process (Gharaibeh, 2023). Numerous studies employing the UTAUT model have identified a significant impact of performance expectancy on behavioral intention (Alsyouf & Ishak, 2018; Ayaz & Yanartaş, 2020; Thu Pham et al., 2020). Based on this, the following hypothesis is proposed:

H_1: Performance Expectancy has a positive effect on Behavioral Intention to use Microsoft Teams.

Effort Expectancy

Effort expectancy refers to the perception of how easy or difficult a technology is to use. In the context of this study, users evaluate the user-friendliness of Microsoft Teams' interface and functions (Keerio et al., 2022). Based on this, the following hypothesis is proposed:

H_2: Effort Expectancy has a positive effect on Behavioral Intention to use Microsoft Teams.

Social Influence

Social influence reflects the extent to which individuals consider the opinions of significant people or groups regarding technology use. In an educational setting, the views of peers, teachers, or administrators play a significant role in students' and staff's decision to use Microsoft Teams (Jain & Jain, 2022). Based on this, the following hypothesis is proposed:

H_3: Social Influence has a positive effect on Behavioral Intention to use Microsoft Teams.

Facilitating Conditions

Facilitating conditions refer to the resources and support that users have to utilize a given technology. Educational institutions should provide the necessary infrastructure and support to ensure the effective use of Microsoft Teams (Suwarno, 2022). Based on this, the following hypothesis is proposed:

H_4: Facilitating Conditions have a positive effect on Behavioral Intention to use Microsoft Teams.

Behavioral Intention

Many studies predicting the future of technology usage have extensively investigated the intention factor as the dependent variable (Davis, 1989; Venkatesh et al., 2003). In this study, a research model is proposed to investigate the perceptions of students and staff in a higher education institution regarding their intention to use Microsoft Teams.

Methods

This study is designed as a correlational study, allowing researchers to assess the relationships and effects between independent and dependent variables (Creswell, 2012).

Data Collection and Participants

Approval for data collection in this study was obtained from the Social and Humanities Ethics Committee of Karadeniz Technical University Social and Human Sciences Ethics Committee Presidency, with decision number E-20614373-050.01.04-354825 dated 21.03.2023. Data were collected between April 1 and April 30, 2023, by sharing a link to an online survey created using "Google Forms" on social media platforms (e.g., WhatsApp). The online survey method offers several advantages, including ease of administration, a more comfortable environment for participants to respond, the ability to reach many people instantly through e-groups, time efficiency, and relatively lower costs (Altunışık et al., 2012). Additionally, participation in the study was voluntary and confidential. Information about the participants is provided in Table 1.

Table 1: *Demographic Information*

Variables	Category	N	%
Gender	Female	66	46.2
	Male	77	53.8
Age	17-25	69	48.25
	26-34	26	18.18
	35-43	32	22.38
	44+	16	11.19

Table 1 shows that 143 individuals from a higher education institution in Türkiye participated in the study. Of the participants, 66 were female, representing 46.2% of the sample, while 77 were male, representing 53.8% of the sample.

Data Collection Instruments

In this study, a scale developed by Venkatesh et al. (2003) was used to identify the factors influencing Microsoft Teams usage among students and academic staff. The scale items were adapted for applicability to Microsoft Teams users. The survey consists of five factors: performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention. A 5-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5) was used for the 16-item scale. The scale items used in this study are provided in Appendix 1.

Statistical Analysis

Statistical analyses were conducted using AMOS 22 to assess how well the specified model explains the data for structural equation modeling. Confirmatory factor analyses and reliability analyses were performed to evaluate the internal consistency of the five subscales.

Results

The Table 2 displays the reliability and validity analysis results for the scale's subdimensions. In this type of analysis, Cronbach's Alpha (internal consistency), Composite Reliability (CR), and Average Variance Extracted (AVE) values are used to assess the reliability and validity of the factors.

Table 2: *Reliability and Validity Analysis Results of the Subscales of the Scale*

Factors	Items	Cronbach's Alpha	CR	AVE
Performance Expectancy	3	0.922	0.921	0.796
Effort Expectancy	4	0.958	0.958	0.851
Social Influence	3	0.837	0.879	0.710
Facilitating Conditions	3	0.899	0.900	0.751
Behavioral Intention	3	0.929	0.933	0.823

As shown in Table 2, the Cronbach's Alpha reliability coefficients for the factors range from 0.899 to 0.958. According to the research, a Cronbach's Alpha coefficient above 0.7 is required, indicating that the reliability of the scales is very high (Iacobucci & Duhachek, 2003; Nunnally, 1978). For convergent validity, the AVE should be greater than 0.5, and CR should exceed the AVE (Fornell & Larcker, 1981; Hair et al., 2010). Table 2 shows that the AVE values for the constructs are above 0.5, ranging from 0.710 to 0.851. All constructs included in the study demonstrate convergent validity. Furthermore, the CR values for all constructs are higher than their corresponding AVE values, supporting the high validity of the scales.

The Table 3 shows the results of confirmatory factor analysis (CFA) with standardized regression coefficients (ß) and explained variance (R^2) for each observed variable. The high standardized regression coefficients (ß values) indicate strong relationships between the latent variables (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Behavioral Intention) and their observed variables.

Table 3: *Confirmatory Factor Analysis*

Latent Variables	Observed Variables	Unstandardized Value	Standard Error	t-value	ß (Standardized Regression Coefficient)	Explained Variance (R^2)	*p*
Performance Expectancy	PE1	0.986	0.062	15.908	0.899	0.808	***
	PE2	0.977	0.064	15.193	0.879	0.773	***
	PE3	1.000*	-	-	0.899	0.807	***
Effort Expectancy	EE1	1.136	0.077	14.828	0.898	0.806	***
	EE2	1.200	0.068	17.576	0.973	0.948	***
	EE3	1.174	0.068	17.269	0.965	0.932	***
	EE4	1.000*	-	-	0.849	0.721	-
Social Influence	SI1	1.064	0.119	8.959	0.836	0.699	***
	SI2	1.000*	-	-	0.754	0.568	***
	SI3	1.171	0.117	10.035	0.929	0.862	-
Facilitating Conditions	FC1	0.948	0.080	11.862	0.802	0.644	***
	FC2	1.100	0.076	14.453	0.927	0.859	***
	FC3	1.000*	-	-	0.867	0.752	-
Behavioral Intention	BI1	1.072	0.066	16.147	0.952	0.906	***
	BI2	1.015	0.067	15.109	0.916	0.839	***
	BI3	1.000*	-	-	0.850	0.723	-

Table 2 reveals that, as a result of the CFA, all items were found to be significant. The standardized factor loadings ranged from a minimum of 0.568 to a maximum of 0.948, indicating strong relationships. However, the initial model fit indices did not reach the desired levels [χ^2/df = 1.874, RMSEA = 0.078, SRMR = 0.555, CFI = 0.964, NFI = 0.926, GFI = 0.868]. To improve model fit, a covariance was added between the error terms of items SE1 and SE3.

Following this adjustment, the CFA model fit indices met the acceptable levels recommended by Hu and Bentler (1999) [χ^2/df = 1.707, RMSEA = 0.071, SRMR = 0.496, CFI = 0.971, NFI = 0.933, GFI = 0.879]. These revised indices indicate that the model has achieved a good fit, confirming that the measurement model is well-suited to represent the data.

A correlation analysis was conducted to examine the relationships between variables. The results indicate a significant (p<.01) and positive relationship among all variables. Table 4 presents the supported and unsupported hypotheses based on the structural equation modeling analysis results.

Table 4: *Structural Equation Model Coefficients*

Hypotheses	Standardized β Values	*p*	Support Status
H1	.435	***	Supported
H2	-.007	.935	Not Supported
H3	.283	.002	Supported
H4	.273	***	Supported

As shown in Table 4, H2 was not supported. On the other hand, the other hypotheses were supported. The β coefficients, R^2 values, and significance levels among the variables are presented in Figure 1.

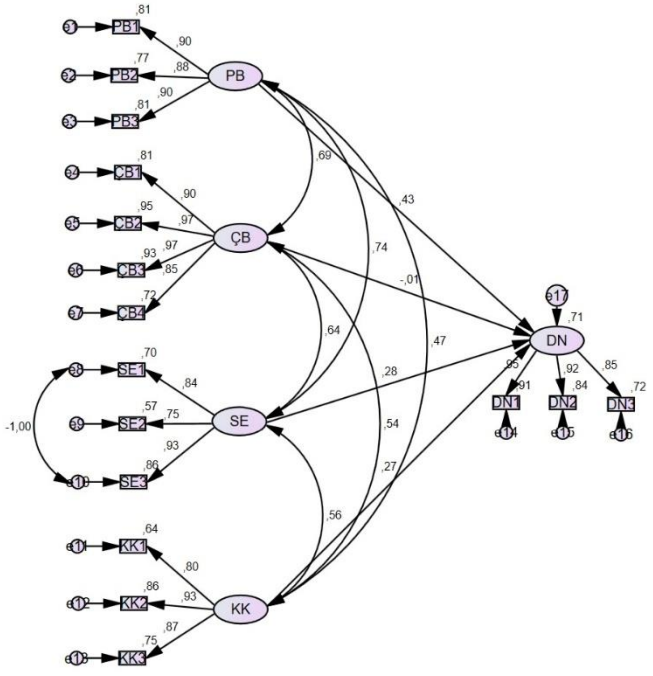

Figure 1. *Results Related to Hypotheses*

As observed in Figure 1, Performance Expectancy and Facilitating Conditions are the most influential factors affecting users' intention to use Microsoft Teams. Social Influence is also a significant factor, though it is not as strong as Performance Expectancy and Facilitating Conditions. In contrast, Effort Expectancy does not have a significant effect on the intention to use Microsoft Teams.

Discussion, Conclusion and Recommendations

This study aims to examine the use of Microsoft Teams in a higher education institution within the framework of the Unified Theory of Acceptance and Use of Technology (UTAUT). The main factors of the UTAUT model—performance expectancy, effort expectancy, social influence, and facilitating conditions—were investigated to understand how they affect the usage of Microsoft Teams.

The findings reveal that performance expectancy positively influences the intention to use Microsoft Teams. This suggests that users believe Microsoft Teams enhances their performance in the educational process. The impact of performance expectancy on behavioral intention is widely supported in the technology acceptance literature (Alsyouf & Ishak, 2018). For example, performance expectancy was found to be a significant indicator of user satisfaction with Microsoft Teams (Gharaibeh, 2023). In another study, performance expectancy increased students' intention to use Microsoft Teams, aligning with the technology acceptance model (Keerio et al., 2022). Microsoft Teams has the potential to enhance users' performance, especially as demonstrated during the COVID-19 pandemic, where it positively impacted students' educational performance (Pal & Vanijja, 2020). Other studies on technology acceptance models, including TAM and UTAUT, also confirm the importance of performance expectancy (Jeljeli et al., 2022). These findings underscore the critical role of performance expectancy in shaping users' intentions to use Microsoft Teams in educational settings.

No positive effect was found for effort expectancy on the intention to use Microsoft Teams. This result indicates that users' perceptions of ease of use do not influence their behavioral intentions. The user-friendly interface and functionality of Microsoft Teams may minimize the impact of effort expectancy (Keerio et al., 2022). Studies have also noted that ease of use did not significantly affect usage intention, suggesting that users could easily operate the platform (Gharaibeh, 2023). Although effort expectancy is often a significant variable in technology acceptance models, its impact appears minimal in the case of Microsoft Teams. Students report that ease of use enhances their satisfaction with the platform (Laurencia & Sudarto, 2021; Pal & Vanijja, 2020). These findings highlight the importance of ease of use in educational settings and suggest that the user-friendly interface minimizes the effect of effort expectancy on user intentions.

Social influence has a significant effect on the intention to use Microsoft Teams. This finding suggests that students and academic staff value the opinions and recommendations of those around them. Social influence is crucial in promoting technology use, especially in educational environments (Jain & Jain, 2022). Other studies have shown that social influence strongly impacts the intention to use Microsoft Teams, especially as students value the opinions of peers (Sobaih et al., 2021). Social influence is also an important factor in models like UTAUT, where it significantly affects users' intention to use Microsoft Teams (Nurdiansyah, 2023). Social interactions positively affect user confidence in the platform, strengthening their usage intentions (Stramkale, 2023). Social influence fosters interaction and collaboration

among students, increasing their engagement with Microsoft Teams (Almodaires et al., 2021).

Facilitating conditions positively affect the intention to use Microsoft Teams. Providing the necessary infrastructure and support enhances the adoption and effective use of the platform in educational institutions (Suwarno, 2022). Research shows that access to technical support and infrastructure increases adoption (Mahmud & Wong, 2023). Facilitating conditions play a significant role in the adoption and use of Microsoft Teams, with adequate support enabling users to utilize the platform more effectively (Laurencia & Sudarto, 2021). Access to supportive learning environments and technical support is especially beneficial in rural universities, positively impacting students' learning experiences (Ndovela, Risinamhodzi, & Matobobo, 2022). Facilitating conditions also significantly impact user satisfaction by providing technical support and infrastructure (Marcinkovic, Abersek, & Pesek, 2021). Technical support and training are essential for users to use Microsoft Teams effectively (Van Pham, 2023). These findings underscore the importance of facilitating conditions in technology adoption and use, as infrastructure and support in educational institutions enhance satisfaction and effective use.

The study's findings confirm that the UTAUT model is an effective framework for understanding the acceptance and use of educational technologies. While performance expectancy, social influence, and facilitating conditions significantly impact the intention to use Microsoft Teams, effort expectancy does not. This highlights the importance for higher education institutions to focus on performance-enhancing features, social engagement factors, and necessary infrastructure when developing technology integration strategies.

Higher education institutions should provide training programs and gidince that meet performance expectations to increase adoption of online collaboration platforms like Microsoft Teams. Additionally, events and support mechanisms promoting social interaction should be developed. Future research could explore Microsoft Teams usage across different demographic groups and education levels, thereby generalizing the findings. Furthermore, comparing UTAUT with other technology acceptance models may contribute to a deeper understanding of technology integration strategies.

Institutions aiming to digitize their education processes should prioritize the development of performance-enhancing features. Encouraging applications that support social interaction and collaboration can increase adoption rates among students and academics. In addition, strengthening the infrastructure and providing technical support will increase user satisfaction. Based on user feedback, more customization options and integration features can be offered. In particular, new features that facilitate academic collaboration may increase the adoption of the platform. Future studies could analyze how different demographic groups and education levels use the platform. In addition, research comparing Microsoft Teams with alternative platforms could facilitate a broader understanding of its impact on education.

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References

Almodaires, A. A., Almutairi, F. M., & Almsaud, T. E. A. (2021). Pre-service teachers' perceptions of the effectiveness of Microsoft Teams for remote learning. *International Education Studies, 14*(9), 108. [CrossRef]

Alsyouf, A., & Ku Ishak, A. (2018). Understanding EHRs continuance intention to use from the perspectives of UTAUT: Practice environment moderating effect and top management support as predictor variables. *International Journal of Electronic Healthcare, 10*(1), 92-175. [CrossRef]

Altunışık, R., Coşkun, R., Bayraktaroğlu, S., & Yıldırım, E. (2012). *Sosyal bilimlerde araştırma yöntemleri: SPSS uygulamalı* (7. Baskı). Sakarya Yayıncılık.

Ayaz, A., & Yanartaş, M. (2020). An analysis on the Unified Theory of Acceptance and Use of Technology theory (UTAUT): Acceptance of electronic document management system (EDMS). *Computers in Human Behavior Reports, 2*, 100032. [CrossRef]

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340. [CrossRef]

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50. [CrossRef]

Gharaibeh, M. K. (2023). Measuring student satisfaction of Microsoft Teams as an online learning platform in Jordan: An application of UTAUT2 model. *Human Systems Management, 42*(2), 159-171. [CrossRef]

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis: A global perspective*. Pearson.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55. [CrossRef]

Iacobucci, D., & Duhachek, A. (2003). Advancing alpha: Measuring reliability with confidence. *Journal of Consumer Psychology, 13*(4), 478-487. [CrossRef]

Jain, V., & Jain, P. (2022). From Industry 4.0 to Education 4.0: Acceptance and use of videoconferencing applications in higher education of Oman. *Journal of Applied Research in Higher Education, 14*(3), 919-938. [CrossRef]

Jacques, S., Ouahabi, A., & Lequeu, T. (2021, April). Synchronous E-learning in Higher Education during the COVID-19 Pandemic. In *2021 IEEE Global Engineering Education Conference (EDUCON)* (pp. 1102-1109). IEEE. [CrossRef]

Jeljeli, R., Farhi, F., Setoutah, S., & Laghouag, A. A. (2022). Microsoft Teams' acceptance for the e-learning purposes during Covid-19 outbreak: A case study of UAE. *International Journal of Data and Network Science, 6*(2), 247-256. [CrossRef]

Keerio, M. U., Bajwa, M. S. B., Mugheri, N. H., Memon, R. H., Bhayo, M. A., & Samo, K. A. (2022). Evaluating students' perceptions of Microsoft Teams for online academics improvement. *Pakistan Journal of Engineering and Technology, 5*(1), 56-67. [CrossRef]

Keskinkılıç, M., & Kuk, M. (2023). Eğitimde dijital dönüşüm ve EBA farkındalık düzeyinin belirlenmesi. *Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *25*(1), 24-39. [CrossRef]

Laurencia, K., & Sudarto, S. (2021). Intention to use Microsoft Teams in the online learning system for students of Universitas Tarumanagara during the COVID-19 pandemic. In *Proceedings of the International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)* (pp. 25-30). [CrossRef]

Mahmud, M. M., & Wong, S. F. (2021). Fusing the jigsaw method and microsoft teams: a promising online pedagogy. *International Journal of Learning, Teaching and Educational Research*, *20*(11), 272-287. [CrossRef]

Mahmud, M. M., & Wong, S. F. (2023). Through the lens of students: MS Teams as a sustainable pedagogical tool. In *2023 11th International Conference on Information and Education Technology (ICIET 2023)* (pp. 104-108). [CrossRef]

Marcinkovic, B., Abersek, B., & Pesek, I. (2021). The satisfaction of primary school teachers with the introduction and use of MS Teams in distance education. In *2021 44th International Convention on Information, Communication and Electronic Technology (MIPRO 2021) - Proceedings* (pp. 762-767). [CrossRef]

Mardhiyyah, A., Sulistyani, S., Wicaksono, A., & Khoiriyah, K. (2022). Student learning experience through Microsoft Teams during the pandemic era. *Premise: Journal of English Education, 11*(3), 5865. [CrossRef]

Ndovela, N., Risinamhodzi, D. T., & Matobobo, C. (2022). Impact of using Microsoft Teams for teaching and learning: A case of WSU Butterworth Campus. In *EDUNINE 2022 - 6th IEEE World Engineering Education Conference: Rethinking Engineering Education After COVID-19: A Path to the New Normal, Proceedings* (pp. 321-326). [CrossRef]

Nunnally, J. C. (1978). An overview of psychological measurement. In *Clinical diagnosis of mental disorders* (pp. 97-146). Springer. [CrossRef]

Nurdiansyah, D. (2023). The investigation of the acceptance of students against Microsoft Teams

learning with the SEM-PLS approach. *VYGOTSKY, 5*(1), 27-42. [CrossRef]

Oliemat, A., Khasawneh, S., Alkhazaleh, M., Abu-Alruz, J., & Hamadneh, N. (2024). Microsoft teams as an online education system in higher education: The case for Jordan. *International Journal of Education and Practice*, *12*(3), 851-863. [CrossRef]

Or, C., & Chapman, E. (2022). Development and validation of an instrument to measure online assessment acceptance in higher education. *British Journal of Educational Technology, 53*(5), 1412-1431. [CrossRef]

Pal, D., & Vanijja, V. (2020). Perceived usability evaluation of Microsoft Teams as an online learning platform during COVID-19 using system usability scale and technology acceptance model in India. *Children and Youth Services Review, 119*, 105535. [CrossRef]

Van Pham, A. T. (2023). Using Microsoft Teams as a learning management system in English courses: A story from a vocational school. In *ACM International Conference Proceeding Series* (pp. 65-70). [CrossRef]

Rodriguez-Segura, L., Zamora-Antuñano, M. A., Rodriguez-Resendiz, J., Paredes-García, W. J., Altamirano-Corro, J. A., & Cruz-Pérez, M. Á. (2020). Teaching challenges in COVID-19 scenery: Teams platform-based student satisfaction approach. *Sustainability*, *12*(18), 7514. [CrossRef]

Rojabi, A. R., Setiawan, S., Munir, A., Purwati, O., & Widyastuti. (2022). The camera-on or camera-off, is it a dilemma? Sparking engagement, motivation, and autonomy through Microsoft Teams videoconferencing. *International Journal of Emerging Technologies in Learning, 17*(11), 19-33. [CrossRef]

Sobaih, A. E. E., Salem, A. E., Hasanein, A. M., & Abu Elnasr, A. E. (2021). Responses to COVID-19 in higher education: Students' learning experience using Microsoft Teams versus social network sites. *Sustainability, 13*(18), 10036. [CrossRef]

Stramkale, L. (2023). University students' perspectives on online learning via the Microsoft Teams platform. *Journal of Education Culture and Society, 14*(1), 400-414. [CrossRef]

Suwarno, S. (2022). Application of the UTAUT model for acceptance analysis of COBIT implementation in e-learning management with Microsoft Teams on distance learning in Batam City. *Khazanah Informatika: Jurnal Ilmu Komputer Dan Informatika, 8*(1), 40-51. [CrossRef]

Thu Pham, T. B., Dang, L. A., Le, T. M. H., & Le, T. H. (2020). Factors affecting teachers' behavioral intention of using information technology in lecturing-economic universities. *Management Science Letters, 10*(3), 5267. [CrossRef]

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478. [CrossRef]

Wijayanto, Y. R., Andayani, A., & Sumarwati, S. (2021). Utilization of Microsoft Teams 365 as an alternative for distance learning media amid the Covid-19 pandemic. *International Journal of Multicultural and Multireligious Understanding, 8*(2), 215-223. [CrossRef]

Yansyah, M. (2022). Effectiveness of teacher performance management in the implementation of student learning. *Journal Corner of Education, Linguistics, and Literature, 1*(4), 67-81. [CrossRef]

Genişletilmiş Özet

Bu çalışma, yükseköğretim kurumlarında Microsoft Teams platformunun benimsenmesini Birleşik Teknoloji Kabul ve Kullanım Teorisi (UTAUT) çerçevesinde değerlendirmektedir. UTAUT, teknoloji kabulünü anlamak için performans beklentisi, çaba beklentisi, sosyal etki ve kolaylaştırıcı koşullar gibi anahtar faktörleri ele alır. COVID-19 pandemisi, eğitim kurumlarında uzaktan eğitim ve dijital dönüşüm süreçlerini hızlandırarak Microsoft Teams gibi çevrim içi iş birliği platformlarının kullanımını yaygınlaştırmıştır. Bu bağlamda, çalışma, Microsoft Teams'in benimsenme düzeyini ve bu benimsenmeyi etkileyen faktörleri analiz etmeyi amaçlamaktadır.

Araştırmanın Kapsamı ve Amacı: Çalışma, Microsoft Teams'in kabulünü etkileyen faktörleri araştırırken UTAUT modelini temel almaktadır. Microsoft Teams'in eğitim süreçlerinde iletişim, iş birliği ve belge paylaşımı gibi birçok fayda sağladığı bilinmektedir. Araştırmada performans beklentisi, çaba beklentisi, sosyal etki ve kolaylaştırıcı koşulların bu platformun kullanımına etkisi incelenmiştir. Yükseköğretim kurumlarında dijital dönüşüm süreçlerinde bu platformların benimsenmesinde etkili faktörlerin anlaşılması, gelecekteki teknoloji entegrasyon stratejileri açısından önemlidir.

Yöntem: Çalışmada, bir yükseköğretim kurumunda 143 katılımcıdan çevrim içi anket yoluyla veri toplanmıştır. Katılımcıların demografik özellikleri incelendiğinde örneklemde kadın katılımcılar %46,2 oranında yer alırken, erkek katılımcılar %53,8 oranındadır. Verilerin analizinde yapısal eşitlik modellemesi (SEM) kullanılarak faktörlerin niyet üzerindeki etkileri değerlendirilmiştir. Çalışma kapsamında kullanılan ölçek, UTAUT modelinin temel faktörlerini ölçmeye yönelik olarak uyarlanmıştır.

Bulgular: Analiz sonuçları performans beklentisi, sosyal etki ve kolaylaştırıcı koşulların Microsoft Teams kullanım niyeti üzerinde anlamlı bir etkiye sahip olduğunu, buna karşın çaba beklentisinin etkili olmadığını göstermektedir. Performans beklentisi, kullanıcıların Microsoft Teams'in eğitim süreçlerindeki performanslarını artıracağına olan inancını yansıtırken, sosyal etki ise çevredeki kişilerin (örneğin, akranlar veya öğretim üyeleri) görüşlerinin bu platformu kullanma niyetini nasıl etkilediğini ortaya koymaktadır. Kolaylaştırıcı koşullar ise teknik altyapının ve destek mekanizmalarının kullanım niyeti üzerindeki etkisini ifade etmektedir. Buna karşın, çaba beklentisinin düşük etkisi, Microsoft Teams'in kullanıcı dostu bir arayüze sahip olduğunu ve kullanımının fazla çaba gerektirmediğini düşündürmektedir.

Tartışma ve Sonuç: Araştırmanın bulguları, Microsoft Teams'in yükseköğretim kurumlarında benimsenmesinde performans beklentisi, sosyal etki ve kolaylaştırıcı koşulların önemli bir rol oynadığını ortaya koymaktadır. Bu durum, eğitim kurumlarının dijital dönüşüm süreçlerinde, performansı artıran özelliklere öncelik vermeleri, sosyal iş birliğini desteklemeleri ve gerekli altyapıyı sağlamaları gerektiğini vurgulamaktadır. Özellikle Microsoft Teams gibi platformların kullanıcı dostu arayüzleri sayesinde çaba beklentisinin kullanım niyeti üzerindeki etkisinin sınırlı kalması, kullanıcı deneyimi açısından dikkat çekicidir.

Çalışma, yükseköğretim kurumlarının teknoloji entegrasyon stratejilerini geliştirirken göz önünde bulundurabileceği önemli bilgiler sunmaktadır. Gelecekteki araştırmalar, Microsoft Teams'in farklı demografik gruplar ve eğitim seviyelerinde kullanımını araştırarak bu bulguların genellenebilirliğini değerlendirebilir. Ayrıca, UTAUT modeli ile diğer teknoloji kabul modellerini karşılaştırmak, teknoloji entegrasyonu stratejilerinin daha derinlemesine anlaşılmasına katkı sağlayabilir.

Bu çalışma, yükseköğretim kurumlarında dijital dönüşümü desteklemek amacıyla Microsoft Teams'in kabul ve kullanımını etkileyen faktörleri kapsamlı bir şekilde ele alarak literatüre katkı sunmaktadır.

Appendix 1. *Scale items*

Items Code	Items
PE1	... helps me complete my work faster.
PE2	... increases my productivity/efficiency.
PE3	... is useful for my work life.
EE1	... is easy for me to learn how to use.
EE 2	... is easy to use.
EE 3	... I can use it without difficulty.
EE 4	... has a clear and understandable interface.
SI1	My organization encourages me to use ... for work purposes.
SI2	Most of my colleagues think I should use ...
SI3	Most people I have online meetings with find ... useful.
FC1	I know I can get support if I encounter problems using ...
FC2	If I experience any issues while using ..., there is someone I can consult.
FC3	If I experience any issues while using ..., I can access the necessary information for solutions.
BI1	I intend to use ... again.
BI2	Based on my past experiences, I anticipate using it again.
BI3	I would recommend it to others.