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Technology Acceptance of the OKY Application Among Junior High School Girls in Indonesia: A TAM-Based Study

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ABSTRACT

Introduction: Adolescents experience significant physical changes during puberty; however, many lack adequate knowledge regarding menstrual hygiene management. This knowledge gap can lead to negative health outcomes. The OKY application is a menstrual tracker that also provides an encyclopedia on puberty and menstrual hygiene, and offers valuable educational resources. Despite its potential, the application remains underutilized by adolescents. This study aims to analyze the relationship between technology acceptance variables and the use of the OKY application among junior high school students.

Methods: This study employed a cross-sectional design. Data were collected from 72 female junior high school students who had been introduced to the OKY application. Participants were selected using proportionate stratified random sampling. The Technology Acceptance Model (TAM) was utilized to assess user perceptions through a structured questionnaire. TAM was utilized innovatively to assess students' perceptions of the application's ease of use, usefulness, and intention to use through a structured questionnaire specifically tailored for this educational setting. Data analysis was conducted using the Spearman correlation test to evaluate relationships among variables. Instrument validation and ethical approval were secured in accordance with research ethics guidelines.

Result: The study revealed a strong correlation between knowledge, skill, and curiosity with perceived usefulness of the OKY application. Furthermore, significant relationships were identified between perceived ease of use, attitude toward using, behavioral intention, and actual system use. These findings indicate that both cognitive and affective factors influence the adoption of the application.

Conclusion: To enhance the adoption and effective use of the OKY application for menstrual hygiene management, it is recommended to strengthen socialization initiatives and implement peer counseling programs. Such interventions may support increased awareness, acceptance, and consistent use of the application among adolescents.

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INTRODUCTION

Adolescents are the primary target in Sustainable Development Goals (SDGs) numbers 3, 4, and 5, which encompass health, quality education, and gender equality, including adolescent girls as part of the 2030 sustainable development (1). Social media use significantly affects adolescent sexual behavior, with easy access to sexual content influencing them negatively (2). However, in some regions, menstruation is still considered taboo, where women are isolated and restricted in their activities during menstruation (3). The lack of information about menstrual care and a closed attitude in discussing this topic leads many teenage girls to believe in myths, which ultimately results in reproductive health problems (4). As much as 33% of reproductive health issues in women are caused by poor personal hygiene, with 75% of women of childbearing age having experienced candidiasis (5). The increase in Sexually Transmitted Infections (STIs) among Indonesian teenagers is due to unsafe sexual behavior such as early sexual activity, multiple partners, not using condoms, and engaging in risky sexual practices (6). The issues in adolescents also include social problems, the development of adolescent's identity is also greatly influenced by the online activities of adolescents in this era (7).

One of the negative impacts of the internet is the easy access to pornography, where 29% of porn site users in 2017 are teenagers aged 18-24 years old (8). Adolescents who actively consume porn, as well as sexual behavior from their peers, are related to premarital sex attitude (9), 73.9% of Indonesian adolescents from the group of sexually active adolescents have already had their first sexual experience before the age of 14 (6). Pre-marital sex among adolescents also contributes to the high rate of child marriages, with 97% of marriage dispensation requests being due to pre-marital pregnancy (10). Although the internet has negative effects, it also serves as a source of information and communication, as well as supporting technology-based education (11,12). The development of the internet has transformed the conventional era into the digital era, including in health promotion. The Indonesian government is encouraging the digitization of healthcare, including launching the "KEPO Promkes application", which is aimed at health promotion workers to improve the quality of health promotion in the region (13).

UNICEF is developing the OKY App to assist adolescent girls in obtaining information about menstrual health during the Covid-19 pandemic. The app features include menstrual tracking, individual calendars, information about menstruation, puberty, myths, and reproductive health (14). UNICEF aims to distribute this app to all adolescent girls in Indonesia by collaborating with the Directorate of Junior High Schools and promoting healthy school campaigns. One of their efforts includes a webinar titled "Teachers and Students Learning Menstrual Health and Hygiene Management through the OKY App" and a roadshow called "Oky Goes to Schools." However, previous studies in Indonesia have shown that adolescent acceptance of mobile health (mHealth) applications can be limited, as factors like ease of use, social influence, and perceived risks were found not to significantly encourage usage among young users (15). A preliminary study at SMP Negeri 52 Surabaya (Junior High School) showed that before the menstrual hygiene management campaign, only 4.3% of female students were using the OKY App, which influenced UNICEF's choice of campaign location. The campaign took place on December 1, 2023, with direct promotion of the app and the formation of peer educators to spread its usage.

Adolescents have a high curiosity, but it is not always used to seek useful information, making them vulnerable to accessing negative content such as pornography. The Department of Women's Empowerment, Child Protection, and Family Planning (DP3AK) of East Java Province notes that West Java, East Java, and Central Java have the highest rates of child marriage in Indonesia, with East Java recording 19,211 cases in 2019 and 9,453 cases in 2020. Data from 2023 also shows a significant number of school-age widows in East Java. Although information about menstruation is available in relevant subjects, many schools still fail to provide comprehensive knowledge on this sensitive topic. SMP Negeri 52 Surabaya has never received specific reproductive health education for adolescents from the local health center.

UNICEF is developing the OKY application to assist adolescents in tracking their menstrual cycles and accessing reproductive health information without using mobile data. UNICEF aims to expand the use of this application throughout Indonesia, including for adolescents with disabilities, through collaboration with the Directorate of Junior High Schools and campaigns such as "OKY Goes to School." Although the application has been downloaded by approximately 19,000-20,000 users in East Java, only 0.692% of adolescent girls in the province use it, with a low level of active users. UNICEF continues to strive to improve the reach of the OKY application, including in Surabaya through menstrual hygiene management campaigns.

SMP Negeri 52 Surabaya was chosen for the campaign because previous surveys indicated that the majority of female students had never used the OKY Application, with only 4.3% or 3 students being users. This application has also not undergone monitoring, evaluation, or research related to user acceptance, despite being promoted. Therefore, an analysis of OKY Application acceptance using the Technology Acceptance Model (TAM) is necessary. TAM was used to analyze technology acceptance, as application usage is influenced by ease of use and usefulness (16). Therefore, this study aims to analyze the relationship of the TAM variables of the OKY application among female students at SMP Negeri 52 Surabaya. The hypotheses proposed in this study are that perceived ease of use and perceived usefulness positively influence behavioral intention to use the OKY application, and that behavioral intention positively influences actual system use of the OKY application.

METHOD

This study employs a clear and systematic approach to ensure the reliability and validity of the findings. Below are the components of the methodology:

Research Type

This study used a quantitative approach with a cross-sectional design, conducted over a short period to analyze the acceptance of the OKY application. A cross-sectional design was chosen because it allows for capturing a snapshot of participants' perceptions and acceptance levels at a single point in time, which aligns with the objective of assessing immediate user responses to the application. The study examined the relationships between independent and dependent variables based on the Technology Acceptance Model (TAM).

Population and Sample/Informants

The study population consisted of female students in grades 7 and 8 at SMP Negeri 52 Surabaya who had been exposed to the OKY Application through a menstrual hygiene management campaign. The intervention was conducted on December 1, 2023, during which peer educators were formed in each class to assist in promoting the use of the OKY Application. As a result, 175 students became users of the application. From this population, a sample was selected using a proportionate stratified random sampling technique. The minimum sample size was calculated using the Lameshow and Lwanga formulas, resulting in 72 respondents, 34 from grade 7 and 38 from grade 8. It should be noted that the focus on students who had already been exposed to the campaign may introduce a degree of selection bias. Consequently, the extent to which the findings can be generalized to the wider adolescent population who have not participated in such interventions may be limited.

Research Location

The research was conducted at SMP Negeri 52 Surabaya, a junior high school located in the city of Surabaya, Indonesia.

Instrumentation or Tools

The primary research instrument was a structured questionnaire adapted from Muthmainnah (2022), modified to suit the context of this study. The knowledge variable was measured using true–false items with score categories of low (0–1), medium (2–3), and high (4–5). The skill variable was assessed through skilled–unskilled responses, categorized as low (6–13), medium (14–19), and high (20–24). Curiosity, perceived usefulness, perceived ease of use, attitude toward using, behavioral intention, and actual system use were measured using a Likert scale with options ranging from Strongly Agree to Strongly Disagree. Each variable had predefined score categories to determine respondent levels from very low to very high. To ensure the appropriateness of the modifications, the questionnaire underwent a construct validity assessment through expert judgment and a pilot test with a subset of the target population.

Data Collection Procedures

Data collection took place in-person on school grounds. Students were assembled in the school hall and given printed questionnaires to complete. Before the main study, a pilot test for validity and reliability was conducted on

February 26, 2024, involving 60 students who were not part of the primary sample. The test results showed that all items had a correlation coefficient (r) greater than the critical value of 0.254, and the Cronbach's alpha coefficient exceeded 0.6, indicating that the instrument was valid and reliable. It is indicating that the instrument was valid and reliable. No major revisions were necessary following the pilot test, as all items met the required validity and reliability standards; thus, the original questionnaire was retained for use in the main study. Parental consent was obtained through an indirect process facilitated by the school. The researchers first provided detailed information about the study to the teachers, who then communicated this information to the parents this procedure was conducted in accordance with ethical standards and approved under the obtained ethical clearance.

Data Analysis

The collected data were analyzed using the Spearman correlation test to examine the relationships between the independent variables (knowledge, skill, curiosity, perceived usefulness, perceived ease of use, attitude, and behavioral intention) and the dependent variable (actual system use of the OKY Application). The Spearman correlation test was selected because the data were ordinal in nature, originating from Likert scale measurements and categorized scores, and did not fulfill the assumptions of normality required for parametric tests.

Ethical Approval

This research has received a certificate of feasibility for the implementation of health research by the Health Research Ethics Commission, Faculty of Dental Medicine, Universitas Airlangga with certificate number 0128/HRECC.FODM/II/2024.

RESULTS

Distribution of Variables

Table 1. Frequency Distribution Based on Variables of Technology Acceptance Model (TAM)

Variable	Frequency (n=72)	Percentage (%)
Knowledge		
Low	3	4.2
Medium	22	30.6
High	47	65.3
Skill		
Low	5	6.9
Medium	22	30.6
High	45	62.5
Curiosity		
Low	0	0
Medium	22	30.6
High	50	69.4
Perceived Usefulness		
Very unhelpful	0	0
Unhelpful	2	2.8
Moderately Useful	17	23.6
Useful	16	22.2
Very Useful	37	51.4
Perceived Ease of Use		
Very uneasy	0	0
Uneasy	3	4.2
Moderately Easy	15	20.8
Easy	18	25.0
Very Easy	36	50.0
Attitude Toward Using		
Very Low	0	0

Variable	Frequency (n=72)	Percentage (%)
Low	3	4.2
Medium	17	23.6
High	18	25.0
Very High	34	47.2
Behavioral Intention		
Very Unintentional	4	5.6
Unintentional	4	5.6
Moderately Intentional	30	41.7
Intentional	26	36.1
Very Intentional	8	11.1
Actual System Use		
Very Low	4	5.6
Low	0	0
Medium	12	16.7
High	39	54.2
Very High	17	23.6
Total	172	100

The distribution of variables in the Technology Acceptance Model (TAM) reveals valuable insights into the adoption of the OKY Application by students at SMPN 52 Surabaya. High levels of knowledge (65.3%) and skill (62.5%) suggest that students are well-equipped to understand and use the application, which supports TAM's notion that these factors enhance perceived ease of use and usefulness. The high curiosity (69.4%) also indicates intrinsic motivation to engage with the technology, potentially boosting both perceived usefulness and ease of use. With 51.4% of students rating the app as "Very Useful" and 50% finding it "Very Easy" to use, these findings align with TAM's assertion that perceived usefulness and ease of use drive user acceptance. A positive attitude toward using the app (47.2% very high) further strengthens the likelihood of continued use, as it is closely linked to behavioral intention and actual usage. Behavioral intention (41.7% moderately intentional) shows a moderate level of intent to use, which translates to high system usage (54.2%), further confirming that TAM's constructs influence actual technology adoption.

Relationship of Variables

Table 2. Correlation Between Variables of Technology Acceptance Model (TAM)

Nu.	Variable		Sig	Coefficient	Correlation
	Variable-1	***Variable-2***			
1	Knowledge	Perceived Usefulness	0.000	0.837	Very Strong
2	Skill	Perceived Usefulness	0.000	0.829	Very Strong
3	Curiosity	Perceived Usefulness	0.000	0.813	Very Strong
4	Knowledge	Perceived Ease of Use	0.000	0.775	Strong
5	Skill	Perceived Ease of Use	0.000	0.801	Very Strong
6	Curiosity	Perceived Ease of Use	0.000	0.813	Very Strong
7	Perceived Usefulness	Perceived Ease of Use	0.000	0.939	Very Strong
8	Perceived Usefulness	Attitude Toward Using	0.000	0.792	Very Strong
9	Perceived Ease of Use	Attitude Toward Using	0.000	0.805	Very Strong
10	Attitude Toward Using	Behavioral Intention	0.000	0.701	Strong
11	Behavioral Intention	Actual System Use	0.000	0.846	Very Strong

Table 2 shows that there is a very strong relationship between *knowledge*, *skills*, and *curiosity* of students towards the OKY Application and *perceived usefulness*. Similarly, there is a strong relationship between students' *knowledge, skills, and curiosity* and *perceived ease of use* of the OKY App. In addition, the higher the *perceived*

usefulness of the OKY Application, the higher the *perceived ease of use*. Furthermore, there is a strong relationship between *perceived usefulness* and *perceived ease of use* and *attitude toward using* the OKY Application. Finally, there is a strong relationship between *attitude toward using* the OKY Application and *behavioral intention* and *actual system use*. The results of this study show that these factors are interrelated and contribute to the use of the OKY Application by students at SMPN 52 Surabaya.

This study's correlation results mostly support previous research on the Technology Acceptance Model (TAM), confirming expected relationships like the strong correlations between Perceived Usefulness and Knowledge ($r = 0.837$) and Perceived Ease of Use and Skill ($r = 0.801$). These results are in line with earlier research that identified knowledge and skill as critical determinants of technology adoption. The extremely high correlation between curiosity and perceived usefulness ($r = 0.813$), however, is a noteworthy and somewhat unexpected finding. It implies that curiosity influences students' opinions of the application's worth more than is generally seen in other research. Furthermore, the strong correlation ($r = 0.939$) between perceived usefulness and perceived ease of use highlights how closely these two factors are related in the context of this study, suggesting that students believe they are intertwined. By showing how these factors interact to affect students' adoption of the OKY Application and advancing our knowledge of user behavior in educational technology, these findings offer insightful information about the intricate dynamics of user acceptance.

DISCUSSION

Research at SMP Negeri 52 Surabaya shows that the knowledge variable has a very strong relationship with actual system use. Most of the students have high knowledge and a very useful perceived usefulness, according to research that found that knowledge and skills have a positive effect on perceived usefulness (17). Knowledge management has a significant positive influence on perceived usefulness and is indirectly related to behavioural intention to use e-learning (17–19).

Skills are abilities or competencies that can be honed through practice or through the education system (20). In a study conducted at SMP Negeri 52 Surabaya, the results indicated a very strong relationship between skills and perceived usefulness, with most female students categorizing their skills as high and perceiving the OKY Application as very useful. This finding aligns with previous research by Muthmainnah (2022), which demonstrated that both knowledge and skills influence perceived usefulness. Specifically, when knowledge and skills increase, perceived usefulness also rises. In the context of adolescent mHealth usage, this alignment is not entirely surprising, as previous studies have shown that improved technological skills often correlate with more positive perceptions of the technology's usefulness (17). However, what is particularly noteworthy is the high level of perceived usefulness reported by the students, suggesting that, for adolescents, the development of skills through mobile health applications may be a significant driver of their perceived value and adoption. This finding highlights an important aspect of mHealth usage among youth skills development can enhance their perception of the technology’s utility, making it a powerful tool in promoting health behaviors.

Research conducted at SMP Negeri 52 Surabaya showed that the curiosity variable had a very strong relationship with perceived usefulness, with most of the students having a high category of curiosity and perceived usefulness of the very useful category. In another study conducted by Budiarti in 2022, it was stated that cognitive absorption variables consisting of heightened, enjoyment, and curiosity had a significant influence on perceived usefulness (21). In addition, previous research by Muthmainnah (2022) also stated that variable, curiousness affects perceived usefulness. Therefore, it can be concluded that higher curiosity leads to a higher perception of usefulness, suggesting that curiosity plays a key role in how students evaluate the value of mobile health applications (17).

Research conducted at SMP Negeri 52 Surabaya obtained the results that the knowledge variable has a strong relationship with the perceived ease of use variable, with most of the students having high category knowledge and perceived ease of use category very easy. This is in accordance with previous research which revealed that technological pedagogical content knowledge has a relationship with perceived ease of use through teachers' self-efficacy (22). In addition, other research revealed internal and external sources, namely knowledge, skills, and training obtained by a person can make it easier for individuals to carry out investments, so that the perception of ease in investing is obtained because a person has knowledge and experience (23). It can be concluded that if a person's level of knowledge is high, the perception of ease felt in using the application is also high.

Research conducted at SMP Negeri 52 Surabaya obtained the results that the skill variable has a very strong relationship with perceived ease of use, with most students having skills with a high category and perceived ease of use with a very easy category. This finding contrasts with previous research by Muthmainnah (2022), which concluded that skills did not have a significant effect on perceived ease of use (17). However, this result aligns with other studies, which demonstrated that computational thinking skills positively impact the perception of ease of use which showed that computational thinking skills or skills in computational thinking have a positive effect on perceived ease of use or perception of ease (24). Therefore, it can be concluded that as a user's skills increase, their perception of ease of use also improves, suggesting that skill development plays a crucial role in enhancing user experience with mobile health applications.

Curiosity is a fundamental element of cognition, influencing decision-making, motivation to learn, and self-development (25). Curiosity reflects the attitude of a person who continues to find out and study deeply (26), Research at SMP Negeri 52 Surabaya showed that curiosity has a very strong relationship with perceived ease of use, with most students having high curiosity and perceived ease of use in the very easy category. Curiosity is the active process of seeking answers, which helps individuals gain knowledge and information (27).

A study on the Technology Acceptance Model (TAM) shows that the user's view of information systems is influenced by perceived usefulness and perceived ease of use (28). Users feel greater benefits if the system is easy to use, so perceived ease of use has a positive effect on perceived usefulness (16). Research at SMP Negeri 52 Surabaya also found that perceived usefulness has a very strong relationship with perceived ease of use, where most students feel that the category is very useful and very easy (18). In accordance with TAM, the user's attitude towards information systems is determined by perceived usefulness and perceived ease of use (29).

Attitude Toward Using is a consumer decision in determining values and evaluations to make decisions in using an application according to its function, the assessment can be positive or negative. This attitude can be influenced by many factors, such as perception of quality of service (30). The results of the study conducted at SMP Negeri 52 Surabaya, showed that the relationship between perceived usefulness variables and attitude toward using had a strong relationship. Most of the students had a very high perceived usefulness category and attitude toward using category very high. In accordance with previous research, perceived usefulness is associated with attitude toward using. The relationship between perceived usefulness and attitude toward using has a positive relationship, so if perceived usefulness increases, then attitude toward using also increases (18). In addition, perceived usefulness has a positive influence on behavioral intention to use (31).

Perceived ease of use is the user's belief about the ease of using technology, while attitude toward using is a person's positive or negative feelings about the use of technology. Research at SMP Negeri 52 Surabaya showed that perceived ease of use has a very strong relationship with attitude toward using, where most students feel the category of very easy and a very positive attitude. Previous research has also supported that perceived ease of use is associated with attitude toward using (32). Research stated a strong relationship between perceived ease of use and attitude using the Konco SREGEP application (18).

Attitude toward using is a person's attitude towards the acceptance or rejection of technology to fulfill their work activities. Behavioral intention is the desire or intention to perform a certain action, which can be an indicator of future behavior (33). Research at SMP Negeri 52 Surabaya showed a strong relationship between attitude toward using and behavioral intention, with most female students having a very positive attitude and high interest. Attitude toward using has a positive effect on behavioral intention (34).

Research at SMP Negeri 52 Surabaya showed a very strong relationship between behavioral intention and actual system use, with most female students having quite high intention and high system use. The t-test in structural model analysis also showed a positive and significant influence between behavioral intention to use and actual system use (35).

This study has several limitations. The cross-sectional design limits causal interpretations between the variables studied. The sample may also be biased, as it consisted of students who had participated in a socialization campaign and peer educator program promoting the OKY application, potentially leading to higher acceptance rates than the general population. Lastly, because the research was conducted at a single school with a specific intervention approach, the findings may not be generalizable to other adolescent populations or settings without similar programs.

CONCLUSION

The majority of respondents at SMP Negeri 52 Surabaya have high knowledge (65.3%), skills (62.5%), and curiosity (69.4%) towards the OKY Application. In addition, the majority of respondents also have a high perception of usefulness (73.6%) and ease of use (75%), a positive attitude towards use (72.2%), a fairly high behavioral intention (41.7%), and a high actual use of the system (77.8%). Research shows that there is a very strong relationship between knowledge, skills, and curiosity and the perception of the usefulness of the OKY Application. A strong relationship is also found between knowledge and perception of ease of use, as well as a very strong relationship between skills and curiosity and perception of ease of use of the OKY Application. In addition, the perception of usefulness has a very strong relationship with the perception of ease of use, and a strong relationship with attitudes towards the use of the OKY Application. There is also a very strong relationship between the perception of ease of use and attitudes towards use. Attitudes towards use have a strong relationship with behavioral intentions, and behavioral intentions have a very strong relationship with actual use of the OKY Application system.

Adolescents as peer educators can play a role in spreading knowledge and skills using the OKY Application. Schools can optimize socialization for the regeneration of peer-educators, with UKS teachers as facilitators of peer counselling programs. The importance of regular monitoring and evaluation of the application as well as promotion through social media such as Instagram and TikTok, can increase the acceptance of the OKY Application.

This study contributes to the TAM by highlighting the strong relationships between knowledge, skills, curiosity, and key TAM variables in adolescent health promotion, while future research should explore external factors, longitudinal impacts, and the role of social media and peer networks in enhancing digital health interventions. In light of these findings, it is evident that there is considerable potential for the development of more comprehensive adolescent health promotion strategies that utilize digital platforms. Integrating applications such as OKY into school-based programs and leveraging peer networks may improve menstrual hygiene management and overall adolescent well-being. In the future, digital education interventions should consider including external variables, such as individual characteristics, and evaluate the long-term sustainability and impact of application use. Conducting longitudinal follow-up studies would provide valuable insights into how technology acceptance evolves over time and how continued use of the OKY Application influences menstrual hygiene behaviors among adolescent girls.

AUTHOR'S CONTRIBUTION STATEMENT

first author: Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing, Supervision. Second author: Methodology, Writing - Original Draft, Data Analysis. Third author: Methodology, Writing - Original Draft, Data Analysis. Fourth author: Writing - Original Draft, Writing - Review & Editing. Fifth: Writing - Review & Editing, Supervision. Sixth: Writing - Review & Editing, Supervision. Seventh: Writing - Review & Editing, Supervision. All authors have read and agreed to the published version of the manuscript.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

Not applicable.

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BIBLIOGRAPHY

1. SDGs. Survive Thrive Transform the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) at a Glance. [cited 2022 Dec 10];
2. Santi SR, Bagoes Widjanarko, Syamsulhuda Budi Musthofa. The Impact of Social Media Use on Sexual Behavior Among Adolescents: Literature Review. Media Publikasi Promosi Kesehatan Indonesia (MPPKI). 2024 Sep 2;7(9):2280–7. https://doi.org/10.56338/mppki.v7i9.5859
3. Ahmed Shallo S, Willi W, Abubeker A. Factors Affecting Menstrual Hygiene Management Practice Among School Adolescents in Ambo, Western Ethiopia, 2018: A Cross-Sectional Mixed-Method Study. Risk Manag Healthc Policy [Internet]. 2020 Sep [cited 2023 Sep 22];Volume 13:1579–87. https://doi.org/10.2147/RMHP.S267534
4. Garg S, Anand T. Menstruation related myths in India: strategies for combating it. J Family Med Prim Care. 2015;4(2):184. https://doi.org/10.4103/2249-4863.154627
5. Waikhom SD, Afeke I, Kwawu GS, Mbroh HK, Osei GY, Louis B, et al. Prevalence of vulvovaginal candidiasis among pregnant women in the Ho municipality, Ghana: species identification and antifungal susceptibility of Candida isolates. BMC Pregnancy Childbirth. 2020 Dec 6;20(1):266. https://doi.org/10.1186/s12884-020-02963-3
6. Peltzer K, Pengpid S. Sexual risk behaviour and its correlates among adolescents in Indonesia, Laos, Thailand and Timor-Leste: results from national school surveys in 2015. Int J Adolesc Med Health. 2021 Dec 7;33(6):501–9. https://doi.org/10.1515/ijamh-2019-0230
7. Nesi J, Telzer EH, Prinstein MJ. Adolescent Development in the Digital Media Context. Psychol Inq. 2020 Jul 2;31(3):229–34. https://doi.org/10.1080/1047840X.2020.1820219
8. Rathore M. Distribution of visitors on Pornhub worldwide in 2017, by age group. 2023.
9. Peng Y, Zheng Y. Relation between attitudes towards pornography consumption, peer sexual behaviors and attitudes towards premarital sex among the college students in Guangdong province, China. Humanit Soc Sci Commun. 2024 Jul 15;11(1):917. https://doi.org/10.1057/s41599-024-03431-5
10. DP3AK. Pre-marital Pregnancy as the cause of High Rates of Child Marriage. 2021.
11. Kassab M, DeFranco J, Laplante P. A systematic literature review on Internet of things in education: Benefits and challenges. J Comput Assist Learn. 2020 Apr 12;36(2):115–27. https://doi.org/10.1111/jcal.12383
12. Suaad Hadi Hassan Al-Taai, Huda Abbas Kanber, Waleed Abood Mohammed al-Dulaimi. The Importance of Using the Internet of Things in Education. International Journal of Emerging Technologies in Learning (iJET). 2023 Jan 10;18(01):19–39. https://doi.org/10.3991/ijet.v18i01.35999
13. Kementerian Kesehatan Republik Indonesia. Technical Instructions for the Kepo Promkes Application. 2022.
14. UNICEF. Oky: Co-created with girls, for girls. 2020.
15. Kwee V, Istijanto I, Widjojo H. Understanding the Determinants of m-Health Adoption in Indonesia. Jurnal Manajemen Teori dan Terapan | Journal of Theory and Applied Management. 2022 Dec 17;15(3):408–22. https://doi.org/10.20473/jmtt.v15i3.40142
16. Wilson N, Keni K, Tan PHP. The role of perceived usefulness and perceived ease-of-use toward satisfaction and trust which influence computer consumers' loyalty in China. Gadjah Mada International Journal of Business [Internet]. 2021 Sep 1;23(3):262–94. PMID: informit.147511565887487
17. Muthmainnah. The Acceptance Model for the "Konco Sregep" Adolescent Health Promotion Application at the Sekolah Siaga Kependudukan in Malang Regency [Dissertation]. [Surabaya]: Universitas Airlangga; 2022.
18. Elna Sari C, Tania KD, Wedhasmara A, Apriansyah Putra. The Influence of Knowledge Management Factors on the Sustainability of E-learning Usage. Indonesian Journal of Computer Science. 2023 Oct 28;12(5). https://doi.org/10.33022/ijcs.v12i5.3406
19. Handayani L, Eka Saputri M, Trisnowati H, Nisa Novianti T, Fitriani I, Suryana AA, et al. Flip Chart-based Nutrition Education to Improve Knowledge and Attitude towards Stunting among Adolescent Girls in Sleman Regency. Media Publikasi Promosi Kesehatan Indonesia (MPPKI). 2024 Dec 9;7(12):2968–75. https://doi.org/10.56338/mppki.v7i12.6381

20. Okada A, Panselinas G, Bizoi M, Malagrida R, Torres PL. Fostering Transversal Skills through Open Schooling with the CARE-KNOW-DO Framework for Sustainable Education. Sustainability. 2024 Mar 27;16(7):2794. https://doi.org/10.3390/su16072794
21. Budiarti P, Fasyni A, Lasmini S. Cognitive Absorption: Its Effect on Online Shopping App User Interest. Jurnal Manajemen dan Kewirausahaan. 2022;10(1).
22. Bakar NSA, Maat SM, Rosli R. Mathematics Teacher's Self-Efficacy of Technology Integration and Technological Pedagogical Content Knowledge. Journal on Mathematics Education. 2020 Apr 19;11(2):259–76. https://doi.org/10.22342/jme.11.2.10818.259-276
23. Ashidiqi C, Arundina T. Indonesia Students's intention to invest in Sukuk : Theory of planned behaviour approach. International Journal of Economic Research. 2017;14(15):395–407.
24. Dewi FK, Hidayat H. Analysis of Computational Thinking Skills that Affect the Use of Augmented Reality with the TAM Approach. Voteteknika (Vocational Teknik Elektronika dan Informatika). 2023 Dec 1;11(4):409. https://doi.org/10.24036/voteteknika.v11i4.124684
25. Kidd C, Hayden BY. The Psychology and Neuroscience of Curiosity. Neuron. 2015 Nov;88(3):449–60. https://doi.org/10.1016/j.neuron.2015.09.010
26. Diana P, Marethi I, Pamungkas AS. The Ability to Understand Mathematical Concepts of Students: Examined from the Category of Mathematical Anxiety. SJME (Supremum Journal of Mathematics Education). 2020 Jan 24;4(1):24. https://doi.org/10.35706/sjme.v4i1.2033
27. Ligneul R, Mermillod M, Morisseau T. From relief to surprise: Dual control of epistemic curiosity in the human brain. Neuroimage. 2018 Nov;181:490–500. https://doi.org/10.1016/j.neuroimage.2018.07.038
28. Davis FD. A technology acceptance model for empirically testing new end-user information system: Theory and results. Cambridge: Massachusetts Institute of Technology; 1985.
29. Jogiyanto. Behavioral Information System. Andi Offset; 2007.
30. Moon Y, Armstrong DJ. Service quality factors affecting customer attitudes in online-to-offline commerce. Information Systems and e-Business Management. 2020 Mar 11;18(1):1–34. https://doi.org/10.1007/s10257-019-00459-y
31. Chen L, Aklikokou AK. Determinants of E-government Adoption: Testing the Mediating Effects of Perceived Usefulness and Perceived Ease of Use. International Journal of Public Administration. 2020 Jul 26;43(10):850–65. https://doi.org/10.1080/01900692.2019.1660989
32. Bangkara RP, Mimba NPSH. The Influence of Perceived Usefulness and Perceived Ease of Use on Users' Interest in Using Internet Banking with Attitude toward Using as an Intervening Variable. E-Jurnal Akuntansi Universitas Udayana. 2016;16(3):2408–34.
33. Aditya R, Wardhana A. The Influence of Perceived Usefulness and Perceived Ease of Use on Behavioral Intention with the Technology Acceptance Model (TAM) Approach among LINE Instant Messaging Users in Indonesia. Jurnal Siasat Bisnis. 2016 Jan;20(1):24–32. https://doi.org/10.20885/jsb.vol20.iss1.art3
34. Mailizar M, Burg D, Maulina S. Examining university students' behavioural intention to use e-learning during the COVID-19 pandemic: An extended TAM model. Educ Inf Technol (Dordr). 2021 Nov 28;26(6):7057–77. https://doi.org/10.1007/s10639-021-10557-5
35. Khumaidi IA, Kusumaningtyas RH. Technology Acceptance Model User Behavior in Dompet Dhuafa Enterprise System. Applied Information System and Management (AISM). 2021 Apr 26;4(1):11–6. https://doi.org/10.15408/aism.v4i1.19484