



Driving Factors for Students Choosing Fully Online Universities in Indonesia

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ABSTRACT

This study investigates the impact of digital transformation on students' purchasing decision-making in a fully online educational context, emphasizing system quality, information quality, and electronic interface quality. It evaluates the mediating function of digital change and the moderating influence of ease of use. This study uses a national sample from three fully online universities in Indonesia, based on data collected from 290 students. It applies regression analysis involving 13 hypotheses. The Sobel test was used to evaluate mediation hypotheses while the Ping test was used to assess moderation hypotheses. The findings show that successful digital transformation is positively supported by the quality of electronic services and information. System quality surprisingly has a detrimental impact on change, perhaps as a result of structural stiffness or organizational inertia. System quality is a crucial requirement that affects students' transaction intensity when it comes to purchasing selections. However, because they are seen as minimal service standards, information and service quality do not have a major direct impact. By converting technological capability into purchasing decisions, digital transformation serves a crucial mediating role. Furthermore, by lessening the detrimental effects of information complexity and enhancing purchase motivation through intuitive engagement, ease of use considerably moderates this association.

Keywords: Digital Transformation, Purchase Decision, System Quality, Information Quality, Ease of Use

JEL Classifications: C31, M30, M31, I23

1. INTRODUCTION

Online learning models has been adopted in many countries, including the United States, which is recognized as a leader in educational technology. "E-learning platforms have become integral to higher education institutions. These platforms encompass learning management systems (LMS) and more sophisticated tools that promote interactive and collaborative learning experiences, including massive open online courses (MOOCs), which have further enhanced access to education (Adeniyi et al., 2024).

The gross enrollment ratio for higher education in Indonesia still remains below that of several other Asian countries. Based on World Bank data from 2020, Indonesia's GER stood at 36.31%, compared with 91.09% in Singapore, 49.29% in Thailand, and

43% in Malaysia. This indicates the need for stronger policy support and strategic interventions to improve higher education participation in Indonesia.

According to Arif Satria (medcom.id - REN, 2024), several factors contribute to the persistently low gross enrolment rate (GER) in higher education in Indonesia. These include limited access, as many remote areas in the country make it difficult for students to reach universities. In addition, there is a lack of adequate educational infrastructure for university students. Other contributing factors include high tuition fees, demographic population structures, and socio-cultural conditions.

One potential solution to improve Indonesia's higher education GER is the establishment of universities offering fully online

learning, which can directly address these challenges. According to Ispr.ac.id (2023), online learning is an education method that allows students to access learning materials and interact with lecturers through digital platforms. Through online classes, students can attend lectures and complete assignments from anywhere if they have an internet connection.

This study is significant because it identifies the driving factors that affect students' intention to enroll in fully online undergraduate programs at private universities in Indonesia, particularly Universitas Siber Asia, Universitas Siber Muhammadiyah, and Universitas Insan Cita Indonesia. This study examines the influence of system quality, information quality, and e-service quality on students' online purchasing decisions. It examines the influence of digital transformation and perceived ease of use as moderating factors.

The research addresses a gap in previous studies by focusing on a relatively new phenomenon in Indonesia, namely students enrolled in fully online universities. Its main contribution lies in expanding the existing literature by examining how digital transformation, as an intervening factor, and ease of use, as a moderating factor, influence online purchase decisions in the context of increasing student enrollment.

2. LITERATURE REVIEW

Research hypotheses are constructed by drawing on theoretical foundations and by examining the processes underlying the phenomenon under study. Developing a hypothesis therefore involves logical reasoning based on theory, previous findings, and empirical evidence. A hypothesis is essentially a testable proposition that explains a relationship or predicts an outcome, and its validity must be determined through systematic analysis. Determining the direction of a hypothesis refers to the initial stage of logical reasoning. Hypotheses are tested using a one-tailed or two-tailed t-distribution, depending on the type of hypothesis (Yam and Taufik, 2021). In short, a hypothesis is a conclusion or a temporary assumption regarding a statement whose truth must be tested, whether that statement is true or false.

2.1. The Relationship between System Quality, Information Quality, and Service Quality toward Digital Transformation

Service quality includes customer support, customization, and reliability; system quality includes accessibility, security, and usability; information quality includes adequacy, variety, currency, accuracy, and utility (Amoozegar et al., 2025).

Research by Wang 2024 confirms that digitalization affects customer satisfaction in international trade operations. After digital transformation is introduced, customer satisfaction levels shift across nearly all SERVQUAL dimensions.

- H₁: System quality has a significant positive direct effect on digital transformation.

The quality of information, when executed via digital transformation, enhances customer value channels and eventually bolsters the company's enduring reputation. In this situation, consumer value channels extend beyond conventional value channels to encompass cognitive value channels with traditional values (Kim and Yang, 2024).

- H₂: Information quality has a significant positive direct effect on digital transformation.

Customers are more likely to be satisfied when service quality traits including responsiveness, enthusiasm, and trust are present (Demirel, 2022). For digital transformation to be efficacious, it must correspond with client requirements and technology circumstances.

- H₃: Service Quality has a significant positive direct effect on Digital Transformation.

2.2. The Relationship between System Quality, Information Quality, and Service Quality on Purchase Decision

System quality, information quality, service quality, and ease of use are independent variables positively correlated with the dependent variable, purchase decision. Subsequent study indicates that user satisfaction is affected by system quality, information quality, and service quality, all of which are influenced by ease of use (Bawan et al., 2022).

A study by Akter et al. (2024), titled "The Moderating Effect of System Quality on the Relationship Between Customer Satisfaction and Purchase Intention: PLS-SEM and fsQCA Approaches," revealed that System Quality significantly enhances purchase decision.

- H₄: System quality has a direct and significant positive effect on student online purchase decision.

Information quality substantially and favorably affects academic financial information system user satisfaction, according to an old research by Indriyani, Tiara Pandansari, and Frilia Esti Anggraeni on Akademi Maritim Nusantara Cilacap Cadets (Pandansari et al., 2022).

- H₅: Information quality has a direct and significant positive effect on student online purchase decision.

Previous research by Abbasi et al., 2022, entitled "Go cashless! Determinants of continuance intention to use E-wallet apps: A hybrid approach using PLS-SEM and fsQCA," demonstrates that service quality significantly influences users' intentions to continue utilizing the service.

- H₆: Service quality has a direct and significant positive effect on student online purchase decision.

2.3. The Relationship between Digital Transformation and Student Online Purchase Decision

Research by Hoang and Le Tan, 2023, entitled “*Unveiling digital transformation: Investigating Technology Adoption in Vietnam's Food Delivery Industry for Enhanced Customer Experience*,” states that digital transformation influences purchase decisions. based on previous studies, the following hypothesis is proposed:

- H_7 : Digital transformation has a direct and significant positive effect on student online purchase decision.

2.4. The Relationship between System Quality, Information Quality, and Service Quality toward Purchase Decisions through Digital Transformation

E - service quality, brand image, and digital transformation have been shows to positively influence MSME (Micro, Small, and Medium Enterprise) performance, both directly and indirectly (Prayogi, 2024). Therefore, strategies are needed to improve MSME performance, particularly in the Batik sector. To achieve better performance, MSMEs must strengthen e-service quality through efforts such as improving service accessibility. Customer service should be made easier to reach by using platforms such as WhatsApp, Instagram DMs, marketplaces, and Facebook, which can improve accessibility.

In addition, MSMEs need to provide faster and more personalized responses. The use of advanced technologies such as AI, chatbots, and data analytics can help improve service efficiency and quality while supporting quicker responses. The faster the response and the greater the availability of information, the more likely customers are to make purchase decisions. By improving e-service quality, MSMEs can increase customer satisfaction, build loyalty, and ultimately enhance overall organizational performance (Amalia et al., 2024). The proposed hypotheses are:

- H_8 : System quality has a significant positive effect on student online purchase decision through digital transformation.

Digital platforms are integral to the digital transformation process, enabling small and medium firms to secure competitive advantages and attain corporate objectives. Previous research demonstrates that information quality and task-technology alignment positively influence satisfaction. Furthermore, satisfaction was identified as the paramount factor influencing the inclination to continue. Consequent to this discovery, the suggested hypothesis is:

- H_9 : Information quality has a significant positive effect on student online purchase decision through digital transformation.

Digital transformation is a type of organizational change facilitated by digital technology, capable of redefining practically every facet of a company. Rather than being hindered by extreme uncertainty, digital transformation is often driven and supported by it (Antonopoulou et al., 2023). The proposed hypothesis is:

- H_{10} : Service quality has a significant positive effect on student online purchase decision through digital transformation.

2.5. System Quality, Information Quality, and Service Quality toward Purchase Decisions through Perceived Ease of Use

Research on “*Perceived Ease of Use as a Moderator in the Relationship Between the Online Tax System and Tax Service Quality*” demonstrates a favorable correlation between service quality and online tax systems. A significant moderating effect was observed between perceived ease of use, the online tax system, and the quality of tax services (Dewi et al., 2024). The proposed hypothesis is:

- H_{11} : Perceived ease of use moderates the effect of system quality on student online purchase decisions.

Another study on “*Risk, trust, and the interaction of perceived ease of use and behavioral control in predicting consumers' use of social media for transaction*” illustrates that the frameworks of the Technology Acceptance Model (TAM) and the theory of planned behavior (TPB) together clarify a substantial proportion of behavioral intention. The perceived ease of use, as outlined in TAM, amplifies the impact of behavioral control, derived from TPB, on the inclination to engage with social networking sites for transactional purposes (Jared et al., 2019). The proposed hypothesis is:

- H_{12} : Perceived ease of use moderates the effect of information quality on student online purchase decisions.

Research on “*Exploring the switch to urban train services: The impact of perceived accessibility and its moderating effects*” integrates the norm activation model (NAM), TPB, and perceived risk. It underscores that perceived accessibility markedly affects user behavior. The research indicates that perceived accessibility has both direct and moderating influences on usage intention, as it signifies the ease and convenience of utilizing a system (Nguyen-Phuoc et al., 2025). The proposed hypothesis is:

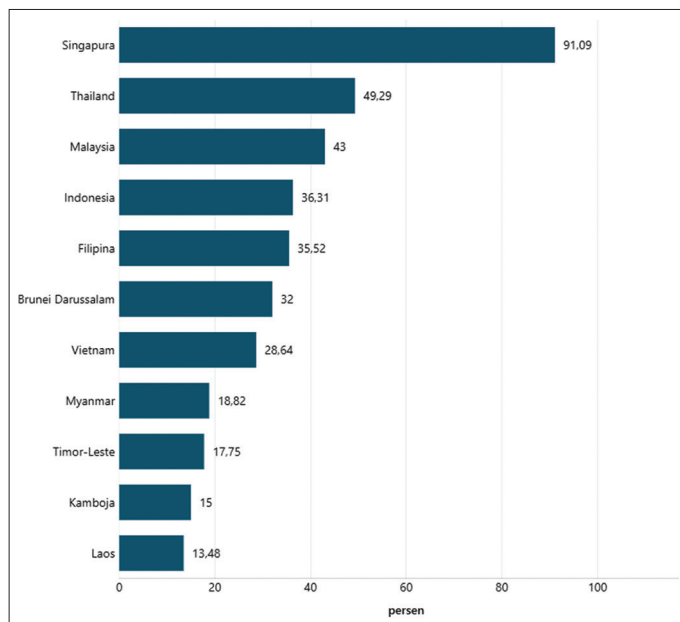
- H_{13} : Perceived ease of use moderates the effect of e-service quality on student online purchase decisions.

The study model depicted in Figure 1 is constructed in accordance with the established hypotheses. Within the figure, relationships H_2 , H_3 , H_4 , H_5 , H_6 , and H_7 indicate direct effects, whereas H_8 , H_9 , and H_{10} represent indirect effects (intervening variables). “Additionally, H_{11} , H_{12} , and H_{13} correspond to indirect effects involving moderating variables.

3. RESEARCH METHODOLOGY

3.1. Methods, Samples, and Data Collection

This research utilizes a quantitative methodology with an inferential design, concentrating on the higher education context in Indonesia. Data were gathered via a questionnaire poll of 290 students who have engaged in totally online learning for at least two semesters at private universities employing such systems. A purposive sample strategy was employed to select participants, adhering to the rules established by Hair et al. (2018) as referenced in Memon et al.

Figure 1: Gross enrolment ratio of higher education in ASEAN

Source: Databoks

(2020). The research employs primary data collected directly from participants using questionnaires disseminated via Google Drive and shared in student WhatsApp groups.

3.2. Measurement

All elements in this study were evaluated using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), with evaluation items sourced from prior research. The Appendix contains exhaustive pieces for each build. This study examines the influence of system quality, information quality, and service quality (Sutiah and Supriyono, 2024) on students' online purchasing decisions. (Ernawati, 2021), with digital transformation (Kusuma et al., 2024) acting as an intervening variable and ease of use as a moderating variable." The questionnaire comprises 29 indicators, with each indication assessed by 2 items.

System quality is measured using 6 indicators – reliability, flexibility, integration, accessibility, timeliness, and security (Sutiah & Supriyono, 2024) – with a total of 12 statements. An example item for reliability is: "I can rely on the online learning system to consistently access materials and attend lectures. Information quality is measured using 5 indicators – integrity, accuracy, format, timeliness, and relevance (Angelina Layongan et al., 2022) – with 10 statements. An example item for accuracy is: "The information provided regarding study programs and courses at the fully online university is consistent with the actual implementation." E-service quality is measured with 4 indicators – responsiveness, interface quality, privacy, and contact (Nguyen-Phuoc et al., 2025) – with 10 statements. An example item for interface quality is: "The appearance and navigation of the online learning platform are designed to be attractive and functional."

For the mediating variable, digital transformation is measured using 4 indicators – technology orientation, digital infrastructure,

digital orientation, and economic benefits (Kusuma et al., 2024) – with 8 statements. An example item for technology orientation is: "The fully online university uses the latest technology to effectively support the learning process." Ernawati (2021) identifies 10 statements that constitute the five indicators employed to assess the dependent variable, namely students' online purchasing decisions. The indicators encompass need recognition, information search, alternative evaluation, purchasing, and post-purchase assessment. An example item for purchasing is: "I feel confident and rational in making the decision to study at this fully online university." Meanwhile, the moderating variable ease of use is measured using 5 indicators – easy to learn, controllable, clear and understandable, easy to become skillful, and easy to use (Davis, 1989) – with 10 statements. An example item for controllable is: "I feel that I have full control in organizing and accessing materials in the online learning system."

3.3. Data analysis

Using confirmatory factor analysis (CFA) inside the structural equation modeling (SEM) framework, the validity of the factorial structure is assessed to commence data analysis (Khotimah Harahap and Kimia, n.d.). SEM with the AMOS software program is then used to test the study hypotheses.

4. RESULTS

4.1. Research Sample Characteristics

The preliminary research phase involved testing the instrument for construct reliability and validity. All standardized regression weights (factor loadings) for the measurement items exceeded 0.5, as reported in Table 1. The findings indicate that CR values surpass 0.7 and AVE values above 0.50, so affirming that all constructs exhibit adequate reliability.

An essential goal of structural equation modeling is to evaluate goodness-of-fit indices, which calculate the degree to which the suggested model matches the data. The outcomes of the goodness-of-fit evaluation are detailed in the subsequent section in Table 2.

The model achieves a reasonable level of fit, as shown in Table 3. In order to meet the requirements for an adequate model fit, the Chi-square value is 707.156, the RMSEA is 0.019 (≤ 0.08), the CMIN/DF is 1.101 (≤ 2), and the CFI is 0.903 (≥ 0.90). These indices are inside the marginal fit group, as the significance probability of 0.038 is close to the threshold of ≥ 0.05 , the GFI value of 0.875 is approaching the proposed ≥ 0.90 , the AGFI value of 0.848 is close to ≥ 0.90 , and the TLI value of 0.887 is near ≥ 0.90 . According to these results, the model validates according to the SEM goodness-of-fit standard (Ghozali, 2021). Students' online purchase decisions, digital transformation, e-service quality, information quality, and system quality may all be understood through the shared reference framework provided by these metrics. There are 29 indicators that make up the variables of digital transformation, e-service quality, information quality, system quality, and student online purchase decisions. After ensuring that all questionnaire questions were valid and reliable, a thorough reanalysis of the study model was carried out to test the hypotheses. Figures 2 and 3, along with Tables 4-6, display the results of the

Table 1: Construct reliability and validity

Construct	Items	Loading factors	CR	AVE
Information_Quality	X1.1	0.715	0.919	0.577
	X1.2	0.772		
	X1.3	0.767		
	X1.4	0.768		
	X1.5	0.765		
	X1.6	0.753		
	X1.7	0.687		
	X1.8	0.643		
	X1.9	0.684		
	X1.10	0.661		
	X1.11	0.619		
	X1.12	0.527		
Information_Quality	X2.1	0.521	0.905	0.578
	X2.2	0.646		
	X2.3	0.702		
	X2.4	0.741		
	X2.5	0.702		
	X2.6	0.586		
	X2.7	0.722		
	X2.8	0.748		
	X2.9	0.835		
E_Service_Quality	X2.10	0.763	0.895	0.598
	X3.1	0.614		
	X3.2	0.787		
	X3.3	0.783		
	X3.4	0.786		
	X3.5	0.691		
	X3.6	0.777		
	X3.7	0.648		
Student_Online_Purchase_decision	X3.8	0.647	0.919	0.609
	Y1.1	0.633		
	Y1.2	0.772		
	Y1.3	0.823		
	Y1.4	0.798		
	Y1.5	0.772		
	Y1.6	0.777		
	Y1.7	0.673		
	Y1.8	0.702		
Digital_Transformation	Y1.9	0.656	0.882	0.574
	Y1.10	0.675		
	Z1.1	0.631		
	Z1.2	0.781		
	Z1.3	0.813		
	Z1.4	0.702		
	Z1.5	0.693		
	Z1.6	0.699		
Ease_of_Use	Z1.7	0.631	0.946	0.690
	Z1.8	0.599		
	M1.1	0.798		
	M1.2	0.781		
	M1.3	0.693		
	M1.4	0.785		
	M1.5	0.811		
	M1.6	0.850		
	M1.7	0.867		
	M1.8	0.879		
	M1.9	0.808		
	M1.10	0.715		

Source: Author's own elaboration (SEM)

Table 2: Goodness of fit (GOF)

Goodness of fit index	Cut-off value	Research model	Description
Chi-square	Expected to be small χ^2 ; DF	707.156	Good fit
	642 (0.05)=710.421		
Significant probability	≥ 0.05	0.038	Marginal fit
RMSEA	≤ 0.08	0.019	Good fit
GFI	≥ 0.90	0.875	Marginal fit
AGFI	≥ 0.90	0.848	Marginal fit
CMIN/DF	≤ 2.0	1.101	Good fit
TLI	≥ 0.90	0.887	Marginal fit
CFI	≥ 0.90	0.903	Good Fit

Source: Author's own elaboration (SEM)

interaction methodology, namely the ping method. This method employs a singular indicator to denote the interaction effect, formed by multiplying the indicators of the exogenous variable with those of the moderating variable (Irfan et al., 2020). Figures 4 display the full model analysis dengan moderating variables.

Hypothesis testing is conducted to evaluate if independent factors exert a statistically significant influence on dependent variables. A hypothesis is deemed supported when the Critical Ratio (C. R.) exceeds 1.96 and the probability value (P) falls below 0.05.

A mediation analysis utilizing the Sobel test was performed to assess 8, 9, and 10. The Sobel test is utilized to assess whether independent variables influence the dependent variable indirectly via a mediating variable. The Sobel test is employed to assess the efficacy of the intervening variable as a mediator inside the study model. A mediating effect is established when the computed t-value surpasses the crucial t-table value of 1.650. The outcomes of the Sobel test are detailed below.

Hypothesis testing is employed to determine whether the moderating variable influences the dependent variable. A hypothesis is accepted when the Critical Ratio (C.R.) surpasses 1.96 and the probability (P) value is below 0.05.

Based on the hypothesis testing outcomes described above, a summary of the research findings is provided in the following table:

5. DISCUSSION

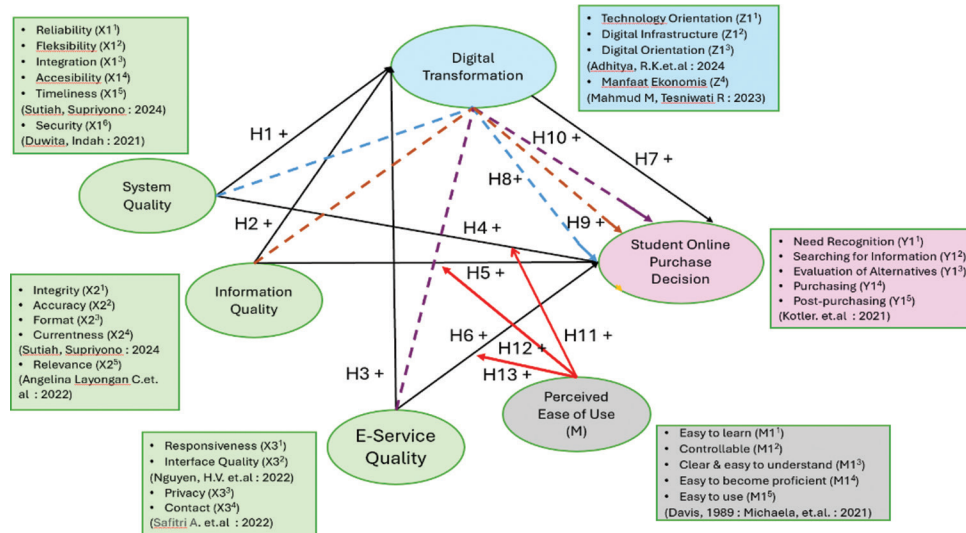
Within the context of digital transformation, this study demonstrates that negative traditional views, such as perceptions of high price sensitivity, no longer dominate purchasing behavior. Instead, consumers who actively engage with digital platforms tend to exhibit a “structural rigidity” or organizational inertia that may limit adaptability when encountering new technologies. Nevertheless, convenience is shown to be a key driving factor, enabling data-driven decision-making and encouraging a transition toward the concept of Service-Dominant Logic (Val, 2019). This shift reflects the evolution of value creation from a product-centered perspective to a service-oriented approach within digital platforms.

hypothesis testing. Moderating variables are defined as factors that can either amplify or diminish the link between exogenous and endogenous variables. “This research utilizes a single-indicator

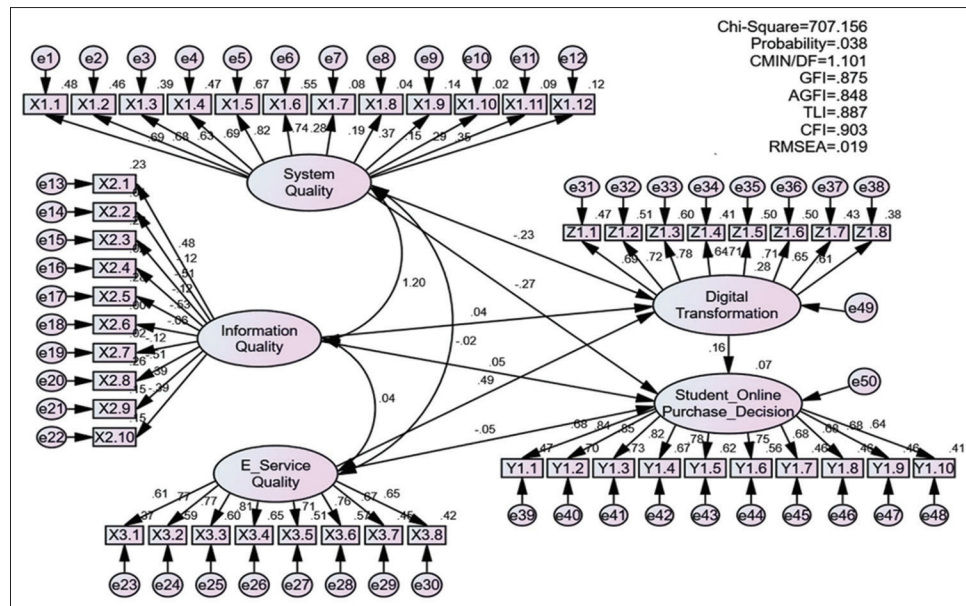
Table 3: Direct effect hypothesis test results

Hypothesis			Estimate	Standard error	C.R.	P	Label
Digital_Transformation	<---	System_Quality	-0.813	0.280	-2.903	0.004	par_27
Digital_Transformation	<---	Information_Quality	2.804	1.266	2.216	0.027	par_28
Digital_Transformation	<---	E_service_Quality	1.411	0.346	4.078	***	par_29
Purchase_Decision	<---	System_Quality	0.183	0.092	2.001	0.045	par_30
Purchase_Decision	<---	Information_Quality	0.095	0.413	0.229	0.819	par_31
Purchase_Decision	<---	E_service_Quality	-0.114	0.185	-0.619	0.536	par_32
Purchase_Decision	<---	Digital_Transformation	0.149	0.047	3.187	0.001	par_33

Source: Author's own elaboration (SEM)

Figure 2: Research model

Source: Author's own elaboration

Figure 3: Full model analysis

Source: Author's own elaboration (SEM). "Reliability (X1.1), Flexibility (X1.2), Integration (X1.3), Accessibility (X1.4), Timeliness (X1.5), Security (X1.6) - Integrity (X2.1), Accuracy (X2.2), Format (X2.3), Currentness (X2.4), Relevance (X2.5) - Responsiveness (X3.1), Interface Quality (X3.2), Privacy (X3.3), Contact (X3.4), - Technology Orientation (Z1.1), Digital Infrastructure (Z1.2), Digital Orientation (Z1.3), Economic Benefit (Z.4), - Need Recognition (Y1.1), Searching for Information (Y1.2), Evaluation of Alternatives (Y1.3), Purchasing (Y1.4), Post-purchasing (Y1.5). - 1 indicator with 2 statements"

In terms of purchase decisions, system quality continues to play a critical role, as it provides users with a sense of control, security, and assurance during transactions (Yusuf, 2021). Nonetheless, the quality of information appears to exert no substantial influence on Bounded Rationality, suggesting that customers favor ease over comprehensive product assessment, including the examination of vast specifications. Electronic service quality is now regarded as a common expectation rather than a distinguishing characteristic, especially among results-oriented consumers, and hence no longer acts as a main competitive advantage in influencing purchase intentions. Instead, continuous improvement in digital experiences and the integration of advanced technologies, including artificial intelligence, are more influential in increasing the likelihood of purchase decisions (Zahedi & Dehghan, 2019).

Regarding purchase decisions, system quality remains an absolute prerequisite because it provides a sense of control and security

Table 4: Sobel test – Undirect effect intervening hypothesis test results

a	b	a.b	sa	sb	sab	Variance	t
0.813	0.169	0.137	0.28	0.047	0.004	0.062	2.21
2.804	0.169	0.474	1.266	0.047	0.067	0.258	1.84
1.411	0.169	0.238459	0.346	0.047	0.008	0.090	2.65

Source: Author's own elaboration (SEM)

assurance for students when transacting. However, highly detailed information quality is found to have no significant effect due to the phenomenon of bounded rationality, where excessive information (information overload) instead triggers confusion. Students tend to rely more on heuristic strategies, such as ratings and visual trends, rather than in-depth analysis of product specifications. Similarly, electronic service quality is perceived as a minimum standard by student segments that result and price-oriented, and thus no longer serves as a primary competitive advantage in driving initial purchases. Instead, comprehensive digital transformation through AI integration and digital ecosystem development substantially increases the probability of purchase decisions (Jatimoyo et al., 2021).

Moreover, digital transformation serves as a mediating mechanism that translates technical capabilities into concrete economic benefit for consumers. Through transformation, information and service quality are refined into more persuasive and efficient features, such as personalized recommendations and advanced data processing (Putro et al., 2014). The perceived ease of use serves as a crucial moderating variable, functioning as a “lubricant” that alleviates technical obstacles, mitigates the adverse effects of information overload, and improves the overall efficiency of the purchasing process. Ultimately, this contributes to a more seamless user experience and consistently supports successful transaction

Table 5: Undirect effect moderation hypothesis test results

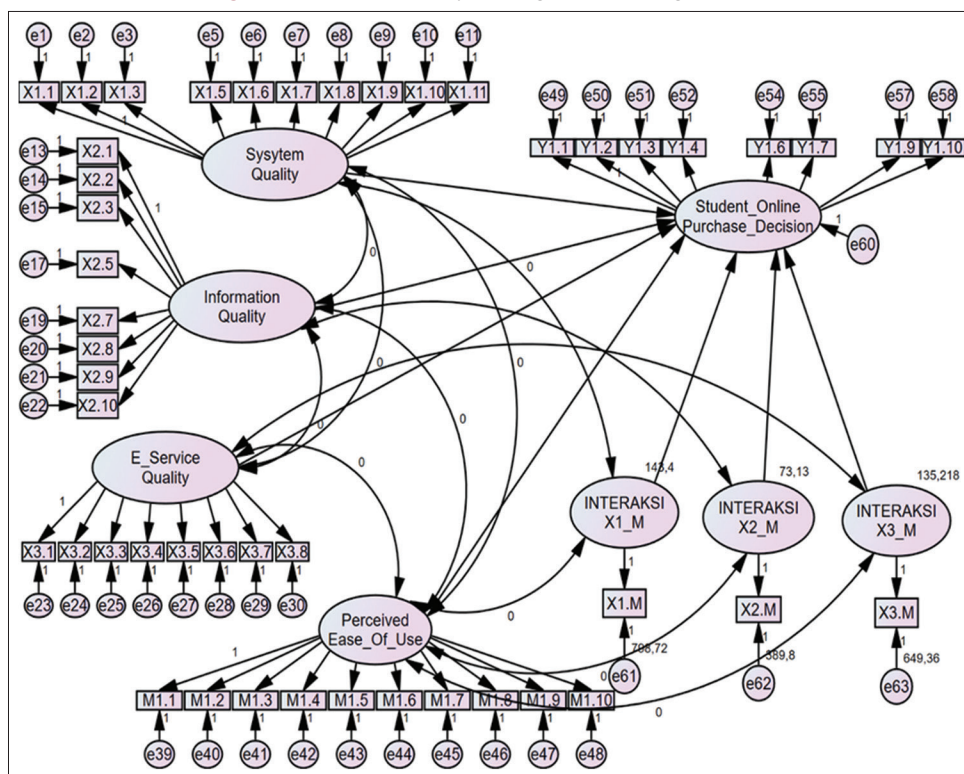
Hypothesis		Estimate	Standard error	C.R.	P	Label
Student_Online_Purchase_Decision	<---	Interaction_X1_M	0.012	0.004	3.037	0.002
Student_Online_Purchase_Decision	<---	Interaction_X2_M	-0.002	0.007	-0.363	0.717
Student_Online_Purchase_Decision	<---	Interaction_X3_M	0.042	0.014	2.977	0.003

Source: Author's own elaboration (SEM)

Table 6: Summary of hypothesis testing results

No	Hypothesis	Result	Description
1.	System quality has a significant positive direct effect on digital transformation	Not Supported	C.R. value of -2.903 and significance value of 0.004
2.	Information quality has a significant positive direct effect on digital transformation	Supported	C.R. value of 2.216 and significance value of 0.027
3.	Service quality has a significant positive direct effect on digital transformation	Supported	C.R. value of 4.078 and significance value of ***
4.	System quality has a significant positive direct effect on student online purchase decision	Supported	C.R. value of 2.001 and significance value of 0.045
5.	Service quality has a significant positive direct effect on student online purchase decision	Not Supported	C.R. value of 0.229 and significance value of 0.819
6.	C.R. value of 0.229 and significance value of 0.819	Not Supported	C.R. value of -0.069 and significance value of 0.819
7.	Digital transformation has a significant positive direct effect on student online purchase decision	Supported	C.R. value of 3.187 and significance value of 0.001
8.	System quality has a significant positive effect on student online purchase decision through digital transformation	Supported	t-statistic of 2.21, which is greater than the t-table value of 1.650
9.	Information quality has a significant positive effect on student online purchase decision through digital transformation	Supported	t-statistic of 1.84, which is greater than the t-table value of 1.650
10.	Service quality has a significant positive effect on student online purchase decision through digital transformation	Supported	t-statistic of 2.65, which is greater than the t-table value of 1.650
11.	Perceived ease of use moderates the effect of system quality on student online purchase decision	Supported	C.R. value of 3.037 and significance value of 0.002
12.	Perceived ease of use moderates the effect of information quality on student online purchase decision	Not Supported	C.R. value of -0.363 and significance value of 0.717
13.	Perceived ease of use moderates the effect of service quality on student online purchase decision	Supported	C.R. value of 2.977 and significance value of 0.003

Source: Author's own elaboration (SEM)

Figure 4: Full model analysis dengan moderating variables

Source: Author's own elaboration (SEM). Easy to learn (M11), Controllable (M12), Clear and easy to understand (M13), Easy to become proficient (M14), Easy to use (M15). 1 indicator with 2 statements

completion.

6. CONCLUSION

This research originates from the pressing need to better comprehend the growing complexity of digital transformation in the era of online education. In this setting, students act as primary users, demonstrating distinct online shopping tendencies that shape the digital experience. Critical factors—specifically system quality, information quality, and E-service quality—significantly impact the success of organizational digital transformation initiatives. Despite the extensive acceptance of technology, a significant disparity persists between the accessibility of technical infrastructure and the successful execution of digital transformation that can favorably influence customer behavior. Consequently, our study seeks to investigate these fundamental mechanisms more thoroughly.

The empirical findings demonstrate a complex and dynamic interaction among the analyzed factors. Both information quality and E-service quality significantly enhance user satisfaction in higher education settings. Conversely, system quality did not demonstrate a statistically significant direct impact on satisfaction. However, an unforeseen paradox arose: while system quality does not directly affect enjoyment, it exerts a considerable and significant impact on consumers' perceived value. Moreover, perceived ease of use serves as a crucial moderating variable, enhancing the correlation between service quality and the results of digital transformation.

The findings indicate that powerful technological systems alone are inadequate for successful digital transformation without user readiness and adaptability. Organizational conservatism and bureaucratic limitations may impede the adoption of new technologies. In contrast, high-quality information functions as a strategic asset that is challenging to duplicate, therefore providing a competitive edge. Another noteworthy observation is the pragmatic behavior of students, who tend to prioritize speed, efficiency, and ease of technical access over detailed system complexity during initial transactions. This is further supported by the strong emphasis students place on fast transaction processes, simple payment mechanisms, and real-time tracking features, all of which contribute to a sense of trust and practicality among young users.

In light of these findings, it is advised that companies or higher education institutions transcend a solely technical emphasis. Instead, they should adopt a multidimensional approach that integrates human resource readiness with managerial support to overcome internal resistance. Continuous investment in data quality and information accuracy is highly recommended, as these form the foundation for long-term user satisfaction. Furthermore, digital transformation strategies should focus more on enhancing inclusive customer experiences, ensuring system stability to prevent loss of trust due to technical disruptions, and considering non-rational factors such as subjective norms in future service model development to remain relevant to dynamic student expectations.

Despite providing broad insights, this study has several limitations. The scope is limited to the student demographic; therefore, the

generalizability of the results may vary when applied to other age groups or professions with different levels of digital literacy. Additionally, this research focuses primarily on technical and functional variables, while deeper psychological and social factors remain largely unexplored. There is also a limitation in capturing the dynamic and ever-changing nature of digital transformation, as a cross-sectional “snapshot” may not fully capture long-term technological trends.

As a follow-up for future researchers, this study can be expanded by broadening the respondent base to a wider segment of society to observe the consistency of digital behavior across generations. Future researchers may also incorporate new variables such as price, promotion, social influence, or brand trust as additional moderating or mediating variables to enrich the existing theoretical model. Furthermore, the use of longitudinal research methods or case studies in different industries beyond the education and general e-commerce sectors could provide a sharper perspective on how digital transformation barriers can be overcome in more complex organizational contexts.

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