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Digital Economy Readiness in Higher Education: A Descriptive Assessment of Student Behavior

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ABSTRACT

The development of the digital economy has transformed the way individuals interact with value, production, and consumption. However, access to and the use of digital technology do not automatically lead to a productive transformation of digital economic behavior. This study aims to provide an overview of how university students behave in the era of the digital economy, observed through five dimensions. The research employed a descriptive quantitative method with a sample of 327 students, consisting of 103 males and 224 females. The findings indicate that the dimensions of digital technology use, digital consumption, digital production, and digital innovation are categorized as high, while the digital ethics dimension is categorized as very high. Among the five dimensions, Digital Ethics obtained the highest score, whereas Digital Consumption recorded the lowest. Overall, the results show that students possess strong digital ethics and good technological capabilities; however, they have not fully optimized their potential within the digital economy.

INTRODUCTION

The world is currently experiencing a wave of accelerating digital transformation, spanning communication, education, social life, and, of course, the economy. While the economy was traditionally characterized by physical transactions and traditional markets, it has now entered a technology-mediated ecosystem. The development of the digital economy is transforming the way individuals interact with value, production, and consumption. It's undeniable that the internet and smartphones are inseparable from students, a generation with great potential to become digital economic actors, not just consumers (Potts, 2024). However, in the field, many of them are still trapped in the use of technology for consumption or entertainment purposes only, without maximizing opportunities for digital production or innovation (Ririen & Heriasman, 2021). The study “Digital Literacy and Reading Habits of The DMI-St. Eugene University Students” found that while most students use digital tools for learning and reading, they do not yet have the skills to build a portfolio or personal website (Subaveerapandiyan & Sinha, 2022).

This phenomenon illustrates that access to and use of digital technology has not automatically translated into a transformation of productive digital economic behavior. More specifically, among university students, there is an interesting trend: the rapid increase in the use of e-wallet platforms, e-commerce applications, social media, and digital transactions. For example, research by Tedjomurti et al., (2024) showed that digital social capital and participation in the "gig economy" significantly influence online consumption among college students. Meanwhile, another study on "Social Change in the Digitalization Era of Indonesian Consumerism" revealed that easy access to information, visual promotions, and influencers through social media reinforce consumer patterns among the public, including college students (Zair et al., 2025). However, there are still relatively few students who create content, platforms or so-called digital production and/or carry out digital innovation.

This indicates that students' digital economic behavior needs to be viewed not only from the consumption side, but also from the production, ethics and digital innovation side (Tee et al., 2024). Although there has been a considerable amount of research on digital consumption and digital literacy among students, comprehensive and descriptive research on the five dimensions of digital economic behavior, namely the use of digital technology, digital consumption, digital production, digital ethics, and digital innovation among students is still limited. Meanwhile, research linking digital ethics or digital innovation within the framework of student economic behavior is rare. Therefore, a research gap that can be identified is how these five dimensions are described in students. In other words, there has been no comprehensive study of students' digital economic behavior through these five dimensions as a baseline before further analysis.

This research offers novelty in two ways. First, a descriptive approach that integrates five dimensions of digital economic behavior (digital technology use, digital consumption, digital production, digital ethics, and digital innovation) will provide an overview of how students behave in the digital economy era. Second, the research

results are expected to produce behavioral profiles that can serve as a basis for universities, policymakers, and students themselves to understand their strengths and weaknesses. For example, students might be high in digital consumption but low in digital production or innovation.

This research is highly urgent because students are the next generation of workers and economic actors who will face major transformations in the world of work and the global economy. The digital economy era demands productive, ethical, and innovative digital behavior, not just internet or social app usage. Therefore, understanding students' digital economic behavior descriptively will be a strategic first step in designing targeted training programs, curricula, and campus services so that students become not merely passive consumers but active players in the digital economy.

LITERATURE REVIEW

The Concept of Digital Economic Behavior

According to the Organisation for Economic Co-operation and Development (OECD, 2020), the digital economy encompasses all economic activities based on digital technology, including production, distribution, consumption, and innovation processes mediated by the internet. In the context of students, digital economic behavior relates not only to online transactions but also reflects thought patterns, lifestyles, and the ability to adapt to technology.

Lingkungan kehidupan mahasiswa sudah terkoneksi secara permanen, memanfaatkan platform digital tidak hanya untuk hiburan tetapi juga untuk pembelajaran, komunikasi, dan aktivitas ekonomi. In this context, students' digital economic behavior can be understood as a pattern of using digital technology in consumption, production, and innovation activities accompanied by ethical awareness and social responsibility in the digital space. The dimensions of digital economic behavior measured in this study are the use of digital technology. (Junco, 2012), Digital Consumption (Lee & Chen, 2021), Digital Production (Wahyuti, 2023), Digital Ethics (Ribble, 2015), and digital innovation and adaptation (Potts, 2024). By mapping five main dimensions, the results are expected to be a starting point for understanding how students play a role not only as users, but also as value creators in the digital economic ecosystem.

METHODOLOGY

This study employs a descriptive quantitative research design, as it aims to present a comprehensive portrait of university students' digital economic behavior in the era of the global economy. The population of the study consists of 1,785 management students at the Institute of Technology and Business Indragiri. The sample size was determined using the Slovin formula with a 5% margin of error, resulting in a total of 327 respondents. Data were collected using a questionnaire based on a five-point Likert scale (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree). The questionnaire was tested for validity and reliability prior to distribution and was administered through Google Forms. The collected data

were processed using SPSS version 25 to calculate the mean and the average achievement level in order to describe the digital economic behavior of the students.

RESULTS AND DISCUSSION

Instrument Validity Test

A validity test was conducted to verify the questionnaire distribution, which confirmed the validity of the statement items formulated as indicators for the research variables. The validity test was conducted on 81 participants with a Correlation critical value of 0.2185. The following are the results of the validity test using the Pearson Product Moment correlation coefficient calculation:

Table 1. Instrument Validity

Variable	Dimension	Pearson correlation coefficient	Correlation critical value	Description
Digital Economic Behavior	DTU1	0,676	0,2185	Valid
	DTU2	0,693		Valid
	DTU3	0,441		Valid
	DC1	0,437		Valid
	DC2	0,637		Valid
	DC3	0,251		Valid
	DP1	0,557		Valid
	DP2	0,650		Valid
	DP3	0,497		Valid
	DE1	0,473		Valid
	DE2	0,607		Valid
	DE3	0,417		Valid
	DI1	0,564		Valid
	DI2	0,496		Valid
	DI3	0,662		Valid

Source: Output SPSS v.25

Based on Table 1, it shows that the results of the validity test for all statement items are valid, because the correlation coefficient > 0,2185.

Instrument Reliability Testing

Reliability testing is used to determine the reliability or consistency of the instrument (questionnaire). The following are the results of the reliability testing:

Table 2. Reliability Test

Variabel	Cronbach Alpha	Nilai Kritis
Digital Economic Behavior	*0,805*	*0,6*

Source: Output SPSS v.25

Based on Table 2, it can be seen that the digital economic behavior variable is reliable, because the Cronbach alpha value is > 0.6.

Respondent Identity

The analysis of respondent characteristics based on gender reveals that respondents are divided into two categories: male and female. Of the 327 respondents obtained, the gender composition of respondents was 103, or 31.5%, male, and 224, or 68.5%, female. The research results regarding digital technology use are presented in the following table:

Table 3. Dimensions of Digital Technology Use

No	Statement	Mean	Percentage	Description
1.	Frequency of using digital applications for transactions	4.04	80.74	High
2.	Use of e-wallets in daily economic activities	4.22	84.46	High
3.	Use of digital platforms to find information about products or services before purchasing	3.75	74.92	High
	Mean Score	4.00	80.04	High

Source: Output SPSS v.25

Table 3 shows that digital technology use falls into the high category. Digital technology use is the primary foundation of digital economic behavior. This dimension illustrates the extent to which students use digital devices and applications for economic activities. Junco (2012) explains that the frequency and manner in which students use digital media influence social interactions. Effective use of digital technology is determined not only by intensity but also by the digital competency possessed (Potts, 2024).

Today's students have grown up with smartphones, tablets, laptops, social media apps, and online collaboration platforms. Research on "Investigation of best digital technological practices in millennial classroom innovation: a critical review study" found that even though technology exists, its utilization is not optimal because it is not always designed to meet the needs of this generation of students (Sudarmo et al., 2021). On the other hand, the use of digital technology by students also shows that access is not always directly proportional to mastery. (Subaveerapandiyan & Sinha, 2022). If students only use technology passively (for example, only for social media or entertainment) without being directed towards productive or creative activities, then the potential of the digital economy that is open to them will not be fulfilled.

Table 4. Dimensions of Digital Consumption Behavior

No	Statement	Mean	Percentage	Description
1.	A tendency to shop online rather than in physical stores	3.54	70.83	High
2.	Purchase decisions are influenced by reviews and recommendations on social media	4.21	84.28	High
3.	Subscriptions to digital products or services (such as music, movies, games, or online courses)	2.93	58.65	High
	Mean Score	3.56	71.75	High

Source: Output SPSS v.25

Table 4 shows that students' digital consumption levels fall into the high category. Digital consumption describes students' behavior as consumers in the digital ecosystem. According to Lee & Chen (2021), Digital consumption is the activity of purchasing, using, and interacting with products or services through digital media, whether physical or digital. The development of e-commerce and e-wallet platforms has changed the consumption patterns of the younger generation, making them increasingly practical and convenience-based. Intan et al (2025) Research reveals that

college students tend to exhibit highly consumerist behavior when using digital applications. Promotion through influencers and personalization algorithms also reinforce this consumer behavior. This suggests that college students' digital consumption is influenced not only by rational needs but also by social and psychological factors.

However, other literature shows that digital consumption is not always negative. According to Maryam et al., (2024), Digital consumption can also improve financial literacy and digital skills, if done in a planned and productive manner. In an educational context, students who are familiar with digital transactions tend to have a better understanding of the global digital economy ecosystem. The level of digital consumption is becoming very prominent in student behavior. With the presence of e-commerce, e-wallets, and digital payment applications, students can now shop anytime, anywhere, with a single click. Study "The Effect of Digital Payment on Generation Z's Consumptive Behaviour" shows that the use of digital payment tools (QRIS) has a significant influence on student consumption behavior (Athalia Asta Dewi, 2024). Furthermore, research on "The Effects of Consumer Behavior and Digital Literacy on Consumption Patterns in Students" found that consumer behavior and digital literacy have a positive influence on student consumption patterns (Fitri et al., 2022).

Table 5. Dimensions of Digital Production Behavior

No	Statement	Mean	Percentage	Description
1.	Interest in starting a business that utilizes digital technology	3.98	79.33	High High
2.	Confidence that the digital economy provides new job opportunities	4.17	83.49	High
3.	Ease of earning money through digital platforms compared to conventional methods	3.63	72.54	
	Mean Score	3.93	78.45	High

Source: Output SPSS v.25

Table 5 shows that digital production behavior falls into the high category. The digital production dimension illustrates students' ability to utilize digital technology to create economic value, whether in the form of products, services, or content. Students can generate income through activities such as digital freelancing, creative content on social media, and platform-based online businesses. The trend of student digital production is beginning to be seen in the increasing number of young digital-based entrepreneurs (Fazzari, 2025). Students are able to utilize digital media to sell products, offer design services, or become content creators. In the context of the digital economy, digital production is an important indicator of student economic independence. The greater student participation in digital production, the greater their opportunities to contribute to the national creative economy. (Kemenparekraf, 2023).

Digital production encompasses student activities in creating or modifying digital content, utilizing digital platforms for monetization, or developing technology-based innovation ideas. In the digital economy era, students can become digital micro-entrepreneurs, content creators, application developers, or digital freelancers. However, empirical studies on student digital production are still relatively limited compared to digital consumption or technology use. For example, findings from digital literacy studies reveal that students have sufficient access and use, but "lack the skills to build their websites and portfolio" (Subaveerapandiyan & Sinha, 2022).

Table 6. Dimensions of Digital Ethics

No	Statement	Mean	Percentage	Description
1.	Understanding the importance of protecting personal data during online transactions	4.55	91.01	Very high
2.	Be vigilant about the accuracy of information before trusting it on digital platforms	4.43	88.62	High
3.	Be wary of fraud in online transactions	4.61	92.17	Very high
	Mean Score	4.53	90.60	Very High

Source: Output SPSS v.25

From Table 6, it can be concluded that the digital ethics dimension falls into the very high category. Digital ethics becomes increasingly important as students' digital behavior develops. (Ririen & Daryanes, 2022). Social media use, digital transactions, content production, and online interactions all demand ethical awareness about privacy, data security, copyright, netiquette, and digital responsibility. Research on "Pendidikan Karakter Dalam Era Digital: Bagaimana Teknologi Mempengaruhi Pembentukan Moral dan Etika" reminding that technology has a big impact on the formation of character and ethics of the younger generation (Fitri Aulia Rahman et al., 2023). Other research "The Influence of Digital Ethics on the Social Media Usage Behavior of Students" found that students who have a good understanding of digital ethics tend to have responsible behavior on social media, such as maintaining privacy and avoiding online bullying. (Zidni & Ekarini, 2025).

Table 7. Dimensions of Digital Innovation Behavior

No	Statement	Mean	Percentage	Description
1.	Interested in trying new financial applications or technologies (QRIS, crypto, digital investment)	3.81	76.21	High
2.	Curiosity about the latest digital economy trends	3.94	78.84	High
3.	Confidence that new technologies can improve the efficiency of my economic activities	4.00	79.94	High
	Mean Score	3.92	78.33	High

Source: Output SPSS v.25

From Table 7, it can be concluded that students' digital innovation is in the high category. Digital innovation marks a more advanced level of digital economic behavior, not just using, consuming, or producing standard digital content, but creating new solutions, digital business models, or carrying out economic activities that were previously impossible without digital technology. The article "Digital Classroom Innovations: Leveraging Smartphone-Based Applications to Stimulate Students' Creative Thinking Skills" shows that the integration of smartphone applications can encourage creative thinking and innovation among students. (Sukatiman et al., 2024).

Students who are active in the digital economy do not just follow trends, but create trends, utilizing technology for innovation, for example utilizing data analytics for products, developing micro-entrepreneur applications, or collaborative digital platforms. (Wahyuti, 2023). The average comparison of each dimension of students' digital economic behavior is presented in the following figure 1.

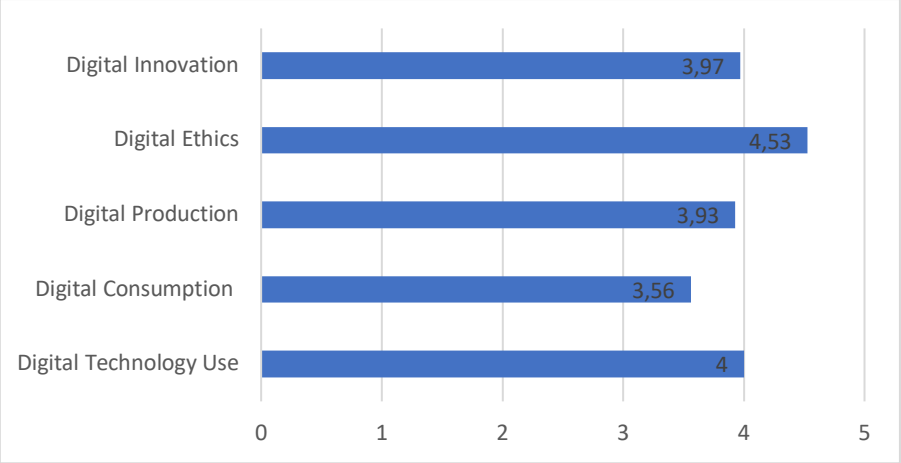

Figure 1. comparison of average dimensions of students' digital behavior

Figure 1 shows that Digital Ethics received the highest score, while Digital Consumption was the dimension with the lowest score. Overall, all scores ranged from high to very high (average > 3.5), indicating that students already possess a fairly mature level of digital economic behavior, although there is variation across dimensions.

High levels of digital ethics reflect the positive results of integrating moral values and digital literacy into higher education. Students recognize the importance of responsible behavior in the digital space, which is a key foundation for building a healthy digital society.

The low digital consumption score in productive contexts indicates that students still view technology as a tool for entertainment and consumption, rather than as a means of economic investment. Therefore, efforts are needed to improve digital economic literacy so that digital consumption is directed towards skills development and business opportunities.

Discussion

In the context of the digital economy, healthy digital consumption must be balanced with digital production or contribution; otherwise, students merely become passive users rather than active participants in the digital economy. Digital consumption behavior among students thus serves as an important indicator of their digital purchasing patterns, the extent of their digital literacy in selecting value-based products or services, and how this consumption correlates with other forms of digital economic activity. When students only consume digital content or technology without transforming it into productive or value-generating output, they risk missing opportunities in the digital economy an ecosystem that demands contribution, creativity, and active participation. Digital production should not be viewed merely as a hobby; it can also serve as a source of income, a professional portfolio, and a means of competence development. Therefore, observing students' digital production behavior provides insight into how far they have progressed from being technology consumers to becoming active digital economic agents.

Moreover, digital innovation serves as an indicator that students have advanced to a higher stage transitioning from mere consumers or producers to innovators within the digital economy. Measuring the digital innovation dimension of students' digital

economic behavior is thus essential to assess their long-term economic potential and their contribution to the evolving digital ecosystem.

CONCLUSION

This study aimed to describe and analyze the digital economic behavior of university students across five dimensions: digital technology use, digital consumption, digital production, digital ethics, and digital innovation. The results indicate that the dimensions of digital technology use, digital consumption, digital production, and digital innovation are categorized as high, while digital ethics is categorized as very high. Among these dimensions, digital ethics achieved the highest mean score, reflecting strong moral awareness and responsible online behavior, whereas digital consumption recorded the lowest, suggesting that students remain relatively passive consumers in the digital ecosystem. Overall, the findings demonstrate that student university possess a commendable level of digital ethics and technological capability, which serve as a strong foundation for participation in the digital economy. However, their engagement is still largely limited to activities as users and consumers, rather than as producers or innovators who create economic value through digital means.

This implies that while digital literacy and ethical awareness among students are well established, the productive and innovative dimensions of digital behavior require further reinforcement. Higher education institutions and policymakers are therefore encouraged to design educational strategies, training programs, and innovation ecosystems that empower students to transform their digital engagement from consumption-oriented to value-generating participation in the digital economy.

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