Determinants of Student Behavior to Use Financial Technology (Fintech) Banking Services - Integrated Theory of System Acceptance and Psychological Behavioral Theory

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Abstract

Fintech provides technology-based banking and financial services; therefore, the analysis of FinTech usage behavior should be viewed in the context of system acceptance and psychological behavioral theory. We employ the System Acceptance Theory approach, specifically the Theory of Acceptance Model, and the psychological behavioral theory, the Theory of Reasoned Action, to explain behavioral intention to use FinTech and incorporate risk factors. This study aims to prove the influence of perceived ease of use, perceived usefulness, subjective norms, attitude, and perceived risk on the intensity of Generation Z's intention to use Fintech. Moreover, this research demonstrates the influence of intention to use Fintech on fintech usage behavior. This research employed a survey approach with 350 students in Indonesia, who are part of Generation Z, and analyzed the data using Structural Equation Modeling with Partial Least Squares. We report that perceived ease of use and perceived usefulness are vital factors in increasing the intention to use Fintech. Attitude is a factor that encourages students to use Fintech, and conversely, perceived risk is a vital factor in decreasing intention to use Fintech. We were unable to find evidence of a relationship between subjective norms and intention to use Fintech. Ultimately, behavioral intention in using Fintech is crucial for increasing student adoption of Fintech. This study recommends that financial institutions offer Fintech services to enhance usability, convenience, and mitigate the risks associated with fintech use.

Keywords: Sustainable Development, Risk, Internet-Based Technology, Students' Behavior, Innovation Product

1. Introduction

The rapid development of technology has led to the emergence of technology-based services offered by vendors, including banking services provided to consumers. Financial institutions offer various technology-based services to improve service quality and expand the number of customers served [1]. Banking services or Fintech are services that use technology to automate various processes, services, and financial products [2], [1], [3]. Fintech also encompasses innovative ideas that enhance financial service processes by providing technological solutions tailored to the specific needs of various companies [4] and to individual customer needs [1]. Fintech combines innovations in financial services, internet-based technology, social networking services, social media (such as Facebook and WeChat artificial intelligence, and big data analysis [1]. The development of Fintech has brought the relationship between financial service providers and customers closer, making it easier for customers to access financial services [2].

Fintech services that society can access enable people to utilize Fintech to increase their consumption according to their wishes, even if they cannot afford it. Fintech provides financing services that are easily accessible to its users. This service may cause problems for users who do not carefully consider the consequences of using it. For example, the number of Fintech lending students accessing continues to increase [5], causing an impact on crime. Prior literature has extensively explored the determinants of fintech usage behavior. The first approach employed the theory of social psychology, utilizing two key frameworks: the Theory Of Reasoned Action (TRA) [6], [7] and the theory of planned behaviour (TPB) [8], [9], [10]. A person's behavior is influenced by their intention to carry out a particular behavior [6], [7]. A person or individual will have a high intention to carry out a behavior if they feel that the action is positive and believe that others encourage them to act. A person who believes that most of the references think he should engage

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in that behavior will then feel social pressure from his environment to carry out that action. Someone who believes that Fintech will have a positive impact on socio-environmental outcomes will likely have a favorable attitude towards this behavior. Specifically, a person's attitude toward using Fintech is a function of their behavioral beliefs regarding the outcomes of that action. The second literature employed a system acceptance theory approach, including the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) [11], [12]. Unified Theory of Acceptance and Use of Technology (UTAUT) [13], [14], [15].

Prior researchers employed two separate approaches, resulting in less comprehensive explorations. We combine the two approaches: the theory of social psychology and the system acceptance theory approach, to provide a more comprehensive exploration of fintech user behavior. This research modifies the system acceptance theory to explain the use of Fintech. Fintech is a bank service product that utilizes technology to support sustainable development, so that customer perceptions in using the system can influence customers' decisions to use fintech [16]. Moreover [16], [17], and [18] The report indicates that system characteristics influence customers' use of Fintech, specifically PEU, PU, and security, which impact the use of fintech. In explaining the use of Fintech, two system acceptance theories have been used, namely the Technology Acceptance Model (TAM) [12], [19], [20], [21], and UTAUT [22], [23]. However, these two theoretical approaches explain the use of Fintech. [24] and [25] reported that the TAM approach produced the strongest research results. However, the researcher considers that the use of system acceptance theory must be adapted to the context. In the context of this research, students are characterized by their close proximity to technology. Therefore, we add PR and the social environment as vital factors to increase individual use of Fintech among students.

This second contribution uses a sample of undergraduate students who use Fintech. Most undergraduate students focus on their studies, and most do not work. The ease of access and the intense promotion of fintech lending to students make them vulnerable to online loan traps. Furthermore, the drive to follow trends, a hedonistic lifestyle, and low financial management and literacy skills make them susceptible to using Fintech. With these characteristics, they often lack the ability to repay the debt they incur online. The characteristics of this sample are certainly different from those of previous studies, which used bank customers [26], senior executives [27], and small and medium enterprises [28].

This paper is presented in five related sections. The first part outlines the research background, objectives, and contributions to the development of the literature. The second part describes the theoretical background, framework, and development of the hypothesis. The third section describes the population, sample, and sampling technique. We also explain the indicators used to measure research variables and the data analysis methods employed. The fourth section describes the characteristics of the respondents, presents statistical test results, and discusses the research findings. The final section explains the conclusions, research contributions, and research limitations.

2. The Theory and Hypothesis

2.1. Theoretical Approaches to Explaining Behavioral Intention to Use FinTech

FinTech is the adoption of technology to improve and automate the design and delivery of financial services [2], [29]. FinTech transforms traditional financial services into financial services based on information technology and integrating e-finance innovations, Internet technology, social networking services, social media, artificial intelligence, and big data analytics [1]. The development of FinTech has led to an increasingly close relationship between financial service providers and customers. In addition, FinTech services make it easier for customers to complete financial transactions and increase access to finance [2].

FinTech companies offer a range of services under one umbrella, including money transfers, startup financing, wealth management services, and insurance. The various services provided by FinTech providers have made their relationship with customers closer and made it easier for customers to receive credit [2]. The ease of customers obtaining access to finance has led them to provide credit to customers who are not eligible, unemployed, e.g., students [30], [29], [31]. This has led several researchers to explain the use of FinTech to students.

Several researchers use the system acceptance theory approach to explain FinTech usage behavior. This approach is adopted because Fintech represents a financial service innovation that integrates Internet technology, social networking services, social media, artificial intelligence, and big data analytics [1], [12] used TAM by integrating perceived usefulness (PU), perceived ease of use (PEU), user innovativeness, and trust as behavioural intention factors for using Fintech platforms. They reported that PEU, customer trust, and innovation towards Fintech services substantially influence consumer attitudes to adopt and behavioral intention to use Fintech. [19] identify the driving factors of Polish

society's use of FinTech lending. They modified TAM and reported that users' trust, PU, financial health, and risk determine their intentions for adopting FinTech lending. [10] integrate TAM and the Theory of Planned Behavior (TPB) to explain the use of FinTech for donation payments to Islamic charities. They found that PU, SN, and PBC have a significant and positive influence on the behavioral intention to use FinTech. In contrast, PU, PEOU, and attitude do not cause them to use FinTech. Following [10] and [32] explained the behavior of using FinTech in the context of Islamic philanthropy with the TAM approach. Their findings support TAM. They found that PEU and PU influence the intention to use FinTech, which is determined by trust and religiosity.

Other researchers use TRA to explain the behavior of FinTech usage. TRA is a psychological theory that explains the behavior of certain people based on two factors: attitude toward behavior and subjective norm. [33] used TRA as part of the theory they use to explain the use of FinTech in companies in southern Spain. They emphasize that SN and attitude drive companies to adopt FinTech. [34] integrate TRA and TAM to explain the adoption behavior of QR code-driven mobile payments. They found that PU, PEU, convenience, SN, and innovativeness positively influence the behavior of adopting mobile payment.

Most previous researchers modified TAM and TRA. This approach is because the development of the model is needed to allow a more comprehensive discussion, and is tailored to the research context [35], [36]. Additionally, system usage behavior should be observed from two perspectives: system characteristics and individual user characteristics. Following [34], we integrate TRA as an approach to identifying individual user characteristics and TAM as an approach to identifying system characteristics.

2.2. Hypothesis Development

The literature uses two models of technology to explain intensity: TAM [12], [19], [10], [32], and UTAUT [37], [38], [22]. TAM is a model that explains technology user behavior [39]. TAM is a remodeling of the TRA to strengthen predictions of the system usage behavior of individuals [32], [40] uses the SN variables in the TAM extension model. In the TAM model approach, technology behavior is influenced by two main factors: PEOU and PU. Fintech is a financial service that integrates computers, smartphones, and Internet technology [1]. This reason is the basis for researchers to use TAM to evaluate customers' intensity of using Fintech.

PEOU measures the extent to which a person or individual is convinced that using a particular system will increase the user's effectiveness in completing their work [41]. In the context of our research, using the system is beneficial if it can facilitate easier customer financial transactions. The bank develops Fintech by providing various financial services and has developed to meet customer needs. High perception of usefulness, in turn, is a fintech that users believe has a relationship between use and effectiveness in completing financial transactions. PEOU is related to the extent to which customers believe that using Fintech will be relatively free from difficulties. Customers who think that Fintech has a high ease of use [42] then make it more likely to enjoy the Fintech.

[21] reported that PEOU influences attitudes and intentions to use fintech lending applications, which focus on consumer acceptance, expectations, and readiness for fintech lending application products and services. Customers who argue that the level of effort expectations towards Fintech is high interact with fintech applications without spending more attention or effort [38], [24] highlight the importance of vendors developing better, easier, and less risky Fintech than visiting a bank branch for banking transactions, causing customers to use Fintech [13], [12], [24], and [43] strengthen the argument that PEOU is a vital factor in increasing customers' intensity of using Fintech.

H1: PEOU is vital in increasing students' intensity of using Fintech.

PU indicates the extent to which a person or individual is convinced that using a particular system will improve their performance [44]. A system is useful to a user if the user perceives benefits from using the system. Using Fintech, business is a limited resource that customers can allocate to complete their financial transactions. Fintech provisions provided by various vendors that are considered easier to use than other Fintech are more likely to be accepted by customers [41], [42] report that PU is a determining factor for customers' behavioral intentions to use Fintech. [45] show that PEOU and PU reflect customers' emotional reactions to using applications and significantly influence customer attitudes, influencing customers' intention to adopt mobile banking. Recent literature has also strengthened the TAM model in predicting fintech use, suggesting that PU is vital in increasing individual use of Fintech [12], [32] [11], [46], [24].

H2: PU is vital in increasing students' intensity of using Fintech.

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The TRA is a psychological theory that SN and attitudes are vital factors in increasing the likelihood of performing certain behaviors. Humans are social individuals; they live in groups and interact with members of society. Their interactions and synergies allow them to form dependent relationships in which one person can influence the behavior of another. Individuals' elaborative thoughts on SN are perceptions of whether they are generally expected by their friends, family, and society to perform a particular behavior. Finally, the SN is the social pressure on someone to do or not do a certain behavior [10]. Social behavior is formed by their perceptions and the advantages and disadvantages of a behavior. Society encourages a person to perform a certain behavior if the benefits outweigh the harm. In context, users will use Fintech if it provides the necessary services. Several researchers have proven that SN is a vital factor in increasing donors' intention to make donations using fintech [10]. Also, [8], [33], and [42] reported that subjective attitudes are a vital factor in increasing behavioral intentions to use FinTech.

H3: SN is a vital factor in increasing students' intensity of fintech use.

Attitude refers to the way people feel toward a certain behavior. The attitude factor depends on the strength of behavioral beliefs, the probability of outcomes of the performed behavior, and the evaluation of potential positive outcomes. Following TRA, if one believes that a certain behavior will lead to a desirable or favorable outcome and fulfill their needs, they are more likely to have a positive attitude toward the behavior. Attitude is defined as a personal sensibility, either pleasing or favorable, concerning producing the intended behavior and how that feeling influences a particular action or object [33]. Prior literature reports that attitude is a vital factor in encouraging an individual to adopt a particular technology, like fintech [33], [20], [47], [12] and adopt artificial intelligence in banking services [48] since it reduces the barrier to adopting innovation and makes transactions feasible.

H4: Attitude is vital in increasing students' intensity of fintech use.

Fintech provides technology-based financial services. One of the main reasons customers use Fintech is the low risk associated with it. Because the use of financial services is influenced by the risk associated with Fintech, the use of Fintech is also impacted. Recent studies consider the level of risk associated with the service, expressed as customers' feelings of uncertainty or anxiety in using fintech [24]. When customers perceive FinTech as having a high risk of transaction failure, they are less likely to use FinTech services and instead continue to use traditional services. Thus, PR is a vital factor in decreasing the individual to use of Fintech [49], [19], [31], [50].

H5: PR is a vital factor in decreasing students' intensity of fintech use.

Following the TRA theory, assume that a person's behavior is based on the intention to act. The theory also assumes that people's evaluations of behavior, including both good and bad behavior, as well as their perceptions of social pressure to perform the behavior, are key factors that determine a person's intention to carry out a certain behavior. In the context of Fintech, behavioral intention to use Fintech refers to an individual's readiness to perform a specific behavior related to using Fintech. The stronger their intentions to perform the behavior [51]. Similarly, in the fintech context, the stronger people's intentions to use Fintech, the more likely they are to engage in fintech behavior. [8] state that behavioral intention towards using Fintech is vital in increasing the number of individuals who adopt Fintech.

H6: The intensity of fintech use is vital in increasing fintech use.

Figure 1 presents the research model to examine the determinants of students' use of financial technology (fintech) banking services, grounded in the theories (theory of reasoned action, the theory of planned behavior, and the theory of reasoned action) and the development of hypotheses. Perceived ease of use, perceived usefulness, subjective norm, attitude, and perceived risk are the determinants of the intensity of fintech use. Intensity is a vital variable for increasing students' fintech use.

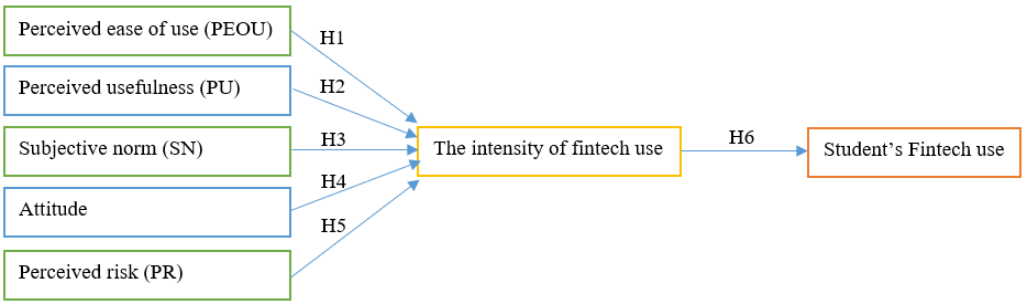

Figure 1. Research model for determinants of student behavior to use financial technology (fintech) banking services

3. Method

The population of this research consists of undergraduate students who utilize Fintech to conduct bank financial service transactions. The survey was conducted by distributing questionnaires online to students via email and WhatsApp, as online questionnaires reach a wider range of respondents, increase the speed with which respondents can access the questionnaire, and provide an opportunity to obtain a larger sample. Apart from that, in campus life, students are familiar with online questionnaires, so they save time, are user-friendly, and reliable for collecting empirical data [32], [52].

This research employs convenience and snowball sampling to select respondents, as the researchers are unable to access a comprehensive list of all student fintech users. The development of the questionnaire began with a pilot study, which was developed from broader survey questions and circulated to a small number of potential respondents. From this pilot study, we obtained input from respondents and tested the instrument's validity, which became the basis for revising the instrument. Students who receive the questionnaire, whether they meet our specifications as respondents or not, will then be asked to share the questionnaire link with friends or relatives who are thought to meet the requirements as the target population for this research (using the snowball sampling technique). Data collection was conducted over a two-month period, from May to June 2024.

The measurements of all variables in this study are based on previous studies. Behavioral use of fintech (BUF) is measured by four indicators adopted from [16], and [24]. Intention to use Fintech (IUF) is measured by four indicators adopted from [24]. The four items measuring PEOU and the four items for measuring PU were adapted from [16]. Perceived risk (PR) is measured with three indicators adopted from [24]. Subjective norm (SN) and attitude (ATT) are measured with 4 and 3 indicators, respectively, adopted from [32]. Variables are measured using a Likert scale and measured on a five-point scale ranging from “strongly disagree” to “strongly agree”.

Researchers commonly use covariance-based structural equation modeling (CB-SEM) to analyze data, which requires larger sample sizes than variance-based SEM (VB-SEM). Also, researchers believe that PLS-SEM is a simplified tool for running models with small sample sizes [53]. However, [54] argue that using CB-SEM or VB-SEM (e.g., Warp-PLS) is based on the research model. CB-SEM is applicable in causal modeling situations where previous theories have reported consistent findings; further testing and confirmation are the goals. On the contrary, in situations where the theory of the research model is less developed, the primary objective is not theory-confirmed, and this research prediction orientation can be used to assess VB-SEM results [54]. It is interesting to note that this study extends the Technology Acceptance Model theory and is consistent with VB-SEM.

The respondents' ethical approval to participate in this study was obtained electronically. Before respondents accessed the survey questions, they were given detailed information about this project, including its purpose and a research summary. We obtained respondents' consent written through a digital form integrated with the questionnaire. Respondents who agreed to participate could directly access the research questionnaire, and conversely, respondents were free to withdraw from the survey at any time if they did not wish to continue. To increase the validity of the research data, we declared in the digital form that the research data was analyzed in aggregate, not each respondent's data. We also allowed respondents to fill in names and other personal forms with initials.

4. Results and Discussion

4.1. The Description and Response of the Respondent

Table 1 presents the characteristics of our study respondents. Our study used 350 students from various universities in Indonesia. Based on age, 60.094% of our respondents were 19-20 years old. In addition, 34,919% were more than 22 years old. They are students in the final semester of their studies, and they tend to experience greater economic pressure than other students. In addition, table 1 presents gender descriptions of respondents and reports that the majority (88,556%) are women.

Table 1. Characteristics of Respondents

	Description	Total	%
Age	Under 19 years	66	18.857
	19 – 20 years	182	52.000

	21 – 22 years	46	13.143
	23 years and above	56	16.000
Experience in using Fintech	Under one year	53	15.143
	1-2 years	179	51.143
	3-4 years	90	25.714
	5 years and above	28	8.000
Gender	Male	109	31
	Women	241	69

Table 2 reports the descriptive statistics for all research variables. The PEOU variable reports that 64,190% of respondents agree that Fintech is easy to use, and 26,381% strongly agree that Fintech is easy to use. Table 2 reports that 50% of respondents agree that Fintech can meet user needs, and 47,619% of respondents think that Fintech is very useful for fulfilling user desires. SN are factors in the user's social environment when using Fintech. 56.5% of respondents reported that their environment encouraged them to use Fintech. However, on the contrary, 20,786% of respondents argue that their social environment did not encourage them to use Fintech.

Table 2. Descriptive Statistics

	Respondent Response Frequency (Five-point Likert-scale ranging from "strongly disagree" to "strongly agree")					**Respondent Response (in Percentage)**					**Loading Factors**
	1	2	3	4	5	1	2	3	4	5	
Perceived easy to use											
PEOU_1	1	0	9	200	140	0.286	0.000	2.571	57.143	40.000	0.812
PEOU_2	0	0	17	247	86	0.000	0.000	4.857	70.571	24.571	0.858
PEOU_3	1	4	67	227	51	0.286	1.143	19.143	64.857	14.571	0.748
∑PEOU	2	4	93	674	277	0.190	0.381	8.857	64.190	26.381	
Perceived Usefulness											
PU_1	0	0	4	169	177	0.000	0.000	1.143	48.286	50.571	0.878
PU_2	0	0	8	167	175	0.000	0.000	2.286	47.714	50.000	0.868
PU_3	0	3	10	189	148	0.000	0.857	2.857	54.000	42.286	0.768
∑PU	0	3	22	525	500	0.000	0.286	2.095	50.000	47.619	
Norm Subjective											
NS_1	2	39	90	179	40	0.571	11.143	25.714	51.143	11.429	0.730
NS_2	8	90	53	173	26	2.286	25.714	15.143	49.429	7.429	0.762
NS_3	3	31	97	187	32	0.857	8.857	27.714	53.429	9.143	0.811
NS_4	0	12	51	252	35	0.000	3.429	14.571	72.000	10.000	0.777
∑NS	13	172	291	791	133	0.929	12.286	20.786	56.500	9.500	
Perceived Risk											
PR_1	9	83	126	117	15	2.571	23.714	36.000	33.429	4.286	0.711
PR_2	17	190	93	44	6	4.857	54.286	26.571	12.571	1.714	0.772
PR_3	10	90	111	125	14	2.857	25.714	31.714	35.714	4.000	0.803
∑PR	36	363	330	286	35	3.429	34.571	31.429	27.238	3.333	
Attitude											
ATT_1	0	16	50	246	38	0	4.571	14.286	70.286	10.857	0.759
ATT_2	0	2	28	257	63	0	0.571	8.000	73.429	18.000	0.875
ATT_3	0	6	38	252	54	0	1.714	10.857	72.000	15.429	0.840
∑ATT	0	24	116	755	155	0	2.286	11.048	71.905	14.762	
Intention to use Fintech (IUF)											
IUF_1	0	1	19	263	67	0.000	0.286	5.429	75.143	19.143	0.800
IUF_2	0	0	35	229	86	0.000	0.000	10.000	65.429	24.571	0.863
IUF_3	1	1	38	240	70	0.286	0.286	10.857	68.571	20.000	0.850
∑IUF	0	1	19	263	67	0.000	0.286	5.429	75.143	19.143	

Behavioral to use Fintech (BUF)											
BUF_1	1	17	27	193	112	0.286	4.857	7.714	55.143	32.000	0.777
BUF_2	11	102	104	111	22	3.143	29.143	29.714	31.714	6.286	0.875
BUF_3	113	113	45	70	9	32.286	32.286	12.857	20.000	2.571	0.859
∑BUF	125	232	176	374	143	11.905	22.095	16.762	35.619	13.619	

Table 2 reports that 34.571% of respondents avoid financial risks, 31.429% are hesitant to accept risks, and 27.2385% accept risks. These findings indicate that students vary in their willingness to take risks when using Fintech. The attitude aspect shows that 71.905% of respondents believe Fintech has a positive impact on users, and 14.762% strongly believe it has a positive impact on users. Table 2 reports that 75.143% of respondents intend to use Fintech, and 19.143% of respondents have a high intention to agree to use Fintech. Apart from that, 35.619% of respondents used Fintech, and 22.095% did not. Table 2 also reports that 13.619% strongly use Fintech, and conversely, 11.905% of respondents believe that they do not use Fintech.

4.2. Measurement Model Assessment

Table 3 presents the results of evaluating model fit and quality indices using six evaluation models. The p-value of the Average Path Coefficient (APC), average R-squared (ARS), and average adjusted R-squared (AARS) produced a P-Value score of less than 0.001 and indicated that our model had met the indicators of the goodness of fit model [55]. The average block VIF (AVIF) score is 1.623, and Tenenhaus GoF is 0.380, which indicates that our model is acceptable [55]. Table 3 reports that the score of Sympson's paradox ratio is 0.833 (more than 0.7), and the score of the R-squared contribution ratio is 0.962 (more than 0.9) and indicating that our model is acceptable [55]. Finally, the score of both the statistical suppression ratio and the nonlinear bivariate causality direction ratio is 1.000 and indicating that our model is acceptable [55].

Table 3. Measurement model assessment

Indicators	Score	Decision
Average path coefficient (APC)	0.179, P<0.001	fit model
Average R-squared (ARS)	0.232, P<0.001	fit model
Average adjusted R-squared (AARS)	0.225, P<0.001	fit model
Average block VIF (AVIF)	1.623	fit model
Average full collinearity VIF (AFVIF)	1.683	Acceptable
Tenenhaus GoF (GoF)	0.380	Acceptable
Sympson's paradox ratio (SPR)	0.833	Acceptable
R-squared contribution ratio (RSCR)	0.962	Acceptable
Statistical suppression ratio (SSR)	1.000	Acceptable
Nonlinear bivariate causality direction ratio (NLBCDR)	1.000	Acceptable

4.3. Discussion

The results of the variable correlation test using SEM-PLS are presented in table 4 and figure 2. The SEM test results indicate that PEOU is a crucial factor in enhancing the intensity of fintech use. These results strengthen the TAM theory, which is appropriate for explaining technology use behavior [39]. PEOU is an indicator to measure the extent to which users believe that using Fintech increases their effectiveness in completing their work [39]. In the context of our research, Fintech is useful for solving needs. If users believe that using Fintech can make it easier for customers to carry out financial transactions, they will increase their use of it. In addition, our findings show that Fintech, which has a high PU score, increases users' beliefs that Fintech is effective in completing financial transactions. Customers who believe that Fintech has a high level of ease of use and can enhance their effectiveness in completing tasks are more likely to increase their use of Fintech. PEOU influences attitudes and intentions to use fintech applications, which focus

on consumer acceptance, expectations, and readiness for fintech service products [21]. We confirm the findings of [38] state that if customers believe that Fintech is highly effective, they increase their interactions with fintech applications [38].

Table 4. Acceptance or Rejection of the Hypothesis

Hypothesis	Sign.	Coeff.	Conclusion
H1: PEOU is vital in increasing students' intensity of using Fintech.	+	0.11**	The hypothesis is accepted
H2: PU is a vital factor in increasing students' intensity of using Fintech	+	0.15***	The hypothesis is accepted
H3: SN is a vital factor in increasing students' intensity of fintech use.	+	0.02	The hypothesis is rejected
H4: Attitude is vital in increasing students' intensity of fintech use.	+	0.49***	The hypothesis is accepted
H5: PR is a vital factor in decreasing students' intensity of fintech use.	-	-0.08*	The hypothesis is accepted
H6: The intensity of fintech use is vital in increasing fintech use.	+	0.22***	The hypothesis is accepted

***, **, * significant at the 1%, 5%, and 10% levels respectively.

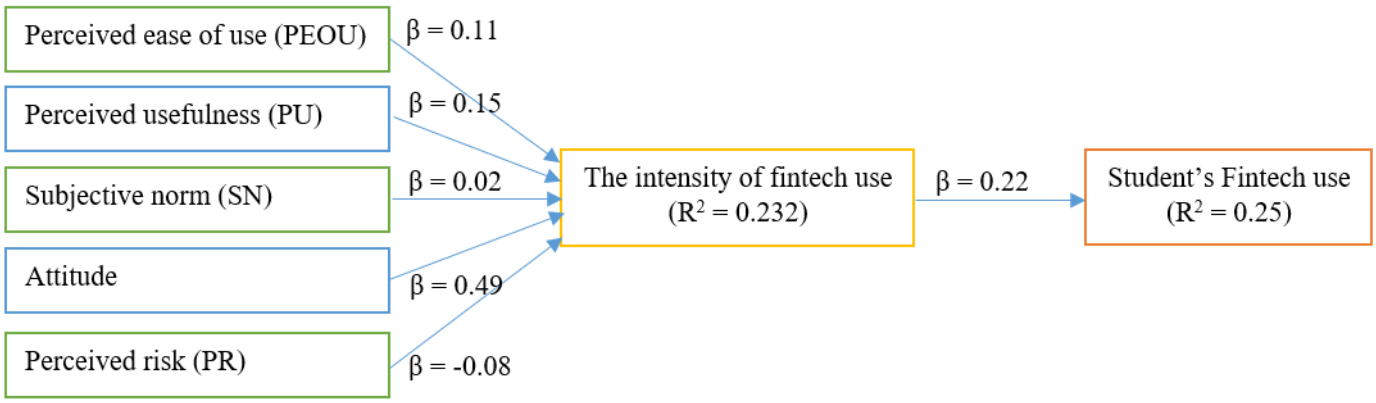

Figure 2. Testing results for determinants of student behavior to use financial technology (fintech) banking services

The results of the second hypothesis test indicate that PU is a significant factor in increasing the intensity of Fintech use. In the TAM approach, PU indicates the extent to which a person believes that using a particular system will be effortless [41]. Fintech developed by banks and easy to use means users are free from difficulties or great efforts at the expense of their user resources. In the context of Fintech, effort is a limited resource that users can allocate. The results of this study strengthen the findings of [42], [45], [12], [32], [11], [46], and [24] that PU has a positive influence on the use of Fintech.

The results of the third hypothesis test show that we could not find evidence of the relationship between SN and intention to use Fintech. In the social psychology theory approach, social factors/SN are a vital factor in increasing a person's intention to carry out certain behaviors [13]. A person can be influenced by their social environment, especially when considering new decisions to use new technology [46]. In social life, someone often influences others by giving advice to prohibit or allow a behavior, or by encouraging the individual to do a particular behavior [46]. In addition, individuals often ask for advice from people in their environment, and this can directly influence their intention to adopt new technology [24]. However, their advice is not directly used for behavior because someone has more careful considerations. For example, although the social environment encourages users to use Fintech, they also consider resources like network and software availability. In addition, based on the cultural and demographic characteristics of the research sample, Generation Z tends to be more individualistic, so social factors are less likely to influence their behavior when using fintech. Our results support the findings of [11] that SN is not to be influential in determining Islamic FinTech.

Table 4 shows that attitude is crucial in increasing the intensity of fintech use. Following TRA, attitude refers to an individual's feelings about a particular behavior. The attitude factor depends on the strength of behavioral beliefs, the probability of outcomes of the performed behavior, and the evaluation of potential positive outcomes. In our research, if one believes that using Fintech will lead to a desirable or favorable outcome and fulfill the user's needs, the user is more likely to have a positive attitude toward the behavior and increase their intensity of using Fintech. Attitude is related to personal feelings, either desirable or favorable, regarding accomplishing the intended behavior, and how that feeling influences a particular behavior [33]. This study confirms previous literature. [33], [20], [47], and [12] report that attitude is vital in increasing the intensity of using Fintech.

Table 4 reports that PR is vital in decreasing the intensity of fintech use. Fintech is a technology-based service developed by financial institutions to provide technology-based financial services. Risks associated with fintech services are expressed as customers' feelings of uncertainty or anxiety in using fintech [24]. Apart from that, risky Fintech has the potential to cause transaction failures, which can subsequently prevent users from completing their work. When customers perceive FinTech as having a high risk of transaction failure, they are less likely to use FinTech services and instead continue to use traditional services. This study strengthens the findings of [49], [19], [31], and [50] that PR is a fundamental factor that can reduce the intensity of customers using Fintech.

The results of hypothesis 6 testing show that the intensity of using Fintech is crucial in increasing its adoption. Our study supports the TRA theory, which assumes that a person's behavior is based on the intention to act. The TRA perspective assumes that people's evaluations of behavior, including both good and bad behavior, as well as their perceptions of social pressure to perform the behavior, are key factors that determine a person's intention to carry out a certain behavior. In the context of this research, behavioral intention to use Fintech refers to a user or customer's readiness to perform a behavior to use Fintech. Thus, the stronger their intentions to perform the behavior [51]. We document that stronger customers are more likely to use Fintech and are more likely to behave in a manner consistent with Fintech. Our study confirms the study from [8] that behavioral intention using Fintech is vital in increasing student adoption of Fintech.

5. Conclusion

This research aims to investigate the influence of PEOU, PU, subjective norm, attitude, and PR on the intensity of undergraduate students' use of Fintech. Apart from that, this research demonstrates the impact of fintech use intensity on behavior. A sample of 350 students in Indonesia indicates that PEOU and PU have a positive influence on the intensity of fintech use. Attitude is a factor that encourages students to use Fintech, and conversely, PR is a factor that can reduce the intensity of using Fintech. SN or social factors do not influence the intensity of using Fintech. Finally, the intensity of Fintech use is a crucial factor in determining how users behave when using Fintech.

This research recommends that financial institutions provide Fintech to increase the usability and convenience of using Fintech. Attractive and easy features can increase customer intensity when using FinTech. Apart from that, fintech platforms must be safe from the risk of user failure when using fintech services, as this can reduce the intensity of customer use of fintech. In addition, the government is advised to be more effective in supervising Fintech regarding service quality, ease of use, and security so that Fintech users can increase, for example, through Fintech quality audits developed by financial institutions.

Our study utilizes a sample of undergraduate students in Indonesia, which was selected using snowball and convenience sampling methods. This technique enables students to avoid being used as research samples. We suggest that future researchers who use students as the object of their study collaborate with universities to distribute this questionnaire. This technique is used to expand students' opportunities to become research subjects. Additionally, this study involves students in Indonesia, a developing country. Future researchers working with students in developed and developing countries must expand the existing literature.

6. Declarations

6.1. Author Contributions

Conceptualization: F., I.A., and H.M.; Methodology: F., H.M., and K.W.J.; Software: H.M., and K.W.J.; Validation: I.A., H.M., and A.N.; Formal Analysis: F., H.M., and A.N.; Investigation: H.M. and K.W.J.; Resources: F. and I.A.; Data Curation: K.W.J. and A.N.; Writing Original Draft Preparation: F., I.A., and H.M.; Writing Review and Editing: F., I.A., and H.M.; Visualization: K.W.J. and A.N.; All authors have read and agreed to the published version of the manuscript.

6.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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6.4. Institutional Review Board Statement

Not applicable.

6.5. Informed Consent Statement

Not applicable.

6.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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