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Determinants of the Use of Fintech by Students as a Media for Payment of Tuition Fees
(Study at Politeknik Harapan Bersama)

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Abstract- The industrial revolution 4.0 encourages changes in various sectors, including the economic sector. The Covid 19 pandemic is also driving changes in the way of payment. The use of Fintech by students is a form of change that occurs in transaction methods that were previously carried out directly to become indirect. This research examines the determinants of students paying tuition fees using fintech. This research uses PLS analysis with the SmartPLS 3 test tool. Based on previous research, it was stated that Trust affects students in choosing Fintech as a medium in paying tuition fees. In addition, Fintech has succeeded in becoming a mediating variable, including the effect of perceived benefits on the selection of Fintech. However, it failed to mediate the effect of perceived risk. The perception of benefits greatly influences the trust and selection of fintech as a medium for paying tuition fees. Risk perception in this study does not affect students in choosing fintech and does not affect student confidence.

Keywords — Revolution 4.0, Fintech, Trust Affect Students

I. INTRODUCTION

The economic sector is also affected by the industrial revolution 4.0. The industrial revolution 4.0 indirectly affects changes in the life behavior of the community. One manifestation of the form of the industrial revolution 4.0 in the economic sector is the existence of Fintech. Fintech is a combination of banking capabilities and information technology capabilities [1]. The development of fintech cannot be separated from the industrial revolution 4.0 and the rise of online trade transactions that utilize e-commerce. Fintech in its operations utilizes a cellular network which can provide account balance information, transaction information made by users [2].

The existence of fintech as a payment method for transactions has a significant impact, one of which is that payments for transactions made can be easier and cheaper. Fintech consists of two aspects, namely financial and technology [3]. fintech will assist users in achieving multiple benefits such as reduced transaction costs, speed of financial information, support for fair business implementation [4]. Referring to the benefits offered by fintech, it directly encourages people to use fintech to

make payments for transactions online and offline. There are companies that provide 193 fintech peer-to-peer lending or fintech lending registered and licensed at the OJK [5].

The perception of the benefits felt by users fintech was greater than the perception of the risks obtained by users [6]. The adoption of a payment system is influenced by the perceived benefits and perceived risk received by the user [7]. However, there are different opinions regarding the use of fintech, namely the use of fintech is influenced by the perception of the benefits obtained by the user but is not influenced by the perception of the risk obtained by the user [8].

Trust affected users in using fintech and subsequently trust was influenced by the perception of risk [9]. Trust was a determinant of the use of online payments with trust formed by the perception of benefits obtained by users [10]. Trust in the use of electronic payment systems was formed from the perception of risk and the perception of benefits obtained by the user [11].

Based on preliminary research conducted by researchers, it was stated that students experience problems when paying tuition fees using direct payments. Especially students who were outside the Central Java region, where partner banks were only in Central Java. Especially during the current pandemic, when students will make payments directly to the bank, they will get a fairly long queue and have a big enough risk of being exposed to covid 19.

Based on preliminary research and previous research, the researcher was interested in studying the factors that influence fintech users in paying tuition fees and knowing the factors that cause student confidence in used fintech as a medium for paying tuition fees. So, the researcher conducted a study entitled **"Determination of the Use of Fintech by Students as Tuition Payment Media (Study at Harapan Bersama Polytechnic)"**.

II. LITERATURE REVIEW AND HYPOTHESIS

A. *Fintech*

Financial Technology (Fintech) was an innovation in the modern era in the area of finance. [12]. Furthermore, fintech could be described as an excellent innovation in the modern era created and provided by non-financial institutions [13].

The development of fintech was supported by an ecosystem formed from the 4.0 industrial revolution. One of the supporting factors for the development of fintech in Indonesia was the rise oftransactions, online especially in e-commerce. Fintech was a combination of banking capabilities and information technology capabilities []. Fintech was an information technology platform that uses a cellular network that could provided transaction facilities, account balance information, credit and debit transaction information made by users [2].

The existence of fintech as a payment method for transactions has a significant impact, one of which was that payments for transactions made could be easier and cheaper. Fintech consists of two aspects, namely financial and technology [3]. Furthermore, fintech will assist users in achieving multiple benefits such as reduced transaction costs, speed of financial information, and support for fair business implementation. Referring to the benefits offered by fintech, it directly encourages people to use fintech to make payments for transactions online and offline [4].

The development of fintech that occurs in Indonesia could be seen from the increasing variety of companies that offer payment services using fintech. The development of existing fintech cannot be separated from the influence of the pandemic that occurred in Indonesia which caused many restrictions to occur and the avoidance of personal contact caused more and more parties to use fintech. There were companies that provide 193 fintech peer-to-peer lending or fintech lending registered and licensed at the OJK [5].

B. *Trust*

Trust is a multidimensional concept that includes economic, social, behavioral, managerial and technological.users Fintech often decide to use fintech only based on incomplete information, but the decision was based on trust in the fintech as a payment medium [15]. Trust affects users in using digital payments and existing trusts were influenced by the perceived risk of using digital payments [9]. Trust was a determinant of the use of online payments with trust formed by the perception of benefits obtained by users [10]. Trust in the use of electronic payment systems was formed from the perception of risk and the perception of benefits obtained by the user [11]. Based on previous research, the researcher can form the following hypotheses:

H1 : Perception of benefits has affects for the trust of students to choosing fintech as a medium for paying tuition fees.

H2 : Perception of risk affects has affects for the trust of students to choosing fintech as a medium for paying tuition fees.

H3 : Trust has affect for choosing fintech as a medium to paying tuition fees.

C. *Perception Of The Benefits*

The existing technology, in this case fintech, provides benefits for its users in the form of providing benefits from financial transactions so that it attracts the interest of its users. Technology services could provided the required level of economic benefits and provided ease of use [18]. Perceptions of benefits formed from digital payment methods affect users in using digital payment methods [19]; [20]; [21]; [22]; [23]. Furthermore, it was found that the perceived benefits of fintech users outweigh the perceived risks of users [6]. The adoption of a payment system was influenced by the perceived benefits and perceived risks received by the user [7]. There were different things, namely the use of fintech was influenced by the perception of the benefits obtained by the user but is not influenced by the perception of the risk obtained by the user [8]. Based on previous research, researchers could form the following hypotheses :

H4: Perception of benefits has affect for choosing fintech as a medium to paying tuition fees.

D. *Risk Perception*

The absence of transactions made with fintech can shape the perception of risk that will be accepted by fintech users. In the absence of transactions made with fintech, fintech service providers must be free from fraud [24]. transactions using fintech were vulnerable to fraud, where transactions made using fintech media occur without any real form of transaction. Information technology users could accept technology when users know how to use technology [25]. When there was a decrease in the perception of risk from technology users, one of which was the perception of fraud risk, users will use the technology [26]. Digital payment service providers need to offer a quality system so that the continued use of these services by users could run on an ongoing basis. The benefits felt by fintech users outweigh the perceived risks [6]. The adoption of a payment system was influenced by the perceived benefits and perceived risks received by the user [7]. The use of fintech was influenced by the perception of the benefits obtained by the user, but was not influenced by the perception of the risk obtained by the user [8]. Based on previous research, researchers could form the following hypotheses:

H5: Perception of risk has affects for choosing fintech as a medium to paying tuition fees.

III. RESEARCH METHODOLOGY

The research was based on hypothesis testing. A research which was conducted by using hypothesis testing is a quantitative research where the research is based on a specific population or sample using certain instruments in order to obtain the hypothesis test results [28]. This research was conducted at a Politeknik Harapan Bersama which provided a sample of 180 respondents.

The type of data used in this study is primary data, where the data is directly obtained from information sources [29]. The tool used to obtain information from this study was a questionnaire. The measurement scale in this study used a Likert scale which the opinion ranges from 1-

5 for each question. This study used a Partial Least Square (PLS) analysis model which used the SmartPLS 3 tool.

IV. RESULT

The research was conducted using the SmartPLS 3 tool with the Partial Least Square (PLS) analysis method. Respondents in this study were 150 respondents. The respondent selection method used random sampling. The Partial Least Square (PLS) method goes through 3 stages in data analysis. The initial stage was carried out to see the validity and reliability of existing indicators, the second stage was to determine the fit model to be used in hypothesis testing, and the last stage was hypothesis testing.

A. *Designing the Measurement Model (Outer Model)*

This stages was to determine the validity and reliability of the indicators connecting the latent variables. The indicators of this research were reflective because the indicators of latent variables affect the indicators so that three measurement stages were used, namely:

1. *Discriminant Validity*

The evaluation was carried out to see the square root of average variance extracted (AVE). The measurement model was assessed based on the measurement of cross loading with the construct. If the construct correlation with each indicator was greater than the size of the other constructs, then the latent construct predicts the indicator better than other constructs.

If value $\sqrt{AVE}$ higher than the correlation value between constructs, a good discriminant validity was achieved. The indicator was said to be valid when the AVE value is> 0.5.

Table 1 AVE Value

Variable	AVE
Benefit Perception (BP)	0.798
Choose Fintech (CF)	0.894
Risk Perception (RP)	0.769
Trust (TR)	0.847

Based on the results of data processing carried out with the help of SmartPLS 3.0 software, it was found that the AVE value for all constructs was> 0.50. So that it can meet the convergent validity requirements.

2. Composite Reliability

To determine composite reliability, if the value of the composite reliability $pc > 0.7$ could be said that the construct had high reliability or reliable and $pc > 0.6$ is said to be quite reliable.

Table 2. Value of Composite Reliability

Variable	CR
Benefit Perception (BP)	0.922
Choose Fintech (CF)	0.962
Risk Perception (RP)	0.909
Trust (TR)	0.943

Based on the results of SmartPLS 3.0 data processing, it was found that the Composite Reliability value for all constructs was> 0.70. So it could be concluded that all construct indicators were reliable or in other words meet the reliability test.

3. Cronbach Alpha

The reliability test was strengthened by the presence of Cronbach alpha where the consistency of each answer was tested. Cronbach alpha was good if $\alpha \geq 0.5$ and said enough if $\alpha \geq 0.3$

Table 3 Cronbachs Alpha Value

Variable	CA
Benefit Perception (BP)	0873
Choose Fintech (CF)	0.941
Risk Perception (RP)	0.851
Trust (TR)	0.910

The Cronbach alpha value produced by all constructs was very good, namely> 0.5, so it could be concluded that all reflective construct indicators were reliable or meet the reliability test

B. *Designing a Structural Model (Iner Model)*

The structural model uses the R-square for the dependent construct, the Stone-Geisser Q-square test for predictive relevance and the t test and the significance of the structural path parameter coefficients. R² was used to assess the effect of the independent latent variable on the dependent latent variable. The criteria for limiting the value of R² were in three classifications, namely 0.67, 0.33, and 0.19. Besides that, it also looks at the Qsquare predictive relevance to measure how good the observed value was and also the estimated parameters. A Q-square value greater than 0 indicates that the model had a predictive relevance value, while a Q-square value less than 0 indicates that the model lacks predictive relevance.

Table 4 R-Square Value

Variable	R-Square
Benefit Perception (BP)	
Choose Fintech (CF)	0,743
Risk Perception (RP)	
Trust (TR)	0,503

It was known that the R-Square value for ***Choose Fintech (CF)*** is 0.743 or 74,3%. Based on this, it could be seen that **Benefit Perception (BP),** Risk Perception (RP), and ***Trust (TR)*** have an effect on *Choose Fintech (CF)* 74,3%, so 25,7% of other factors influence Choose Fintech (CF). R-Square value for ***Trust (TR) was*** 0,503 or 50,3%. Based on this, it could be seen that **Benefit Perception (BP), and Risk Perception (RP)** had an effect on Trust (TR) 50,3%, so 25,7% of other factors influence Trust (TR)
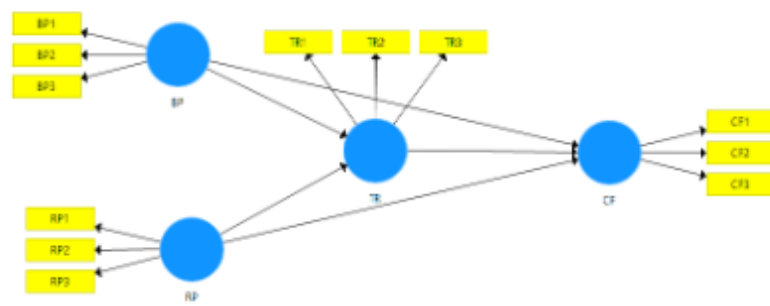
C. *FIT Research Model*

Figure 1
FIT Research Model

D. *Hypothesis Testing (Resampling Bootstraping)*

The confidence level used was 95%, so the level of precision was $(\alpha) = 5\% = 0.05$, and the t-table value was 1.98. If the t-statistic value was smaller than the t-table value and the Pvalues value was greated than 0.05, then Ho was accepted and Ha was rejected. Meanwhile, if the t-statistic value was greater than t-table and P value was less than 0.05, then Ho was rejected and Ha was accepted.

Table 5 Research Results

Hypothesis	T Statistics	P Values	Information
Benefit Perception (BP) -> Choose Fintech (CF)	7,835	0.000	accepted
Benefit Perception (BP) -> Trust (TR)	13,765	0,000	accepted
Risk Perception (RP) -> Choose Fintech (CF)	1,115	0,265	Rejected
Risk Perception (RP) -> Trust (TR)	1,549	0,122	Rejected
Trust (TR) -> Choose Fintech (CF)	5,257	0,000	accepted

Based on Table 5, it can be seen the effect of risk perception on trust and the effect of risk perception on the selection of fintech are rejected, other hypotheses accepted. Based on the results of hypothesis testing, it can be concluded that the perception of risk is not considered by students in choosing fintech and forming trust.

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