Key Drivers of Consumers' Continuance Intention to Use Facial Recognition Payments

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Abstract. This study analyzed drivers of consumers' continued intention to use Facial Recognition Payment (FRP) in China across 262 users. Integrating unified technology acceptance precedents, an explanatory investigation modelled Effort Expectancy, Performance Expectancy, Personal Innovativeness and Initial AI Trust as principal influences. Empirical testing substantiated significant positive effects from Effort Expectancy and Performance Expectancy to usage intention. Personal Innovativeness emerged as a meaningful mediator, but Initial AI Trust showed no significant mediating role. The research delineates prevailing incentives around simplified processes and beneficial outcomes underpinning FRP retention. Practical implications highlight consumer receptiveness to contactless technological convenience as well as areas for experience and reliability refinements during an enduring pandemic backdrop.

Keywords: Continuance Intention to Use, Effort Expectancy, Performance Expectancy, Facial Recognition Payment

1. Introduction

Covid-19 pandemic phenomenon in one side, and innovation as well as technology development in another side causes the shift of consumer behaviour from the previous doing the business transaction conventionally, recently in this new normal era starting to turn towards digital transaction pattern through e-commerce. New technology keeps on emerging with various sophisticated features in which influence technology in self recognition system or biometric. One of them is consumers' face recognition that is developing nowadays in China with its transition to a cashless society. Different type applications of this device with ability range thoroughly from the browse of criminals, criminality, access system, and human interaction computers. This application uses an existing camera on android smartphones to catch the consumers' face, and then compared the similarities and differences with the face that was previously stored in the database. If the captured image suits the consumers' face identity in the database, the consumers' face identification is successful. If it does not, then it will be stated failure (Nan et al., 2022).

Face Recognition Payment (FRP) is technological service related to financial innovation which recently being advanced as service payment method in which appealed at offline supermarkets and malls especially in China, but previous researches that analyzed the FRP from consumers' perspective are still scarce which becomes the novelty in this research. Consumers' demographic information such as gender, status, age education, occupation, monthly income, monthly expenses, residential city, experience using web or mobile payments, and experience using face recognition technology can be considered for future research agenda (Mariani et al., 2021). The consumers' characteristics like age, gender, education, income, prior experience using payment technologies are essential control when doing research on the consumers' intention pertaining new payment technology (Chin & Dibbern, 2010; Hu et al., 2021). In addition, consumers' previous experience in using face recognition payment technology could possibly affect such intention (Venkatesh et al., 2012). This innovative payment brought great influence in changing Chinese consumers' payment behaviour since Covid-19 pandemic, because the consumers are afraid of getting infected. The basic change is that the consumers people try to hinder direct contact with other infectious consumers and indirect contact with the things that are touched by infectious consumers. This contagious disease influenced the consumers significant on how to pay. The consumers' behavioural change can be observed through purchase transaction deal by depending more on cashless payment which becomes research gap in this research. FRP that is discussed in this research concentrates merely on offline supermarket and mall payment. While the consumers want to pay, the consumers only need to scan faces standing in front of the selling device with camera. Although FRP is still in its initial development stage, some offline supermarkets, malls, restaurants, cafés, fashionable stores, and hotels in different cities of China have implemented it. FRP was found out to have been applied in 1,000 supermarkets or malls in China by 100 million registered Chinese consumers in 2019 (Horswill, 2021) and this amount was calculated approximately attained 760 million in 2022 (iiMedia Report, 2019). Therefore, FRP can substitute the smartphones' existence based on face recognition and other types of payment, because this technology had achieved the accuracy of 99% (Lahasan et al., 2019).

However, most previous researches focused only on the FRP method itself and ignore the reasons for consumers' decision to replace cash payment into FRP method and continue using it. The recent researchers are still curious to investigate more how consumers' attitude towards cash payment has influenced consumers' intention and decision to substitute traditional payment with digital (Yang et al., 2021). In the process of this digital payment, the consumers can make positive or negative decision in which real decision making using this digital payment is influenced by the consumers' Initial AI Trust. Initial AI Trust will emerge if the consumers have not known completely a product and has not had information and credible experience. Initial AI Trust plays an important role, this thing is caused by digital FRP which is still a new thing in China so the knowledge about it is still low. The existence of this Initial AI Trust can influence consumers' Continuance Intention to Use FRP subjectively, and it

will emerge if the consumers have strong Initial AI Trust in initial experience towards digital FRP. This Continuance Intention to Use FRP is formed due to some things such as how the consumers expect about a product until how this product can fulfil or complete habit that the consumers usually do in which can be described as the expectation that is owned by the consumers towards digital FRP and is the expectation sufficient to create actual usage. Actual usage is the real evidence of consumers' Continuance Intention to Use so that this thing can be quite important in forming the consumers' actual usage which is consumers' realized action in using the product to obtain the real benefit that the consumers want from the product. Therefore, there is a need to examine further consumers' perception on FRP that has facilitated consumers' Continuance Intention to Use FRP in order to lessen cash payment.

Although there are many previous and recent researches that analyze about Continuance Intention to Use FRP to be research object, the difference with this research that the researcher is interested in investigating further Continuance Intention to Use FRP from the consumers' perspective. The research object is consumers' Continuance Intention to Use FRP in China consisting of Beijing, Shanghai, Xiamen and other cities that will be analyzed after Covid-19 pandemic time, that is, new normal era in December 2023 in which Covid-19 pandemic has not really ended yet in this unpredictable economic situation and condition that is really different from the previous time which had never been experienced before becomes the gap in this research. Continuance Intention to Use as dependant variable is significantly related to the actual usage. Analyzing whether the consumers' trust in technical system especially in Initial AI Trust role as mediation variable in this research significantly affects consumers' Continuance Intention to Use FRP can be essential in future research and little attention to be concerned to consumers' Continuance Intention to Use pertaining FRP which becomes the novelty in this research (Li & Li, 2023; Mariani et al., 2021). Continuance Intention to Use is used to examine the use of technology continuously in long period of time. Therefore, Continuance Intention to Use is important to predict consumers' behaviour in the future and is considered as the most significant element, because it can be interpreted into retention level or users' loyalty towards FRP service provider (Lahasan et al., 2019). Using FRP becomes the outstanding trend has made the researcher interested in analyzing this phenomenon, and it arouses curiosity to examine more on consumers' perception of FRP facilitating consumers' Continuance Intention to Use FRP continuously reduce cash payment usage.

In this case, Effort Expectancy as independent variable which is related to consumers' Continuance Intention to Use FRP is the level to which consumers consider that using FRP needs little effort, and Effort Expectancy brings effect on consumers' Continuance Intention to Use in positive way. There is notable relation between Effort Expectancy and Continuance Intention to Use (Liébana et al., 2019).

Moreover, Performance Expectancy as independent variable connected to consumers' Continuance Intention to Use FRP has been considered as one of the core predictors in Unified Theory of Acceptance and Use of Technology (UTAUT). In this research, Performance Expectancy is conceptualized as the level to which consumers think that FRP is useful and beneficial that is done in this research. UTAUT is the most famous model linked to the adoption of AI technology. Performance Expectancy and Effort Expectancy are significant positive connected to consumers' Continuance Intention to Use sophisticated technology. FRP usage is based on the Unified Theory of Acceptance and Use of Technology (UTAUT). Related to innovative product and service, there is strong relation between Performance Expectancy and Continuance Intention to Use (Sohn & Kwon, 2020).

This research highlighted the mediation variable that is connected to consumers' Continuance Intention to Use FRP is Personal Innovativeness which can affect conception in the use of new technology. From IT view, Personal Innovativeness plays as mediator on the factors that influence consumers' Continuance Intention To Use FRP. Personal Innovativeness is new technology that has been researched in various technical contexts and countries. There is a need for further research to examine Personal Innovativeness as mediator with different samples and IT innovations that becomes the novelty in this research (Alkawsi et al., 2021). The reason is that Innovativeness term refers to the

consumers' eagerness to look for or get something new and different in life, therefore how far the consumers have freedom to get experience or try something new in life, this thing can emerge new expression of Innovativeness or tendency to look for the new things that are dynamic becomes the novelty. It is supported the research of Agarwal & Prasad (1998) emphasized that to conceptualize a construct that is mentioned Personal Innovativeness in developing new information technology system domain.

The phenomenon of Initial AI Trust as mediation variable becomes the important factor too, because through online shopping, consumers can move very easily to other online shops due to the low switching cost. When the consumers are doubtful towards certain online shop, the consumers only need to change the website address to shift to other sites without spending great effort such as fee, energy, and time. Thus, building Initial AI Trust is the key of maintaining the consumers in the early phase. This Initial AI Trust needs to be developed more especially in influencing consumers' Continuance Intention to Use online which becomes the novelty in this research. Since Initial AI Trust becomes new device in marketing and still in the beginning phase for academics and practitioners, therefore it is necessary for future research to understand the use method in order to be effective (Sarkar et al., 2020). Hence, this Initial AI Trust can also be used in small industry and business to autotomize consumers' service as users' demand that will be handled by AI so that can reduce labours' need and consumers' expenditure.

Davis (1989) developed The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Venkatesh et al., (2003) developed Use of Technology (UTAUT), that is, the strong framework to know more about human behaviour's predictor towards the technology of prospective acceptance or rejection as The Theory of Reasoned Action supplement. TAM is the framework to be created for anticipating and analyzing technological adoption (Barrane et al., 2018). There are two critical criteria in TAM that impact technology adoption, that is, the number in which the consumers assume that utilizing certain technology will be effortless and the degree in which the consumers trust is that adopting the given system will enhance (Davis, 1989). UTAUT is widely implemented to be the base in interpreting how the consumers act towards new digital payment.

UTAUT is the newest technological acceptance model and the latest integrated technological use which is considered the most appropriate model. UTAUT was proved successful in explaining until 70% Continuance Intention to Use variant. Intention is how great the consumer is willing to try and consider a behaviour in previous plan. If once Intention is to be activated, it will function as part of self-fulfilment mechanism and encourage the consumer to have to do or will do status. Based on TRA model, Continuance Intention is classified in behavioural intention that influences actual behaviour directly (Mamman et al., 2016). UTAUT developed the comprehensive theory based on entire review of dominant technological model. To solve the existing limited theory, UTAUT postulated Effort Expectancy and Performance Expectancy as influence or direct determination of consumers' Continuance Intention to Use simultaneously with Personal Innovativeness and Initial AI Trust that affect use behaviour (Venkatesh et al., 2012). UTAUT appeared as theoretical lens that is the second most popular in understanding consumers' mobile payment adoption after TAM (Patil et al., 2020). Hence, Venkatesh et al., (2012) created and put forward UTAUT prolong type to adapt model with technological acceptance context for consumers that are known as UTAUT 2 in the purpose to give model framework which is more specific about the acceptance and the use of technology to be explained more.

In addition, Effort Expectancy is meant as the easiness level that is related to great effort that is felt by the users while settling financial transaction through FRP. The existence of FRP can be the solution for the society in order to settle any financial transaction that can be done anywhere and whenever in short relative time. Patil et al., (2020) tried to change the perceived usefulness construct with Performance Expectancy which is one of the strongest construct substitute of perceived usefulness. Performance Expectancy has positive significant influence on consumers' Continuance Intention to Use

in using FRP and emerges as the predictor of consumers' attitude towards FRP significantly.

Besides, Innovation term tends to individual's eagerness to look for something new and different in life. Therefore, how far an individual has freedom to experience or do something new in life, this thing can emerge new expression of innovativeness or tendency to explore things, that is, the novelty of this research. Personal Innovativeness becomes the most significant predictor of intention to use behaviour for short distance communication cellular payment (Tan et al., 2014). Similarly, based on Innovation Diffusion Theory (IDT), Pinho et al., (2021) constructed six factors (relative advantage, compatibility, observability, trialability, complexity, and Personal Innovativeness in Information Technology affecting consumers' intention. Diffusion is the process of innovation communicated through certain channels among the social system members.

In this case, Initial AI Trust is general term that involves computer use to modelize intellectual behaviour with human intervention (Haenlein et al., 2019). AI gives opportunity to marketer in giving experience to the consumers and open the way to marketer to give special experience to consumers (Roy & Naidoo, 2021). The trust can give subjective warrantee that the consumers can get positive experience in capability, honesty, and good attitude from FRP service provider which means that if the consumers do not build the trust on the service provider, therefore the consumers will not get the experience that convinces to use FRP service (Zhou, 2013). In this research, the novelty is to reveal affirmative relationship between Performance Expectancy and Initial AI Trust in realm digitalization.

Based on what has been said about some key drivers that influence consumers' Continuance Intention to Use FRP in China which are supported by previous research results and theories, the following research enquiries come up: 1) Does Effort Expectancy influence towards Personal Innovativeness on FRP in China? 2) Does Personal Innovativeness influence towards Continuance Intention to Use FRP in China? 3) Does Effort Expectancy influence towards Continuance Intention to Use FRP in China through Personal Innovativeness mediation? 4) Does Performance Expectancy influence towards Initial AI Trust on FRP in China? 5) Does Initial AI Trust influence towards Continuance Intention to Use FRP in China? 6) Does Performance Expectancy influence towards Continuance Intention to Use FRP in China through Initial AI Trust on FRP in China?

2. Literature Review

2.1. The Relation of Effort Expectancy with Personal Innovativeness on FRP

Effort Expectancy means that the trust in which the system is easy to be used and less attempt is required (Chopdar & Sivakumar, 2019). Previous research proved that the purchase experience of consumers in using certain technology affected how the consumers viewed technological convenience level (Liu & Tai, 2016; Yang et al., 2017). When the consumers trust digital payment system, it is easier for the consumers to succeed online transaction in which automatically influences the consumers increase the constancy of using it (Musyaffi et al., 2021).

Ain et al., (2016) stated that Effort Expectancy is the effort level of each consumer in using the system to support the consumer to do the consumer's work. Effort Expectancy refers to how easy and innovative a personal or a consumer thinks in using a technology. It is also suitable with the research of Tan et al., (2014) proved that Personal Innovativeness refers to innovative consumers who have better intention to adopt new innovation in IT field. The consumer who has self personal intention and effort will adopt Personal Innovativeness of IT higher compared to the other consumers.

Personal Innovativeness in IT refers to the trust that the consumer is opened to try technology. It is explained that the openness of the consumer towards new technology will influence the use that is felt which means the trust in it will facilitate the result of achievement from what is done by the consumer and the effort to use it. Hence, consumers' Effort Expectancy towards IT has significant influence on Personal Innovativeness in using the technological system (Ngafeeson & Sun, 2015).

From the above description, this research implies hypothesis as follow:

H1: Effort Expectancy influences on Personal Innovativeness on FRP.

2.2. The Relation of Personal Innovativeness with Continuance Intention to Use FRP

Innovativeness is the degree to which a consumer or other units of adoption is ideas than other members of a social system. Personal Innovativeness is the consumers' willingness to explore new information technology and the effect of profitable conception. An innovative consumer means that if the consumer adopts the innovation earlier, and also as a personality trait to form the consumers' trust in capability to get and facilitate complex technical news to tackle with unstable latest technology (Lin & Filieri, 2015). It is in accordance with the research of Liébana et al., (2019) emphasized that Personal Innovativeness positively influences Continuance Intention to Use. Lu (2014) also found out that there was significant relation of Personal Innovativeness and Continuance Intention to Use. It had been investigated that Personal Innovativeness towards Continuance Intention to Use AI technologies brought several good effects. Since there is relation of Personal Innovativeness and Continuance Intention to Use AI, the hypothesis is proposed as follow:

H2: Personal Innovativeness influences Continuance Intention to Use FRP.

2.3. The Relation of Effort Expectancy with Continuance Intention to Use FRP through Personal Innovativeness mediation

The role of Personal Innovativeness is vital in deciding the user acceptance of technology result, and has been tested not only in the field of innovative diffusion but also information system. According to Rogers (2002) that Diffusion of Innovation Theory (DOI) is prior adopters and innovators, that is, high level of Personal Innovativeness consumers can be as technological supporters while the company is implementng latest technology. The above stated consumers require less advertisement and lead, and after attempting advanced technology, these consumers may become marketers and give simple instances to facilitate other customers hold it. Consequently, the goal of the companies is to apply technology may depend on prior innovators and adopters as transform agents. Thus, numerous researches on technological adoption of Personal Innovativeness as the key driver that impacts the consumers' eagerness in Continuance Intention to Use new technology (Okumus et al., 2018). It is in line with the research of Wijesundara & Xixiang (2017) emphasized that the development of technology is reforming consumers' life rapidly, and a lot of consumers are looking for latest and updated things. In that case, incredibly innovative consumers indicate the peak level acceptance of latest ideas or technology. Personal Innovativeness towards technology is the consumers' readiness to do experiment with new technology. The consumers with the peak level of Personal Innovativeness have powerful perspective on technical enhancement, and can solve the risk related to using latest technology.

Effort Expectancy potentially influences positive on Intention to Use FRP (Bansal et al., 2005). It is also supported by Lim et al., (2019) stated that Effort Expectancy variable to calculate the effort of Intention to Use FRP.

From the above description, therefore it is formulated hypothesis as follow:

H3: The cause of Effort Expectancy influence on Continuance Intention to Use FRP partially is mediated by Personal Innovativeness.

2.4. The Relation of Performance Expectancy with Initial AI Trust on FRP

Initial AI Trust is influenced by ethical considerations such as fairness and involves understanding when to trust or rely on AI System and when to override it. Initial AI Trust differs in its underlying mechanisms and considerations (Montag et al., 2023). Initial AI Trust perception will change based on the experience that is got by each consumer. Consumers' experience is cognitive response and also affective entirely from the consumers toward company's performance (Buttle & Maklan, 2008). Consumers' trust as the thing that has to be paid attention so that business success is achieved.

This Performance Expectancy is described on how far a consumer feels of using the system that

will facilitate in achieving performance profit, and is based on the online technological sage that supports the consumers in doing activities like looking for some news, paying comfortably, and doing other things in product buying transaction process. Kotler & Keller (2012) also proved that the consumers who were the function of consumers' expectation and the result that was expected. If the result that was obtained was appropriate with that was expected, therefore the consumers would feel satisfied. However, if the result that was obtained was better than what was expected, thus the consumers were really satisfied, and if the result that was obtained was not appropriate with what was expected, hence the consumers were not satisfied.

Performance Expectancy is expectation on how far the consumers trust that by using the system, it will facilitate in its performance, and is also the strong predictor in Continuance Intention to Use new technology in order to be concluded that the consumers who trust the information system can facilitate its performance. Therefore, the consumers will intend to use the system in longer time (Hiu, 2020). It is appropriate with Oliveira et al., (2014) research stated that Performance Expectancy created Initial AI Trust was related affirmative with Performance Expectancy and Initial AI Trust. While, according to Shayo & Kipingu (2021), it could not be found that Performance Expectancy and Initial AI Trust had relation.

From the above description, therefore it is formulated hypothesis as follow:

H4: Performance Expectancy influences Initial AI Trust on FRP.

2.5. The Relation of Initial AI Trust with Continuance Intention to Use FRP

Without Initial AI Trust, it is impossible buying selling transaction occurs through internet. This thing is due to through online shopping, the consumers do not have real attribute like shop physical location and the capability to touch and check things that will be bought so that before doing purchase, the consumers have to have trust in website as company representative in order to offer its product (Gustavsson & Johansson, 2006).

Consumers' evaluation in online shop resulted trust level that was able to influence consumers' attitude to do purchase transaction. When Initial AI Trust is created, this thing will emerge consumers' intention to do purchase in certain website. According Chen & Barnes (2007) research that online Initial AI Trust and familiarity influence positive towards Continuance Intention to Use which means that the higher Initial AI Trust is, therefore the higher of consumers' intention in doing online purchase is too. If the consumers do not have any experience in using AI technology, therefore the consumers will not realize its benefit. The consumers consider that AI as new technology that is failure in finding out efficiency in luxurious context. This similar thing was also said by Wu et al., (2015) that Initial AI Trust affected positive on Continuance Intention to Use.

Initial AI Trust in FRP shows consumers' trust in FRP's capability to give trust, safe, and real financial service. Such kind of trust facilitates the consumers reduce risk and confirm successful payment while operating FRP, improving Continuance Intention to Use FRP (Luo et al., 2010). Previous researches have indicated that Initial AI Trust in payment technology influences positively the consumers' Continuance Intention to Use. It is also supported by Gong et al., (2020) research indicated Continuance Intention to Use technological payment was affected positive by trust in mobile payment. It is also appropriate with Franque et al., (2023) research proved that consumers' entire trust in mobile payment helped consumers' Continuance Intention to Use, and if the consumers trusted FRP financial service as safe, guaranteed, and believable, the consumers would prefer using FRP continuously.

While Mostafa & Kasamani (2021) indicated that Initial AI Trust did not influence significant towards consumers' Continuance Intention to Use FRP, and also strengthened the research of Loureiro et al., (2018) revealed that there was no relationship between Initial AI Trust and Continuance Intention to Use FRP.

Based on the above description, therefore it is proposed one of the research hypothesis as follow:

H5: Initial AI Trust influences Continuance Intention to Use FRP.

2.6. The Relation of Performance Expectancy with Continuance Intention to Use FRP through Initial AI Trust

Consumers' attitudes and technological perception influence the consumers' Continuance Intention to Use FRP. The immediate determinant of a behaviour or not is the consumers' Intention to Use or the consumers will deal with certain behaviour that becomes the most important predictor of attitude itself. The consumers are expected to behave based on the consumers' Intention to Use, barring unforeseen events. Intention to Use certainly can definitely change with time; the more extended period of time is, the more possible it is that unpredictable incidents will affect transformation in Intention to Use (Huang et al., 2020). It is also in accordance with Zhao & Bacao (2021) research proved that consumers' Performance Expectancy can affect consumers' Continuance Intention to Use FRP. The consumers concerned more about virus spread risk in Covid-19 pandemic, and attempted to prevent the infectious consumers (Tang et al., 2023).During this condition, cash payment which often swifted hands was regarded suspicious to SARS-COV-2 virus transmission (Tyvainen et al., 2020). The consumers' Initial AI Trust towards an object research, that is, FRP can be either profitable or unprofitable depending on the condition that occurs in this new normal era (Schiffman & Wisenblit, 2015). The virus was trusted to be spread freely through consumers' touch. Therefore, keeping distance with the consumers or things was vital. Due to this reason, the consumers would rather use FRP sustainably as secure choice than cash payment method. Hence, the consumers' Initial AI Trust acts as vital role in FRP Continuance Intention.

The following hypothesis is proposed:

H6: The result of Performance Expectancy influences on Continuance Intention to Use FRP partially is mediated by Initial AI Trust.

2.7. Research Model

Research Model is used to test the hypothesis that has been determined, therefore it is used research method such as in this below stated figure:
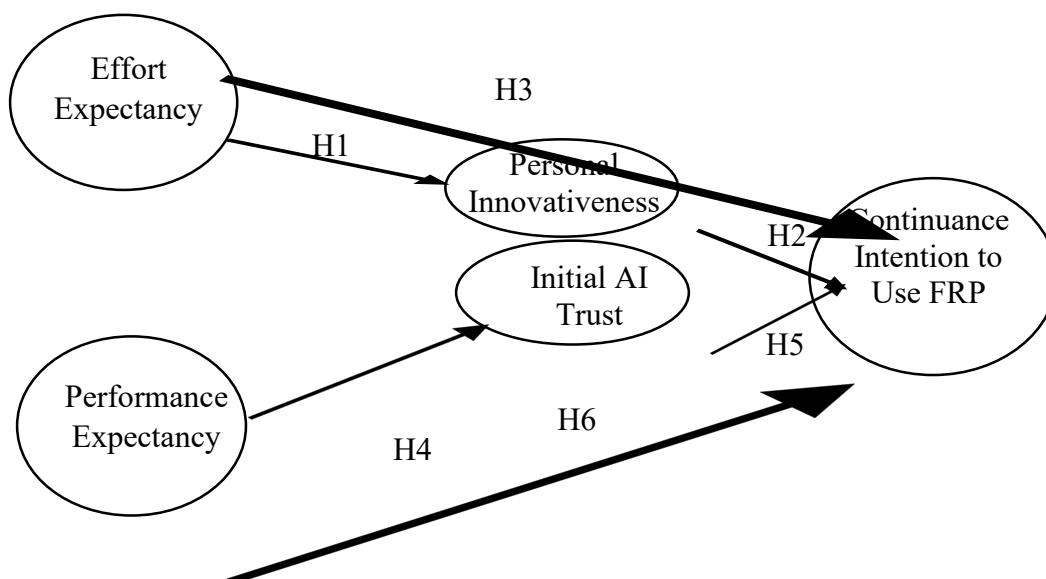

Fig.1: Proposed Research Model

3. Research Methodology

3.1. Population and Sample

This recent research uses quantitative of explanatory type to search for the explanation of cause and effect relationship between variables through one hypothesis test with other variables. Sample is done with non-probability of purposive sampling technique (Sekaran & Bougie, 2016). The population is individual consumer or research object that has minimum one similar characteristic. Consumer criteria is limited to 262 respondents who use Face Recognition Payment (FRP) at some supermarkets and malls in China either in Beijing, Shanghai, Xiamen or other cities in this new normal era in December 2023. This requirement is suitable with Maximum Likelihood estimation model with sample number criteria between 100-200 respondents with minimum sample of 50 (Ghozali, 2011). The number of indicators for all variables in this recent research is 90 indicators. Therefore, the number of minimum sample is as many as: (18x5)= 90 respondents. A representative sample of at least five times the number of indicators from all study changers (Hair et al., 2014). The data was processed by Structural Equation Modeling (SEM) and used SPSS 22 and smartPLS3. The measurement scale uses five points Likert scale approach. By determining category of Likert scale, it can take the form of strongly disagree, disagree, neutral/undecided, agree, strongly agree (Ferdinand, 2014). Besides distributing questionnaires with quantitative measurement scale, respondents also answered several open-ended questions to get more in-depth answers that are related to several closed ended question items in questionnaires. Using some qualitative open-ended questions to complement quantitative study could provide more contextual understanding of user perceptions and issues. By adding a couple open-ended questions to obtain more qualitative insights from respondents on like or dislike with FRP.

3.2. Research Instrument

3.2.1. Continuance Intention to Use

Continuance Intention to Use is the action or intention measurement that may be done by a consumer and can be used to estimate the consumers' probability to make decision whether to continue or not to use payment service system in the future (Dlodlo, 2015). Continuance Intention to Use variable is measured with three indicators (Yang et al., 2017). The indicators of Continuance Intention to Use variable are using the system more frequently, willingness to use the system sustainably, and increasing the use of system. The sample questionnaire items as follow: the consumers intend to continue using Facial Recognition Payment (FRP) more frequently in the future, the consumers are willing to use FRP continuously in new normal era, and the consumers intend to increase the use of FRP in the future.

3.2.2. Effort Expectancy

Effort Expectancy is simplicity level to use certain system that shows how great the business that is done by the users to use the system (Masa'deh et al., 2016). Effort Expectancy variable is measured by using four indicators. The indicators of Performance Expectancy are using easy system, learning to use easier syatem, following all the steps of system easily, and being like the system for it requires minimum effort. The sample questionnaire items are as follow: the consumers think using FRP is easy, the consumers think learning to use FRP is easy, the consumers follow all the steps of FRP easily, and the consumers like FRP for it requires minimum effort.

3.2.3. Performance Expectancy

Performance Expectancy is the level that a consumer trusts in using the system, it will facilitate in increasing its performance. Performance Expectancy variable is measured by using four indicators (Venkatesh et al., 2003). The indicators of Performance Expectancy are using harmless cashless payment system rather than old one in new normal era, using the system is profitable method in doing business transaction, feeling convenient in using the system, and using the system is beneficial in daily activities. The sample questionnaire items are as follow: the consumers feel using FRP as safer

contactless payment rather than traditional one in new normal era, the consumers feel using FRP is profitable method in doing business transaction, the consumers feel convenient in using FRP, and the consumers find using FRP is useful in daily activities.

3.2.4. Personal Innovativeness

Personal Innovativeness is the element of attitude which motivates the consumers' eagerness to perform new things (Ciftci et al., 2021). Personal Innovativeness variable is measured by using three indicators (Lin & Filieri, 2015). The indicators of Personal Innovativeness variable are hearing about a new type of payment, the consumers will search solutions to do it, and the consumers want to be the first one. The sample questionnaire items as follow: if the consumers hear about a new type of payment (FRP), the consumers will find out methods to do experiment with it, among consumers' peers, the consumers are usually the first one to explore a new type of payment (FRP), the consumers like to do experiment by using new type of payment (FRP) for financial service.

3.2.5. Initial AI Trust

Initial AI Trust is the trust that develops after the consumers get first interaction towards a website as well as the company depends on business partner, a number of interpersonal and inter organization such as competency, integrity, honesty, and kind hearted (Kotler & Keller, 2012). Initial AI Trust variable is measured by four indicators. The indicators of Initial AI Trust variable are being able to increase good relation, increasing consumers' trust by giving fast response, the consumers do not need to wait answers too long from Customer Service, and the slow response can create the loss of consumers' interest. The sample questionnaire items are as follow: Initial AI Trust can increase good relation, Initial AI Trust can increase consumers' trust by giving fast response, the consumers do not need to wait too long the answers from customer service, and slow response can create the loss of consumers' interest.

3.3. Data Analysis

The recent research implements SPSS version 22 for data filter, demographic profile, and descriptive statistics. Besides, smart PLS 3 is used for hypothesis test through SEM PLS. The SEM PLS model analysis and interpretation require four stages, that is, Inner Model Design, Outer Model Design, Evaluation Model, and Hypothesis Test.

4. Result

4.1. Respondent Profile

Respondent data collection was carried out through questionnaires distributed to consumers who use FRP within the scope of supermarket and mall. The total collected questionnaires were 262 questionnaires for further analysis. Respondent Profile that was studied in this research covered gender, status, age education, occupation, monthly income, monthly expenses, residential city, experience using web or mobile payments, and experience using face recognition technology that had the relationship with the variables that would be analyzed in this research, can be indicated in the below stated table:

Table 1. Respondent Profile

Characteristics of Respondents	Information	Frequency	Percentage
Gender	Male	124	47.3%
	Female	138	52.7%
Status	Married	186	71%
	Single	76	29%

Age (years old)	<18	4	1.5%
	18-25	30	11.5%
	26-35	89	34%
	36-45	107	40.8%
	46-55	24	9.2%
	>55	8	3.1%
Education	Junior High School	10	3.8%
	Senior High School	15	5.7%
	Bachelor	126	48.1%
	Master	80	30.5%
	Ph. D	31	11.8%
Occupation	Student	28	10.7%
	Employee/Professional	167	63.7%
	Entrepreneur	11	4.2%
	Retired	5	1.9%
	Unemployed	2	8%
	Out of bound values	49	18.7%
Income (RMB)	<1500	26	9.9%
	1501-5000	35	13.4%
	5001-10000	90	34.4%
	10001-30000	93	35.5%
	<30001	18	6.9%
Monthly Expenses (RMB)	<1500	21	8%
	1501-5000	90	34.4%
	5001-10000	89	34%
	10001-3000	50	19.1%
	<30001	12	4.6%
Residential City	Beijing	123	46.9%
	Shanghai	10	3.8%
	Xiamen	20	7.6%
	Other cities	109	41.6%

Experience using web or mobile payments	<1 year	22	8.4%
	2-3 years	39	14.9%
	4-5 years	76	29%
	>5 years	125	47.7%
Experience using face recognition technology	Never	47	17.9%
	Actively use	94	35.9%
	Passively use	121	46.2%

Source: Primary data processed (2023)

The majority of respondents' characteristics were 52.7% female, 71% married, 40.8% age 36-45 years, 48.1% had education of Bachelor degree, 63.7% were employee/professional occupation, 35,5% earned 10001-30000 income, 34.4% spent 1501-5000 for monthly expenses, 46.9% most of the respondents were resided in Beijing city followed by other cities of 41.6%, Xiamen of 7.6% and Shanghai of 3.8%. 47.7% respondents had 5 year experience using web or mobile payments, and 46.2% respondents passively used face recognition technology.

4.2. Research Variable Description

Descriptive analysis is analysis that is done to give empirical description on data that was collected in this research by using average value. Average value is used to describe the average value of variables that were analyzed in certain respondents' group.

Table 2. Description of Continuance Intention to Use, Effort Expectancy, Performance Expectancy, Personal Innovativeness, Initial AI Trust

	N	Minimum	Maximum	Mean	Std. Deviation
CITU01	262	1	5	3.1756	1.42491
CITU02	262	1	5	3.2824	1.43185
CITU03	262	1	5	3.229	1.45199
Average				3.229	
EE01	262	1	5	3.7939	1.26683
EE02	262	1	5	3.9389	1.17285
EE03	262	1	5	3.958	1.14894
EE04	262	1	5	3.6641	1.32532
Average				3.838725	
PE01	262	1	5	3.0153	1.4932
PE02	262	1	5	2.9695	1.37263
PE03	262	1	5	3.8435	1.21072
PE04	262	1	5	3.6069	1.29026
Average				3.3588	
PI01	262	1	5	3.1565	1.39592
PI02	262	1	5	2.9389	1.35757
PI03	262	1	5	2.9809	1.43159
Average				3.025433	

IAT01	262	1	5	3.8931	1.08809
IAT02	262	1	5	3.7366	1.14274
IAT03	262	1	5	3.7366	1.16268
IAT04	262	1	5	4.229	0.99088
Average				3.898825	
Valid N (listwise)	262				

Source: Primary data processed (2023)

The above table indicates that from 262 respondents, the highest average value is followed by Initial AI Trust, Effort Expectancy, Performance Expectancy, Continuance Intention to Use, and Personal Innovativeness is the lowest average value. Most of the above stated variables ate at the average value of >3,571-4,429 which means the respondents gave agree response. Some of the respondents gave response at the average value of >2,754-3,571 which means some respondents' expectations were sometimes attained, that is, Performance Expectancy, Continuance Intention to Use, and Personal Innovativeness.

4.3. Inner Model Design

The Inner Model Design of relationship among variables are based on the problem formulation or research hypothesis, and can be evaluated by looking at the R-square for dependent variable and the p-value of total effects and indirect effects tests. A higher R-square value means a better model prediction. P-value indicates the degree of significance in hypothesis test. R-square determines the magnitude of independent variables affect on dependent variable. It can be seen in the following figure of Inner Model Design with smartPLS software:
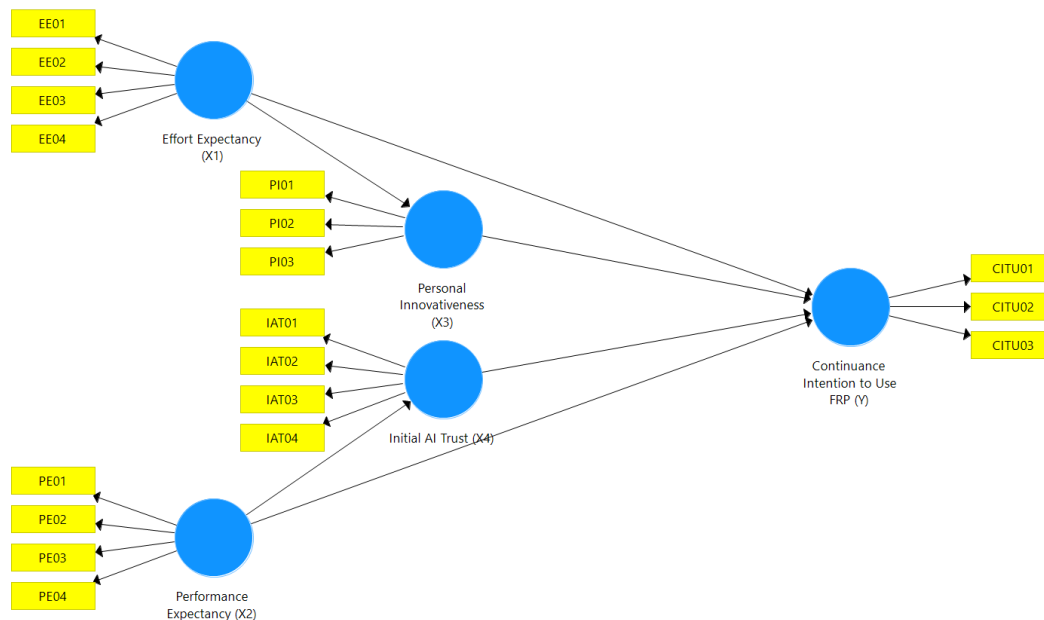

Fig.2: Inner Model Design

4.4. Outer Model Design

Indicators of each variable are Continuance Intention to Use, Effort Expectancy, Performance Expectancy, Personal Innovativeness, and Initial AI Trust in Outer Model is reflective, so the arrow

direction in measurement model is from direction variable going to indicator. The loading factor shows the validity test for each construct indicator in the smartPLS 3.0 program. The cut-off value to justify the indicator validity is when the value of loading factor is higher than 0.70. Figure 2 shows the measurement model that all indicators are valid with a loading factor above 0.70. Outer Model Design uses smartPLS as follow:
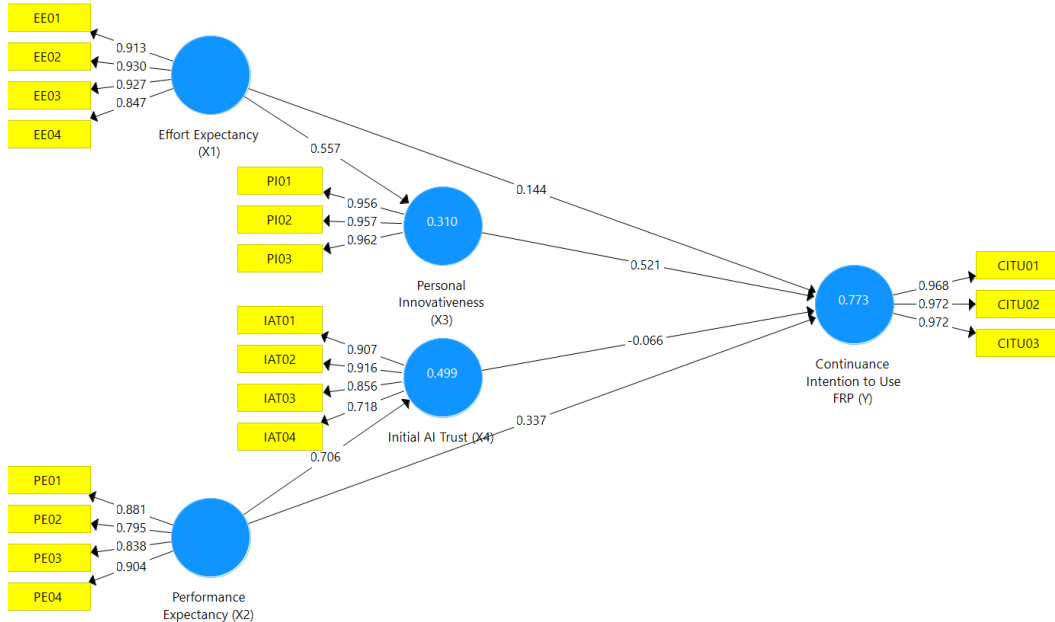

Fig.3: Outer Model Design

From the above stated figure, it can be known that Continuance Intention to Use (CITU) has three statements, Effort Expectancy (EE) has four statement, Performance Expectancy (PE) has four statements, Personal Innovativeness (PI) has three statements, Initial AI Trust (IAT) has four statements. Reliability tests are done to give the evidence of accuracy, consistency, and accuracy of research instruments in measuring constructs by looking at composite reliability value. Each variable of composite reliability must be higher than 0.7 for confirmatory research as follow:

Table 3. Cronbach's Alpha and Composite Reliability for each variable

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Conclusion
Continuance Intention to Use FRP (Y)	0.969	0.980	0.942	Reliable
Effort Expectancy (X1)	0.926	0.948	0.819	Reliable
Initial AI Trust (X4)	0.874	0.914	0.728	Reliable
Performance Expectancy (X2)	0.877	0.916	0.732	Reliable
Personal Innovativeness (X3)	0.955	0.971	0.918	Reliable

Source: SmartPLS 3.0 Program Output (2023)

4.4.1. Outer Loading

The objective of Indicator Reliability is to evaluate whether latent variable measurement indicator is reliable or not. Its method by examining each indicator of outer loading result. Loading value is over 0,7 shows that construct can describe more than 50% of its indicator variance.

Table 4. Outer Loading

	Continuance Intention to Use FRP (Y)	Effort Expectancy (X1)	Initial AI Trust (X4)	Performance Expectancy (X2)	Personal Innovativeness (X3)
CITU01	**0.968**				
CITU02	**0.972**				
CITU03	**0.972**				
EE01		**0.913**			
EE02		**0.930**			
EE03		**0.927**			
EE04		**0.847**			
IAT01			**0.907**		
IAT02			**0.916**		
IAT03			**0.856**		
IAT04			**0.718**		
PE01				**0.881**	
PE02				**0.795**	
PE03				**0.838**	
PE04				**0.904**	
PI01					**0.956**
PI02					**0.957**
PI03					**0.962**

Source: SmartPLS 3.0 Program Output (2023)

From the above stated table means the value of outer loading can be seen that all items or indicators of outer loading value have > 0,7 has been valid. Thus, the chosen item or indicator is valid with Convergent validity.

4.5. Evaluation Model

4.5.1. R-square
One of the methods in Inner Model test is by searching for R-square (R^2) value in variables. Structural model with R-square (R^2) value is above 0.19 shows "weak" model, while if R-square (R^2) value is above 0.33 indicates "moderate" model, and R-square (R^2) value is above 0.67 shows "good" model (Ghozali, 2011). R-square (R^2) value of each variable is from estimation model can be seen in this following stated table:

Table 5. R-square

Variable	R-square	Adjusted R-square	Note
Continuance Intention to Use FRP (Y)	0.773	0.770	Good
Initial AI Trust (X4)	0.499	0.497	Moderate
Personal Innovativeness (X3)	0.310	0.307	Weak

Source: SmartPLS 3.0 Program Output (2023)

4.6. Hypothesis Test
Hypothesis test among variables are exogenous variable on endogenous and endogenous variable on exogeneous variable that is done by resampling bootstrap method. Hypothesis test is done by viewing output path coefficient of resampling bootstrap result and mediation effect test.

Table 6. Resampling Bootstrap

The Relationship among Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis Test Results
Effort Expectancy (X1) -> Continuance Intention to Use FRP (Y)	0.144	0.142	0.073	1.972	0.049	Significant(P value < 0,05), so H3 was accepted
Effort Expectancy (X1) -> Personal Innovativeness (X3)	0.557	0.559	0.047	11.937	0.000	Significant (P value < 0,05), so H1 was accepted
Initial AI Trust (X4) -> Continuance Intention to Use FRP (Y)	-0.066	-0.065	0.060	1.110	0.268	Insignificant (P value > 0.05), so H5 was rejected
Performance Expectancy (X2) -> Continuance Intention to Use FRP (Y)	0.337	0.344	0.095	3.559	0.000	Significant (P value < 0,05) so H6 was accepted
Performance Expectancy (X2) -> Initial AI Trust (X4)	0.706	0.708	0.034	20.861	0.000	Significant (P value < 0,05) so H4 was accepted
Personal Innovativeness (X3) -> Continuance Intention to Use FRP (Y)	0.521	0.515	0.079	6.631	0.000	Significant (P value < 0,05), so H2 was accepted

Source: SmartPLS 3.0 Program Output (2023)

The above stated table indicates direct effect of each independent construct towards dependent variable. In Output Path Coefficient as seen in the above table is to see how great direct effect of each exogenous variable on endogenous variable. The Path Coefficient test aims to indicate the degree of significance in hypothesis test as it is shown result of Path Coefficient test. The magnitude of parameter coefficient for Effort Expectancy towards Continuance Intention to Use is as much as 0.144 means there is positive influence towards Continuance Intention to Use or can be interpreted that the better the value of Effort Expectancy is, the more Continuance Intention to Use will increase. One by one Effort Expectancy increase will increase Continuance Intention to Use as much as 14.4%. Based on the calculation by using resampling bootstrap in which the test result of Effort Expectancy estimation coefficient towards Continuance Intention to Use is 0.142 with 3.488 t value calculation. Therefore, p value is 0.049<0,05 so that H1 is accepted or which means Effort Expectancy direct influence towards Continuance Intention to Use is statistically meaningful or significant. Hence, in this model, Effort Expectancy influences significantly towards Continuance Intention to Use, because p value is <0,05, whereas Initial AI Trust influences insignificantly towards Continuance Intention to Use due to p value is >0,05.

4.6.1 Mediation Effect Test

There are three types of analysis model that involve mediation that can be seen in the below stated table as follow: full mediation, partial mediation, and unmediated (Subagio & Rachmawati, 2020). Full mediation means by significantly independent variable is unable to influence dependent variable

without through mediation. Partial mediation means by involving mediation, directly or indirectly independent variable influences dependent variable. Unmediated means without involving mediation, indirectly independent variable is able to influence dependent variable.

Table 7. Mediation Effect Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis Test Results
Performance Expectancy (X2) -> Initial AI Trust (X4) -> Continuance Intention to Use FRP (Y)	-0,047	-0,046	0,043	1,098	**0,273**	Insignificant (P value > 0.05), so H6 was rejected
Effort Expectancy (X1) -> Personal Innovativeness (X3) -> Continuance Intention to Use FRP (Y)	0,290	0,288	0,050	5,746	**0,000**	Significant (P value < 0,05), so H3 was accepted

Source: SmartPLS 3.0 Program Output (2023)

4.7. Discussion (R-square & Hypothesis Test)

4.7.1. R-square
The effect of r-square value simultaneously on exogeneous towards Personal Innovativeness is as much as 0,310 with adjusted r-square value of 0,307, therefore all independent variables simultaneously affect Personal Innovativeness as much as 0,307 or 30.7%. Thus, adjusted r-square of 30.7%<33%, therefore the effect of all independent variables on Personal Innovativeness was included weak as well as with each of adjusted r-square Continuance Intention to Use FRP and Initial AI Trust is 77% and 4.7%>33%. Hence, the effect of all independent variables towards Continuance Intention to Use FRP and Initial AI Trust was included strong and moderate.

4.7.2. Hypothesis Test

4.7.2.1. Effort Expectancy influences on Personal Innovativeness on FRP
From the hypothesis test result, it can be proved that Effort Expectancy has positive influence on FRP Personal Innovativeness with coefficient value of 0.557 with significant level of 5%, because statistic t value of Effort Expectancy independent variable on Personal Innovativeness of 11.397 is greater than 1.96, therefore the hypothesis can be accepted. Effort Expectancy P value influences towards Personal Innovativeness is as much as 0.000 in which <0.05 so that H1 is accepted means Effort Expectancy has significant influence towards Personal Innovativeness. The indicators that are used to test Effort Expectancy in this research consist of using easy system, learning to use easy system, following all the steps of system easily, and being like the system for it requires minimum effort. From those four indicators, the highest respondents' response is following all the steps of system easily. In this case, by adding a couple open-ended questions to obtain more qualitative insights from respondents on like or dislike with FRP, most of the respondents gave response 3.6641 which means that the range of average value is >3,571-4,429 proved that most of the respondents gave agree response being like the FRP system for it requires minimum effort to operate it. The consumers' expect to operate the technological system of FRP method easily so that the consumers need little effort to do any business transaction at the supermarkets or malls in which will make the consumers faster to settle the bill. Thus, the result of this research is in accordance with Ngafeeson & Sun (2015) research stated that consumers' Effort Expectancy towards IT had significant influence on Personal Innovativeness in using the technological

system.

4.7.2.2. Personal Innovativeness influences on Continuance Intention to Use FRP

From the hypothesis test result, it can be proved that Personal Innovativeness has positive influence on Continuance Intention to Use FRP with coefficient value of 0.521 with significant value of 5%, because Personal Innovativeness statistic t value on 6.631 Continuance Intention to Use dependent variable, that is, higher than 1.96, therefore hypothesis is accepted. Personal Innovativeness P value influences towards Continuance Intention to Use FRP is as much as 0.000 in which <0.05 so that H2 is accepted means Personal Innovativeness has significant influence towards Continuance Intention to Use FRP. The indicators to test Personal Innovativeness consist of hearing about a new type of payment, the consumers will find way out to carry out it, and the consumers are the priority to observe a new type of payment. From those three indicators, the highest respondents' response is hearing about a new type of payment. In this research, most of the consumers are young to adult undergraduates who are still quite energetic, eager, enthusiastic to learn something which is new, innovative, sophisticated, and outstanding FRP system. Hence, the result is appropriate with Lu (2014) research that Personal Innovativeness and Continuance Intention to Use have significant relation. It is also appropriate with the research of Sair & Danish (2018) that Personal Innovativeness significantly affected consumers' Continuance Intention to Use mobile commerce. 320 mobile commerce users in Pakistan were collected in that survey.

4.7.2.3. The Influence of Effort Expectancy on Continuance Intention to Use FRP, partially is mediated by Personal Innovativeness

From the hypothesis test result, it proved that Effort Expectancy influences positive on Continuance Intention to Use FRP through Personal Innovativeness as mediation of 0.290 (29%) with significant level of 5%, because Effort Expectancy statistic t value on Continuance Intention to Use FRP through Personal Innovativeness as mediation of 5,476 is higher than 1,96, so hypothesis is accepted. Effort Expectancy P value influences towards Continuance Intention to Use FRP is as much as 0.049 in which <0.05 so that H3 is accepted that means Effort Expectancy has significant effect towards Continuance Intention to Use FRP. It is line with the research of Teo & Noyes (2014) that Effort Expectancy towards Consumers' behavioural Intention to Use technology has significant effect. 264 pre-service registered teachers at the National Institution of Education in Singapore were surveyed. Compared with Effort Expectancy direct effect on Continuance Intention to Use FRP has positive influence significantly, therefore it can be taken conclusion that the role of Personal Innovativeness as mediation can influence Effort Expectancy relation with Continuance Intention to Use FRP. Thus, the model is said unmediated, because without involving mediator, directly independent variable can affect dependent variable. The indicators to test Continuance Intention to Use consist of using the system more frequently, eagerness to use the system sustainably, and increasing the use of system in the future. From those three indicators, the highest respondents' response is willing to use the system continuously in the near future. Since until new normal era, most of the consumers are willing to use this sophisticated FRP method for payment transaction in the near future for avoiding the contagious disease. The consumers feel safe to use FRP. The result is in accordance with Okumus et al., (2018) research emphasized Personal Innovativeness as a factor influencing the willingness of the consumers' Continuance Intention to Use new technologies also supports Sair & Danish (2018) research proved that Personal Innovativeness mediates the relation of Effort Expectancy independent variable and Intention to Adopt M-commerce dependent variable.

4.7.2.4. Performance Expectancy influences on Initial AI Trust on FRP

From the hypothesis test result, it can be proved that Performance Expectancy has direct influence on Initial AI Trust with coefficient value of 0,521 (52,1%) with 5% significant value, because Performance Expectancy statistic t value on Initial AI Trust on FRP of 20.861 is higher than 1,96, so the hypothesis

is accepted. Performance Expectancy P value influences towards Initial AI Trust on FRP is as much as 0.000 in which <0.05 so that H4 is accepted means Performance Expectancy has significant influence towards Initial AI Trust. The indicators to test Performance Expectancy consist of using secure cashless payment method system rather than old one in new normal era, using the profitable method system in doing business transaction, feeling convenient in using the system, and using the useful system in daily activities. From those four indicators, the highest respondents' response is feeling convenient in using the system. In this case, the consumers feel convenient to use FRP, because consumers do not need to bring cash or a lot of money for any transactions at any place. Thus, the result is appropriate with Oliveira et al., (2014) research stated that Performance Expectancy created Initial AI Trust that was related affirmative of Performance Expectancy and Initial AI Trust.

4.7.2.5. Initial AI Trust influences on Continuance Intention to Use FRP

Hypothesis test result proved that there is negative influence between Initial AI Trust on Continuance Intention to Use FRP with coefficient value of -0.066 (-66%) with insignificant values of 5%, because statistic t value of Initial AI Trust on Continuance Intention to Use FRP of 1.110 is smaller than 1,96, so the hypothesis is rejected. P value of Initial AI Trust influence towards Continuance Intention to Use FRP is as much as 0.268 in which >0.05 so that H5 is rejected means Initial AI Trust towards Continuance Intention to Use has no significant influence The indicators to test Initial AI Trust in this research consist of are being able to increase good relation, increasing consumers' trust by giving fast response, the consumers do not need to wait answers too long from Customer Service, the slow response can create the loss of consumers' interest. From those four indicators, the highest respondents' response is the slow response can create the loss of consumers' interest. The fast service provider of FRP either the system itself or the supermarket as well as mall employees who are in charge as Customer Service have to be ready to respond the consumers' complaints or questions while doing business transaction by FRP method in order to make the consumers satisfied with provided service on the spot. The reason is that the FRP technological system is still new and need to be updated all the time so that the consumers are familiar with the product knowledge of FRP. Hence, the result is suitable with Chung et al., (2019) research that consumers considered AI as latest technology that is failure in solving efficiency in luxurious context, and also supported the research of Loureiro et al., (2018) emphasized that if consumers did not have any experience in using AI technology, therefore the consumers will not realize its benefit.

4.7.2.6. The Influence of Performance Expectancy on Continuance Intention to Use FRP, partially is mediated by Initial AI Trust

From the hypothesis test result, it can be proved that Continuance Intention to Use FRP has negative influence through Initial AI Trust as mediation of -0.047 (-4.7%) with insignificant level of 5%, because Performance Expectancy statistic t value on Continuance Intention to Use FRP through Initial AI Trust as mediation of 1,098 is smaller than 1,96, therefore the hypothesis is rejected. Performance Expectancy P value on Continuance Intention to Use FRP is 0.000 in which <0.05 so that H6 is accepted means Performance Expectancy has significant influence towards Continuance Intention to Use FRP. Compared with direct influence between Performance Expectancy and Continuance Intention to Use FRP has positive influence and significant, therefore it can be taken conclusion that the role of Initial AI Trust as mediation cannot influence the relation of Performance Expectancy and Continuance Intention to Use. Thus, the model is said unmediated which means without involving mediation, directly independent variable can influence dependent variable. The result is in accordance with Zhao & Bacao (2021) research proved that consumers' Performance Expectancy can affect consumers' Continuance Intention to Use FRP. Whereas, the role of Initial AI Trust as mediation does not influence the relationship of Performance Expectancy and Continuance Intention to Use FRP. Hence, it is in contrast with the research of Schiffman & Wisenblit (2015) found out that the consumers would choose FRP

sustainably as secure rather than cash. Chou et al., (2018) indicated that 435 valid responses in Taiwan had used Performance Expectancy that gave significant influence on the consumers' Continuance Intention to Use mobile commerce environment.

Based on the managerial implication of the research result, Initial AI Trust is mediation variable that is the most dominant influence on consumers' Continuance Intention To Use, because FRP method system becomes the new sophisticated technological device in AI marketing and still in the beginning phase for practitioners, therefore it is required future research to know more how to operate the FRP efficiently especially can widen the conceptual framework by adding other variables like system quality, consumers' experience, and satisfaction. If the consumers do not have any difficult experience in operating FRP, automatically the consumers will feel convenient when using FRP. The analysis result of Initial AI Trust towards consumers' Continuance Intention to Use FRP has insignificant influence means when the consumers do not have any experience in using FRP technology, thus the consumers will not realize the benefit that is felt. The consumers do not trust information and system quality in using FRP that influences Initial AI Trust so that the business owners or entrepreneurs can consider that thing as standard in planning the increase of Initial AI Trust. Personal Innovativeness also has important role of Effort Expectancy and Continuance Intention to Use FRP, because in this technological advancement new normal era in which reshaping consumers' life rapidly, a lot of consumers are looking for something latest. Consequently, the consumers who are outstanding innovative indicate that the consumers accept new ideas or technology highly. Personal Innovativeness on sophisticated technology is the consumer's openness to observe with latest technology. Most of the consumers in this research based on the demographic age around 26-45 years old with Personal Innovativeness high level tend to have firm outlook on technical advancement. The consumers can handle Covid-19 pandemic risk associated with using new technology of FRP method. Furthermore, Effort Expectancy and Performance Expectancy on consumers' Continuance Intention to Use FRP have positive and significant influence. The reason is that in this normal era in which Covid-19 pandemic has not ended yet, the consumers really want to attempt to use any means of hand for protecting the consumers' safety including having training more on operating complicated and sophisticated payment method. Operating FRP method is not as easy as paying cash especially for the consumers who previously got used to pay cash for any business transaction before the pandemic such as the consumers have to follow certain procedures of operating FRP. Performance Expectancy can facilitate in measuring consumers' intensity in buying interest of products and the consumers' Performance Expectancy of contactless features can influence the consumers' Continuance Intention to Use FRP. Consequently, Effort Expectancy and Performance Expectancy may have great concern for the consumers in the new normal era in which pandemic has not ended yet.

The more practical recommendation based on findings is to indicate the importance of the consumers' perspective in which the supermarkets and malls can concern while deciding the key drivers that influence consumers' Continuance Intention to Use FRP. The management of supermarkets and malls can persuade the consumers to tell about the benefits of FRP method to relatives, colleagues, acquaintances, business partners and others or even possibly give them some rewards or gifts to do so. Others' advice, order, demand or recommendation form can affect the consumers' Continuance Intention to Use FRP (Nuryyev et al., 2020). In this case, the consumers generally will consider all the above stated impacts when making decisions.

Theoretical implication of this research strengthens UTAUT that applies consumers' Continuance Intention to Use FRP by enlarging UTAUT with research model as the explanation base of ground theory from theoretical perspective. UTAUT is widely implemented in this research as the base to describe how the consumers act toward latest technology (Yang et al., 2021). With UTAUT adoption, this research has analyzed thoroughly the key drivers that influence the consumers' Continuance Use FRP emphasizing more on the attractive elements of FRP like Effort Expectancy (EE), Performance Expectancy (PE), Personal Innovativeness (PI), and Initial AI Trust (IAT).

In addition, this research result also improves the consumers' intention theory towards Continuance Usage of FRP. Three antecedent factors, namely, Effort Expectancy, Performance Expectancy, Personal Innovativeness have positive effect on Continuance Intention to Use FRP. The importance of consumers' perspective in which the supermarket and mall's business owners or entrepreneurs can think about while deciding the key drivers influencing consumers' Continuance Intention to Use FRP. By including some important attributes either advantageous or disadvantageous simultaneously, the supermarket as well as mall owners can forsee the consumers' behaviour linked to particular FRP method. The attitude of consumers can be affected in as much as the consumer's intention is affected cordially (Yang et al., 2021). On the contrary, if the supermarket or mall owners consider only some key drivers eventually, it can guide to overstate or understate some particulars. The supermarket and mall owners may not be able to maximize the managerial strategic decision quality especially the marketing leads should concern the good and bad sides for the sake of consumers to use FRP (Lin et al., 2020).

Moreover, the result of this research also supports Innovation Diffusion Theory (IDT) and innovation. Innovation is conceptualized as a construction that is called Personal Innovativeness in the latest technological information system development domain, that is, the eagerness of the consumers to try new technological information. Personal Innovativeness affects consumers' intention to utilize various technologies (Lu, 2014). Risk-taking option in Personal Innovativeness can be found in certain consumers, and the consumers who have higher Personal Innovativeness level show good attitude towards innovation and positive intention towards advanced technological use (Thakur & Srivastava, 2014).

Last but not least, this research result is appropriate and really strengthen AI Trust theory. Trust in AI refers to trust that AI system will behave as expected as well as can be relied upon to achieve its intended goal. Efforts to promote belief in AI focus on some key drivers like equity, accountability, transparency and others (Montag et al., 2023).

5. Conclusion

This examination of Facial Recognition Payment adoption essentials in a prevailing health crisis context confers theoretical and practical insights. Empirically validated relationships between effort minimization, usefulness perceptions, and personal innovation orientation with stronger usage intention underpin key motivations. The findings offer retailers guidance to accentuate process conveniences and personalization amidst persistent consumer safety priorities. Though initial trust development proves less integral, shoring system transparency and service responsiveness remains pertinent. As a singular investigation, exploring comparative intention influencing and inhibitors across countries presents a logical research extension. Overall, the work spotlights diagnostic adoption factors to help transition cashless payment from a temporary surge to enduring normalcy.

The finding of all hypothesis tests in this research is able to narrow research gap in conceptualizing the increase of Continuance Intention to Use FRP done by consumers at supermarkets and malls in China especially in Beijing, Shanghai, Xiamen and other cities. Although Effort Expectancy and Performance Expectancy as independent variables as well as Personal Innovativeness as mediation variable directly influence on Continuance Intention to Use FRP, by indirect test through Initial AI Trust as mediation variable does not mediate the relation of Performance Expectancy and Continuance Intention to Use FRP. Thus, this. research is contradictory with previous researches that indicate the role of Initial AI Trust mediates the influence of Performance Expectancy and Continuance Intention to Use FRP which means different, because this research time was started in new normal era, that was, in December 2023 while Covid-19 pandemic has not ended yet but started emerging again. In this normal era which is still related to Covid-19 pandemic that has not ended yet, the result of this research gives hint that consumers' Continuance Intention to Use FRP method not only as facilitating the consumers prevent keeping in touch with infectious consumers while doing payment but also getting dependable performance that can facilitate the consumers achieve faster and little costly service. It also

indicates that the influence of Effort Performance towards consumers' Continuance Intention to Use FRP brings positive significance to promote good benefits of FRP method in which strengthen previous literature.

The research has some major limitations such as dependence only on China country included Beijing, Shanghai, Xiamen cities as the research context and the non-probability of purposive sampling technique with quantitative research of explanatory type used to collect data questionnaire surveys. Further research is to compare intention and driver relationship between additional regions/countries to assess generalizability and to verify the result as well as the number of respondents can be added into a large number. In addition, future research should also analyze different variables in research model in order to enhance the predictive power and explanation of research model. However, this research should discuss about the moderator influence, and also can analyze with qualitative research method as well as compare and contrast this analysis with other Asean countries. Hence, by including positive and negative key drivers as well as some essential attributes simultaneously, the mall and supermarket owners can formulate marketing strategies to encourage the consumers to use FRP more effectively and sustainably. The FRP service provider needs to emphasize more on the key drivers that affect positive significant towards consumers' Continuance Intention to Use FRP, and at the same time also needs to improve the FRP such as its quality in order to maintain the consumers' Continuance Intention to Use FRP method, increase consumers' acquisition, and attract more merchants to use this FRP service.

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