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1. INTRODUCTION AND OBJECTIVES

1.1. Research background and problem statement

As a result of the global financial crisis, financial inclusion has received great attention from researchers and policymakers. An extensive literature reveals that financial inclusion benefits individuals, businesses, and nations. Access to finance allows the household to manage their consumption and invest in their futures through education and health. For the corporation, financial accessibility enables them to raise capital to expand the business, resulting in job creation and reducing inequality. At the country level, financial inclusion acts as a bridge in reducing poverty and promoting prosperity.

Even though efforts to improve financial inclusion have increased globally, there are still 1.4 billion young people without access to financial services (GLOBAL FINANCIAL INDEX, 2022). Internal and external factors can cause barriers to formal financial access. Internal barriers to financial inclusion include higher financial illiteracy, lack of valid identification documents, and limited knowledge of financial products. Meanwhile, external factors considered as constraints include relatively high fees and collateral requirements, including the high-interest rate of financial products and services, which are the leading causes of financial exclusion.

Financial exclusion has many negative consequences, including limiting possibilities to improve individual welfare, substantially increasing transaction costs, and disrupting family financial life, limiting individual growth, slowing poverty alleviation, and decreasing economic growth. In contrast, despite the presence of financial technology (Fintech) has been proven to accelerate financial inclusion, its success is highly dependent on the readiness of each country to adopt technology-based financial products. Indonesia and Hungary are developing and developed economies with growing populations of smartphone and internet users, but relatively low financial inclusion compared to ASEAN and European countries.

Therefore, this study attempts to analyze the driver and barrier factors of Fintech adoption in Indonesia and Hungary in relation to promoting the acceleration of financial inclusion in both countries. The Covid-19 pandemic and its impact on Fintech adoption is evaluated to provide additional literature, particularly on middle income and high income countries. This research also assesses the mediation effects of financial literacy between behavioral intention and use behavior. Financial literacy in this study refers to financial knowledge, financial behavior, and financial attitude (OECD, 2016). The moderating effect of facilitating conditions and price value in Indonesia as a developing country, and Hungary with a price-sensitive population is analyzed in relation to use behavior and continuance intention. Finally, from a multigroup and cross country analysis, this study examines whether there is a difference in the influence of respondents who are Fintech user versus non-user by combining respondents in both countries, and evaluates whether the relationship between

use behavior toward continuance intention and financial inclusion differs between Indonesia and Hungary.

1.2. Objectives and hypotheses

This study first examines the driver and barrier factors of Fintech adoption in Indonesia and Hungary. The second objective is to evaluate the impact of the perceived Covid-19 risk on adopting Fintech services in both countries. Third, this research analyzes the effect of behavioral intention to use behavior mediated by financial knowledge, financial behavior, and financial attitude. Fourth, moderation role of facilitating conditions and price value between use behavior and continuance intention is evaluated. Lastly, multigroup analysis is conducted to investigate whether there are differences in Fintech user versus non-user and Indonesia versus Hungary in relation to the influence of use behavior toward continuance intention and financial inclusion.

The main objective is divided into the following sub-objectives:

- To test the impact of Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) dimensions on Fintech adoption in Indonesia and Hungary.
- To investigate barrier factors through Innovation Resistance Theory (IRT) in adopting Fintech in Indonesia and Hungary.
- To analyze the influence of perceived Covid-19 risk on Fintech adoption in Indonesia and Hungary.
- To examine the direct impact of use behavior on continuance intention and financial inclusion in Indonesia and Hungary.
- To evaluate the impact of financial literacy as a mediating variable between behavioral intention and use behavior toward Fintech services in Indonesia and Hungary.
- To investigate the moderating role of facilitating conditions and price value in relation to the influence of use behavior and continuance intention.
- To assess whether Fintech user versus non-user and Indonesia versus Hungary differ in regard to the effect of use behavior toward continuance intention and financial inclusion.

This study formulates 10 hypotheses with several sub-hypotheses to answer research questions. Hypotheses 1a to 1g are designed to answer questions related to Fintech drivers which refer to the UTAUT2 model by involving various variables such as performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. Hypotheses 2a to 2d focus on the barrier factors for Fintech adoption by integrating several variables such as value barrier, risk barrier, tradition barrier, and image barrier. The variables associated with barriers to Fintech adoption were developed from the innovation resistance theory. The combination of driver and barrier factors for Fintech adoption is expected to provide a

comprehensive picture that can be utilized to make policies to promote the use of Fintech to improve financial inclusion.

Hypothesis 3 focuses on examining the impact of perceived Covid-19 risk on the adoption of Fintech services. Hypothesis 4 evaluates the impact of behavioral intention on use behavior, while hypothesis 5 examines the influence of Fintech use behavior toward continuance intention. Hypothesis 6 performs empirical tests regarding the effect of use behavior toward Fintech on financial inclusion in Indonesia and Hungary. Hypotheses 7a,b,c are developed with the objective of analyzing the role of financial literacy consisting of financial knowledge, financial behavior and financial attitude, as mediating variables between behavioral intention and use behavior toward Fintech services. Hypotheses 8a and b assess the moderating role of facilitating conditions and price value in relation to the influence of use behavior and continuance intention. Hypothesis 9 and hypothesis 10 explore whether there is a difference between Fintech user versus non-user and Indonesia versus Hungary in regard to the effect of use behavior toward continuance intention and financial inclusion.

1.2.1 Direct effect of UTAUT2 on behavioral intention

Technology adoption can be traced back to the TAM introduced by DAVIS (1989). The TAM analyzes the relationship between perceived usefulness and perceived ease of use and an individual's intention to adopt new technology. With its origins in the early 1990s, TAM has successfully become a leading theory and used by most literature for explaining technology adoption. However, this theory is considered to only focus on individual aspects so that it is not sufficient enough to capture other aspects more broadly towards technology adoption.

As a result, the UTAUT is a technology adoption theory developed from eight theories, including reason action theory, TAM, theory of motivation model, planned behavior theory, a combination of TAM and planned behavior theories, models of personal computer utilization, theory of innovation diffusion, and social cognitive theory. The UTAUT model is often applied to organizational and non-organizational settings. Empirical testing of the UTAUT model using performance expectancy, effort expectancy, social influence, and facilitating conditions indicates an increase in variance in the adoption of new technology. Then, VENKATESH ET AL. (2012) extended a technology adoption model by adding three new variables: hedonic motivation, price value, and habit, known as UTAUT2. The empirical results of UTAUT2 indicated that this model explained 74 percent of the variance in behavioral intentions, compared to 56% for UTAUT. Based on the empirical study above, the following hypotheses are:

Hypothesis 1a: Performance expectancy positively impacts behavioral intention
Hypothesis 1b: Effort expectancy has a positive impact on behavioral intention
Hypothesis 1c: Social influence positively impacts behavioral intention

Hypothesis 1d: Facilitating conditions has a positive impact on behavioral intention
Hypothesis 1e: Hedonic motivation positively impacts behavioral intention
Hypothesis 1f: Price value has a positive impact on behavioral intention
Hypothesis 1g: Habit has a positive impact on behavioral intention

1.2.2 Direct effect of IRT on behavioral intention

The innovation resistance theory is often considered as one of the most important references for examining the factors that impede the adoption of new technologies. RAM & SHETH (1989) developed the theory by evaluating the factors of user resistance to innovation with two main categories, namely functional barriers and psychological barriers. Currently, innovation resistance theory has been widely applied to examine the barrier factor to technology with four main variables, including value barrier, risk barrier, tradition barrier, and image barrier. The following hypotheses are offered based on previous research as follows:
Hypothesis 2a: Value barrier negatively impacts behavioral intention
Hypothesis 2b: Risk barrier has a negative impact on behavioral intention
Hypothesis 2c: Tradition barrier negatively impacts behavioral intention
Hypothesis 2d: Image barrier negatively impacts behavioral intention

1.2.3 Direct effect of perceived Covid-19 risk on behavioral intention

The Covid-19 pandemic has changed people's behavior in social interactions and payments. The spread of the virus creates the perception of health risks, including through the transmission of physical transactions that may be attached to paper or coin money. Technology proliferation and advancement in smartphones as well as government support in providing soft and hard infrastructure have encouraged an increase in cashless transactions through Fintech services, thus reducing the potential for transmitting coronavirus disease, and having an impact on accelerating Fintech adoption. The research hypothesis is:
Hypothesis 3: Perceived Covid-19 risk positively impacts behavioral intention

1.2.4 Direct effect of behavioral intention on use behavior

The correlation between behavioral intention and use behavior can be derived from Theory of Reasoned Action (TRA) as a form of manifestation to understand individuals' intentions drivers and encourage an action from that intention. VENKATESH ET AL. (2003) described that about 70 percent of the variance in consumer intention is correlated to about 50 percent in technology use, which shows that there is a difference between behavioral intention and use behavior. In general, the prior studies documented that there is a strong relationship between behavioral intention and actual behavior (VENKATESH

ET AL. 2012). Based on the previous literature, the hypothesis of this research is:
Hypothesis 4: Behavioral intention has a positive impact on use

1.2.5 Direct effect of use behavior on continuance intention

The continuance intention refers to willingness to keep using a certain technology or service. In this study, continuance intention is measured using individual perceptions regarding the willingness to continue utilizing Fintech services compared to alternative products in the future. Previous study conducted by AMOROSO & LIM (2017) revealed that in the absence of significant changes offered by alternative services, individuals tend to continue using the same product or service. Therefore, the hypothesis is:
Hypothesis 5: Use behavior positively impacts continuance intention

1.2.6 Direct effect of use behavior on financial inclusion

Financial inclusion refers to the ability to obtain and utilize a range of financial products and services to meet individual needs. Optimization of technology to the frontier of access to financial services is supported by various factors such as speed, convenience, and relatively cheaper costs than traditional financial products. Fintech services are transforming the financial industry in a way that can prove to be a bridge to facilitate the growth of financial inclusion for individuals, especially for those who have no access to formal or semi-formal financial services. Based on the explanation above, the research hypothesis is:
Hypothesis 6: Use behavior positively impacts financial inclusion

1.2.7 Mediating effect of financial literacy on behavioral intention and use behavior

The concept of financial literacy is related to an individual's understanding of basic financial knowledge and principles. The literacy of financial products and services contributes to a high awareness of adopting digital financial services. This awareness is perceived that individuals with a high level of financial literacy have the readiness to understand the potential benefits and risks inherent in digital financial products and services, thereby assisting in the decision-making process of using Fintech. In the context of this study, the financial literacy classification refers to the Organization for Economic Co-operation and Development (OECD) in 2016, covering financial knowledge, financial behavior, and financial attitude, as mediating variables between behavioral intention and use behavior toward Fintech services. Based on the prior description, the following hypothesis is:
Hypothesis 7a: Financial knowledge (positively mediates) the impact of behavioral intention on use behavior

Hypothesis 7b: Financial behavior (positively mediates) the impact of behavioral intention on use behavior
Hypothesis 7c: Financial attitude (positively mediates) the impact of behavioral intention on use behavior

1.2.8 Moderating effect of facilitating conditions and price value on continuance intention

Inclusive digital infrastructure and affordable access fees enable to encourage the continuance intention toward Fintech services. With reliable internet connectivity and wide coverage, everyone can access digital financial services. Facilitating conditions, both in terms of soft infrastructure, such as educating people on digital financial literacy, and hard infrastructure, such as a wide and fast internet network, contribute to the continuance intention to use digital financial services. HUMIDA ET AL. (2022) studied the role of facilitating conditions in Bangladesh revealed that facilitating conditions have a significant moderating effect on behavioral intention. Furthermore, affordable cost to access digital financial products plays a pivotal role in bolstering the continuance intention toward Fintech services. Therefore, the following hypotheses are:
Hypothesis 8a: Facilitating conditions (positively moderates) the impact of use behavior on continuance intention
Hypothesis 8b: Price value (positively moderates) the impact of use behavior on continuance intention

1.2.9 Multigroup analysis: Fintech user versus non-user

Fintech user and non-user may perceive the impact of using digital financial services differently on the continuance intention and financial inclusion. When people have used Fintech and experienced its benefits, they tend to consider this experience when making a decision whether to keep using it. Those who feel satisfied and have a positive perception of Fintech tend to continue using digital financial services. On the other hand, respondents who do not have experience using digital financial services are more likely to rely on social influences to continue using Fintech. Since they may not have direct experience with Fintech, they rely more on recommendations and experiences from others. The hypotheses are as follows:
Hypothesis 9a: Use behavior positively influences continuance intention in both Fintech user and non-user
Hypothesis 9b: Use behavior positively influences financial inclusion in both Fintech user and non-user

1.2.10 Multigroup analysis: Indonesia versus Hungary

Despite the benefits Fintech services offer, respondents from different social and economic backgrounds tend to differ in their perceptions regarding

digital financial services (MIGLIORE ET AL. 2022). Compared to Hungary, Indonesia has a younger population and a different culture. In the context of financial literacy, although Indonesia being classified as a middle income country and Hungary as a high income economy, Indonesia was shown to have a higher level of financial literacy with a score of 63.5 in terms of financial knowledge, financial behavior, and financial attitude than Hungary at a score of 58.8 (OECD, 2020). As a result of different social and economic circumstances, Indonesian and Hungarian respondents probably perceive the relationship between use behavior toward continuance intention and financial inclusion differently. In addition, a study on differences in influence between developing and developed countries regarding digital financial services completes the scientific gap observed by MIGLIORE ET AL. (2022). Therefore, the author postulates the last hypotheses:

Hypothesis 10a: Use behavior positively impacts continuance intention in both Indonesia and Hungary

Hypothesis 10b: Use behavior positively impacts financial inclusion in both Indonesia and Hungary

2. MATERIAL AND METHOD

2.1. Research design

Research design is the set of techniques used in qualitative, quantitative, and mixed methodologies research, along with the procedures in a research study. This study will apply quantitative methods by collecting primary data through a self-administrated questionnaire distributed to respondents in Indonesia and Hungary. CRANO ET AL. (2014) classified research design into two categories: experimental and non-experimental studies. While conducting experimental study, researchers are frequently actively and methodically involved, giving close attention to the research process and results. Non-experimental studies, on the other hand, allow the researcher to act as a passive observer. This research is classified as non-experimental because the researcher does not control the respondents who will be used as samples in collecting research data.

2.2 Research strategy

Research strategy plays a pivotal role in the success of the research process. This research will be conducted with a survey research strategy using a questionnaire. Survey research is defined as the process of gathering information obtained from individual samples by collecting responses to questions using various instrument methods. DILLMAN ET AL. (2014) stated that collecting research data through survey is useful because it can reflect factual information, data on preferences and attitudes, opinions, and behaviors in the past and present. In this study, data will be collected through online questionnaires distributed to target respondents who will answer questions regarding driver and barrier factors to Fintech adoption.

2.3 Data collection

The main methods of collecting research data consist of observation and distributing questionnaires. Observation is conducted to collect relevant and up-to-date data related to the research topic such as internet penetration and smartphone users in Indonesia and Hungary, while a questionnaire is utilized to obtain primary data to answer research hypotheses. Data collection through questionnaires was conducted in three stages. First, a pilot survey by conducting interviews with respondents provides a link to the questionnaire, which was filled out online via mobile phones or other electronic devices. Second, the questionnaire that has been corrected at the pilot survey stage will be distributed to potential respondents in Indonesia and Hungary to achieve the target sample required in the study. Lastly, the researcher will compare the research finding with the previous studies to fill theoretical and empirical gap after quantitative data analysis.

2.4 Questionnaire design

The research questionnaire design is divided into several parts, including demographic respondents, UTAUT2 and IRT dimensions, perceived Covid-19 risk, financial literacy, behavioral intention, use behavior, continuance intention and financial inclusion. In detail, the demographic section consists of seven items, namely age, gender, last education, marital status, current employment, monthly income, and residence location.

Section two covers the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) dimension and was adopted from VENKATESH ET AL. (2012), behavior intention from KIM & HAN (2010), use behavior and continuance intention toward Fintech services derived from BONGOMIN ET AL. (2018) and HUANG & LEE (2022). The UTAUT2 dimension consists of performance expectancy (4 items), effort expectancy (4 items), social influence (3 items), facilitating conditions (4 items), hedonic motivation (3 items), price value (3 items), habit (3 items), behavior intention (3 items), use behavior (3 items) and continuance intention (4 items).

The third section adopts the Innovation Resistance Theory (IRT) and it was derived from MIGLIORE ET AL. (2022), which is divided into four sub-sections: value barrier (3 items), risk barrier (3 items), tradition barrier (3 items), and image barrier (3 items). The next dimension to be examined is perceived Covid-19 risk which was adopted from AJI ET AL. (2020), consisting of 4 items. The following section is financial literacy as mediating variable, which consists of three sub-sections, namely financial knowledge (3 items) which refereed from LUSARDI, (2019), while financial behavior (3 items) and financial attitude (3 items) were adopted from OECD (2016). The last section is financial inclusion consists of 5 items and were derived from BONGOMIN ET AL. (2018).

2.5 Content validity

To ensure that all indicators are appropriate for measuring research variables, this study refers to previous relevant literature and interviews with academics, Fintech users, and Fintech business professionals in Indonesia and Hungary. Content validity was conducted with the aim of simplifying the questionnaire items to ensure clarity and easily understood by respondents in the nature of Fintech user in both countries.

2.6 Questionnaire scale

Most of the questionnaires are constructed based on a Likert scale of 1 to 5 to measure all research items, from strongly disagree (1) to strongly agree (5), except for financial knowledge which measures on a scale from one to five, where 1 is lowest and 5 is highest. The questionnaire was adapted from several literatures, and some items have been revised based on suggestions from academics and professionals in the Fintech industry.

2.7 Conceptual model

This study examines the driver and barrier factors in adopting digital financial services in Indonesia and Hungary, including their impact on financial inclusion. The financial industry has undergone a disruptive shift due to improvements in information and communication technologies (ICT). The growing popularity of smartphones and the advancement of technology have accelerated the development of a new payment business. The evolution offered by Fintech facilitates the efficiency and convenience of financial transactions from anywhere and almost real time, which is relevant to the needs of modern society. In addition, Fintech could be a game-changer in offering financial products to the previously unreached and underserved population by traditional banking. Many people face challenges finding regulated financing to prevent them from reaching a broad range of financial services. Consequently, approximately 1.4 billion people worldwide cannot access formal financial services (GLOBAL FINANCIAL INDEX, 2022).

Despite the fact that analyzing both the drivers and barriers to digital financial services adoption can provide comprehensive insight into the topic, most existing literature focused primarily on Fintech adoption from the drivers' perspective. This study therefore aims to contribute to the existing literature by evaluating the barriers and drivers of Fintech adoption, which is currently still receiving less attention in the prior literature. This research applies to the united theory of acceptance and use of technology 2 (UTAUT2) to investigate the drivers of Fintech adoption. In contrast, innovation resistance theory (IRT) is used to measure the barriers factor to adopt digital finance in Indonesia and Hungary. A recent study by CHEN ET AL. (2022) revealed that IRT has a negative impact on technology adoption. This study also examines the mediation effect of financial literacy between behavioral intention and use behavior. Mediating variable of facilitating conditions and price value in relation to use behavior and continuance intention is also evaluated. Finally, this research assesses the impact of use behavior on financial inclusion in Indonesia and Hungary, including analyzing whether there are differences between Fintech user versus non-user and Indonesian versus Hungarian respondents regarding the relationship between use behavior toward continuance intention and financial inclusion. As a result, this study develops the conceptual framework in Figure 1 to guide the research.

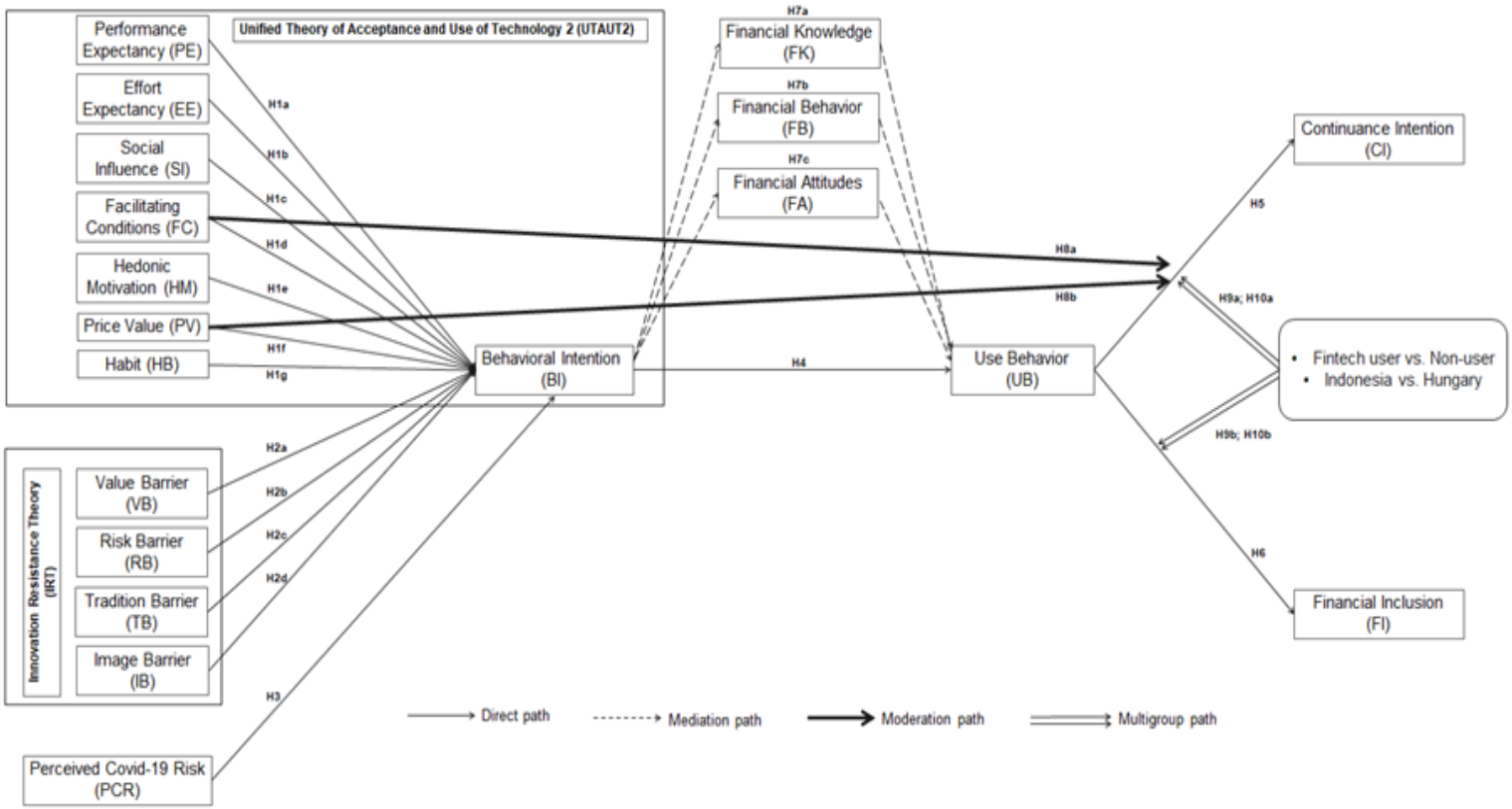

Figure 1. SEM conceptual model
Source: Author's own construction

2.8 Population and sample

The population of this study is individual citizens of Indonesia and Hungary who are familiar with Fintech products, both as user and non-user of Fintech services. The overall number of Fintech user and non-user in both countries is unknown, so the sample size can be determined using the 10-times rules technique with the assumption that the sample size should be more than 10 times the maximum number of latent variable links in the model (KOCK & HADAYA, 2018). This study employs purposive and judgment sampling methods to collect the data. Purposive sampling is an approach that involves identifying and selecting individuals and groups of individuals who are especially familiar with or experienced with a phenomenon. Furthermore, judgment is used to ensure familiarity and prior experience of using Fintech. This study utilizes social media for data collection, however only people with prior experience using Fintech were screened to be qualified to participate in the study. Additionally, quota sampling technique is also applied in order to get representative samples from both users and non-users, as well as Hungarian and Indonesian respondents. The data collected were 461 Indonesian respondents and 320 respondents from Hungary between 25 March 2023 and 9 June 2023. After eliminating respondents who respond to all questions with one pattern, for example all items are answered with a strongly agree (5) or neutral (3), or only strongly disagree (1), the definitive sample comprised 456 in Indonesia and 319 from Hungary for further analysis. Furthermore, as the study collects data from the same source and in close time, there is a possibility of common method bias (CMB), which can affect the research consistency. To identify the CMB, Harman's Single Factor is applied, with the criteria of a total variance over 50%.

2.9 Data analysis

This study applies quantitative research supported by Partial Least Squares Structural Equation Modeling (PLS-SEM) version 3 for data analysis. The PLS-SEM based approach was used to test the research hypotheses. This study, which examines driver and barrier factors toward Fintech adoption, with the extension of multiple variables such as perceived Covid-19 risk, financial literacy, use behavior, continuance intention and financial inclusion, which is more than three constructs and considered as complex research, relevant using PLS-SEM analysis (HAIR ET AL. 2019).

The all constructs and indicators have been adapted to the context of the study and then evaluated for the measurement model using the confirmatory composite analysis (CCA) method including convergent validity, reliability, and discriminant validity (HAIR ET AL. 2019). Convergent validity is measured by the factor loading and average variance extracted (AVE) with the criteria of both indicators should be higher than 0.5 (HAIR ET AL. 2019). Composite reliability and Cronbach's alpha are applied to measure the reliability test. HAIR ET AL.

(2019) explained that composite reliability should be higher than 0.60 and Cronbach's alpha must be greater than 0.70 for adequate reliability score. Furthermore, the Fornell-Larcker criterion and heterotrait-monotrait ratio of correlations (HTMT) is applied to assess discriminant validity with the criteria that each AVE construct should have a square root that exceeds the highest correlation of any other construct for Fornell-Larcker analysis (HAIR ET AL. 2019), and for the HTMT, correlations between pairs of constructs should not exceed 0.90 (HENSELER ET AL. 2015). The model fit is examined using Standardized Root Mean Square of Residual (SRMR) with the criteria of SRMR value lower than 0.08 is acceptable and has a good fit model (HAIR ET AL. 2019). Then, the assessment of the structural model is conducted with a collinearity test to detect multicollinearity issues and continue to determine whether there is a correlation among measured variables, including coefficient of determination (R^2) effect size (f^2), and predictive model (Q^2).

This study also performs an indirect path through mediation and moderation variables. In this study, financial literacy includes financial knowledge, financial behavior and financial attitude, as mediating variable between behavioral intention and use behavior, with the assessment criteria using mediation decision tree (HAIR ET AL. 2021). The moderation effects of facilitating conditions and price value are examined to determine the strength and weakness of the relationship between use behavior and continuance intention.

Finally, regarding to the multigroup analysis on Fintech user versus non user and Indonesia and Hungary in relation to use behavior toward continuance intention and financial inclusion, this study applies Partial Least Squares Multigroup Analysis (PLS-MGA) using 5.000 bootstrapping sub-samples with significant level criteria of differences in group-specific path coefficients should have a p-value of less than 0.05 or greater than 0.95. The study combines data from both countries to examine Fintech user and non-user, and it counts 232 Fintech non-user (code 0) and 543 Fintech user (code 1). For the cross country analysis, the PLS-MGA assessed whether there was a difference in use behavior toward continuance intention and financial inclusion for both countries from 456 Indonesian respondents (code 0) and 319 Hungarian respondents (code 1). According to CHEAH ET AL. (2020), minimum number of samples per group is 64 therefore the number of samples in this study is sufficient for PLS-MGA analysis. Finally, the research flow chart starting from finding gaps in the literature, developing questionnaire items, collecting and analyzing data to selecting statistical tools to answer hypotheses can be seen in Figure 2.

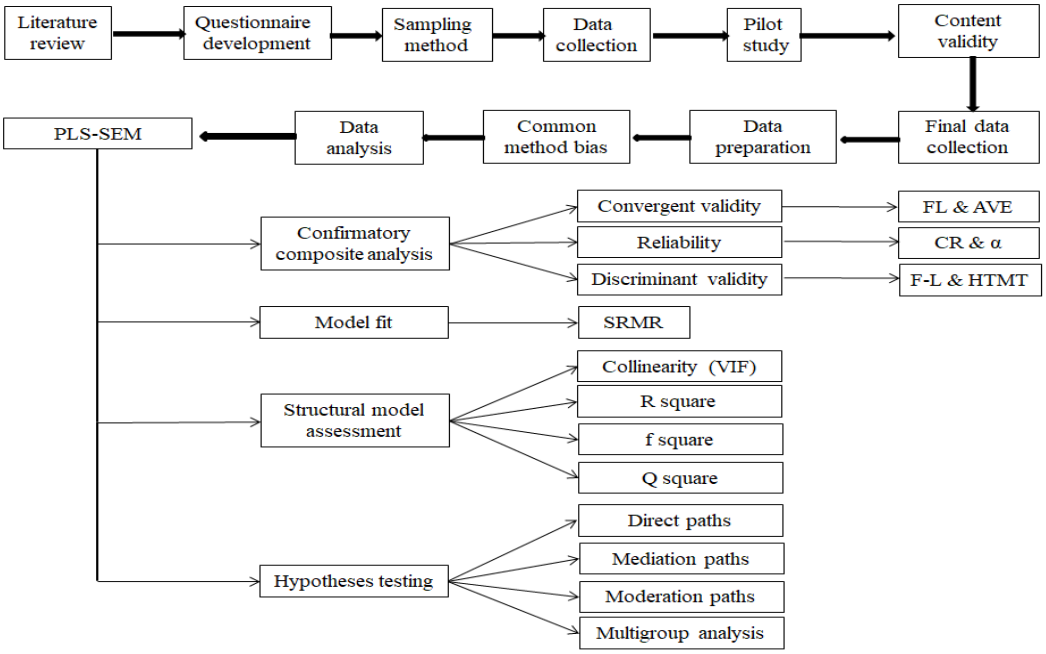

Figure 2. Research flow chart
Source: Author's own construction

3. RESULTS AND DISCUSSION

3.1 Descriptive analysis of respondents in Indonesia and Hungary

Respondents to this study varied in terms of age, gender, education, income, marital and employment status which are displayed in Table 1.

Table 1. The demographic profile of respondents

Category	Criteria	Indonesia (n=456)		Hungary (n=319)	
		F	%	F	%
Age	18 - 22 years	213	46.71	125	39.18
	23 - 38 years	186	40.79	153	47.96
	39 - 54 years	57	12.50	34	10.66
	55 - 65 years	0	0	2	0.63
	Above 65 years	0	0	5	1.57
Gender	Male	185	40.57	121	37.93
	Female	266	58.33	195	61.13
	Prefer not to say	5	1.10	3	0.94
Education	Secondary/ Higher secondary school or below	85	18.64	163	51.10
	Undergraduate/ Bachelor / Diploma	264	57.89	76	23.82
	Postgraduate/ Master	73	16.01	58	18.18
	PhD/ Doctoral	34	7.46	22	6.90
Marital status	Single	271	59.43	168	52.66
	Married	176	38.60	52	16.30
	Widowed / Divorced	9	1.97	8	2.51
	Cohabiting	0	0	91	28.53
Employment status	Student	235	51.54	193	60.50
	Entrepreneur	25	5.48	12	3.76
	Employed	175	38.38	109	34.17
	Unemployed	21	4.61	5	1.57
Monthly income	< HUF 35.000	200	43.86	64	20.06
	> HUF 35.000 - HUF 130.000	104	22.81	62	19.44
	> HUF 130.000 - HUF 400.000	113	24.78	126	39.50
	> HUF 400.000 - HUF 500.000	11	2.41	30	9.40

	> HUF 500.000 - HUF 700.000	9	1.97	17	5.33
	> HUF 700.000	19	4.17	20	6.27

Note: Monthly income for Hungarian respondents converted from Indonesian rupiah (IDR) to Hungarian forint (HUF); F = Frequency.

Source: Author's own work based on respondents' survey

Table 1 presents the socio economic information of Indonesian and Hungarian respondents. The largest group of respondents for Indonesia is the 18-22 year old with just over 46 percent while Hungary has 47 percent of respondents range from 23 to 38 years old. A demographic profile of digital financial service users in Indonesia and Hungary indicates that more than 80 percent are between 18 and 38 years old, constituting a tech-savvy generation made up of Generation Z (18-22 years) and Millennials from 23 to 38 years old. With more than 50% participation rate, women and students represented the majority of respondents in this study. Most of respondents hold an undergraduate degree (57.8% for Indonesian respondents, and a secondary or higher secondary school education or less (51.1%) for Hungarian respondents. The second largest groups of Indonesian respondents belong to the category of secondary high school with 18.1%, and in Hungary, undergraduate students account for 23.8%. Respondents with a master's degree contributed 16% to Indonesia and 18.1% to Hungary. While respondents with a doctoral classification were the least in number, the percentages of Indonesia and Hungary being 7.4% and 6.9%, respectively.

Regarding marital status, the majority of respondents in both countries are single, with 59.4% in Indonesia and 52.6% in Hungary. In Indonesia, married respondents constitute 38.6%, more than double of Hungarian respondents which comprise 16.3%. Respondents with widowed or divorced status are relatively low at 1.9% in Indonesia and 2.5% in Hungary. Respondents with cohabitation classification are the second highest in Hungary with 28.5% compared to zero participation in Indonesia. The classification of respondents according to their type of employment is including student, entrepreneur, employed and unemployed. Indonesia and Hungary had the highest proportion of respondents with student status, accounting for 51.5% and 60.5%, respectively. It was followed by employment in the range between 34% and 38% in both countries. Both countries have relatively low rates of respondents with entrepreneur and unemployed status, below 5%. In regards to monthly income, most Indonesian respondents earn less than HUF 35.000 a month, classified as low-income population, while a majority of Hungarian respondents have a monthly income between HUF 130.000 and HUF 400.000.

3.2 Common method bias (CMB)

Before conducting statistical analysis, CMB was performed on 456 Indonesian and 319 Hungarian samples after data cleaning. The term common method bias refers to a potential bias resulting from multiple variables being measured using the same measurement method. In this study, CMB was assessed using Harman Single Factor with the support of IBM SPSS software version 23. The finding revealed that all factors account for below 50%, which 34.56% for Indonesia and 27.26% for Hungary to the total variance, indicating that there was no CMB issue in this study.

3.3 Measurement model evaluation

The measurement model in this study was evaluated using the confirmatory composite analysis method. HAIR ET AL. (2019) recommended factor loading and AVE should be higher than 0.5 for each item to meet the criteria of convergent validity. For Indonesian respondents, almost all factors loading was above 0.50, except for TB2 (0.031) and IB3 (-0.177). Using the same criteria, all indicator items in the sample in Hungary had factor loading above 0.5, except for TB2 (-0.081) and IB3 (0.472), which was excluded from the analysis because the factor loading was below the threshold limit. In addition, the AVE of all constructs in Indonesia and Hungary exceed 0.50 indicating convergent validity is fulfilled.

HAIR ET AL. (2019) explained that reliability obtained when composite reliability is higher than 0.60 and Cronbach's alpha exceeds 0.70. In this study, all composite reliability values exceeded 0.60 and Cronbach's alpha is greater than 0.70, indicating that the constructs are reliable for further analysis. Furthermore, variance inflation factor (VIF) was performed to check collinearity. HAIR ET AL. (2019) suggested the value in the VIF should not exceed 5 indicates no collinearity issue in the construct. Even though most VIF values in this study are below 5, several indicators must be excluded from the analysis due to their VIF values above 5. There are several indicators in Indonesia with a VIF value greater than 5 including BI3 (5.544), EE2 (5.490), HM2 (5.159), PE3 (6.986), PE4 (5.888), PV2 (5.367) and UB2 (5.359). However, in Hungary, all VIF values below 5, except for CI1 (5.157), must be removed from the analysis. Table 2 presents the convergent validity, composite reliability, and collinearity. Several indicators were excluded because they did not meet the criteria of the confirmatory composite analysis method which are denoted by n/a (not applicable).

Table 2. Convergent validity, composite reliability, and collinearity

Items	Indonesia						Hungary					
	FL	**CR**	**α**	**AVE**	**CV**	**VIF**	**FL**	**CR**	**α**	**AVE**	**CV**	**VIF**
PE1	0.965	0.960	0.917	0.923	Yes	3.533	0.897	0.952	0.933	0.833	Yes	3.142
PE2	0.956					3.533	0.927					4.050
PE3	n/a					n/a	0.919					3.875
PE4	n/a					n/a	0.908					3.541
EE1	0.937	0.961	0.939	0.891	Yes	3.742	0.913	0.957	0.939	0.846	Yes	3.523
EE2	n/a					n/a	0.923					3.867
EE3	0.945					4.371	0.920					3.728
EE4	0.949					4.703	0.924					4.023
SI1	0.929	0.950	0.921	0.863	Yes	3.256	0.921	0.946	0.914	0.853	Yes	3.147
SI2	0.943					4.210	0.918					2.946
SI3	0.915					3.173	0.933					3.540
FC1	0.905	0.940	0.914	0.796	Yes	3.476	0.866	0.900	0.851	0.695	Yes	2.403
FC2	0.907					3.448	0.880					2.477
FC3	0.930					4.029	0.888					2.544
FC4	0.822					1.982	0.686					1.432
HM1	0.952	0.948	0.890	0.901	Yes	2.807	0.940	0.942	0.908	0.844	Yes	3.646
HM2	n/a					n/a	0.917					2.916
HM3	0.946					2.807	0.898					2.768
PV1	0.943	0.946	0.886	0.898	Yes	2.730	0.870	0.906	0.844	0.762	Yes	2.040
PV2	n/a					n/a	0.863					1.857
PV3	0.952					2.730	0.886					2.313
HB1	0.870	0.916	0.864	0.784	Yes	1.749	0.879	0.855	0.764	0.664	Yes	1.444
HB2	0.894					2.961	0.716					1.597
HB3	0.892					2.927	0.840					1.909
VB1	0.987	0.850	0.862	0.661	Yes	1.868	0.859	0.904	0.846	0.759	Yes	1.785
VB2	0.660					2.491	0.836					2.227
VB3	0.757					2.622	0.916					2.333
RB1	0.903	0.939	0.903	0.837	Yes	2.630	0.925	0.873	0.818	0.700	Yes	1.752
RB2	0.931					3.636	0.877					2.153
RB3	0.910					2.825	0.689					1.754
TB1	0.986	0.744	0.783	0.615	Yes	1.704	0.813	0.883	0.766	0.792	Yes	1.625
TB2	n/a					2.187	n/a					1.647
TB3	0.508					1.704	0.961					1.625
IB1	0.850	0.909	0.825	0.834	Yes	1.973	0.930	0.940	0.874	0.887	Yes	2.518
IB2	0.972					1.973	0.954					2.518
IB3	n/a					1.225	n/a					1.378

FK1	0.893	0.937	0.902	0.832	Yes	2.928	0.913	0.904	0.842	0.759	Yes	2.519
FK2	0.934					2.746	0.906					2.282
FK3	0.910					2.862	0.788					1.694
FB1	0.936	0.956	0.931	0.879	Yes	3.945	0.676	0.858	0.785	0.672	Yes	1.557
FB2	0.951					4.466	0.850					1.808
FB3	0.926					3.369	0.916					1.622
FA1	0.913	0.932	0.896	0.821	Yes	3.968	0.840	0.878	0.794	0.707	Yes	1.873
FA2	0.962					3.909	0.860					1.733
FA3	0.840					2.037	0.821					1.546
PCR1	0.887	0.943	0.909	0.846	Yes	2.532	0.804	0.879	0.810	0.708	Yes	2.367
PCR2	0.927					3.356	0.869					1.414
PCR3	0.944					3.918	0.850					2.478
BI1	0.956	0.954	0.905	0.913	Yes	3.142	0.926	0.949	0.920	0.862	Yes	3.244
BI2	0.955					n/a	0.929					3.403
BI3	n/a					3.142	0.930					3.380
UB1	0.935	0.934	0.859	0.877	Yes	2.312	0.891	0.928	0.883	0.811	Yes	2.242
UB2	n/a					n/a	0.924					3.124
UB3	0.938					2.312	0.886					2.534
CI1	0.941	0.959	0.943	0.853	Yes	4.960	n/a	0.949	0.920	0.862	Yes	n/a
CI2	0.912					3.537	0.925					3.093
CI3	0.937					4.792	0.939					3.826
CI4	0.905					3.256	0.922					3.347
FI1	0.779	0.922	0.894	0.703	Yes	1.839	0.817	0.927	0.902	0.718	Yes	2.107
FI2	0.780					1.991	0.835					2.572
FI3	0.871					2.715	0.851					2.730
FI4	0.869					2.841	0.861					2.750
FI5	0.887					3.024	0.872					2.859

Abbreviations: FL, factor loading; CR, composite reliability; α, cronbach's alpha; AVE, average variance extracted; CV, convergent validity; VIF, variance inflation factor, n/a, not applicable.
Source: Author's own work based on SmartPLS version 3

3.4 Coefficient of determination (R^2), effect size (f^2) and predictive model (Q^2)

HAIR ET AL. (2019) suggested that coefficient determination (R^2) should be interpreted in the research. In this study, the coefficient determination (R^2) is assessed to measure the predictive power of Fintech adoption in Indonesia and Hungary. HAIR ET AL. (2019) explained that the range of predictive power is from 0 means no relationship, to 1 indicates perfect relationship. In detail, HAIR ET AL. (2019) mentioned that the value of R^2 of 0.75 reveals substantial predictive power, while 0.50 and 0.25 are considered as moderate and weak predictive power. Table 3 displays the coefficient of

determination and size effect, reveals that moderate predictive power of Fintech adoption in Indonesia (R^2=0.518) and Hungary (R^2=0.568), indicating that the variable of UTAUT2, IRT and perceived Covid-19 risk explain 51.8% and 56.8% of the variation in the adoption of Fintech in Indonesia and Hungary, respectively.

This study reveals that behavioral intention explained 55.2% and 64% of use behavior variance in Indonesia and Hungary. It means that behavioral intention has moderate explanatory power for use behavior in both countries. Similarly, continuance intention, with a variance of 59.3% for Indonesia and 68.5% for Hungary, showed moderate predictive power. Meanwhile, the model accounts for 33.5% and 37.2% of the variance in financial inclusion, revealing that user behavior has weak predictive power for financial inclusion in Indonesia and Hungary. The effect size (f^2) of each predictor evaluated to determine the substantive effect on the endogenous construct when specific exogenous omitted. The f^2 value above 0.35 is having a large effect size, while 0.15 and 0.02 are medium and small. The value of f^2 below 0.02 indicates no effect size. Furthermore, all Q^2 values both for Indonesia and Hungary are above 0, indicating all endogenous constructs are adequate predictive relevance (HAIR ET AL. 2019).

Table 3. Coefficient determination (f^2), effect size (R^2) and predictive model (Q^2) summary

Path	Indonesia			Hungary		
	f^2	R^2	Q^2	f^2	R^2	Q^2
Performance Expectancy -> Behavioral Intention	0.007			0.100		
Effort Expectancy -> Behavioral Intention	0.001			0.003		
Social Influence -> Behavioral Intention	0.000			0.002		
Facilitating Conditions -> Behavioral Intention	0.012			0.004		
Hedonic Motivation -> Behavioral Intention	0.013			0.004		
Price Value -> Behavioral Intention	0.015			0.001		
Habit -> Behavioral Intention	0.020			0.198		
Value Barrier -> Behavioral Intention	0.001			0.005		
Risk Barrier -> Behavioral Intention	0.004			0.006		
Tradition Barrier -> Behavioral Intention	0.009			0.002		
Image Barrier -> Behavioral Intention	0.044			0.001		
Perceived Covid-19 Risk -> Behavioral Intention	0.062			0.100		
Behavioral Intention -> Use Behavior	0.717			1.780		
Use Behavior -> Continuance Intention	1.459			2.173		
Use Behavior -> Financial Inclusion	0.503			0.592		
Behavioral Intention		0.518	0.447		0.568	0.480

Use Behavior		0.552	0.488		0.640	0.509
Continuance Intention		0.593	0.503		0.685	0.585
Financial Inclusion		0.335	0.230		0.372	0.259

Source: Author's own work based on SmartPLS version 3

3.5 Direct effect of UTAUT2, IRT and perceived Covid-19 risk

The present study analyses the driver and barrier factors of Fintech adoption in Indonesia and Hungary. Based on a bootstrapping technique in SmartPLS version 3, the t-statistic of the proposed theoretical model shown in Figure 1 was evaluated for significance. The summary of direct hypotheses testing is displayed in Table 4.

Table 4. Direct hypotheses testing summary

Direct Paths		Indonesia			Hungary		
		Path Coefficient	**p-value**	**Decision**	**Path Coefficient**	**p-value**	**Decision**
H1a	Performance Expectancy -> Behavioral Intention	0.097	0.125	not supported	0.319	0.000	**supported**
H1b	Effort Expectancy -> Behavioral Intention	0.031	0.582	not supported	0.053	0.455	not supported
H1c	Social Influence -> Behavioral Intention	-0.018	0.725	not supported	0.039	0.430	not supported
H1d	Facilitating Conditions -> Behavioral Intention	0.132	0.022	**supported**	0.064	0.372	not supported
H1e	Hedonic Motivation -> Behavioral Intention	0.123	0.035	**supported**	-0.047	0.383	not supported
H1f	Price Value -> Behavioral Intention	0.150	0.041	**supported**	0.023	0.672	not supported
H1g	Habit -> Behavioral Intention	0.157	0.005	**supported**	0.406	0.000	**supported**
H2a	Value Barrier -> Behavioral Intention	0.024	0.644	not supported	-0.065	0.216	not supported
H2b	Risk Barrier -> Behavioral Intention	0.052	0.240	not supported	-0.061	0.266	not supported
H2c	Tradition Barrier -> Behavioral Intention	0.077	0.209	not supported	0.031	0.570	not supported
H2d	Image Barrier -> Behavioral Intention	-0.209	0.000	**supported**	-0.034	0.595	not supported
H3	Perceived Covid-19 Risk -> Behavioral Intention	0.194	0.000	**supported**	0.127	0.012	**supported**
H4	Behavioral Intention -> Use Behavior	0.689	0.000	**supported**	0.800	0.000	**supported**
H5	Use Behavior -> Continuance Intention	0.770	0.000	**supported**	0.828	0.000	**supported**
H6	Use Behavior -> Financial Inclusion	0.578	0.000	**supported**	0.610	0.000	**supported**

Source: Author's own work based on SmartPLS version 3

As shown in Table 4, hypothesis H1a proposed the positive relationship between performance expectancy and behavioral intention is significant only for Hungarian respondents. This indicates that consumer's perception of performance expectancy has been influenced by the perceived benefits associated with Fintech services, such as simplified payment processes, real-time transaction, cost efficiency and advanced function in digital finance apps. The performance expectancy of users towards adopting Fintech services has consistently been demonstrated to have a significant impact on behavioral intentions in previous studies.

Effort expectancy had no significant impact on behavioral intention in both countries. It implies that Fintech services are probably perceived as more complicated or time-consuming by respondents in Indonesia and Hungary. Further, when it comes to financial matters, users tend to stick to their usual routines and established patterns. It is understood that traditional financial services have been integrated into our lives for a long time, and some people may be reluctant to switch to a new Fintech platform because of the unknown benefits and risks. Due to this variation in individual perceptions, effort expectancy has a reduced impact on Fintech behavioral intentions.

The impact of social influence on Fintech adoption is insignificant in Indonesia and Hungary. Digital finance adoption may be affected by changes in modern society's behavior that are more individualistic. Fintech user may prioritize their own beliefs, values, and preferences over external influences. The presence of social influences from various sources allows the information received to be different or even contradictory, making it difficult for individuals to align their intentions with one particular influence

Moreover, the study found that facilitating conditions is a significant predictor of behavior intentions to adopt digital financial services only in Indonesia, emphasizing the role of resource availability, including Fintech applications that are compatible with multiple electronic devices. Indonesia, which is demographically dominated by the younger generation, in contrast to typical developed countries such as Hungary which are dominated by older individuals, tends to have a faster rate of technology adoption because young people are considered to be more tech-savvy generations.

The effect of hedonic motivation on behavioral intention was significant only in Indonesia, compared to insignificant in Hungary. Hedonic motivation refers to the level of pleasure, enjoyment, and positive experiences related to digital financial services that are identical to the characteristics of young respondents. Younger generation adopts technology that is fun and allows them to explore more advanced financial functions on digital financial platforms, such as financial robo-advisors.

Price value influences on intended to adopt Fintech reflect a significant relationship only for Indonesian respondents. Indonesia as a developing country has lower income per capita compared to Hungary. Therefore, Fintech users in

Indonesia are typically more prudent in making decisions, especially related to financial-based applications. In contrast to Hungary with higher income making price less influential on behavioral intention. Developed countries probably have more advanced Fintech products that lead to greater financial differentiation to meet the needs of customers beyond the price. Furthermore, high quality financial products expected by users in Hungary may associate with higher price compared to Indonesia with limited exposure to higher cost of financial services. This finding in line with previous studies revealed a significant effect of price value on Fintech adoption (VENKATESH ET AL. 2012. When it compares between developing and developed countries, MIGLIORE ET AL. (2022) found consistent results that price value has significant impact on behavioral intention in China and insignificant in Italy.

Habit was found to have a positive and significant impact on behavioral intention to adopt Fintech in both Indonesia and Hungary, which support the findings of NIKOLOPOULOU ET AL. (2021); MIGLIORE ET AL. (2022); SEBASTI´AN ET AL. (2023) but in contrast to the result of NAJIB ET AL. (2021). Furthermore, habit in particular, was the most influential variable in predicting Fintech adoption in both countries. The rapid development of digital financial services supported by technological advances and smartphone ownership directly and indirectly changes the behavior that is performed with little consciousness to embrace digital financial platforms. In addition, the convenience offered by digital financial services coupled with a user-friendly interface gives a positive perception to develop new habits toward Fintech services. In the context of Fintech adoption in cross country analysis, the finding is in line with MERHI ET AL. (2019) revealed that habit has a significant effect on behavioral intention for Lebanese and British respondents. In contrast to PLENDER ET AL. (2020) documented that habit has an insignificant effect on behavioral intention for respondents in the Philippines.

Furthermore, except for the image barrier in Indonesia, all barrier factors derived from innovation resistance theory have no significant impact on behavioral intention. Although the theory provides insight into the barrier factors for technology adoption in general, this study reveals the weak explanatory power of behavioral intentions in the context of digital finance in Indonesia and Hungary. This result is consistent with the findings of MIGLIORE ET AL. (2022) evaluated the innovation resistance theory on mobile payment adoption in China and Italy, as well as answering the future research of NATHAN ET AL. (2022); SETIAWAN ET AL (2023) to evaluate the driving and inhibiting factors of Fintech adoption in Indonesia, and MIGLIORE ET AL. (2022) to conduct a cross-country analysis in respect to different cultures and economic situations in both developing and developed countries.

The research also revealed that the perceived Covid-19 risk for behavioral intention to adopt Fintech services has a significant effect on

Indonesian and Hungarian respondents. This suggests that individual concerns regarding the risk of transmitting the Coronavirus lead to an increase in awareness to minimize direct transactions, especially in relation to the potential transmission of the virus through paper or coin money. This perception has driven individual behavior to adopt digital financial services.

The relationship between behavioral intention and use behavior was significant in Indonesia and Hungary, indicating intention will encourage using digital financial services. A possible explanation for this might be that the proliferation of digital infrastructure, such as increasing internet coverage and developing information, computers and technology allows for easier access to Fintech products. This finding is consistent with the planned behavior theory developed by AJZEN (2002) and several previous studies such as VENKATESH ET AL. (2003).

Use behavior was found to have significant impact on continuance intention in both countries. It seems that Fintech services offer a positive experience to their users, including ease of use, efficient performance, responsiveness, and effective solutions to their needs that might influence their intentions to continue using digital finance products in the future. Tangible benefits in terms of speed, convenience, or time and cost savings tend to encourage the continued use of digital finance services (VENKATESH ET AL. 2012).

Furthermore, the result showed that use behavior has a significant effect on financial inclusion in Indonesia and Hungary. Fintech platforms that can be accessed easily via smartphones or other electronic devices allow the underserved population to reach financial products more easily. Business model innovations that rely on big data also increase access to finance, especially for individuals who have limited collateral, which is sometimes a barrier to traditional financial services. The speed at which Fintech services perform transactions such as payments and remittances can increase the convenience and trust of customers, which, in turn, contributes to financial inclusion.

3.6 Mediating effect of financial literacy

This study examines whether financial literacy (financial knowledge, financial behavior, and financial attitude) facilitates the relationship between behavioral intention and use behavior toward Fintech in Indonesia and Hungary, as summarized in Table 5.

Table 5. Mediating effect of financial literacy

Mediation Paths		Indonesia						
		Path Coefficient	p-value	Confidence Intervals		Decision	upsilon (υ)	Effect size
				Lower limit	Upper limit			
H7a	Behavioral Intention -> Financial Knowledge -> Use Behavior	0.017	0.135	0.001	0.045	no mediation	0.00	no
H7b	Behavioral Intention -> Financial Behavior -> Use Behavior	0.283	0.000	0.210	0.362	**partial mediation**	0.08	**medium**
H7c	Behavioral Intention -> Financial Attitude -> Use Behavior	-0.010	0.247	-0.023	0.011	no mediation	0.00	no
Mediation Paths		**Hungary**						
		Path Coefficient	**p-value**	**Confidence Intervals**		**Decision**	**upsilon (υ)**	**Effect size**
				Lower limit	**Upper limit**			
H7a	Behavioral Intention -> Financial Knowledge -> Use Behavior	0.050	0.041	0.015	0.103	**partial mediation**	0.02	**low**
H7b	Behavioral Intention -> Financial Behavior -> Use Behavior	0.019	0.201	0.003	0.056	no mediation	0.00	no
H7c	Behavioral Intention -> Financial Attitude -> Use Behavior	0.012	0.361	-0.001	0.050	no mediation	0.00	no

Source: Author's own work based on SmartPLS version 3

Despite financial literacy in general contributes to the better process of making financial decisions, this study found that financial literacy has various mediating roles in the relationship between behavioral intention and use behavior. The empirical findings revealed that financial knowledge is divergent in facilitating behavioral intention to use behavior toward Fintech services, with partial mediation and low effect size for Hungarian respondents, but no mediation and no size effect for Indonesian respondents. This finding implies that Hungary might require more financial knowledge because of the complexity of its digital financial services than Indonesia. The digital finance industry in developed countries such as Hungary, which has a level of "innovating" in the Fintech development categorization according to WORLD BANK (2020), offers relatively more advanced and varied financial products and services than developing countries. In Hungary, more than 15% of respondents use Crypto & Blockchain services as compared to only around 3% in Indonesia.

The finding also indicated differences between Indonesian and Hungarian respondents when examining the mediating effect of financial behavior toward behavioral intention and use behavior in adopting Fintech.

Financial behavior has partial moderation and medium effect size in Indonesia compared to no mediation effect for Hungarian respondents. Indonesia's financial behavior score exceeds Hungary's by 69.7 points, compared to 49.9 points in Hungary (OECD, 2020), which may affect the use of digital financial services. Additionally, Indonesian respondents are more likely to use Fintech services due to the demographics of a young population and limited product variants compared to Hungary, whose financial products are relatively advanced.

This study also found that financial attitude is insignificant in facilitating the relationship between behavioral intention and use behavior in both countries. As a result of massive promotions by Fintech companies to attract new customers, and the policies of the Indonesian and Hungarian governments which encourage digital finance acceleration, especially during the Covid-19 pandemic, enabling individuals to use digital financial services without associating them to their financial attitude. During the Covid-19 pandemic of 2021, the number of adults making or receiving digital payments in developing economies reached 57 percent, compared to 34 percent in 2014. In Hungary, increased access to finance in the age of Covid-19 in 2021, growing 13 percent compared to only 1 percent in 2014 (GLOBAL FINANCIAL INDEX, 2022).

3.7 Moderating effect of facilitating conditions and price value

The moderating effect of facilitating conditions and price value on use behavior and continuance intention in Indonesia and Hungary is presented in Table 6. The findings show that facilitating conditions can strengthen the influence of use behavior and continuance intention, however, price value has different directions towards weakening the relationship between use behavior and continuance intention for Indonesian respondents. The argument is probably due to sufficient level of digital access, as demonstrated by the significant growth of internet users in Indonesia from 63% in 2021 compared to 12% in 2011, which encourage Fintech user to continue using digital financial services (GLOBAL FINANCIAL FINDEX, 2022). This finding is consistent with HUMIDA ET AL. (2022) documented a significant effect of facilitating conditions on Fintech adoption. Meanwhile, price value has proven to weaken the relationship between use behavior and continuance intention, perhaps due to the relatively high cost of accessing digital financial services in Indonesia compared to financial products from other industries. In addition, both facilitating conditions and price value seem to have insignificant role in moderating the relationship between use behavior and continuance intention in Hungary.

Table 6. Moderating effect of facilitating conditions and price value

Moderation Paths		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	p-value	Decision
Indonesia							
H8a	Use Behavior -> Facilitating Conditions -> Continuance Intention	0.175	0.164	0.053	3.290	0.001	**supported**
H8b	Use Behavior -> Price Value -> Continuance Intention	-0.177	-0.162	0.058	3.026	0.003	**supported**
Hungary							
H8a	Use Behavior -> Facilitating Conditions -> Continuance Intention	0.008	0.003	0.038	0.203	0.839	not supported
H8b	Use Behavior -> Price Value -> Continuance Intention	0.001	-0.003	0.049	0.028	0.977	not supported

Source: Author's own work based on SmartPLS version 3

3.8 Multigroup analysis

The multigroup analysis is performed to determine whether the original structural model tests are different between Fintech user versus non-user and across countries (Indonesia and Hungary). A non-parametric approach using PLS-MGA is applied to investigate the difference between groups (HAIR TE AL. 2019). The multigroup analysis can be conducted when samples for each group are more than 64 (CHEAH ET AL. 2020), and PLS-MGA can be applied when the data have different sizes (HAIR ET AL. 2019). The study combines data from both countries to examine Fintech user and non-user, and it counts 232 Fintech non-user and 543 Fintech user. For the cross country analysis, the PLS-MGA assessed whether there was a difference in use behavior toward continuance intention and financial inclusion for both countries from 456 Indonesian respondents and 319 Hungarian respondents. As presented in Table 7, the results revealed that none of the PLS-MGA p-value is below 0.05 or above 0.95, indicating that there is no significant difference in Fintech user versus non-user and Indonesia versus Hungary in relation to use behavior toward continuance intention and financial inclusion.

This finding revealed that even though non-Fintech user do not have direct experience with digital financial platforms, they may have a perception of continuance intention derived from the experience of Fintech users. By interacting with Fintech user, individual who have not utilized Fintech services may gain information that may influence them to continue using digital financial services in the future through reviews, recommendations, or satisfaction experiences. In addition, psychological factors such as emotion also play a role in the willingness to continue using technology, since non-Fintech user may have a positive attitude towards technology or perceive digital financial services to provide significant benefits.

The other assessment of PLS-MGA between Indonesia and Hungary found that there is no difference in the two countries regarding the relationship between use behavior and financial inclusion. As a result of better digital infrastructure and more advanced financial products offered by the traditional financial industry in developed countries, it may be the reason Fintech services have not been fully adopted, which reconfirms the findings of ERNST & YOUNG (2019) which revealed higher adoption of Fintech in developing countries compared to developed countries. On the other hand, Fintech services are available as an alternative solution in developing countries to traditional financial products that are unable to meet the financial needs of an underserved population totaling around 1.4 billion in 2021 worldwide (GLOBAL FINANCIAL INDEX, 2022). This study also completes a research gap from MIGLIORE ET AL (2022) to analyze Fintech adoption in developed and developing countries.

Table 7. Multigroup analysis results

Fintech user vs. non user		**Path coefficient difference**	**PLS-MGA: p-value**	**Decision**
H9a	Use Behavior -> Continuance Intention	0.043	0.302	not supported
H9b	Use Behavior -> Financial Inclusion	-0.031	0.643	not supported
Indonesia vs. Hungary		**Path coefficient difference**	**PLS-MGA: p-value**	**Decision**
H10a	Use Behavior -> Continuance Intention	0.058	0.136	not supported
H10b	Use Behavior -> Financial Inclusion	0.006	0.919	not supported

Source: Author's own work based on SmartPLS version 3

Table 8 presents a summary of all hypotheses testing in this study, including direct path, mediation, moderation and also multigroup analysis.

Table 8. Hypotheses testing result summary

Hypotheses Result		**Decision**	
		Indonesia	**Hungary**
Direct Paths			
H1a	Performance Expectancy -> Behavioral Intention	not supported	**supported**
H1b	Effort Expectancy -> Behavioral Intention	not supported	not supported
H1c	Social Influence -> Behavioral Intention	not supported	not supported
H1d	Facilitating Conditions -> Behavioral Intention	**supported**	not supported
H1e	Hedonic Motivation -> Behavioral Intention	**supported**	not supported
H1f	Price Value -> Behavioral Intention	**supported**	not supported
H1g	Habit -> Behavioral Intention	**supported**	**supported**
H2a	Value Barrier -> Behavioral Intention	not supported	not supported

H2b	Risk Barrier -> Behavioral Intention	not supported	not supported
H2c	Tradition Barrier -> Behavioral Intention	not supported	not supported
H2d	Image Barrier -> Behavioral Intention	**supported**	not supported
H3	Perceived Covid-19 Risk -> Behavioral Intention	**supported**	**supported**
H4	Behavioral Intention -> Use Behavior	**supported**	**supported**
H5	Use Behavior -> Continuance Intention	**supported**	**supported**
H6	Use Behavior -> Financial Inclusion	**supported**	**supported**
Mediation Paths			
H7a	Behavioral Intention -> Financial Knowledge -> Use Behavior	no mediation	**partial mediation**
H7b	Behavioral Intention -> Financial Behavior -> Use Behavior	**partial mediation**	no mediation
H7c	Behavioral Intention -> Financial Attitude -> Use Behavior	no mediation	no mediation
Moderation Paths			
H8a	Use Behavior -> Facilitating Conditions -> Continuance Intention	**supported**	not supported
H8b	Use Behavior -> Price Value -> Continuance Intention	**supported**	not supported
Multigroup Paths			
Fintech user vs. non user			
H9a	Use Behavior -> Continuance Intention	not supported	
H9b	Use Behavior -> Financial Inclusion	not supported	
Indonesia vs. Hungary			
H10a	Use Behavior -> Continuance Intention	not supported	
H10b	Use Behavior -> Financial Inclusion	not supported	

Source: Author's own work based on SmartPLS version 3

Furthermore, Figure 3 and 4 display the structural model assessment based on 5.000 subsamples to examine path coefficient with two-tail test for Indonesian and Hungarian respondents (HAIR ET AL. 2019).

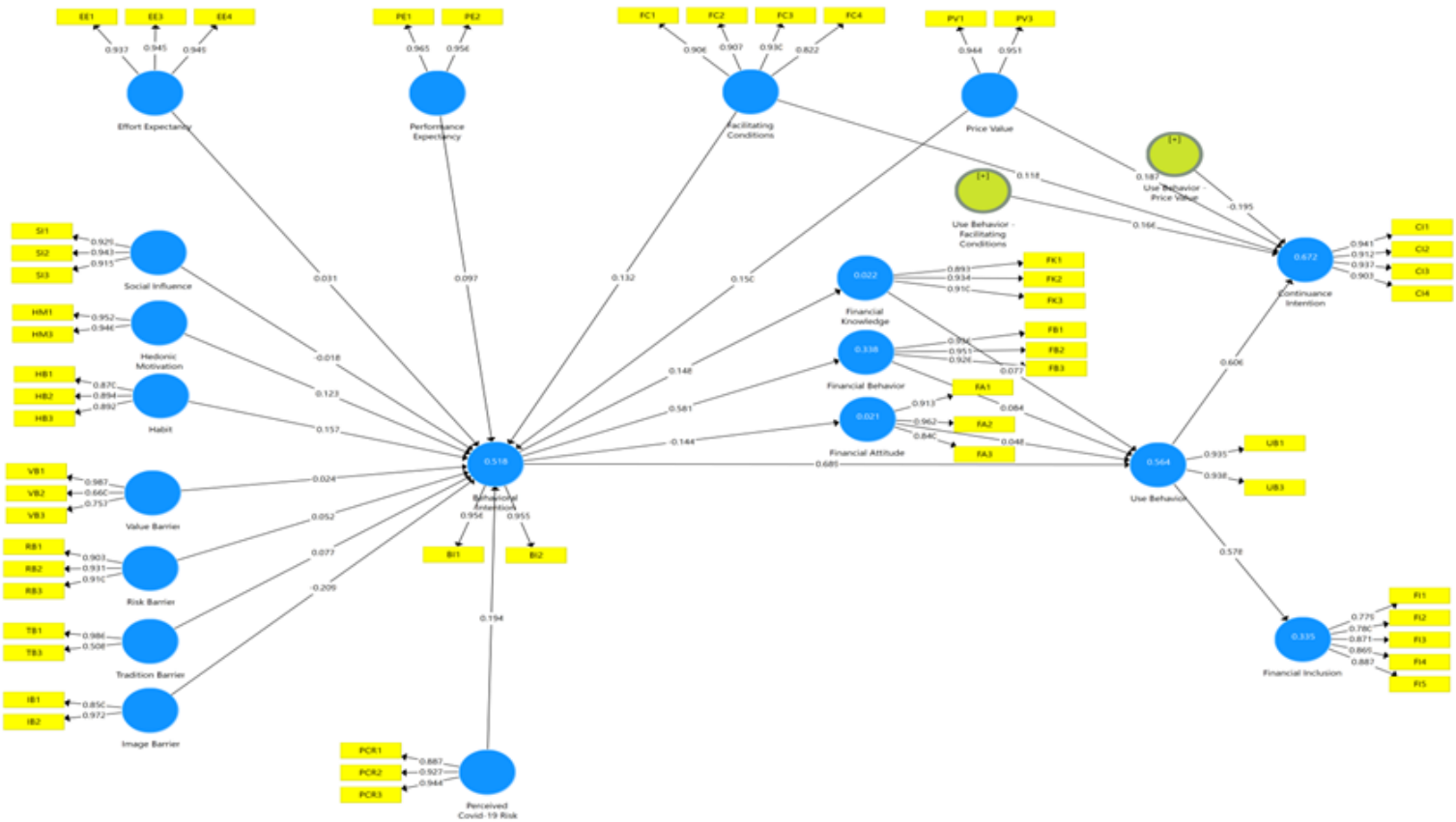

Figure 3. Structural model for Indonesian respondents
Source: Author's own construction based on SmartPLS version 3

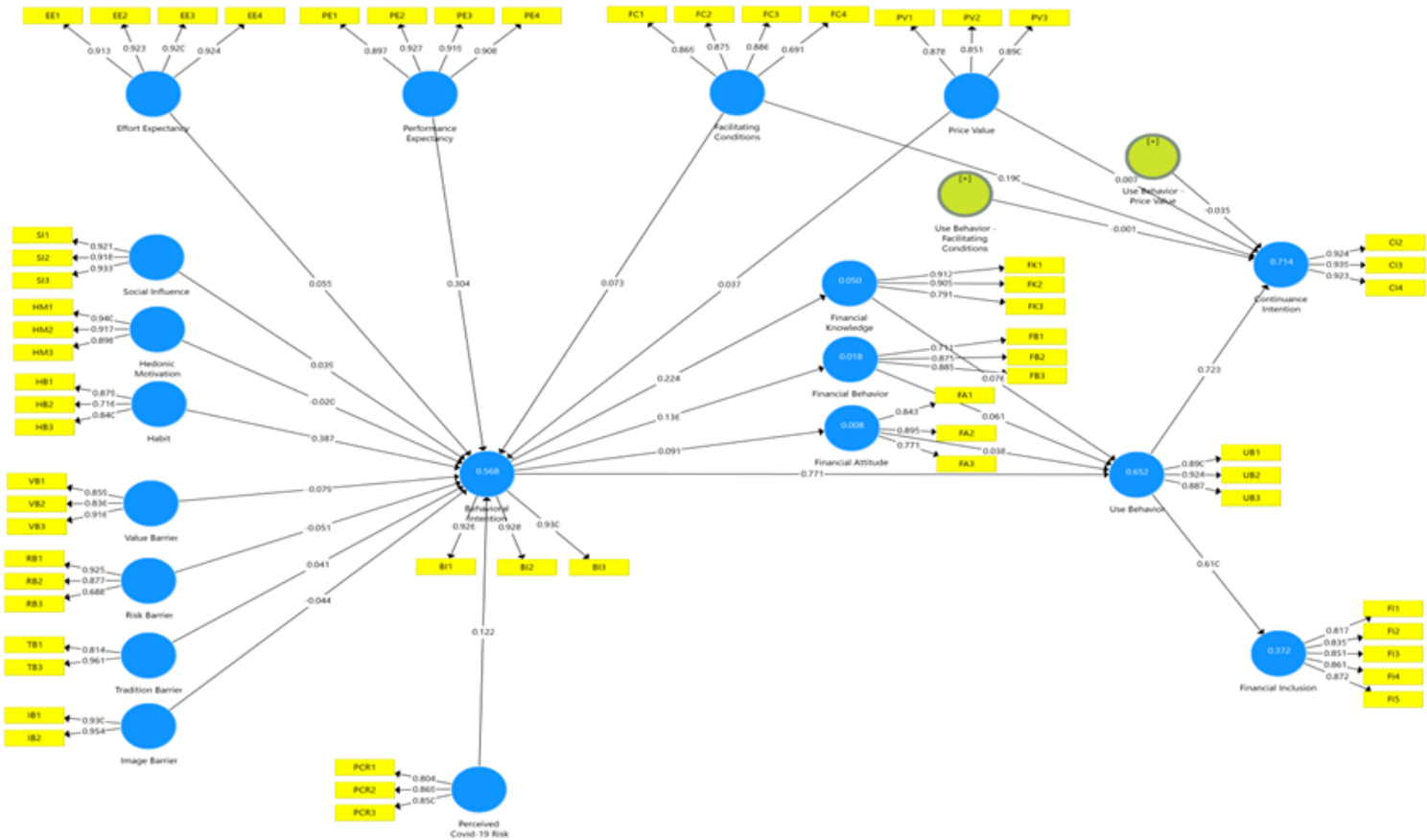

Figure 4. Structural model for Hungarian respondents
Source: Author's own construction based on SmartPLS version 3

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Despite the government and multiple parties making collective efforts to provide financial products accessible for the majority of the population, access to formal and semi-formal finance remains a challenge for the world of 1.4 billion populations, particularly the underserved. With the help of advanced technology, Fintech serves as a platform for financial technology that can bridge society from financial exclusion to inclusion. Since technology adoption varies among countries, it is necessary to collaborate across countries to accelerate financial inclusion. The main objective of this research is to examine the driver and barrier factors for the adoption of Fintech services in developing and developed countries with a sample of Indonesian and Hungarian respondents. The driving factors derived from UTAUT2, and the inhibiting factors referred to IRT were analyzed using PLS-SEM. This study found that adoption of Fintech services can be explained by the UTAUT2 model. Habit has positive, significant and most determinant of Fintech adoption in Indonesia and performance expectancy for Hungarian respondents. On the other hand, IRT cannot be used as an explanatory factor for technological barriers in both countries. Most of the IRT variables such as value barriers, risk barriers, tradition barriers and image barriers are proven to have no significant effect in explaining the adoption of Fintech services, except for image barriers in Indonesia.

Additionally, this study evaluates how individual behavior has been affected by the Covid-19 pandemic in Indonesia and Hungary, resulting in a shift from traditional to digital financial services. This research also adds a construct to examine the role of financial literacy consisting of financial knowledge, behavior and attitude, as mediating variables in facilitating the relationship between behavioral intention and use behavior. The divergent result shown in both countries, financial behavior proved to have a significant influence in facilitating the relationship between behavioral intention and use behavior for Indonesian respondents, while in Hungary it was facilitated by financial knowledge. Financial attitude is insignificant as an intervening variable between behavioral intention and use behavior in both countries. Meanwhile, the role of facilitating conditions and price value as a moderating variable between use behavior and continuance intention is only significant for Indonesian respondents. Meanwhile, Hungary respondents do not consider facilitating conditions and price value as significant moderating variables between use behavior and continuance intention.

The hypothesis which asserted that there is a difference between Fintech user versus non-user in explaining the influence between use behavior and continuance intention remain inconclusive using PLS-MGA. Similarly, when comparing Indonesian and Hungarian respondents regarding the difference in effect between use behavior toward continuance intention and financial

inclusion, this was also not proven empirically. Furthermore, use behavior has a direct and significant effect on continuation intention and financial inclusion in Indonesia and Hungary.

In conclusion, this research provides a novel contribution as one of the pioneering studies which will be considered as a new model for the future. The research framework in this study was developed from UTAUT2 and IRT as a driver and barrier factors in adopting Fintech in a cross country analysis. The results of this research have the potential to be a valuable reference for advancing scientific research on Fintech adoption and its relation to financial inclusion. The research findings are anticipated to provide substantial support to Fintech companies in designing effective strategic approaches aimed at accelerating the acceptance of digital financial services, which could lead to a greater level of financial inclusion in Indonesia and Hungary.

4.2 Recommendations and implications

Research findings can address the theoretical gap and facilitate the development of strategies in promoting digital financial services adoption. By building on the research model of Fintech adoption drivers and barriers to financial inclusion, this paper fills this important theoretical gap. First, previous study has utilized UTAUT2 and IRT to assess the driver and barrier factors of Fintech adoption (e.g. MIGLIORE ET AL. 2022). The result of empirical analysis found that UTAUT2 and IRT play an important role in the adoption of Fintech services. This study extended previous literature in the context of Covid-19 pandemic by adding perceived Covid-19 risk (PCR). The results found that the coefficient of determination (R^2) of the entire model in relation to behavioral intention was 0.518 in Indonesia and 0.583 for Hungarian respondents, higher than existing studies which only compared driving or inhibiting factors separately, with R^2 values ranging from 0.3 to 0.4 (CHEN T EL. 2019; BAJUNAIED ET AL. 2023). The results of this study illustrate that UTAUT2, IRT and PCR have an important role in Fintech adoption. This research also responds to calls by MIGLIORE ET AL. (2022) to analyze the factors driving and inhibiting digital financial services adoption across countries with different cultures and economies. This study has important recommendations that understanding digital financial adoption drivers and barriers can support the Fintech business to implement the appropriate strategy and government to make good policies to increase the number of digital financial service users.

Second, this study analyzes the role of financial literacy as a mediating variable between behavioral intention and use behavior. The research findings are important because mediation results differ in facilitating between measured variables in the two countries. The relationship between behavioral intention and use behavior is facilitated by financial behavior in Indonesia, whereas financial knowledge is a significant intervening variable in Hungary. Thus, the role of

financial literacy as a mediating variable, and its relationship between behavioral intention and use behavior toward digital financial platforms, can be better understood. This complements previous research by JAVED & HUSAIN (2021) which evaluated the mediating role of financial literacy in the traditional financial sector. Based on the results of this study, the government will be able to formulate strategies and policies to increase access to digital finance, where the Indonesian government focuses on conducting financial management education to improve financial behavior skills, while the Hungarian government is attempting to increase public knowledge regarding numeration, inflation, and risk diversification.

Third, the results found that facilitating conditions and price value had a significant impact as a moderating variable between use behavior and continuance intention only for Indonesian respondents. This study also responds to the research recommendations of SHI ET AL. (2022) to include new variables in addition to facilitating conditions for technology adoption. In light of these findings, it is important to note that Fintech companies continue to provide digital financial products that are compatible for access from multiple electronic devices, including providing Fintech products at affordable prices for Indonesian consumers. From the perspective of policy makers regarding the continuation of digital finance use, the results of this study recommend that the government should consider conducting educational programs regarding digital financial literacy in order to increase the use of digital financial service platforms.

Fourth, the study found that there were no significant differences between Fintech user and non-user when it came to the influence of use behavior and continuation intentions, including in cross-country analyses between Indonesia and Hungary. These studies also complete the theoretical gap and respond to research suggestions from ABUBKER ET AL. (2023) to conduct cross-country analyses to better understand technology adoption. In practice, the absence of differences between Indonesia and Hungary regarding the relationship between use behavior and continuance intention provides opportunities for cooperation between the two countries to develop a joint strategy to strengthen the financial sector which contributes to the adoption and utilization of digital financial services.

Finally, despite the fact that the relationship between use behavior and financial inclusion has already been examined in a previous study, it remains an open discussion among finance researchers and professionals. Theoretically, these findings complement the study by ODEI-APPIAH ET AL. (2021) regarding the effect of use behavior on financial inclusion with respondents from developing countries in the African region, Ghana. Therefore, this current research provides theoretical and empirical results from Fintech firms, particularly those corporates that open the digital financial business in developing countries, such as Indonesia, and developed economies, e.g.

Hungary, which is considered to continue to grow along with the development of information and communication technology. In addition, easy access to digital financial services has an impact on achieving financial inclusion goals in Indonesia and Hungary which indirectly also contributes to achieving the UN SDGs.

4.3 Limitations and future research directions

Even though our study found promising results, it has limitations related to variables, methodologies, and samples, similar to other empirical studies. Although the combination of UTAUT2, IRT and PCR variables can explain Fintech adoption in Indonesia and Hungary, however, most of the constructs from IRT do not have a significant effect on behavioral intention in both countries. Consequently, future studies can include new variables to explain the factors inhibiting digital finance adoption, such as usage barrier and security barrier. Different statistical approaches can also be applied to analyze technology adoption barrier factors, such as structural equation modeling-artificial neural network (SEM-ANN).

The future study may develop the research model using new moderating variables, for example gender and employment status. In future research, digital financial literacy can be considered as an intervening variable since individual perceptions and behaviors have been changing towards digital, especially in the post Covid-19 pandemic era. The research construct by integrating moderating variables other than facilitating conditions and price value can be analyzed, such as the value of status quo and commitment to status quo, which has recently been demonstrated empirically to have a significant effect on continuance intention. This study's sample is limited to developing and developed countries with respondents from Indonesia and Hungary. As a result, a cross-country study can be conducted integrating countries that are classified as less developed, developing and developed, which have different social, cultural, and economic conditions. Finally, it is also important to evaluate differences in technology adoption across more than two countries using another statistical method, such as the omnibus test of group differences (OTG), to provide a complete understanding of technology adoption in countries with different economic circumstances.

5. NEW SCIENTIFIC RESULTS

In my research, the results show several novel scientific outcomes that can be used as a framework for further studies in the future. In addition, next research can be conducted based on additional analytical and new constructs in the research model, including developing a multigroup analysis of different countries.

1. This study confirmed that the UTAUT2 dimension could explain behavioral intention for Indonesian and Hungarian respondents. Habit has a positive and significant impact as well as being the most influential variable on Fintech adoption in both countries, compared to other UTAUT2 variables. These findings reveal that the efforts of the Indonesian and Hungarian governments to encourage the development of digital financial services have changed consumer behavior in adopting Fintech services.
2. Based on my research, I proved a positive and significant impact of perceived Covid-19 risk on the behavioral intention to adopt Fintech in Indonesia and Hungary. In both countries, the pandemic caused individuals to reduce physical activity and direct cash transactions which were considered more risky for transmitting the virus. As an alternative, Fintech offers digitally accessible payment and financial solutions, which are considered safer during the pandemic. Additionally, as the pandemic increases awareness of the importance of savings and investments, Fintech services have become increasingly relevant in helping individuals manage their finances more efficiently. This is especially when traditional financial institutions have become limited due to social distancing and lockdowns.
3. The research finding documented financial literacy has a different role in facilitating the relationship between behavioral intention and use behavior in both countries. Financial knowledge positively and significantly facilitates the relationship between behavioral intention and use behavior in Hungary. It reveals that Hungarian respondents' higher financial knowledge will increase the use of digital financial services. Meanwhile in Indonesia, financial behavior is proven to be significant as an intervening variable between behavioral intention and use behavior. This finding indicates the pivotal role of government participation through the financial services authority to raise awareness regarding the financial knowledge and awareness of the Indonesian people to achieve the goal of increasing access to finance through Fintech services.
4. Based on my scientific research, I found that, as a moderating variable, facilitating conditions significantly strengthened the relationship between use behavior and continuance intention in Indonesia. These findings show that various aspects such as digital financial education, responsive customer service and accessibility of Fintech products are

important factors in increasing customer satisfaction, which in turn leads to users' intentions to continue using Fintech services. In contrast, price value was shown to significantly weaken the relationship between use behavior and continuance intention for respondents in Indonesia. These findings indicate that when Fintech users perceive the value they get from Fintech services to be lower than the price they pay, their intention to continue using Fintech decreases.

5. The empirical research revealed no significant differences regarding the influence of use behavior toward continuance intention and financial inclusion in both countries. The results of this study complement the previous research by MIGLIORE ET AL. (2022) in the context of the adoption of Fintech services from developing and developed countries with different economic and cultural conditions.
6. My research proved that use behavior has a positive and significant impact on financial inclusion in Indonesia and Hungary. These findings indicate that there is a unidirectional relationship between access and participation in the financial system in both countries. Through the use of digital financial services, individuals will be able to avail of various financial products and services at any time and in almost real time, thus contributing to financial inclusion in Indonesia and Hungary. These finding answers a call from ODEI-APPIAH ET AL. (2021) suggested analyzing the impact of use behavior on financial inclusion by comparing developing and developed countries.

6. LIST OF PUBLICATIONS

PUBLICATIONS IN FOREIG LANGUAGE

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