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Exploring Factors Influencing the Intention to Use Insurance Technology (Insurtech) In Indonesia

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Abstract: The rapid growth of Insurance Technology (Insurtech) in Indonesia presents a transformative opportunity for the insurance industry, offering increased efficiency, improved customer experience, and greater insurance inclusion. This study aims to explore the factors influencing the intention to use Insurtech in Indonesia by employing the Technology Acceptance Model (TAM) and examining the moderating effect of personal innovativeness. A total of 193 samples were collected through an online survey using convenient sampling targeting undergraduate students from several universities in Indonesia. The data were analyzed using Smart PLS (Partial Least Squares) to assess the measurement model and test the hypothesized relationships. The results revealed that perceived ease of use (PEOU) and perceived usefulness (PU) have significant direct relationships with the intention to use Insurtech, while personal innovativeness (PI) significantly moderates the relationship between PU and intention to use. The findings provide valuable insights into the dynamics of user acceptance in the Insurtech context and can guide the development of strategies to increase its adoption in Indonesia. Future research should explore additional factors, such as regulatory framework and digital literacy, to gain a more comprehensive understanding of Insurtech adoption in emerging markets.

Keywords: Insurance Technology, Perceived ease of use, Perceived usefulness, Personal innovativeness, Intention to use Insurtech

I. Introduction

The insurance industry has undergone significant transformation in recent years, with the emergence of Insurtech companies that leverage technology to provide innovative insurance products and services. In Indonesia, this industry offers an opportunity to transform the insurance market by increasing access to insurance products for millions of people. The rapid development of Insurtech startups, such as PasarPolis, Qoala, and Simas Insurtech, is an essential indication that this sector will continue to grow amidst digital transformation and low penetration of conventional insurance[1].

Integrating technology into business processes, such as in customer acquisition and claims, can increase efficiency and accuracy, thus encouraging several established companies to invest in Insurtech[2]. Interestingly, although Insurtech is quite promising in terms of operations and direct relationships between companies and consumers, the adoption of its products is still highly dependent on agents and brokers [3]. In other words, there is a gap between the current insurance company business model and the potential offered by Insurtech. Companies should be able to combine conventional insurance offerings with Insurtech. Although, regulation can be a significant challenge, as current regulations need to specifically address Insurtech[1].

The Indonesian insurance industry stands to be transformed by Insurtech, which offers the potential to boost operational efficiency, enhance customer experience, and expand insurance accessibility, thereby providing consumers with an alternative choice. However, to fully realise this potential, substantial efforts are required, particularly in addressing regulatory challenges and harmonising traditional insurance practices with innovative Insurtech solutions.. In general, the growth of Insurtech in Indonesia can significantly increase access for millions of people if the above challenges can be overcome and insurance companies dare to make breakthroughs in embracing the necessary technological innovations and business models[1],[2],[3].

Prior studies on Insurtech adoption have examined the revolutionary effects of technological advancements within the insurance sector. These investigations also emphasise how Insurtech is incorporated into operational processes, the significance of digital competence, and the impact of various perceived factors on the uptake of Insurtech offerings.[4]. In this context, differences are found between developed and developing countries. Developed countries show more advanced use of information technology in the insurance sector, while developing countries such as Indonesia still face challenges in integrating Insurtech into their insurance business framework[5].

Contradictions also arise in the speed of adoption, although Insurtech is recognized as having strong potential in transforming the insurance value chain, the actual adoption rate is still slow [6]. However, although the rate of Insurtech adoption in developing countries is slower, there is evidence of great potential for Insurtech

in Indonesia to continue to grow, this is due to the growing population of young, tech-savvy people and the desire of companies to bring Insurtech into their businesses[1], [3].

Therefore, studies exploring how Insurtech is adopted in developing countries such as Indonesia will be very useful in revealing the interaction of factors supporting Insurtech adoption. Factors such as technological literacy, market potential, regulatory framework, and the need for digital transformation can be important factors that insurance companies must consider. Consequently, research examining the significance of comprehending these mechanisms in propelling Insurtech's expansion within developing economies would be intriguing to explore.[2],[3], [5]. This study aims to explore factors that influence the intention to use insurance technology (Insurtech) in Indonesia. The findings from this study provide a more understanding of the factors influencing the intention to use Insurtech and can guide the development of strategies to increase its adoption [6], [7].

II. Literature Review and Hypothesis

Examining the literature on Insurance Technology (Insurtech) adoption reveals a multifaceted array of elements that shape users' intentions to embrace this innovation. There are several factors that have the potential to influence, for example, Perceived ease of use and perceived usefulness, which are two critical variables in TAM, are consistently identified as significant positive influencers of the acceptance of Insurtech services[8]. Furthermore, the Diffusion of Innovation Theory can be employed to develop an Insurtech adoption framework, emphasising the importance of technological factors in creating a competitive advantage for insurance companies.[6]. [9] In the last decade, the technological aspects of the insurance sector have become a primary focus for researchers, establishing it as a crucial field of investigation.

[7] also noted that personal innovation is important in determining user acceptance of Insurtech. This condition is in line with[10], who emphasized that the development of Insurtech has been proven to contribute to the technological innovation of insurance companies significantly. In short, consumer intention to adopt Insurtech is influenced by a combination of Perceived ease of use (PEOU) and Perceived usefulness (PU). The literature also shows that the role of technological innovation in insurance companies can be a driving factor for Insurtech adoption[11].Based on the description above, the relationship between the variables above is arranged in the form of a hypothetical relationship as explained below.

2.1 Relationship between Perceived ease of use and intention to use Insurtech

Perceived ease of use (PEOU) is oneof the essential variables in TAM [12] and is an integral part of technology use. Therefore, the relationship between PEOU and intention to use Insurtech is an aspect that can be traced to the acceptance of technology by consumers, including in the insurance sector. PEOU can be defined as the level of individual belief that using a particular technology will be free from effort.

In the context of Insurtech, users assume that the digital platform is easy to navigate and use in their activities. In other words, consumers tend to develop a positive attitude toward using the digital platform. This positive attitude is important because it can influence consumer behavioral intentions to adopt Insurtech technology. Research positions that PEOU has a significant impact on the intention to use Insurtech. Research conducted by [13] demonstrated that consumers are inclined to maintain their usage of an insurance system and refrain from switching to alternative digital platforms when they perceive the system as user-friendly. According to [14] PEOU also increases Perceived usefulness (PU), namely the belief that a technology can improve job performance by making users feel more competent and confident in utilizing the system more effectively.

The impact of these two factors demonstrates that enhanced usability promotes a favourable view of Insurtech and reinforces the willingness to adopt this service by highlighting its practical advantages. For this reason, Insurtech companies should focus on improving the user experience through intuitive design and easy-to-understand and use functionality so that they can facilitate adoption and encourage continued engagement with the digital platform [15], so that the following hypothesis can be developed:

H1: Perceived ease of use has a significant influence on intention to use Insurtech**.**

2.2 Relationship between Perceived usefulness and intention to use Insurtech

The Technology Acceptance Model (TAM) [12] states that consumer acceptance of technology is influenced by Perceived usefulness (PU). The PU variable refers to the level of individual belief that using a particular technology will improve performance or meet their needs. In the context of Insurtech, when consumers consider this digital insurance helpful solution, for example, in terms of costs or prices that they and their families should save, increased convenience, or increased service quality, then consumers will tend to have a strong intention to adopt and utilize the technology. Several previous studies have consistently shown that PU influences user behavioral intentions.

Users who recognise the practical benefits of Insurtech applications are more prone to adopt them, as these platforms demonstrate tangible advantages over traditional insurance methods [16]. Positive perceptions of

usefulness can enhance user attitudes, potentially bolstering their willingness to embrace Insurtech[13]. Understanding and effectively communicating this relationship is vital for Insurtech companies to convey the value and merits of their solutions. The perceived advantages by consumers may contribute to increased adoption rates of these innovative insurance technologies. Research conducted by[14][17]shows that when users find it easy to navigate an Insurtech platform, their perception of its usefulness increases, leading to a greater likelihood of adoption. In other words, PU perceived by users will encourage them to adopt Insurtech products in the market, so the following hypothesis can be developed:

H2: Perceived usefulness has a significant influence on intention to use Insurtech.

2.3 Relationship between Personal innovativeness, Perceived ease of use and Intention to use Insurtech

Personal innovativeness is an individual's propensity to embrace new technologies and engage with innovative solutions. The moderation effect of personal innovativeness between perceived ease of use (PEOU) and intention to use Insurtech is an important aspect of understanding technology adoption in the insurance sector. In the context of Insurtech, PEOU significantly influences users' intention to adopt these digital platforms. However, the degree to which PEOU affects this intention can vary depending on the level of personal innovativeness exhibited by the user [18].

Those exhibiting high levels of personal innovativeness are inclined to perceive emerging technologies as more accessible and pragmatic compared to their less innovative counterparts. This favourable outlook can positively influence their overall stance towards Insurtech adoption, consequently amplifying the link between perceived ease of use (PEOU) and the intention to embrace such technologies. Several previous studies have shown that more innovative individuals tend to have a better view of technology utilization, which in turn can increase their willingness to adopt a new platform, so it can be said that Personal innovativeness can positively moderate the relationship between PEOU and behavioral intention[19]Innovative individuals are more likely to have a perception of the ease of technology and will become actual users compared to those who are less [14].

Personal innovativeness can also affect how individuals interpret the benefits associated with Insurtech. Those who are more open to trying new technologies are more likely to see potential benefits from using Insurtech[13]. For example, cost efficiency and service improvements strengthen their intention to adopt this innovation. This interaction emphasizes that Insurtech companies should focus on improving platform usability and consider strategies that foster an innovative mindset among potential users. In short, Personal innovativeness serves as an important moderator in the relationship between perceived ease of use and intention to use Insurtech. By strengthening the positive effect of PEOU on Insurtech adoption intention, the following hypothesis can be arranged:

H3: Personal innovativeness has a moderating effect between perceived ease of use and Intention to use Insurtech

2.4 Relationship between Personal innovativeness, Perceived usefulness and Intention to use Insurtech

The moderating effect of the personal innovativeness variable between perceived usefulness (PU) and intention to use Insurtech is essential in understanding technology adoption in the insurance sector. Personal innovativeness can be defined as the level of individual acceptance of new ideas and independent innovation decision-making [9]. In the context of Insurtech, PU indicates the extent to which users believe using this digital platform will improve their efficiency and effectiveness in managing tasks related to insurance products. Several previous studies have shown that Personal innovativeness significantly moderates the relationship between PU and intention to use new technology, meaning that the strength of this relationship can vary based on the level of individual innovation.

Those with high Personal innovativeness are generally more receptive to new technology and tend to view it as beneficial. This positive outlook will influence their assessment of Insurtech's advantages, thereby strengthening their determination to embrace this cutting-edge technology. A study by [10] found that individuals demonstrating personal innovativeness exhibited a stronger link between perceived usefulness and intention to use. Moreover, [14] noted that people with higher levels of personal innovativeness showed greater tendencies to utilise mobile technology, due to their recognition of its potential benefits. This suggests that personal innovativeness not only affects how individuals perceive Insurtech's merits but also enhances their readiness to adopt it. Based on this reasoning, the following hypothesis is proposed:

H4: Personal innovativeness has a moderating effect between perceived usefulness and intention to use Insurtech

III. Research Method

This research methodology utilizes Smart PLS (Partial Least Squares), which systematically analyzes the complex relationships between variables through structural equation modeling (SEM). Smart PLS software is

handy for researchers in handling exploratory studies or when sample sizes are limited, because it is designed to effectively handle a small sample sizes and non-normally distributed data [20]. This methodology begins with the development of a conceptual model based on a theoretical framework, such as presenting a research model based on the Technology Acceptance Model (TAM), which states that perceived use (PEOU) and perceived usefulness (PU) significantly influence the intention to use new technology. Furthermore, it will be examined whether personal innovativeness has a moderating effect, as described in the following research model:

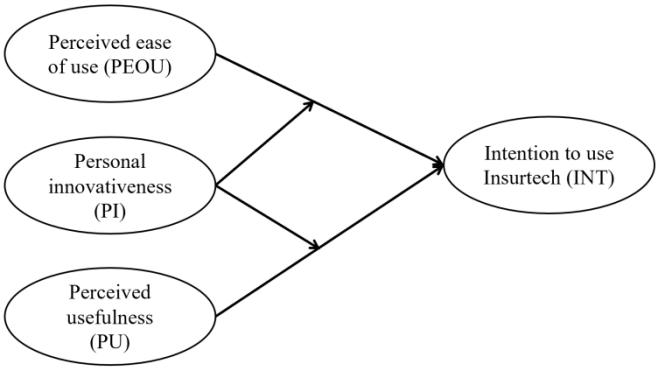

Figure 1 Research Model

To examine the model, researchers collect data through survey questionnaires designed to measure each construct involved. A total of 193 samples were successfully collected in this study using the convenient sampling technique with the target population of undergraduate students in several universities in Indonesia. For flexibility and respondent engagement[21], the questionnaire was distributed online using Google form.

The next step involves assessing the measurement model, which includes evaluating reliability and validity through metrics such as Cronbach's alpha and Average Variance Extracted (AVE)[22]. After this, the structural model is analyzed to test the hypothesized relationships between the constructs using the Smart PLS bootstrapping technique, which can provide path coefficient estimates and significance levels[23]. This process allows researchers to confirm the direct effect of PEOU and PU on intention to use Insurtech and explore the moderating effects of Personal innovativeness. The output generated by Smart PLS is then interpreted based on the theoretical framework for understanding the dynamics of user acceptance in the Insurtech context.

IV. Data Analysis

The online survey, conducted from 05-25 September 2024, managed to collect 193 respondents through Google Forms, which were distributed via social media such as WhatsApp, Messenger, Line, Twitter, and Email. The general description of the respondents included 54% (104) male and 46% (89) female. The largest age group was those aged 21-24 years at 65% (126), 17-20 years at 32% (62), and the rest >24 years at 3% (5). The majority of students were those in their fourth year at 59% (106), second year at 35% (66), first year at 8% (15), and the rest third year at 3% (6).

Meanwhile, the distribution of their domicile is based on province, respectively: DKI Jakarta 15% (29), West Java 13% (25), Banten 9% (17), Bali and North Sulawesi each 8% (16). Meanwhile, East Java, South Sulawesi, and Aceh each have 6% (12), followed by North Sumatra 5% (10). The rest are West Kalimantan, North Maluku, West Papua, North Kalimantan, and Lampung, as many as 4% each, and West Nusa Tenggara 2% (4). The majority of respondents come from Java, which is 51%, the rest are spread across several islands outside Java.

The next step is to test the research model, which is carried out in two stages. First, a measurement model is conducted to assess the validity and reliability of the instrument, as stated by [32]. The second step is to perform the structural model to test the previously developed hypothesis. Both stages use Smart PLS.

4.1 Evaluation of Measurement Model

The assessment of validity and reliability can be seen through the values of the outer model output (measurement model), namely by directly looking at the loading factors of each indicator. The factor loading value has high validity if > 0.70[24]. While the reliability value uses Cronbach alpha (α) > 0.7 and composite reliability (CR) > 0.6. Furthermore, from a total of 26 items assessed, nine items had a loading factor below 0.7, so they had to be eliminated from the model. The factor loading values of each item after two iterations process and the values of Cronbach alpha and Composite reliability can be seen in Table 1 below.

Table 1. Factor Loading, Cronbach Alpha (α), and Composite Reliability (CR)

Items	PEOU	PU	PI	INT	(α)	CR
X2	0.773				0.751	0.773
X3	0.818					
X4	0.746					
X7	0.897					
X9	0.890					
X10		0.765			0.818	0.765
X11		0.888				
X12		8.893				
X13		0.760				
X14		0.773				
X15		0.789				
X16		0.900				
X18			0.901		0.788	0.690
X19			0.761			
X20			0.766			
X21			0.703			
X22				0.779	0.796	0.743
X24				0.700		
X25				0.817		
X26				0.753		

Furthermore,[25] explained that the outer model for reflective indicators can be evaluated their convergent validity and discriminant validity through the indicators that form the construct. Convergent validity is formed when the scores from different instruments that measure the same construct show a strong correlation. This condition has met the criteria as shown in Table 1 above. Meanwhile, Discriminant Validity functions to determine that the concept of each latent variable is genuinely different from the concept of other variables. This can also be assessed by directly observing the average variance extracted (AVE) square root values. A good AVE value is > 0.50 [24]. Table 2 below shows that the AVE square root value has met the requirements.

Table 2. AVE andAVE Square Root

Constructs	AVE	AVE Square
PEOU	0.745	0.863
PU	0.610	0.781
PS	0.776	0.881
INT	0.613	0.783

By comparing the square root of AVE with the correlation of constructs in the model, it can be seen that the square root value of AVE on each variable is more than its correlation value, it means that the research model shows good discriminant validity. The comparison can be seen in table 3 below.

Table 3. Constructs Correlation and AVE Square Root

Constructs	PEOU	PU	PS	INT
PEOU	**0.863**			
PU	0.665	**0.781**		
PS	0.707	0.661	**0.881**	
INT	0.254	0.233	0.260	**0.783**

Note: AVE Square Root is bold

4.2 Hypothesis Testing (Structural Model)

At this stage, hypothesis testing is carried out to determine whether it is accepted or rejected. The path coefficient values can be ascertained by assessing the path coefficient based on the Smart PLS output. According to [26], values in the range of -0.1 to 0.1 = insignificant. While > 0.1 = significant and directly proportional, while < -0.1 = significant inversely proportional. Significance evaluation can also use the t-value for two tailed of 1.64 (10% significance level), 1.96 (5%), and 2.58 (1%)[27].

Table 4. Hypothesis Testing Results

Hypothesis		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STERR	Sig.
H1	PEOU → INT	0.364	0.367	0.065	4.590	Significant*
H2	PU → INT	0.450	0.428	0.067	5.189	Significant*
H3	PEOU * PI → INT	-0.275	-0.246	0.175	0.147	-
H4	PU * PI → INT	0.277	0.256	0.159	1.993	Significant**

Level of sig. *0.01; ** 0.05

Based on Table 4 above, from four hypotheses developed, three of them show significant results, two hypotheses, namely PEOU and PU, show a significant direct relationship to INT. Meanwhile, PI significantly acts as a moderating variable between PU and INT. The regression equation model can be written based on the calculation of the path coefficient values above, namely: INT = 0.364 PEOU + 0.450 PU + 0.277PU * PI + Ɛ.

This equation explains that PEOU, PU, and PU * PI have a significant influence on INT. The difference in the magnitude of the path coefficient value can be used in compiling variables based on the strength of their influence, where the PU variable has a stronger influence than other variables. The symbol Ɛ represents other variables that are not taken into account in this research. Furthermore, R^2 shown in the Smart PLS output shows a figure of 0.46, which means that as much as 46% of the variation in INT data is significantly influenced by the variables in the research model. The R^2 coefficient value of 0.46 is in the moderate category[28].

V. Conclusions and Recommendations for Future Research

This research explores the factors influencing the intention to use Insurance Technology (Insurtech) in Indonesia by employing the Technology Acceptance Model (TAM) and examining the moderating effect of personal innovativeness. The research results offer insightful information, especially for Insurtech developers, marketers, and regulators. Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) have direct solid correlations with the intention to use Insurtech, indicating that Insurtech providers should prioritize these two factors to promote adoption. In particular, focusing on PEOU, such as providing user-friendly design and functionality, can lower the cognitive barriers, which makes adopting technology more easy and accessible for prospective users, particularly those who are less tech-savvy. Next, show the direct benefits of using Insurtech, such as savings, ease of use, and better personalization of services. This offer will strengthen the value proposition and make Insurtech an alternative to traditional insurance practices. The emphasis on usability and convenience can be a strong reason for users to switch to using Insurtech.

Furthermore, the role of personal innovativeness as a moderating variable is a valuable insight for insurance companies in formulating strategies. For instance, a marketing segmentation strategy can be implemented based on the level of consumer innovation. Users with high Personal Innovativeness will naturally be more open to new technologies so that by offering relevant features according to their needs, it can encourage faster adoption of Insutech. As is known, the moderating effect of personal innovativeness means that this variable can further strengthen the relationship between perceived usefulness and the intention to use Insurtech. The benefits of usability offered will be more substantial if the user has a personal Innovativeness character. Conversely, for less innovative people, the emphasis may be placed on meeting specific needs related to insurance products, for example, by preparing informative content related to the benefits of Insurtech. Future research can add factors such as digital literacy and regulatory aspects in the context of cross-users and stakeholders to gain a more comprehensive understanding of the intention to use Insurtech.

VI. References

[1] A. Susanto, "Digital transformation of the insurance industry: the potential of insurance technology (Insurtech) in Indonesia," *J. Humanit. Soc. Sci. Bus.*, vol. 2, no. 1, pp. 172–180, 2022.

[2] D. Widyani, "The Impact Of Insurtech On The Insurance Business Model In Indonesia," *Int. J. Financ. Syst.*, vol. 1, no. 2, pp. 151–184, 2023.

[3] M. F. Umran, A. M. Sadat, and H. Maupa, "Predicting The Adoption of Insurtech Among Generation Z in Indonesia," *Int. J. Appl. Econ. Bus.*, vol. 2, no. 1, pp. 3182–3190, 2024.

[4] A. Kiwanuka and A. B. Sibindi, "Digital Literacy, Insurtech Adoption and Insurance Inclusion in Uganda," *J. Risk Financ. Manag.*, vol. 17, no. 3, p. 119, 2024.

[5] M. Nourbakhsh, R. M. Zin, J. Irizarry, S. Zolfagharian, and M. Gheisari, "Comparing information technology adoption between developing and developed countries," in *Construction Research Congress 2012: Construction Challenges in a Flat World*, 2012, pp. 650–657.

[6] K. H. Ching, A. P. Teoh, and A. Amran, "A conceptual model of technology factors to Insurtech

adoption by value chain activities," in *2020 IEEE Conference on e-Learning, e-Management and e-Services (IC3e)*, 2020, pp. 88–92.

[7] E. Kim and Y. Kim, "Determinants of user acceptance of digital insurance platform service on Insurtech: an empirical study in South Korea," *Asian J. Technol. Innov.*, pp. 1–31, 2024.

[8] G. P. L. Permana, S. Yogananda, and I. G. N. D. Paramartha, "Prediksi Penerimaan Layanan Insurance Technology (Insurtech) Dengan Menggunakan Technology Acceptance Model (TAM)," *Widya Akunt. dan Keuang.*, vol. 5, no. 2, pp. 149–162, 2023.

[9] J. N. Shamsuddin, C. Gan, and D. L. T. Anh, "Bibliometric Analysis of Insurtech," *J. Adv. Res. Appl. Sci. Eng. Technol.*, vol. 30, no. 2, pp. 103–132, 2023.

[10] J. Liu, S. Ye, Y. Zhang, and L. Zhang, "Research on Insurtech and the technology innovation level of insurance enterprises," *Sustainability*, vol. 15, no. 11, p. 8617, 2023.

[11] U. A. F. Abdillah, "Perkembangan Asuransi Syariah di Indonesia Ditinjau dari Pertumbuhan Eksponensial," *El-Mal J. Kaji. Ekon. Bisnis Islam*, vol. 5, no. 9, pp. 3815–3828, 2024.

[12] M. Muchran and A. S. Ahmar, "Application of TAM model to the use of information technology," *arXiv Prepr. arXiv1901.11358*, 2019.

[13] D. F. Dörfling and E. Godspower-Akpomiemie, "Investigating factors that affect the willingness to adopt peer-to-peer short-term insurance in South Africa," *Digit. Transform. Soc.*, vol. 3, no. 2, pp. 214–234, 2024.

[14] F. Lang and L. Riegel, "Acceptance of online customer channels for damage claims in Germany," *Inf. Technol. Manag.*, pp. 1–16, 2023.

[15] P. A. Indrayathi, N. L. K. Megayanti, L. P. S. Ulandari, and L. R. Kolozsvari, "Determinants of the intention to use National Insurance Mobile Application in Badung District based on Technology Acceptance Model Framework," *Public Heal. Prev. Med. Arch.*, vol. 10, no. 2, pp. 111–119, 2022.

[16] Q. T. Pham, H. N. D. Nguyen, S. Misra, and A. Misra, "Investigating factors for using insurance apps by customers: a study of a developing country," *J. Bank. Financ. Technol.*, vol. 6, no. 2, pp. 149–157, 2022.

[17] D. Dhagarra, M. Goswami, and G. Kumar, "Impact of trust and privacy concerns on technology acceptance in healthcare: an Indian perspective," *Int. J. Med. Inform.*, vol. 141, p. 104164, 2020.

[18] U. A. Cullen, M. TROVATI, and S. BOLTON, "The Moderating Effect Of Innovation Type On The Relationship Between Dynamic Capabilities And Innovation Capabilities," *Int. J. Entrep.*, vol. 27, no. 4, pp. 1–28, 2023.

[19] R. Morathi, "Moderating Effect of Service Innovation in the Unified Theory of Acceptance and Use of Technology Model A Mobile Banking App Perspective." University of Pretoria (South Africa), 2021.

[20] C. M. Ringle, S. Wende, and J.-M. Becker, "SmartPLS 3. Bönningstedt: SmartPLS," 2015.

[21] T. G. Hlatshwako *et al.*, "Online health survey research during COVID-19," *Lancet Digit. Heal.*, vol. 3, no. 2, pp. e76–e77, 2021.

[22] J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, and S. Ray, *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer Nature, 2021.

[23] M. Sarstedt, J. F. Hair Jr, C. Nitzl, C. M. Ringle, and M. C. Howard, "Beyond a tandem analysis of SEM and PROCESS: Use of PLS-SEM for mediation analyses!," *Int. J. Mark. Res.*, vol. 62, no. 3, pp. 288–299, 2020.

[24] I. Ghozali, *Structural equation modeling: Metode alternatif dengan partial least square (pls)*. Badan Penerbit Universitas Diponegoro, 2014.

[25] I. Ghozali and H. Latan, *Partial Least Square "Konsep, Teknik dan Aplikasi" SmartPLS 2.0 M3*. Semarang: Badan Penerbit Universitas Diponegoro, 2012.

[26] F. Lehner and N. Haas, "Knowledge management success factors â€" proposal of an empirical research," *Electron. J. Knowl. Manag.*, vol. 8, no. 1, pp. pp79-90, 2010.

[27] J. F. Hair, C. M. Ringle, and M. Sarstedt, "PLS-SEM: Indeed a silver bullet," *J. Mark. theory Pract.*, vol. 19, no. 2, pp. 139–152, 2011.

[28] W. W. Chin, "Bootstrap cross-validation indices for PLS path model assessment," in *Handbook of partial least squares: Concepts, methods and applications*, Springer, 2009, pp. 83–97.