UNCERTAINTY AVOIDANCE AND DIGITAL DIVIDE AMONG SALES AGENTS OF INTERNATIONAL INSURANCE FIRMS IN HANOI

Assoc. Prof., Dr. Thai Thanh Ha
Hoa Binh University
Corresponding Author: tthanhha@daihochoabinh.edu.vn

Received: 21/11/2024
Accepted: 15/12/2024
Published: 24/12/2024

Abstract

This research presents an exploratory investigation of sales agents of international insurance firms in Hanoi, aiming to understand the connection between the Uncertainty Avoidance (UA), as discussed by Hofstede (2024), and the digital divide identified by Jan van Dijk (2020). The survey using Google Form was administered to 246 Vietnamese sales agents to collect data for SPSS analysis. The AMOS path diagram was then employed to test the hypotheses based on the conceptual model. The findings indicate that Uncertainty Avoidance negatively impacts the digital divide. Additionally, five other factors - Digital Usage, Digital Accessibility, Digital Affordability, Digital Support, and Digital Literacy - also influence the digital divide in various ways. Based on these findings, managerial implications are provided to help bridge the digital divide among sales agents in international insurance firms in Vietnam. Limitations and future research are also recommended to enrich this new field of study.

Keywords: *Uncertainty Avoidance, digital divide, international insurance firms, sales agents, Hanoi.*

Tránh sự bất trắc và chênh lệch kỹ thuật số giữa những đại lý của các công ty bảo hiểm quốc tế tại Hà Nội

PGS.TS Thái Thanh Hà
Trường Đại học Hòa Bình
Tác giả liên hệ: tthanhha@daihochoabinh.edu.vn

Tóm tắt

Nghiên cứu này trình bày khảo sát thăm dò các đại lý của các công ty bảo hiểm tại Hà Nội nhằm tìm hiểu mối liên hệ giữa việc tránh sự bất trắc như đã được Hofstede (2024) thảo luận và chênh lệch kỹ thuật số theo như nghiên cứu của Jan Van Dijk (2020). Phiếu khảo sát biểu mẫu Google Form được gửi tới 246 đại lý bảo hiểm tại Việt Nam nhằm thu thập số liệu cho phân tích trên phần mềm SPSS. Sơ đồ tuyến trên phần mềm AMOS sau đó đã được sử dụng để kiểmt định giả thuyết nghiên cứu được thiết lập trên cơ sở mô hình nghiên cứu. Kết quả cho thấy việc tránh sự bất trắc đã có tác động ngược chiều với chênh lệch kỹ thuật số. Năm nhân tố còn lại bao gồm: Sử dụng số; Tiếp cận số; Hỗ trợ số; Kỹ năng số và Khả năng chi trả kỹ thuật số cũng có tác động đến chênh lệch kỹ thuật số theo cách riêng có. Dựa trên kết quả nghiên cứu, các hàm ý quản lý cũng đã được rút ra nhằm thu hẹp chênh lệch kỹ thuật số giữa những đại lý của các công ty bảo hiểm quốc tế tại nước ta. Những hạn chế và hướng nghiên cứu trong tương lai cũng đã được đề xuất nhằm làm phong phú thêm lĩnh vực nghiên cứu còn khá mới mẻ này.

Từ khoá: *Tránh sự bất trắc, chênh lệch kỹ thuật số, công ty bảo hiểm quốc tế, đại lý, Hà Nội.*

1. Introduction

By 2024, the concept of the digital divide will celebrate its 29th anniversary since its introduction in the United States. To date, research on this topic has broadened to encompass various fields, including as rural-urban comparisons; ethnic minority digital inclusion; small business digital inequality and so on (Jan van Dijk, 2020). The insurance industry has eyewitnessed the tendency by which customers resort to the insurance tools, regardless of life or non-life, to proactively deal with the uncertainty (Fitch Solution, 2020). Yet, this uncertainty avoidance and its linkage with digital divide, however, have still been missing, not to say being neglected to a certain extent, in the pool of research in the insurance sector, especially in the context of the international insurance firms (The International Insurance Society, 2024; Barroso & Laborda, 2022).

The digital transformation of the insurance industry has fundamentally altered traditional operational paradigms, particularly in emerging markets like Vietnam (Eckert & Osterrieder, 2020; Theinvestor, 2024). In Hanoi's expanding insurance sector, the integration of digital technologies among sales agents presents a complex landscape influenced by cultural dimensions, notably uncertainty avoidance (UA) from Hofstede's framework (Hofstede, 2024). Despite digital tools' demonstrated benefits in enhancing sales processes and operational efficiency, a significant digital gap persists among international insurance firms' sales agents because of the variations in technology adoption, usage patterns, accessibility, affordability, institutional support, and digital competencies (Barzilai-Nahon, 2006; DiMaggio & Hargittai, 2001).

This research explores the extent to which uncertainty avoidance (UA) relates to the digital divide among sales agents of international insurance firms in Hanoi, where traditional business practices intersect with modern digital imperatives (Abel & Marire & Papavassiliou, 2021). Shedding more light on this relationship will contribute more to the digital divide literature within the insurance sector while providing actionable insights for international insurers seeking to bridge technological gaps in such a culturally diverse market as Vietnam (Fitch Solution, 2020; McKinsey & Company, 2023).

2. Literature Review and Hypothesis Development

2.1. Uncertainty Avoidance and the Digital Divide in the International Insurance Firms

The insurance industry's digital divide manifests through disparate access to and adoption of digital technologies, particularly when examined through Hofstede's cultural dimensions (David & Bright & Anastasia & Cortes, 2019). Uncertainty Avoidance (UA), which reflects societal tolerance for ambiguity, appears to significantly influence this technological gap (Boston Consulting Group, 2024). Research suggests that insurance sales agents in high UA cultures demonstrate resistance to digital tool adoption, favoring traditional methods they perceive as more predictable (Eckert & Osterrieder, 2020; Eling & Lehmann, 2018). While digital transformation requires balancing innovation with cultural sensitivity (Vassilakopoulou & Hustad, 2021), the relationship between UA and digital resistance leads to our first hypothesis:

H1. *Uncertainty Avoidance negatively influences the digital divide among insurance sales agents*

2.2. Factors Constituted the Digital Divide in the International Insurance Firms

This literature review explores five key factors influencing the digital divide in insurance firms: digital usage, digital accessibility, digital affordability, society and government support, and digital literacy. Based on these factors, corresponding hypotheses are developed.

Digital Usage: Digital usage represents the degree of digital technology implementation within insurance operations. While enhanced digital usage drives improvements in data management and customer service (Venkatesh et al., 2012; The economist, 2022), it simultaneously creates performance disparities among sales agents. Research demonstrates that higher digital adoption correlates with improved operational efficiency and customer satisfaction

(Jan van Dijk, 2020), yet this advancement widens the performance gap between digitally proficient and less-adapted agents (The International Insurance Society, 2024). This observation leads to our second hypothesis:

H2. *Digital Usage positively influences the digital divide among insurance sales agents.*

Digital Accessibility: Digital accessibility encompasses the ease of access to digital technologies for insurance firms and their agents (Jan van Dijk, 2020). Infrastructure limitations, connectivity issues, and device availability create significant disparities in technological utilization (Wei & Zang, 2011). While regions with robust digital infrastructure demonstrate enhanced market performance (Parasuraman & Colby, 2015), those with limited accessibility, particularly in developing markets, face substantial challenges in digital tool adoption (Venkatesh et al., 2016). This disparity in infrastructure access leads to our third hypothesis:

H3. *Digital Accessibility positively influences the digital divide among insurance sales agents.*

Digital Affordability: Digital affordability represents the economic capacity to access and utilize digital technologies in insurance operations (Asongu & Le Roux, 2017). Research indicates that cost barriers create significant disparities in technological adoption, particularly affecting smaller firms (Wei & Zhang, 2018). Studies demonstrate that firms in high-income regions show greater digital integration compared to those in low-income areas (Molla & Licker, 2005; Asongu & Le Roux, 2017), leading to varying levels of operational efficiency among agents (Dutta and Lanvin, 2023). This economic dimension of digital access leads to our fourth hypothesis:

H4. *Digital Affordability positively influences the digital divide among insurance sales agents.*

Society and Government Supports: Societal and governmental support significantly shapes the digital landscape within the insurance sector (Molla & Licker, 2005). Research demonstrates that proactive digital policies and institutional frameworks facilitate higher digital adoption rates in financial services (Asongu & Le Roux, 2017). Studies highlight how government initiatives addressing infrastructure, financial support, and digital literacy correlate with enhanced technological integration (Eling & Lehmann, 2018; Selwyn, 2004; Chen & Wellman, 2004), while supportive social environments accelerate digital transformation (McAllister et al, 2015). This institutional influence leads to the fifth hypothesis as follows:

H5. *Support from society and government positively influences the digital divide among insurance sales agents.*

Digital Literacy: Digital literacy encompasses the competencies needed to effectively utilize digital technologies in insurance operations (Jan van Dijk, 2020). Research demonstrates that digitally literate workforces better leverage technological tools for service delivery (European Commission, 2022; Barzilai-Nahon, 2006), while varying literacy levels create significant performance disparities (Wei et al., 2011). Studies highlight how digital literacy training enhances employee capabilities (Barroso and Laborda, 2022) and influences agents' adaptability to technological changes (Parasuraman & Colby, 2015). This variation in digital competency leads to our sixth hypothesis:

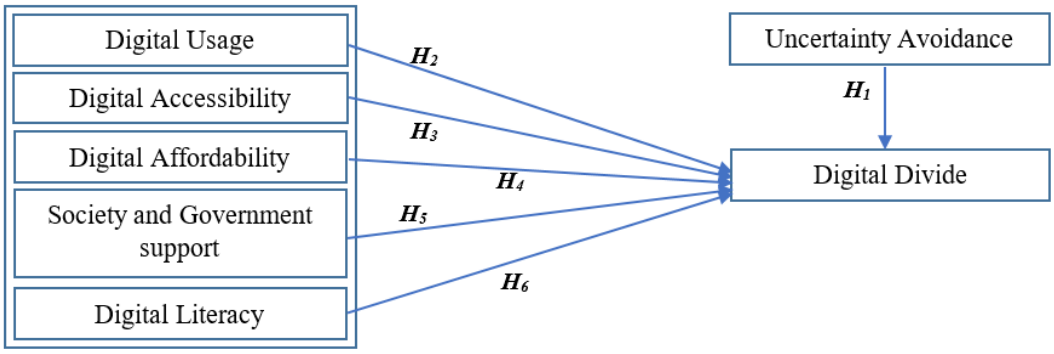
H6. *Digital Literacy positively influences the digital divide among insurance sales agents.*

3. Conceptual Model and Measurement of Constructs

3.1. Conceptual Model

The conceptual model of this research is developed from a synthesis of the existing literature concerning the factors influencing the digital divide among sales agents of the international insurance firms actively operating in Hanoi. Specifically, the model is composed of six factors. They are (1) Digital Usage; (2) Digital Accessibility; (3) Digital Affordability; (4) Society and government supports; and (5) Digital Literacy and finally (6) Uncertainty Avoidance which is one of the six cultural values (Hofstede, 2024; David et al, 2019). The conceptual model is presented in Figure 1 below.

Figure 1. Conceptual Model and Hypotheses for the Research



Sources: Barzilai-Nahon (2006); Vandijk (2020) and author's synthesis

3.2. Measurement of the Constructs

The Uncertainty Avoidance (UA) dimension quantifies societal risk tolerance (David et al., 2019). High UA cultures demonstrate strong insurance product demand due to risk aversion (Barroso & Laborda, 2022). Vietnam's UA score of 30/100 on Hofstede's scale supports treating UA as a continuous variable in SEM analysis, implemented through random number generation and analyzed via SPSS 20 and AMOS 18. The digital divide constructs were operationalized through validated instruments from extant literature (ITU, 2023; Wilson & Thomas & Barraket, 2019; Bazilai-Nahon, 2006), employing 5-point Likert scales to measure the multifaceted factors outlined in Table 1. In this research, there were finally 19 factor items designed to capture the nature of the constructs and one (01) item to measure the perceived digital divide also designed on 5-point Likert scales. This index will serve as a dependent variable in the model.

Table 1. Measurement of Comprehensive Digital Divide Factors

Factors	Authors	Factors	Authors
Digital Usage	Australian Digital Inclusion Index (2022); Bazilai-Nahon (2015). ITU (2023); The Economist (2022)	Support from society and government	Dutta & Lanvin (2023); The Economist (2022); Telecommunications of Trinidad & Tobago (2020); European Commission (2022).
Digital Accessibility	Australian Digital Inclusion Index (2022); ITU (2023); Roland Berger (2022);	Digital Literacy	Australian Digital Inclusion Index (2022); Roland Berger (2020); ITU (2023); (Helsper, et al., 2010).
Digital Affordability	Australian Digital Inclusion Index (2022); Roland Berger (2022); The Economist (2022)	Perceived Digital Divide	Australian Digital Inclusion Index (2022); Roland Berger (2022). Bazilai-Nahon (2015). Telecommunications of Trinidad & Tobago (2020); Author's synthesis (2024).
Uncertainty Avoidance	Hofstede (2024); David et al 2019; Swierczek et al (2003);		

Sources: Author's synthesis, 2024

4. Methodology

4.1. Sampling and Data Collection

This study employed a mixed-methods approach to examine the relationship between uncertainty avoidance and the digital divide among insurance sales agents in Hanoi (David et al., 2019). A multi-stage sampling technique deemed suitable to be used for sample selection

of sales agents from two leading insurance firms in Hanoi: Prudential Vietnam and Cathay Life (Fitch Solution, 2020). A questionnaire, adapted from Western literature and culturally validated, was administered to assess participants' uncertainty avoidance, digital literacy, usage, and perceptions of accessibility and affordability (Hair et al., 2019). Semi-structured interviews were also conducted to delve deeper into the cultural, organizational, and individual factors influencing the digital divide (Lu & Liang, 2024). This mixed-methods approach provided a comprehensive understanding of the complex interplay between uncertainty avoidance and the various determinants of the digital divide within the insurance sales context in Hanoi (Laura & Mihai & Mihaela, 2020).

4.2. Data Processing and Statistical Analysis

Data collection yielded 350 initial responses via Google Sheets, with 246 complete submissions representing a 70.3% response rate. The dataset was subjected to preliminary processing in SPSS 20 for missing value imputation and outlier treatment, followed by advanced analysis using Structural Equation Modeling (SEM) in the AMOS 18 software. In accordance withg Hair et al. (2019), factor analysis was employed to identify structural relationships among variables and create parsimonious variable sets for subsequent analysis. All items achieved statistical significance at the 0.001 level on the Kolmogorov-Smirnov normality test, satisfying the fundamental assumptions for factor analysis (Swierczek et al., 2003).

5. Results and Discussions

5.1. Descriptive Statistics

The description of survey respondents is presented in Table 2. It shows that female respondents account for 49.2% while male respondents make up 50.8%. Those who were in the 18-25 age bracket amounted to 56.9% while respondents who were in the age of 26-34 years accounted for 20.3%. If taken together, the percentage of survey respondents from 18 up to 34 years old reaches 77.2%. The surveyed respondents who were from 35 years old and above took the remaining percentage of 22.8%. These age cohorts were also in line with the general tendency in international insurance firms in Vietnam (McKinsey & Company, 2023).

Table 2. Statistical Characteristics of Survey Respondents

Criteria	**N**	**Percent**	**Criteria**	**N**	**Percent**
Prudential Vietnam	143	58%	Female	121	49.2%
Cathay Life	103	42%	Male	125	50.8%
			From 18-25 years old	140	56.9%
Below University	12	4.9%	From 26-34 years old	50	20.3%
University	202	82.1%	From 35-45 years old	34	13.8%
Post-graduate	32	13%	From and above 46 years old	22	9.0%
Total	**246**	**100%**	**Total**	**246**	**100%**

Sources: Synthesis from survey respondents in 2024

5.2. Exploratory Factor Analysis (EFA)

The Exploratory Factor Analysis results for the five digital divide constructs (Table 3) revealed significant factor loadings exceeding the 0.5 threshold. Loading magnitudes informed factor labeling decisions, with higher loadings carrying greater definitional weight (Hair et al., 2019). Dimension reduction yielded Cronbach's Alpha coefficients above 0.7 for all factors, meeting reliability thresholds for exploratory research. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy reached 0.89, indicating appropriate factorial simplicity (Swierczek et al., 2023). These loaded items' average scores subsequently formed composite variables for structural equation modeling analysis.

Table 3. Results of the EFA for the Digital Divide Constructs

Item statements	Loadings for factors				
	1	2	3	4	5
1. I use digital devices & apps for long-hour wok	0.88				
2. As Sales agent, I rely heavily on digital devices & apps to maintain operations	0.82				
3. I use technology devices and applications on high frequency per day	0.81				
4. My insurance firms have Computer, network, software, website, chatbot for use	0.66				
5. In my insurance firm, sales agents are highly educated for insurance profession		0.85			
6. Insurance sales agents generally can use technology proficiently		0.84			
7. My firm regularly organizes professional skills training sessions for staff		0.77			
8. My insurance firm regularly organizes information training sessions for clients		0.65			
9. My insurance firm has low fixed operating digital assets			0.82		
10. My Insurance firm has a large and stable source of income			0.77		
11. My insurance firm has low variable digital costs and always under control			0.76		
12. My firm has capital investment to improve digital infrastructure and service			0.70		
13. Updating digital infrastructure due to support from government agencies				0.80	
14. Updating digital infrastructure due to support from government & society				0.77	
15. My firm receives financial support from society & government				0.75	
16. Updating digital infrastructure due to industry pressure, competitors				0.74	
17. My firm has new digital devices & applications which are difficult to access					0.88
18. Limited access to digital apps due to lack of specialization and knowledge					0.87
19. Limited access to digital devices or technology due to lack of information					0.80
Eigenvalues	4.7	2.8	1.9	1.8	1.6
Cumulative Explained Variance (%)	24.7%	14.5%	10%	9.8%	8.7%
Cronbach Alpha Reliability	0.83	0.84	0.80	0.78	0.79

Note: Loadings less than 0.5 are suppressed in Varimax rotation and not presented.

5.3. Discussion of the Results

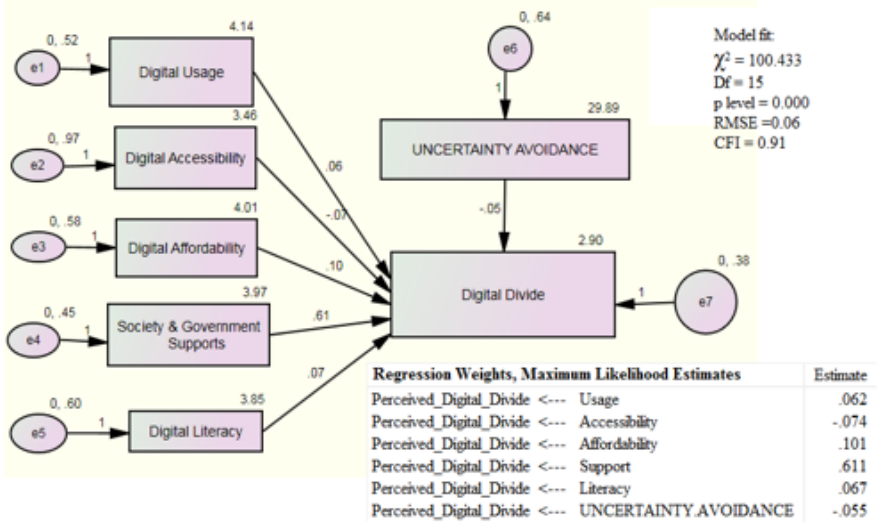
The Pearson correlation matrix reveals that the Uncertainty Avoidance was not correlated to the five digital divide factors at any level of statistical significance. Therefore, the UA variable can be specified as an independent variable in the SEM path diagram without affecting the goodness-of-fit of the model (Hair et al, 2019). The correlations among all of the other independent variables fall below the value of 0.5 which is also acceptable in the SEM analysis without any potential violation of the collinearity (Hair et al., 2019; Swierczek, 2003).

Table 4. Correlation matrix use in SEM analysis

Factor variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1).Digital Usage	1						
(2).Digital Accessibility	-0.04	1					
(3).Digital Affordability	**0.30****	-0.09	1				
(4).Digital Support	0.29**	-0.03	**0.32****	1			
(5).Digital Literacy	0.17**	-0.24**	0.24**	0.16*	1		
(6).Uncertainty Avoidance	0.005	-0.048	-0.067	0.081	-0.033	1	
(7).Perceived Digital Divide	**0.35****	-0.107	**0.39****	**0.62****	**0.29****	-0.026	1
Mean	4.14	3.45	4.00	3.97	3.84	29.89	4.41
Standard Deviation	0.72	0.98	0.76	0.67	0.773	0.80	0.81

Sources: Data processing and analysis with SPSS 20.0 and AMOS software

Figure 2. Structural Equation Modelling (SEM) path diagram



Sources: Authors' SEM path diagram analysis using AMOS 18.0

Testing of the proposed conceptual model was analyzed with structural equation modeling (SEM0 using AMOS 18. The results of the SEM analysis are provided in Figure 2. For this research, it is useful to report Chi-square goodness of fit statistics to assess the conceptual model. Additionally, the two other commonly used indices are presented. They are comparative fit index (CFI) and root mean square error of approximation (RMSEA), as Chi-square indices tend to inflate with large sample size (Hair et al, 2019).

Results of the SEM for the proposed conceptual model indicated a good fit to the data, Chi-square = 100.443 (degree of freedom =15; N=246), $p < 0.000$; RMSEA= 0.06; CFI = 0.91. The uncertainty avoidance (UA0 was found to negatively influence the

perceived digital divide (β=-0.055, p<0.05), thus confirming the acceptance of H1; The digital usage was significantly found to positively influence the digital divide with β= +0.062, p<0.05, therefore the H2 was also accepted. The digital accessibility was found to exert a negative impact on the digital divide with β=-0.074, p<0.05, thus, rejecting the H3.

For hypotheses on (H4; H5 and H6) the digital affordability (β= +0.101, p<0.05); supports from society and government (β= +0.611, p<0.05); and digital literacy (β= +0.067, p<0.05), all of them were accepted. It is worth noticing that support from society and government was found to be the most influential on the digital divide as this factor has the largest β= +0.611, p<0.05, followed by the digital affordability and digital literacy. Out of these five usage has the smallest impact on the digital divide which should be a space for policy makers to improve their works.

Results of the first hypothesis testing indicate that uncertainty avoidance is negatively related to the digital divide. This finding is consistent with the past studies of Eckert & Osterrieder (2020); Eling & Lehmann (2018). This aversion to ambiguity and risk-taking can lead to slower digital adoption, widening the divide between tech-savvy and digitally resistant sales agents (Thomas et al., 2023; David et al., 2019; Helsper & Eynon, 2010).

Results of testing the second hypothesis confirm the positive linkages between digital usage and digital divide. This is because the diffusion of innovations theory suggests that active digital usage leads to greater perceived advantages, compatibility, and skill development, driving faster technology adoption. Empirical studies have corroborated this relationship, demonstrating that digitally engaged agents outperform their less tech-savvy counterparts, exacerbating the digital divide (Eling & Lehmann, 2018; Eckert & Osterrieder, 2020). Furthermore, the COVID-19 pandemic has accelerated the insurance industry's digital transformation, making digital competence and usage an even more critical determinant of sales performance and competitive advantage (McKinsey & Company, 2023).

The rejection of the third hypothesis, which posited that digital accessibility positively influences the digital divide among insurance sales agents, is surprising given existing literature. Potential explanations include accessibility improvements benefiting technologically lagging firms more, thus reducing disparities, or enabling less digitally capable insurance agents, thereby widening skill gaps (The International Insurance Society; 2024). Additionally, digital accessibility may no longer be the primary constraint; factors like digital literacy or organizational culture could be more influential. Lastly, enhanced accessibility may incentivize investment in advanced solutions, increasing performance gaps among sales agents (Abel & Marire & Papavassiliou, 2021; Eckert & Osterrieder, 2020). Digital accessibility, encompassing physical access to technologies and ease of use, is crucial for technology adoption (Lu & Liang, 2024; Warschauer, 2003). Agents with better access and user-friendly interfaces are more likely to use digital tools effectively, while limited accessibility can hinder engagement, perpetuating the digital divide. Therefore, improving accessibility through affordability, availability, and user-friendliness is essential to bridge the digital divide within international insurance firms (Laura & Mihai & Mihaela, 2020).

The results of testing the fourth hypothesis which states that digital affordability positively influences the digital divide among insurance sales agents is supported by existing research on technology adoption (Wilson & Thomas & Barraket, 2019). When digital tools and platforms are cost-prohibitive, it creates a

barrier to access and usage, particularly for sales agents in resource-constrained settings (Dutta and Lanvin, 2023). Affordable and accessible digital solutions can enable a wider range of agents to leverage technology, reducing the digital divide. Conversely, high costs of digital technologies can exacerbate the divide, as only tech-savvy and well-resourced agents can afford to adopt these tools (Wilson & Thomas & Barraket, 2019).). Ensuring digital affordability is, therefore, a critical factor in promoting more equitable technology adoption among insurance sales teams (The International Insurance Society, 2024).

Concerning the confirmation of H5 testing in this research, this result is consistent with the fact that societal and governmental support positively influence the digital divide among insurance sales agents is grounded in the theory of institutional influences on technology adoption (McKinsey & Company, 2023; Molla & Licker, 2005). External support, such as subsidies, infrastructure development, and digital literacy programs, can help overcome barriers to technology access and usage, particularly for underserved populations (Asongu & Le Roux, 2017). In the context of insurance sales, greater societal and governmental support can enable a wider range of agents to acquire digital skills and resources, reducing the digital divide within the industry (Vassilakopoulou & Hustad, 2023). Conversely, the absence of such support can perpetuate the gap between tech-savvy and digitally disadvantaged sales agents.

Finally, the acceptance of the H6 hypothesis which postulates that digital literacy positively influences the digital divide among insurance sales agents is also supported by established theories of technology acceptance and diffusion (Eling & Lehmann, 2018). Higher levels of digital skills, knowledge, and competence enable sales agents to effectively utilize digital tools and platforms, gaining a competitive advantage over their less tech-savvy counterparts (Venkatesh et al., 2013). Conversely, low digital literacy creates a barrier to technology adoption, widening the digital divide within insurance firms (The International Insurance Society, 2024). Improving digital literacy through targeted training and skill development programs can, therefore, help bridge the gap between digitally proficient and digitally disadvantaged sales agents (McKinsey & Company, 2023).

6. Managerial Implications, Limitations and Future Research

The findings of this research present important managerial implications. The negative influence of uncertainty avoidance on the digital divide suggests that managers should focus on reducing uncertainty and promoting a culture of openness towards digital innovation (Hofstede, 2024). Implementing comprehensive digital training programs that demystify digital tools can help build confidence and reduce resistance among sales agents (The International Insurance Society, 2024). Furthermore, the positive influence of digital usage on the digital divide indicates that while increased use of digital tools is essential, it must be coupled with structured support to ensure meaningful engagement and proficiency (Thomas et al., 2023; Jan van Dijk, 2020). Despite the absence of a significant relationship between digital accessibility and the digital divide, managers should continue to focus on the effective integration of digital tools into daily operations to maximize their utility (Warschauer, 2003; DiMaggio & Hargittai, 2001). The confirmation that digital affordability positively influences the digital divide underscores the importance of providing cost-effective digital solutions. Managers should

seek affordable digital tools and negotiate better pricing to ensure equitable access (Theinvestor, 2024; Selwyn, 2004). Leveraging societal and governmental support is also crucial, as these supports can provide valuable resources and opportunities for digital literacy enhancement. Participating in government-sponsored programs and community initiatives can further reduce the digital divide (Vassilakopoulou & Hustad, 2023; Warschauer, 2003). Lastly, the positive influence of digital literacy on the digital divide highlights the need for ongoing skill development. Creating a continuous learning environment with regular updates on new digital trends can motivate agents to improve their digital skills, thereby fostering a more inclusive and effective digital environment within the organization (Wei, & Zhang, 2018; Helsper & Eynon, 2010).

This research is subject to several limitations. First, the respondents were sales agents from only two international insurance firms, which may limit the generalizability of the findings. Second, the use of purposive sampling and a small sample size could affect the representativeness of the results. Third, the study relied on the sales agents' perceptions of factors influencing the digital divide (Thomas et al.,2023) which may introduce subjective bias. Fourth, the uncertainty avoidance index was taken from Hofstede's study rather than being directly measured from the respondents, potentially impacting the accuracy of the cultural assessment (David et al, 2019). Future research should consider expanding the sample size and including a more diverse range of firms to enhance generalizability. Additionally, employing random sampling techniques could improve the representativeness of the findings (Hair et al., 2019; Swierczek et al., 2003). Future studies should also aim to directly measure cultural dimensions, such as uncertainty avoidance, from the respondents to obtain more precise data. Moreover, longitudinal studies could provide insights into how these relationships evolve over time and the long-term impacts of digital literacy and usage on the digital divide (Jan van Dijk, 2020). Finally, investigating the role of organizational support and training programs in mitigating the digital divide would offer valuable practical implications for businesses (The Economist, 2022). While these results render several meaningful implications for managers and policymakers, the afore-mentioned limitations suggest that further research is necessary to fully understand the dynamics at play. Expanding the research scope will provide deeper insights and more robust recommendations (Hair et al., 2019; Thomas et al., 2023).

References

Abel, S., Marire, J., & Papavassiliou, V. (2021). Competition in the insurance sector – An application of Boone indicator. *Cogent Economics & Finance*, 9(1). https://doi.org/10.1080/23322039.2021.1974154

Asongu, S., & Le Roux, S. (2017). Enhancing ICT for inclusive human development in Sub-Saharan Africa. *Technological Forecasting and Social Change*, 118, 44-54. https://doi.org/10.1016/j.techfore.2017.01.026

Barzilai-Nahon K. (2006). Gaps and Bits: Conceptualizing Measurements for Digital Divide/s, The Information Society: An *International Journal*, 22:5, 269-278, DOI: https://10.1080/01972240600903953.

Barroso M. & Laborda J (2022). Digital transformation and the emergence of the Fintech sector: Systematic literature review, Digital Business, 2: 2, 2022, 100028. https://doi.org/10.1016/j.digbus.2022.100028

Boston Consulting Group. (2024). “Transforming the Digital Sales Journey in Insurance”. https://www.bcg.com/publications/2024/transforming-digital-sales-in-insurance

David S. Bright, Anastasia H. Cortes (2019). *Principles of management: Hofstede Cultural Framework*. Openstax Publisher in Houston. https://openstax.org/books/principles-management/pages/6-2-hofstedes-cultural-framework

DiMaggio, P., & Hargittai, E. (2001). From the "digital divide" to "digital inequality": Studying Internet use as penetration increases. Working Paper Series, 15, Princeton University: Center for Arts and Cultural Policy Studies.

Dutta and Lanvin (2023). *Network Readiness Index 2023: Trust in a Network Society - A crisis of the digital age?*. © 2023 by Portulans Institute. ISBN: 979-8-89238-367-7

Eckert, C., & Osterrieder, K. (2020). How digitalization affects insurance companies: *Overview and use cases of digital technologies. Zeitschrift für die gesamte Versicherungswissenschaft*, 109(5), 333-360. http://dx.doi.org/10.1007/s12297-020-00475-9

European Commission (2022). “Digital Economy and Society Index (DESI) 2022: Methodological note”. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vlv0g0nbwlmc?ctx=vhsjeu461wp8. Accessed on 12 November 2024.

Fitch Solutions (2020). “Vietnam Insurance Report Q4 2020 Includes 5-year forecasts to 2024”. ISSN: 1752-8410. Copy deadline: July 2020.

Hair J, Black W., Babin B., Anderson R. (2019). *Multivariate Data Analysis. Cengage Learning*. ISBN: 9781473756694.

Helsper, E. J., & Eynon, R. (2010). Digital natives: where is the evidence? *British Educational Research Journal*, 36(3), 503–520. http://www.jstor.org/stable/27823621

Eling, M. and Lehmann, M. (2018). The Impact of Digitalization on the Insurance Value Chain and the Insurability of Risks. *Geneva Papers Risk Insurance Issues Practice* 43, 359–396. https://doi.org/10.1057/s41288-017-0073-0

Hofstede G. (2024). “Cultural Dimensions: Country Comparison graphs”. Accessed as of 11 November 2024. https://geerthofstede.com/country-comparison-graphs/

ITU (2023). “The ICT Development Index (IDI): conceptual framework and methodology”. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017/methodology.aspx. Accessed as of 21 November 2023

Jan van Dijk (2020). *The digital divide*. Polity Press Publisher. ISBN: 9781509534463.

Laura D. S., Mihai D. C., Mihaela M. G. (2020), From intention to decision in purchasing life insurance and private pensions: different effects of knowledge and behavioral factors, *Journal of Behavioral and Experimental Economics* (2020), DOI: https://doi.org/10.1016/j.socec.2020.101555.

Lu, J. F. R., & Liang, L. L. (2024). The Role of Digital Health Under Taiwan’s National Health Insurance System: Progress and Challenges. *Health Systems & Reform*, 10(2). https://doi.org/10.1080/23288604.2024.2375433.

McAllister, M. P., Cooke, T. R., & Buckley, C. (2015). Fetishizing Flo: Constructing Retail Space and Flexible Gendered Labor in Digital-Era Insurance Advertising. *Critical Studies in Media Communication*,

32(5), 347–362. https://doi.org/10.1080/15295036.2015.1103377.

McKinsey & Company. (2023). "Global Insurance Report 2023: Reimagining life insurance". https://www.mckinsey.com/industries/financial-services/our-insights/global-insurance-report-2023-reimagining-life-insurance. Accessed as of 10 November 2024.

Molla, A., & Licker, P. S. (2005). E-Commerce adoption in developing countries: A model and instrument. *Information & Management,* 42(6), 877-899. https://doi.org/10.1016/j.im.2004.09.002

Parasuraman, A., & Colby, C. L. (2015). An Updated and Streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research*, 18(1), 59-74. https://doi.org/10.1177/1094670514539730.

Selwyn, N. (2004). Reconsidering Political and Popular Understandings of the Digital Divide. New *Media & Society*, 6(3), 341-362. https://doi.org/10.1177/1461444804042519

Swierczek, F. W., & Ha, T. T. (2003). Entrepreneurial Orientation, Uncertainty Avoidance and Firm Performance: An Analysis of Thai and Vietnamese SMEs. The *International Journal of Entrepreneurship and Innovation*, 4(1), 46-58. https://doi.org/10.5367/000000003101299393

Ministry of Digital Transformation, Republic of Trinidad and Tobago (2023). "National Digital Inclusion Survey 2021: Accelerating Digital Transformation".

Theinvestor (2024). "How tech empowers insurance agents in Vietnam". Retrieved on November 2nd 2024 from https://theinvestor.vn/how-tech-empowers-insurance-agents-in-vietnam-d9737.html

The International Insurance Society (2024). "The "X Factor" In Unlocking Insurance Growth In Emerging Markets: A Case Study Of Vietnam". https://www.internationalinsurance.org/leaders_of_tomorrow_the_xfactor_unlocking_insurance_growth_in_emerging_markets.

The Economist (2022). "The inclusive internet index. Commissioned by Meta group". Accessed on 6 November 2024. https://impact.economist.com/projects/inclusive-internet-index/

Thomas, J., McCosker, A., Parkinson, S., Hegarty, K., Featherstone, D., Kennedy, J., Holcombe-James, I., Ormond-Parker, L., & Ganley, L. (2023). Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2023. Melbourne: ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University, Swinburne University of Technology, and Telstra. https://doi.10.25916/528s-ny91

Vassilakopoulou, P., Hustad, E. (2023). Bridging Digital Divides: a Literature Review and Research Agenda for Information Systems Research. *Inf Syst Front 25*, 955–969. https://doi.org/10.1007/s10796-020-10096-3

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178. http://doi.10.2307/41410412.

Warschauer, M. (2003). *Technology and Social Inclusion: Rethinking the Digital Divide*. Massachusetts Institute of Technology Press. https://doi.org/10.7551/mitpress/6699.001.0001.

Wei, K. K., & Zhang, J. (2018). Managing the digital divide: A social inclusion approach. *Information Systems Journal*, 28(4), 737-761.

Wilson, C. K., Thomas, J., & Barraket, J. (2019). Measuring Digital Inequality in Australia: the Australian Digital Inclusion Index. *Journal of Telecommunications and the Digital Economy*, 7(2), 102–120. https://doi.org/10.18080/jtde.v7n2.187.