

MINISTRY OF EDUCATION AND TRAINING
NATIONAL ECONOMICS UNIVERSITY



DAO MINH HOANG

DETERMINANTS OF INTENTION TO USE
ARTIFICIAL INTELLIGENCE IN HEALTHCARE:
AN EMPIRICAL STUDY IN VIETNAM

SPECIALIZATION: BUSINESS ADMINISTRATION (E-PHD)
SPECIALIZATION CODE: 9340101

PHD DISSERTATION SUMMARY

HANOI - 2026

THE RESEARCH PROJECT IS CONDUCTED AT
THE NATIONAL ECONOMICS UNIVERSITY

Supervisors: Prof.Dr. NGUYEN THI TUYET MAI

Opponents:

1. ,
2. ,
3. ,

The dissertation defense at the university level at the
National Economics University on .

The dissertation is archived at:

- The National Library of Vietnam
- The Library of the National Economics University

INTRODUCTION

1. Rationale of the research

Vietnam is undergoing rapid economic, demographic, and digital transitions that are reshaping its healthcare system. Despite strong economic growth and rising middle-class demand, the sector faces persistent pressures from population ageing, declining fertility, and physician shortages (World Bank, 2024; WHO, 2022; Le, 2025). These constraints coexist with increasing digital readiness, including high internet penetration and national investments in digital infrastructure, creating favorable conditions for the diffusion of medical artificial intelligence (medical AI) (Chuc and Anh, 2023; Ministry of Science and Technology, 2024). As such, Vietnam represents a salient low- and middle-income country (LMIC) context in which to examine consumer adoption of AI in healthcare.

Globally, AI has been widely applied in healthcare, from diagnostic imaging and clinical decision support to administrative automation, yet healthcare remains a high-stakes domain where AI-supported decisions directly affect human lives, heightening concerns related to trust, risk, and human judgment (Davenport et al., 2020; Topol, 2019). Although medical AI holds considerable promise for alleviating inefficiencies in under-resourced systems, adoption remains uneven and highly context dependent, particularly in developing countries (Khanijahani et al., 2022; Roppelt et al., 2024). Existing research has focused predominantly on developed countries, leaving limited empirical evidence from LMICs beyond China, despite the fact that adoption drivers in these settings differ markedly due to cultural norms, uneven digital maturity, and distinct trust perceptions (Jain et al., 2024; Ciecierski-Holmes et al., 2022).

At the consumer level, adoption of medical AI remains modest and inconsistent. While some consumers are receptive due to perceived usefulness and trust, others resist because of algorithm aversion, concerns about loss of human touch, and fears that AI neglects individual uniqueness (Longoni et al., 2019; Yang et al., 2024). Prior work also suggests that attitudes toward medical AI are strongly shaped by context and framing (Young, 2021). Although emerging research highlights beliefs as important heuristics guiding AI adoption, dominant theories such as the Theory of Planned Behavior provide limited insight into how beliefs translate into behavioral intention, given the typically weak and variable belief–behavior links (Granados Samayoa and Albarracín, 2025).

To address these gaps, this dissertation adopts Behavioral Reasoning Theory to examine how two salient beliefs, anthropocentrism and techno-optimism, shape consumers' context-specific reasons for and against adopting medical AI, which subsequently influence attitudes and intentions. By focusing on Vietnam, this dissertation advances understanding of belief-driven reasoning mechanisms in a high-stakes healthcare context within an LMIC setting and investigates the determinants of consumers' intention to adopt artificial intelligence in healthcare.

2. Research objectives, subjects and scope of the Research

Research objectives

This dissertation has two primary objectives: (1) to identify the psychosocial factors influencing consumers' intention to adopt artificial intelligence in healthcare, in a developing country context, and (2) to examine the effects of these factors on consumers' adoption intention.

Research subjects

The research subjects of this dissertation are the determinants of consumers’ intention to adopt medical artificial intelligence.

Scope of the research

Research context: This dissertation examines the factors influencing consumers’ intention to adopt artificial intelligence technologies in healthcare.

Scope of content: This dissertation investigates the beliefs and relevant reasoning factors that influence consumers’ intention to adopt medical AI, specifically Artificial Intelligence Medical Decision Support Systems (AIMDSS).

Research space: This dissertation is situated in the healthcare context of a developing country, with Vietnam serving as a representative case.

Research period: Primary data (qualitative and survey data) was collected from 2022 to 2024.

3. Research questions

Prior research has predominantly focused on technological and functional attributes; less attention has been paid to the broader sociocultural context and individual-level perceptions that may facilitate or hinder adoption, especially in developing countries. By investigating these understudied dimensions, the study contributes to a more holistic understanding of AI acceptance in healthcare. Following that, this dissertation aims to address two research questions:

Research question 1: What belief factors influence the intention to adopt AI in the healthcare context?

Research question 2: How do these beliefs impact the intention to adopt AI in the healthcare context?

4. Research methodology

To investigate the determinants of consumer intention to adopt medical AI in Vietnam, this dissertation employs a sequential exploratory mixed-methods design. The first phase utilized qualitative methods, beginning with semi-structured interviews, followed by focus groups discussions to elicit context-specific beliefs and reasons for or against adoption. In this phase, hypotheses 6,7,9, and 10 were further specified. In the second phase, the author conducted a survey. Data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to empirically test the hypothesized relationships between beliefs (such as techno-optimism and anthropocentrism), reasons, attitudes, and behavioral intentions.

CHAPTER 1: LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

1.1. Literature review

1.1.1. Overview of AI and AI in healthcare

AI refers to computational systems that can perceive their environment, learn from data, reason, and act autonomously to achieve specific goals, often performing tasks that would otherwise require human intelligence (European Commission, 2018; Haenlein and Kaplan, 2019; Huang and Rust, 2021a; Topol, 2019). AI can be classified according to capability, function, embodiment, and application context. In the medical context, AI in healthcare, or medical AI, refers to the technological systems capable of processing and analyzing data, making decisions, and assisting healthcare professionals by simulating human cognitive abilities (Khanijahani et al., 2022).

1.1.1.1. Definition of AI

1.1.1.2. Classification of AI

1.1.1.3. AI in healthcare

1.1.2. Consumers' adoption of AI in healthcare

Consumers' adoption of AI in healthcare has attracted growing scholarly attention. However, the field remains at an early stage of development, with existing findings scattered and theoretically fragmented. Consequently, there is a pressing need for further investigation into consumers' intentions to adopt AI and the factors that drive such intentions, particularly for underexplored yet high-impact contexts such as healthcare. Moreover, prior research highlights the necessity of advancing alternative theoretical perspectives on medical AI adoption, expanding empirical evidence from developing countries beyond China, and employing qualitative or mixed-method approaches to generate deeper and more context-sensitive insights.

1.1.2.1. Consumers' adoption of AI in healthcare: an emerging topic

1.1.2.2. Consumers' adoption of medical AI in studies

1.1.3. Determinants of behavioral intention to adopt medical AI in healthcare

1.1.3.1. Reasons for adopting AIMDSS of consumers

Initial trust

Initial trust refers to the willingness to rely on a product, service, or system in the absence of prior experience or interaction, often formed based on limited cues such as reputation, structural assurances, or third-party endorsements (McKnight et al., 1998).

Modern self

Prior research shows that self concepts play an important role in shaping consumer attitudes and behavioral intentions toward new products and services (Jamal, 2004; Wu and Chan, 2011). In transitional economies such as Vietnam and China, individuals often hold multiple coexisting self concepts due to sustained exposure to foreign cultural influences (Nguyen et al., 2009; Zhang and Shavitt, 2003). Nguyen et al. (2009) conceptualize consumer self-concept as comprising modern self (MS) and traditional self (TS). MS is associated with openness to innovation preference for new experiences, and a desire for autonomy and flexibility in consumption choices.

Personal innovativeness in domain of health technology

Personal innovativeness in the domain of health technology (PIHT) refers to an individual's willingness and tendency to try out novel health-related technologies, particularly in the early stages of their diffusion. This construct is adapted from Agarwal and Prasad's (1998) definition of personal innovativeness in the domain of information technology.

1.1.3.2. Reasons against adopting AIMDSS of consumers

Traditional self

TS is characterized by adherence to cultural norms and caution toward new products or services.

Perceived threat

Perceived threat refers to an individual's cognitive acknowledgment or belief that such a threat is present and personally relevant. In this dissertation, perceived threat comprises realistic and identity threats. Realistic threats refer to perceived dangers to an ingroup's physical safety, material resources, or overall well-being, while identity threats involve perceived challenges to the ingroup's distinctiveness, values, and cultural uniqueness (Huang et al., 2021; Riek et al., 2006; Stephan et al., 1999)

1.1.3.3. Beliefs

Beliefs represent individuals' subjective probability judgments about specific aspects of the world, shaping how they interpret, evaluate, and respond to events or choices (Fishbein and Ajzen, 1975).

Techno-optimism

Technology optimism is a belief that reflects individuals' expectations that technology will enhance their control, flexibility, and productivity (Danaher, 2022; Parasuraman, 2000).

Anthropocentrism

Anthropocentrism is a belief that reflects the tendency to perceive humans as inherently superior and fundamentally distinct from non-human entities, assigning intrinsic value primarily to human life while treating nature and other non-human agents as instrumental to human ends (Boslaugh, 2016; Fortuna et al., 2023; Gagnon Thompson and Barton, 1994).

1.1.4. Research gaps

Despite the growing literature on AI adoption, several critical gaps remain, particularly in the healthcare context. First, prior studies have predominantly relied on utilitarian and technology centric frameworks such as TAM, TPB, and UTAUT, which emphasize perceived usefulness and performance expectancy but insufficiently account for deeper psychological drivers such as beliefs, resulting in inconsistent findings regarding consumer acceptance and resistance to AI (Dwivedi et al., 2021; Khanijahani et al., 2022; Dietvorst et al., 2015; Longoni et al., 2019; Castelo et al., 2019; Logg et al., 2019; Hildebrand and Bergner, 2021). Although emerging evidence highlights the role of lay beliefs in shaping algorithm adoption, research on broader belief systems, including anthropocentrism and techno optimism, remains limited and underdeveloped (Huang and Rust, 2018; von Walter et al., 2022). Second, there is a lack of theoretical clarity regarding the mechanisms through which beliefs influence behavior, as prior intention-based models assume direct belief-behavior links despite empirical evidence showing weak and variable associations (Albarracín, 2002; Albarracín and Wyer Jr., 2001; Granados Samayoa and Albarracín, 2025). Scholars have therefore called for approaches that explicate belief to behavior inference processes, such as Behavioral Reasoning Theory (BRT), which explicitly models how beliefs shape context specific reasons that drive intention (Sahu et al., 2020; Westaby, 2005; Westaby et al., 2025). Third, existing empirical evidence is heavily concentrated in high-income Western contexts, leaving consumer adoption of medical AI in transitional and developing countries largely unexplored, despite their distinct cultural dynamics and belief structures that may critically shape adoption decisions (Jain

et al., 2024). Thus, studying the determinants of consumers' intention to adopt medical AI in Vietnam using BRT addresses key theoretical gaps by elucidating the belief-to-behavior inference mechanisms that shape AI adoption in healthcare.

1.2. Theoretical framework and hypotheses

1.2.1. Behavioral Reasoning Theory

BRT explains behavioral intention by emphasizing context-specific reasoning processes rather than relying solely on global motives such as attitudes or subjective norms. The theory posits that individuals simultaneously consider supportive and opposing cognitions when making decisions, and that these cognitions mediate the effects of underlying beliefs on attitudes and intentions. Within BRT, *reasons* are defined as the specific subjective justifications individuals use to explain or rationalize their anticipated behavior. These reasons consist of two distinct dimensions: *reasons for*, which are the specific subjective justifications individuals use to support engaging in a particular behavior, and *reasons against*, which are the specific subjective justifications individuals use to oppose or avoid a behavior. Given that the direct effects of beliefs on behavioral intention are often small, and that existing theories provide limited insight into the mechanisms through which beliefs shape intention, BRT offers a more suitable explanatory framework by explicitly modeling the cognitive reasoning processes that translate beliefs into adoption decisions, compared with TPB, TAM, and UTAUT. In high-stakes contexts such as healthcare, where adoption decisions involve high risk and complexity, BRT enables a deeper understanding of how beliefs are translated into consumers' cognitive evaluations through context-specific reasons for and against adopting medical AI.

1.2.2. Impact of attitude on intention to adopt medical AI

H1. Users' attitude toward AIMDSS will positively influence their intention to adopt AIMDSS

1.2.3. Impact of reasons on intention to adopt medical AI

H2. Users' reasons for adopting AIMDSS will positively influence their intention to adopt AIMDSS

H3. Users' reasons against adopting AIMDSS will negatively influence their intention to adopt AIMDSS

1.2.4. Impact of reasons on attitude toward medical AI

H4. Users' reasons for adopting AIMDSS will positively influence their attitudes toward AIMDSS

H5. Users' reasons against adopting AIMDSS will negatively influence their attitudes toward AIMDSS

1.2.5. Impact of beliefs on consumers' reasons and attitude toward medical AI adoption

1.2.5.1. Impact of technology optimism

H6. Techno-optimism will be related to reasons for AIMDSS adoption

H7. Techno-optimism will be related to reasons against AIMDSS adoption

H8. Techno-optimism will be positively related to attitude toward AIMDSS

1.2.5.2. Impact of anthropocentrism

H9. Anthropocentrism will be related to reasons for AIMDSS adoption

H10. Anthropocentrism will be related to reason against AIMDSS adoption intention

H11. Anthropocentrism will be positively related to attitude toward AIMDSS adoption.

The research framework is illustrated in Figure 1.4.

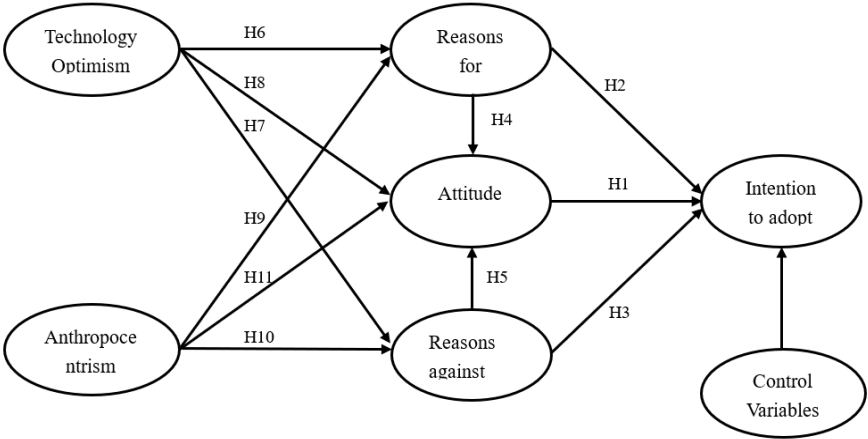


Figure 1.4. Theoretical Framework

CHAPTER 2: RESEARCH METHODOLOGY

2.1. Research context

2.1.1. The context of Vietnam

Vietnam serves as a critical yet underexplored context for medical AI adoption, characterized by rapid digital transformation occurring alongside significant infrastructural and socio-cultural constraints. Vietnam exhibits substantial variation in digital literacy across regions, alongside strong cultural preferences for human-centered care, which may shape trust, anthropocentrism, and perceived threat toward medical AI. At the same time, a young and expanding middle class shows growing enthusiasm for innovation, positioning Vietnam as a context where both resistance and receptiveness to AI coexist.

2.1.2. AI adoption in Vietnamese healthcare setting

Although Vietnam’s healthcare system is advancing in digital transformation through strong policy support, it continues to face critical challenges including overcrowding, physician shortages, and population ageing. AI is increasingly positioned as a strategic solution to augment clinical capacity and resolve health inequality in developing countries, yet its adoption remains embryonic (Kurniawan et al., 2024; Nadarzynski et al., 2019; Thu et al., 2023).

2.2. Research methodology

To investigate the determinants of consumer adoption of medical AI in the nascent Vietnamese market, this study employs a sequential exploratory mixed-methods design that integrates qualitative and quantitative approaches.

2.2.1. Phase one: Qualitative study

2.2.1.1. Semi-structured interviews

Sample selection

The semi-structured interviews employed a purposive sampling strategy (Patton, 2014). A total of 17 informants were recruited, representing key stakeholders: healthcare professionals, policymakers, medical AI developers and consumers.

Data collection and analysis

In this study, the author recruited seventeen informants in the period 2023-2024 to gain a preliminary understanding of the state of medical AI adoption in Vietnam and the factors that could influence the adoption of this technology in Vietnamese healthcare system. The interview process was structured into two rounds. The first round gathered background information on informants' profiles, their exposure to technology, and awareness of AI in healthcare. The second round explored their perceptions of medical AI adoption, perceived enabling and inhibiting factors, and views on whether AI could replace human physicians. Interviews continued until theoretical saturation was reached, defined as the point at which no new themes or insights emerged from the data (Guest et al., 2006). The data were analyzed using the reflexive thematic analysis approach outlined by Braun and Clarke (2006).

2.2.1.2. Focus groups

Sample selection

Nine focus group discussions were conducted with participants from a business school in Vietnam. A purposive sampling strategy was adopted to recruit participants who reflect a key demographic likely to engage with emerging healthcare technologies young, educated consumers. The sample consisted of undergraduate and master's students, aged 19 to 27, currently enrolled in business and related

programs. Each round of data collection involved three focus groups, with 7 to 9 participants per group, consistent with methodological recommendations for generating diverse yet manageable discussions (Krueger and Casey, 2015). Participants were recruited through in-class announcements and institutional communication channels.

Data collection and analysis

Participants were recruited in three rounds with a total of 73 participants. In every round, the author created three groups, each consisting of seven to nine participants. The participants shared a similar education level (i.e., undergraduate, or master students) and the gender ratio was relatively balanced for each group. The authors assumed the moderator role. To elicit factors influencing consumers' intention to adopt medical AI, the data was analyzed using reflexive thematic analysis, as outlined by Braun and Clarke (2006).

2.2.2. Phase two: Survey

2.2.2.1. Sample and data collection

In the second phase, a structured survey was administered to investigate the antecedents of consumers' intention to adopt medical AI, using both online and offline recruitment methods. Online data collection targeted university students, alumni, and social media users, while offline data collection was conducted at two major hospitals in Hanoi with voluntary participation from visitors and patients aged eighteen and above. After screening for data quality, 487 valid responses were retained.

2.2.2.2. Measurements and Questionnaire development

Intention to Adopt Medical AI

Consumers’ intention to adopt AIMDSS was measured using items adapted from Ajzen’s (1991) scale, modified to reflect the context of AI adoption in healthcare.

Attitude Toward AIMDSS

Attitude toward AIMDSS was assessed using a shortened three-item scale adapted from Ajzen (1991), capturing respondents’ overall evaluative orientation toward using AI-based medical decision support.

Techno-Optimism

Techno-optimism was measured using a shortened five-item scale adapted from Chung et al. (2015), which was originally derived from the techno-optimism dimension of Parasuraman’s (2000) Technology Readiness Index.

Anthropocentrism

Anthropocentrism was operationalized using a four-item scale developed by Fortuna et al. (2023), capturing beliefs regarding human centrality, superiority, and moral precedence in relation to non-human agents and systems.

Reasons For Adoption

Consistent with BRT, reasons for medical AI adoption were modeled as a formative higher-order construct following Westaby (2005), an approach adopted in prior BRT studies (Ahmad and Harun, 2023; Ashfaq et al., 2021; Li and Wang, 2024). As reasons are context- and innovation-specific, they were first elicited through an exploratory qualitative phase. Thus, the construct reasons for comprises three factors: initial trust, modern self, and personal innovativeness in the domain of health technology. Initial Trust was measured using a shortened four-item scale adapted from Oliveira et al. (2014). Modern Self was assessed using five items adapted from Nguyen et al. (2009).

Personal Innovativeness in the Domain of Health Technology (PIHT) was adapted from Agarwal and Prasad (1998), with item wording modified to reflect innovativeness specifically in health-related technologies rather than general information technology.

Reasons Against Adoption

Similar to reasons for adoption, reasons against adoption were modeled as a formative higher-order construct. This construct captured consumers’ psychological and cultural rationales for resisting medical AI and consisted of traditional self and perceived threat. Traditional Self was measured using a five-item scale developed by Nguyen et al. (2009). Perceived Threat was conceptualized as comprising two distinct dimensions: identity threat and realistic threat, with measurement items adapted from Złotowski et al. (2017).

Control Variables

Perceived behavioral control and subjective norm were included as control variables, as they represent important global motives influencing behavioral intention. Measurement items for both constructs were adapted from Ajzen (1991).

All measurement items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). To ensure a shared understanding among respondents, a concise and accessible definition of AIMDSS was provided at the beginning of the questionnaire.

2.2.2.3. Data analysis

The study employed PLS-SEM due to its suitability for emerging research areas, its minimal distributional assumptions, and its robustness with medium-sized samples such as the 487 responses collected. This method was also appropriate given the complexity of the

model, which included reflective–formative higher-order constructs for reasons for and reasons against adoption. In this study, sample characteristics and descriptive statistics were analyzed using SPSS 27, whereas the structural equation modeling (SEM) analysis was conducted using SmartPLS 4.

CHAPTER 3: RESEARCH FINDINGS

3.1. Qualitative findings

There were five main themes emerged from the qualitative findings, as illustrated by section 3.1.1 to 3.1.5. Findings from the interviews and focus group have shown the coexistence of two beliefs, which are anthropocentrism and techno-optimism. From the qualitative findings, several adoption rationales emerged that participants used to justify their openness to AI based medical decision support systems (e.g. initial trust, personal innovativeness in health technology, modern self). Following the qualitative finding, identity threat, realistic threat and traditional self emerge as strong rationale against adopting medical AI of consumers. Also, hypotheses 6, 7, 9 and 10 were further specified in this phase.

3.1.1. A nascent and fragmented adoption landscape of medical AI in Vietnam

3.1.2. Uneven awareness and exposure to medical AI of Vietnamese consumers

3.1.3. Coexistence of techno-optimistic belief and human-centered belief

3.1.4. Adoption rationales

3.1.5. Resistance rationales

3.1.6. Hypotheses specification

Following the qualitative analysis, this study further specifies hypotheses 6, 7, 9, and 10, as follows.

H6: Technology optimism will be positively related to *reasons for* adopting AIMDSS

H7: Technology optimism will be positively related to *reasons against* adopting AIMDSS

H9: Anthropocentrism will be positively related to *reasons for* adopting AIMDSS

H10: Anthropocentrism will positively related to *reasons against* adopting AIMDSS

3.2. Quantitative findings

3.2.1. Sample characteristics

After data screening, 487 valid responses were retained, with the sample predominantly young (55.4% aged 20–29) and female (63.9%), broadly reflecting Vietnam’s youthful demographic and the profile of early adopters of emerging digital health technologies (United Nations, 2024; UNDP, 2025). Overall, respondents were mainly moderately educated and in lower- to middle-income brackets, representing a consumer segment that is digitally savvy, increasingly health conscious, and well positioned to encounter and evaluate medical AI services in Vietnam (BritCham Vietnam, 2021; McKinsey, 2021).

3.2.2. Measurement model assessment

Following established PLS-SEM guidelines, the measurement and structural models were evaluated through multiple analytical steps. Descriptive statistics and the correlation matrix were first examined, followed by assessments of internal consistency reliability, convergent validity, and discriminant validity. The results indicate that all constructs demonstrate satisfactory internal consistency reliability as well as adequate convergent and discriminant validity. In addition, potential common method bias was tested and found not to pose a serious concern, and the results of the structural model assessment indicate that all evaluation criteria were satisfactorily met.

3.2.2.1. Descriptive statistics and correlation matrix

3.2.2.2. Reliability and validity analysis

3.2.2.3. Common method bias

3.2.2.4. Structural model assessment

3.2.3. Hypotheses testing

Overall, the results demonstrate that consumers’ intentions to adopt AIMDSS are shaped primarily through context-specific reasoning pathways, consistent with Behavioral Reasoning Theory. Initial trust, modern self, and personal innovativeness strongly form reasons for adoption, while traditional self and perceived threat underpin reasons against, confirming the validity of the second-order reflective–formative structure. Most hypotheses were supported except for hypotheses 3, 8 and 11. Specifically, *reasons for* exert a strong positive influence on both attitudes and intentions, whereas *reasons against* negatively affect attitudes but do not directly suppress intentions, indicating an indirect resistance mechanism. Beliefs (techno-optimism and anthropocentrism) influence adoption mainly through serial mediation via reasons and attitudes rather than direct effects, and these relationships remain robust after controlling for demographics, subjective norms, and perceived behavioral control, with younger age and gender differences further contextualizing adoption tendencies.

CHAPTER 4: DISCUSSION AND IMPLICATIONS

4.1. Discussion

4.1.1. *The current status of medical AI adoption in Vietnam*

4.1.2. *The influence of global motives on intention to adopt medical AI*

4.1.3. *The influence of reasons on intention to adopt medical AI*

4.1.3.1. The impact of reasons for

4.1.3.2. *The impact of reasons against*

4.1.4. *The role of beliefs in determining intention to adopt medical AI*

4.1.4.1. *The direct effects of beliefs on attitude and reasons*

4.1.4.2. *The indirect effects*

4.2. Theoretical contributions

This dissertation advances the literature on medical AI adoption by addressing the limited understanding of how beliefs shape consumers' intentions to adopt AIMDSS, with particular attention to anthropocentrism and techno-optimism. By applying BRT, the study responds to calls to unpack belief-to-behavior mechanisms and demonstrates that these dual beliefs jointly influence adoption intentions indirectly through context-specific reasons, attitudes, and reasoning processes (Granados Samayoa and Albarracín, 2025; Westaby et al., 2025). The findings extend prior BRT research by shifting the focus from values to beliefs and revealing a dual-pathway pattern in which both anthropocentrism and techno-optimism simultaneously strengthen reasons for and reasons against adoption, albeit with asymmetric magnitudes, thereby capturing the cognitive ambivalence inherent in high-stakes healthcare decisions (Claudy et al., 2015; Li and Wang, 2024; Sahu et al., 2020). In addition, the study identifies a context-specific configuration of reasons underlying medical AI adoption in Vietnam, including initial trust, personal

innovativeness in health technology, and modern self as facilitators, and perceived threats and traditional self as inhibitors, highlighting the role of sociocultural identity and health-specific innovativeness in shaping adoption decisions. Finally, the results reconceptualize anthropocentrism as an ambivalent belief that can both enable and constrain adoption depending on how AI is cognitively framed, thereby extending existing views that portray anthropocentrism solely as a barrier and enriching theoretical understanding of consumer responses to AI in healthcare (Mick and Fournier, 1998; Huang and Rust, 2021b; Belanche et al., 2021).

4.3. Practical implications

The practical implications highlight the need for coordinated actions by hospitals, medical AI developers, and policymakers to foster consumer adoption of AIMDSS in Vietnam. Healthcare providers should adopt human-centered implementation strategies that combine targeted digital engagement, transparent communication, phased deployment, and continuous staff training to build trust and reduce perceived threats, while developers should prioritize benefit-oriented design, shared decision support, localization, co-design with stakeholders, and ongoing patient feedback. At the policy level, establishing a national roadmap, clear legal frameworks, shared digital infrastructure, targeted funding for provincial hospitals, and tiered workforce training is essential to enable equitable, scalable, and responsible diffusion of medical AI across the healthcare system.

4.3.1. *Implication for hospitals*

4.3.2. *Implication for medical AI developers*

4.3.3. *Implication for policymakers*

4.4. Limitations and future research directions

This dissertation has limitations. First, the sample is skewed toward younger individuals, limiting the generalizability of the findings

to older populations who frequently utilize complex medical services. Second, because the research is conducted exclusively in Vietnam, the results may not extend to other developing countries with different institutional structures or to developed nations with more advanced digital infrastructure. Third, the focus on AIMDSS restricts the understanding of how anthropocentrism might influence intentions toward semi-autonomous or autonomous systems that are perceived to replace human roles. To address these issues, future research should recruit more demographically representative samples and conduct cross-national comparative studies to identify context-specific moderating factors. Additionally, scholars are encouraged to expand the model by comparing adoption drivers for assistive versus replacement technologies and by investigating emerging tools like generative AI. Finally, future investigations could utilize longitudinal designs to track evolving consumer reasoning or integrate affective responses, such as anxiety and moral discomfort, to deepen the psychological understanding of adoption.

CONCLUSION

Using Behavioral Reasoning Theory, this dissertation shows that consumer adoption of medical AI in Vietnam is shaped by belief-driven and context-specific reasoning processes. Beliefs such as techno-optimism and anthropocentrism simultaneously influence reasons for and reasons against adoption, with supportive reasons (e.g., initial trust, modern self, and personal innovativeness in health technology) strengthening attitudes and intentions, while inhibiting reasons (e.g., perceived threats and traditional self) primarily weaken attitudes. By demonstrating the coexistence of facilitating and resisting psychological forces in a high-stakes healthcare context, the study extends BRT to medical AI and underscores that effective adoption strategies in transitional economies must address not only functional benefits but also cultural identity, trust, and realistic concerns.

**RESEARCH PROJECTS RELATED TO THE
DISSERTATION BY THE PHD CANDIDATE**

1. Dao Minh Hoang, Nguyen Thi Tuyet Mai, Nguyen Hoang Linh, Nguyen Binh Minh (2025), ‘What drive young Vietnamese consumers to adopt Medical AI?’, *Journal of Finance & Accounting Research*, No.03(34)-2025, Academy of Finance
2. Hoang Minh Dao, Linh Hoang Nguyen, Duong Dang Linh Dan, Nguyen Thi Tuyet Mai (2025), ‘Determinants of consumer intention to adopt medical AI in an emerging economy: the role of self-concept and initial trust’, *Telematics and Informatics Reports*, Volume 18, June 2025, 100213, Elsevier B.V.