

WHAT ARE THE DIFFERENCES IN PRIVACY THOUGHTS BETWEEN TRAVELERS AND LOCALS AND HOW DO THEY INFLUENCE WILLINGNESS TO USE CBDC?

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INTRODUCTION

The popularity of cryptocurrencies like Bitcoin has increased, leading central banks worldwide to explore developing their own digital currencies, which are known as central bank digital currencies (Roy, 2023; Schonberger, 2023). Over 100 countries, including the US, are evaluating this central bank digital currencies (CBDCs), which are intended to be more stable and safer than cryptocurrencies (Smith, 2022). However, CBDCs face challenges regarding protecting user privacy (Roy, 2023; Smith, 2022). Despite these concerns, the CBDC in China has already gained millions of users in transactions (Georgieva, 2022). Korea also showed interest on CBDC, and conducted a pilot CBDC development program (Jung, 2021).

Our research aims to investigate personal information sharing perspectives related to CBDCs between locals and foreign travelers in Korea and China, focusing on the impact of features of traveling and the destination. Our research questions

are: 1. Does an individual's inclination towards privacy change due to the characteristics of outbound travel, such as temporariness or uncertainty, resulting in changes of CBDC related privacy sensitivity or openness to share private information? 2. Does an individual's inclination towards privacy change due to the characteristics of the travel destination that issues CBDC, resulting in changes of CBDC related privacy sensitivity or openness to share private information?

LITERATURE REVIEW

According to the theory known as privacy calculus, people consider the potential gains and losses before deciding whether to provide their privacy for certain services (Gouthier, Nennstiel, Kern & Wendel, 2022). Based on this concept, we developed our model (Figure 1), which takes into account differences in individual privacy tendencies and circumstances.

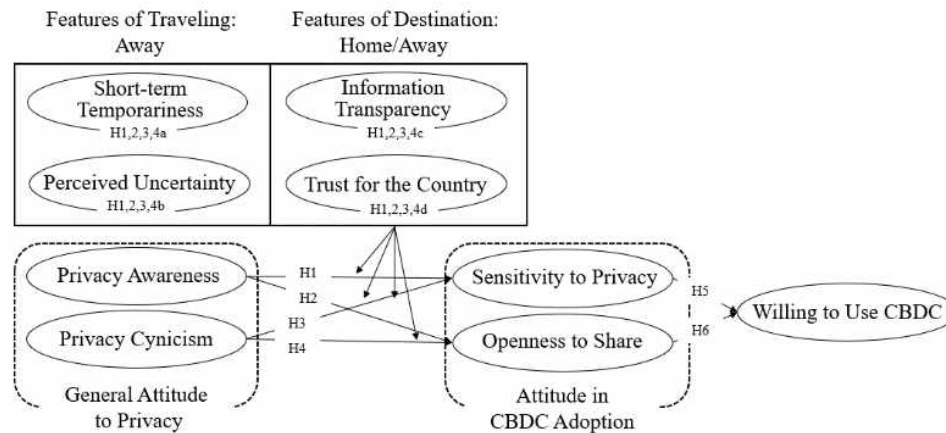


Figure 1. Research Model

Privacy cynicism is an attitude of helplessness, doubt, and resignation to personal data management by digital platforms and makes people subjectively think that efforts for privacy protection is useless (Hoffmann, Lutz, & Ranzini, 2016). Privacy cynicism and privacy protection practices have a negative association, and privacy fatigue that includes cynicism weakens the influence of privacy concerns toward sharing intention (Lutz, Hoffmann & Ranzini, 2020; Choi, Park, & Jung, 2018). Considering these previous studies, we established the following hypothesis:

- H1 : Privacy cynicism negatively affects the sensitivity to privacy in adopting CBDC.
 H2 : Privacy cynicism positively affects the openness to share in adopting CBDC.

Privacy awareness, referring to how well-informed a person is about privacy practices and rules, can describe individuals' general disposition to privacy issues (Xu, Dinev, Smith, & Hart, 2008). Privacy awareness is widely accepted to give a positive influence on a privacy sharing attitude in various contexts, such as E-commerce, finance, healthcare, and tourism (Ioannou, Tussyadiah, & Lu, 2020; Xu, Dinev, Smith, & Hart, 2008). Considering these previous studies, we established the following hypothesis:

- H3 : Privacy awareness positively affects the sensitivity to privacy in adopting CBDC.
 H4 : Privacy awareness negatively affects the openness to share in adopting CBDC.

Studies have shown that people who are more sensitive about their personal information are less willing to disclose their privacy when using a

service that requires it. For instance, Kim, Park, Park, and Ahn (2019) found that individuals who are more sensitive about their own information were less willing to provide private information for using IoT service. Similarly, Ioannou, Tussyadiah, and Lu (2020) discovered that tourists who were more sensitive about their information showed lack of willingness to share it when dealing with online providers. Conversely, Xu, Luo, Carroll, and Rosson (2011) figured out that individuals who perceive sufficient value in sharing their information tend to have a greater willingness to provide private information, and thus show more intention to use mobile services that offer location-aware marketing. Considering these previous studies, we established the following hypothesis:

- H5: Sensitivity to privacy in adopting CBDC negatively affects willingness to use CBDC.
- H6: Openness to share in adopting CBDC positively affects willingness to use CBDC.

This study aims to investigate how different circumstances of CBDC use impact relationship between general attitude to privacy and attitude in CBDC adoption. Travel features like temporariness and uncertainty may have a moderating role between them. Temporariness may lead to greater openness, as seen in studies on employee's attitude toward innovation (Spanuth, Heidenreich, & Wald, 2020) and temporary tourist's activity participation (Monteniro, e Silva, Haustein & de Sousa, 2021). In some cases, temporary travel to exotic destinations has even been linked to increased risk-taking behavior (Berdychevsky, 2016). Considering these previous studies, we established the following hypothesis:

- H1a : Short-term temporariness negatively moderates the relationship between privacy cynicism and sensitivity to privacy in such a way that short-term temporariness strengthens the negative effect of privacy cynicism on sensitivity to privacy.
- H2a : Short-term temporariness positively moderates the relationship between privacy cynicism and openness to share in such a way that short-term temporariness strengthens the positive effect of privacy cynicism on openness to share.
- H3a : Short-term temporariness negatively moderates the relationship between privacy awareness and sensitivity to privacy in such a way that short-term temporariness weakens the positive effect of privacy awareness on sensitivity to privacy.
- H4a : Short-term temporariness positively moderates the relationship between privacy awareness and openness to share in such a way that short-term temporariness weakens the negative effect of privacy awareness on openness to share.

Perceived uncertainty can cause consumers to become passive. Studies show that perceived uncertainty can be an obstacle when trying online prescription filling or book purchasing (Pavlou, Liang, & Xue, 2007), and that people have a greater intention to use mobile apps that provide less privacy uncertainty (Al-Natour, Cavusoglu, Benbasat, & Aleem, 2020). Considering these previous studies, we established the following hypothesis:

- H1b : Perceived uncertainty positively moderates the relationship between privacy cynicism and sensitivity to privacy in such a way that perceived uncertainty weakens the negative effect of privacy cynicism on sensitivity to privacy.
- H2b : Perceived uncertainty negatively moderates the relationship between privacy cynicism and openness to share in such a way that perceived uncertainty weakens the positive effect of privacy cynicism on openness to share.
- H3b : Perceived uncertainty positively moderates the relationship between privacy awareness and sensitivity to privacy in such a way that

perceived uncertainty strengthens the positive effect of privacy awareness on sensitivity to privacy.

- H4b : Perceived uncertainty negatively moderates the relationship between privacy awareness and openness to share in such a way that perceived uncertainty strengthens the negative effect of privacy awareness on openness to share.

The destination's features can affect the impact of disposition to general privacy toward attitude to CBDC adoption. Lack of information transparency can lead to worries about privacy, as people hesitate to give their information for personalized service or advertising (Awad & Krishnan, 2006; Knote, 2019). In e-commerce, perceived information transparency about a website is positively related to intention to use it (Zhou, Wang, Xu, Liu, & Gu, 2018). Considering these previous studies, we established the following hypothesis:

- H1c : Information transparency negatively moderates the relationship between privacy cynicism and sensitivity to privacy in such a way that information transparency strengthens the negative effect of privacy cynicism on sensitivity to privacy.
- H2c : Information transparency positively moderates the relationship between privacy cynicism and openness to share in such a way that information transparency strengthens the positive effect of privacy cynicism on openness to share.
- H3c : Information transparency negatively moderates the relationship between privacy awareness and sensitivity to privacy in such a way that information transparency weakens the positive effect of privacy awareness on sensitivity to privacy.
- H4c : Information transparency positively moderates the relationship between privacy awareness and openness to share in such a way that information transparency weakens the negative effect of privacy awareness on openness to share.

Trust in a country can affect the relationship between attitude to general privacy and disposition

to CBDC adoption. Lack of trust in a company can trigger concerns in consumers when providing their private information (Knote, 2019), while trust can increase willingness to transact in e-commerce (Van Slyke, Shim, Johnson, & Jiang, 2006) and intention to provide personal information for websites and IoT services (Bansal & Genfen, 2010; Kim, Park, Park, & Ahn, 2019). Considering these previous studies, we established the following hypothesis:

- H1d : Trust for the country negatively moderates the relationship between privacy cynicism and sensitivity to privacy in such a way that trust for the country strengthens the negative effect of privacy cynicism on sensitivity to privacy.
- H2d : Trust for the country positively moderates the relationship between privacy cynicism and openness to share in such a way that trust for the country strengthens the positive effect of privacy cynicism on openness to share.
- H3d : Trust for the country negatively moderates the relationship between privacy awareness and sensitivity to privacy in such a way that trust for the country weakens the positive effect of privacy awareness on sensitivity to privacy.
- H4d : Trust for the country positively moderates the relationship between privacy awareness and openness to share in such a way that trust for the country weakens the negative effect of privacy awareness on openness to share.

PROPOSED METHOD

We'll survey Koreans and Chinese, prioritizing Chinese users of digital yuan who have visited Korea and Korean users of Korean mobile payments who have visited China. We'll also consider Koreans who have visited China and are familiar with CBDC.

EXPECTED IMPLICATIONS

By adopting relatively new concept, privacy cynicism, we established the model that can show there is privacy calculus in adopting CBDC, which shows theoretical implication. Further, It has been demonstrated that attitudes towards privacy in relation to CBDC vary depending on the domestic and foreign circumstances, and more specifically, the features of traveling and destination have an

impact on the general attitude to privacy toward the attitude towards CBDC adoption. This finding also has practical implications for countries considering the adoption of CBDCs. For example, while countries may actively encourage short-term travelers to use CBDCs, they should also work to reduce uncertainty and increase transparency and trust.

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