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# How does Privacy Transfer Affect the Value Co-creation Behavior of Gray Privacy Products? --Female Bras as an Example

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### **Extended Abstract**

# **How does Privacy Transfer Affect the Value Co-creation Behavior of Gray**

## Privacy Products? -- Female Bras as an Example

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Abstract: Due to the particularity of gray privacy products, purchasing involves more privacy information of consumers, thus affecting value co-creation behavior. Based on the value co-creation theory and privacy calculus theory, this paper takes the female bra as an example to construct the research hypothesis and model influencing the consumer value co-creation behavior under the circumstance that online consumers are concerned about privacy. This article in the form of questionnaire survey to collect empirical data, uses the structural equation model to explain privacy concern about the impact of perceived risk and perceived benefits and mechanisms, as well as the perceived risk and perceived benefits of consumer value to create the behavior and mechanism of action, and discusses the privacy transfer how to affect the consumer's perceived risk and perceived benefits. The results reveal the role of privacy concern and the complexity of the influencing factors of privacy concern and privacy transfer on consumers' value co-creation behavior.

Keywords: Privacy calculus theory, Value co-creation theory, Privacy transfer, Privacy concern, Gray Privacy Products

### 1. INTRODUCTION

In the digital transformation, online purchase of gray privacy products has become a consumer trend. Compared with other products, gray privacy products involve more privacy of consumers. For example, women's bra involves more privacy of women. Privacy concern, privacy security and privacy protection of privacy sharing or sharing premise. Privacy calculus theory is the most useful framework for analyzing user privacy problems<sup>[1]</sup> Therefore, the following research questions are proposed: the digital transformation of bra companies and to explore the value of the impact of privacy transfer on perceived risk and perceived benefit, which have a mediating moderating effect on the purchase of digital transformation and consumer purchase intentions. Therefore, the following research questions are posed:

QA1: How do privacy transfer in digital transformation affect the impact of consumer value co-creation behaviors?

QA2: Are privacy concern in digital transformation valuable for perceived benefits and perceived risks?

### 2. THEORETICAL FOUNDATION AND HYPOTHESES

Privacy calculus theory is a classic theory that has been widely used to explore users' privacy perceptions and behaviors<sup>[2]</sup>. There are two important branches of value co-creation theory: one is the value co-creation theory based on consumer experience, which believes that value co-creation is the process of creating consumer experiences through interaction between companies and consumers, that value is embedded in consumers' personalized experiences<sup>[3]</sup>. The second is based on the value co-creation theory of service-led logic, which believes that services are the fundamental basis of all economic exchanges, consumers are co-creators of value, consumers are owners of manipulative resources put their knowledge, skills and experience into the value creation process<sup>[4]</sup>.

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### 3. RESEARCH METHODOLOGY AND RESULTS

This paper uses SPSS and AMOS to conduct data analysis through empirical research. The analysis showed that: The results of the path coefficient analysis of the model are shown in Figure 3, Table 6. The path coefficient of the model privacy concern on customer engagement behavior is -0.12, with a significant p-value at 0.05, and H1 holds. The path coefficient of privacy concern on customer citizenship behavior is -0.15, with a significant p-value and H2 holds. The path coefficient for privacy concern on perceived risk is 0.67 with a significant p-value and H3 holds. h3, h4, h5, h6, h7 and h8. In examining the moderating effects, the regression coefficient of the interaction term between privacy transfer and privacy concern on perceived risk in Models 1 to 2 is -0.0707, p < 0.001 level, and Hypothesis H9 is confirmed.; the regression coefficients of the interaction terms of privacy transfer and privacy concern on perceived benefits in Models 3 to 4 are -0.0790, p < 0.001 level, and Hypothesis H10 is confirmed.

### 4. CONCLUSION AND DISCUSSIONS

The main findings can be summarized as follows:

- (1) Privacy concern have a significant negative effect on customer value co-creation behaviors, and hypotheses H1 and H2 are tested. This suggests that a higher level of privacy concern plays an important role in the co-creation of customer value in privacy-oriented product firms, and that fully raising the importance of privacy protection in privacy-oriented product firms can effectively increase customer engagement and citizenship behavior, leading to the development of more market-adapted gray privacy products and facilitating product design and development, thereby increasing the profitability and enhancing the competitive advantage of privacy-averse product companies.
- (2) Perceived risk mediates privacy concern and customer value co-creation behaviors, as hypotheses H3, H4 and H5 are tested. This suggests that in the process of digital transformation, companies need to focus on the impact of customer privacy concern, as well as take good security precautions to improve customer value co-creation behaviors, thus further improving customer experience of sharing products and accelerating the update and iteration of their gray privacy products.
- (3) Perceived benefits have a mediating effect on privacy concern and customer value co-creation behaviors, and hypotheses H6, H7 and H8 are verified. It indicates that in the digital transformation process of privacy-biased product companies, companies need to do a good job of securing privacy information, and also need to focus on customer perceived benefit factors to improve customer value co-creation behaviors.
- (4) Privacy transfer negatively moderate the relationship between privacy concern and perceived risks, and negatively moderate the relationship between privacy concern and perceived benefits, hypotheses H9 and H10 are verified. The hypotheses H9 and H10 are validated, indicating that firms offer coupons and other incentives to make customers give up privacy appropriately, which both enhance customers' willingness to purchase gray privacy products and use the relevant consumer information given up by consumers to improve the product development and management of privacy-biased product firms.

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