

“The ‘Showrooming Phenomenon’ Based on Consumer Purchase Intent: Exploratory Factor Analysis of Influencing Factors”

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Abstract: The “showrooming phenomenon” refers to consumers experiencing products offline and then choosing to purchase online, a behavior particularly prominent in the apparel industry. Despite its increasing prevalence in retail, there has been limited exploration of the factors influencing this phenomenon. This study focuses on consumer purchase intent and investigates the “showrooming phenomenon” in the apparel industry. We identified 44 items related to the influencing factors of the “showrooming phenomenon” and conducted exploratory factor analysis. Drawing on established theories, we ultimately identified five main influencing factors: price, service quality, perceived trust, perceived value, and perceived risk. The research findings indicate that from the consumer’s perspective, price remains the most crucial consideration, while service quality gradually assumes significant importance as a primary driver of the “showrooming phenomenon”. Based on these findings, corresponding strategies and recommendations are proposed.

Keywords: showrooming phenomenon, purchase intent, apparel industry

1. Introduction

With the advancement of internet technology and information technology, consumer shopping behaviors have undergone significant changes. Multi-channel shopping and convenient price comparison tools enable consumers to quickly access product information and make purchasing decisions. Consumers tend to experience products in physical stores and then purchase online, a behavior known as “showrooming.” According to Deloitte’s report, during Thanksgiving, 69% of consumers research purchase information online, while 46% of consumers first inspect products in-store and then purchase online to obtain lower prices [1]. This phenomenon is particularly pronounced in industries such as apparel, home appliances, books, and cosmetics, posing significant challenges to traditional brick-and-mortar retailers due to high operating costs [2].

Most studies on the showrooming phenomenon focus on consumer “free-riding” behaviors and channel governance strategies, with fewer exploring influencing factors from the consumer’s perspective [3]. This paper reviews domestic and international research on the mechanisms of consumer purchase intent formation, identifies the primary factors influencing the showrooming phenomenon, and constructs a theoretical model. Through a questionnaire survey targeting young

consumer groups and employing exploratory factor analysis, this study aims to identify influencing pathways. The goal is to provide new insights for retailers and online merchants to optimize marketing strategies, enhance service quality, and improve customer experience.

2. Literature Review

2.1. Formation of the Showrooming Phenomenon

The showrooming phenomenon refers to consumers experiencing or trying out products in physical stores and subsequently purchasing them through online channels. This behavior is prevalent in the retail industry, particularly in sectors such as apparel, electronics, and books. Early research on showrooming primarily focused on its impact on traditional retailers and changes in consumer behavior patterns. With the widespread adoption of mobile internet and smartphones, consumer shopping behavior has gradually shifted from single-channel to multi-channel, making showrooming increasingly apparent.

Verhoef investigated consumers' primary shopping methods, including online, physical retail, and showrooming, attributing showrooming primarily to the advantages that stores have in terms of search attributes and attractiveness [4]. Ann's study revealed price differentials of 30%-50% between online and physical retailers, directly prompting consumers to shift towards online shopping [5]. Furthermore, online shopping offers intuitive page designs, detailed product descriptions, related product links, and the convenience of search engine services without leaving home, all contributing factors exacerbating the trend of consumers abandoning physical stores [5]. Hsieh, Kumar, and Ko examined the impact of driving, pulling, and inhibiting factors on consumers' intention to showroom. Driving factors include product variety, pulling factors involve price discounts, and inhibiting factors include sunk costs. They found that consumer inclination to maximize benefits significantly increases the frequency of showrooming under these factors [6]. Rapp et al., from the perspective of retail sales personnel, explored how consumer showrooming behaviors affect their self-efficacy and performance. Their research indicated that perceived showrooming behaviors decrease sales personnel's self-efficacy, subsequently impacting their sales performance [7]. Grewal pointed out that price difference is a primary driving factor of showrooming. Consumers tend to choose more advantageous purchasing channels by comparing online and offline prices [8].

Researchers in this field have analyzed the internal mechanisms of the "store selection, online shopping" problem from the perspective of consumer psychology. Cai et al. delve into the impact of three key entities—online retailers, e-commerce platforms, and products—on consumer decision-making in "store selection, online shopping," examining consumers' purchasing intentions and decisions. They explore how these entities collectively influence consumer decision-making psychology [9]. Gensler discusses the psychological processes of consumers during showrooming behavior, revealing that the product experiences and information obtained in physical stores enhance confidence in their purchase decisions. However, the allure of online prices remains a primary factor driving consumers to ultimately choose online purchases [10]. Arora and Sahney study the perceived risks and trust factors in showrooming. They find that consumers engaging in showrooming behavior consider risks associated with online purchases, such as product quality and logistics issues. Higher levels of trust in online retailers can effectively mitigate these concerns [11].

2.2. Responses to the Showrooming Phenomenon and Future Development Directions

To address this phenomenon, Verhoef et al. proposed enhancing negotiation skills to strengthen customer-company relationships, thereby maintaining close ties between consumers and offline retail stores [4]. Such studies vividly demonstrate that in the omni-channel era, consumers are the primary controllers and understanders of their purchases. James designed a model to assess whether physical

retailers should establish online channels based on consumers' additional demands, discussing the costs of channel expansion and whether it can lead to higher profits [12]. Building on this, Koen's research concluded that increased multi-channel efforts yield higher returns, with profits exceeding the costs incurred [13]. These studies predominantly focus on channel governance, helping businesses adapt more actively to the trends of internet e-commerce. The concept of omni-channel has further assisted businesses in profit generation. Brynjolfsson suggested that retailers adopt integrated multi-channel strategies to provide seamless online and offline shopping experiences. Additionally, implementing click-and-collect services and enhancing in-store customer experiences are considered effective response measures [14].

Despite numerous studies on the showrooming phenomenon, there are still areas worthy of further exploration. Future research should focus on behavioral differences among different consumer groups in showrooming. Hoffmann reviewed and summarized 56 empirical studies, analyzing consumers' shopping experiences in augmented reality (AR) environments. These studies indicate that AR technology can provide consumers with more intuitive product information and interactive experiences in both physical retail and e-commerce, influencing their shopping behaviors [15]. Branca's research found that the application of VR/AR technology in brand experiences can enhance consumer satisfaction and purchase intent, further strengthening consumer-brand relationships [16]. It is evident that emerging technologies have significant potential in showrooming, providing new avenues for research in this field.

3. Data Analysis

3.1. Questionnaire Design and Exploratory Factor Analysis

This study aims to explore consumer purchasing behavior in the "showrooming phenomenon" and its influencing factors. Through a systematic literature review, five main variables influencing consumer shopping behavior were identified: price factors, perceived trust, service quality, perceived value, and perceived risk. Based on this, a preliminary questionnaire comprising 44 items was developed.

The questionnaire was divided into five parts to measure price factors (items 20-25), perceived trust (items 12, 13, 16, 40), service quality (items 30-34, 41-42, 44), perceived value (items 8, 9, 10, 18), and perceived risk (items 1, 2, 4, 5, 6, 7). A pilot study was conducted with a small sample to refine some items based on feedback, aiming to enhance the questionnaire's validity and reliability. The questionnaire was distributed via an online platform, resulting in 215 valid responses. The sample consisted of young consumers aged 18-35.

Prior to conducting exploratory factor analysis, data were processed for missing values and tested for normality. Principal component analysis was used to extract factors, followed by Varimax rotation. Factors were determined based on Kaiser's criterion (eigenvalues greater than 1) and scree plot analysis, resulting in the identification of five main factors. The eigenvalues and variance contributions of each factor are shown in Table 1.

Factor 1 explained 37.454% of the total variance and included items related to price, labeled as "Price Factors." Factor 2 explained 7.614% of the total variance and encompassed items related to perceived trust. Factor 3 explained 9.998% of the total variance and included items related to service quality. Factor 4 and Factor 5 were labeled as "Perceived Value" and "Perceived Risk," respectively.

The Cronbach's Alpha coefficients for each factor exceeded 0.70, indicating high internal consistency of the questionnaire. The results of the factor analysis demonstrated that these five factors encompassed almost all information from the initial 44 items, providing a reliable measurement tool for further research.

Table 1: Main Factor Eigenvalues and Variance Contributions

Factor	Items	Eigenvalue	Variance Contribution
Price Factors	6	10.487	37.454%
Perceived Trust	4	2.132	7.614%
Service Quality	8	2.800	9.998%
Perceived Value	4	1.521	5.432%
Perceived Risk	6	2.111	7.540%
		Cumulative	68.039%

3.2. Results Analysis

Price Factors emerged as the first factor, with high factor loadings observed for items 20 and 25. This indicates that with the advancement of e-commerce, there is an increasing demand from consumers for better product promotions and service choices. The decision to abandon offline purchases primarily stems from price advantages. The maturity of e-commerce has made online products more price competitive by eliminating store and salesperson expenses, and promotional activities such as online shopping festivals further attract consumers, especially among the young consumer group, where price remains a critical driving factor for online shopping.

Perceived Trust constituted the second factor, with item 12 showing a higher factor loading. Offline experiences provide consumers with a tangible sense of product authenticity, quality, and price, all crucial components of consumer trust.

Service Quality formed the third factor, comprising two dimensions. Item 34 reflects detailed explanations and personalized services from offline salespersons, while item 41 reflects the quality of logistics services. The fast and convenient logistics meet consumers' immediate needs, making the online shopping experience nearly equivalent to offline purchases.

Perceived Value constituted the fourth factor, with higher factor loadings observed for items 8 and 9. According to Maslow's hierarchy of needs theory, as living standards rise, consumers increasingly value the emotional benefits brought by products and services. The emotional value of clothing is reflected through aspects such as fabric, workmanship, and design, satisfying consumers' needs for comfort, respect, and self-realization during the offline selection process.

Perceived Risk formed the fifth factor, reflecting various uncertainties consumers face in market transactions, such as financial losses in online payments and returns, personal information leakage, unexpected transportation accidents, misinformation, and discrepancies between expectations and reality.

Variance contribution rates reflect the relative importance of common factors. According to SPSS 19 software analysis, the cumulative variance contribution rate of the five factors is 68.039%, indicating that these factors almost entirely encompass information from the initial items. Price Factors significantly contribute to the impact of showrooming phenomenon with a variance contribution rate of 37.454%, making it the most critical influencing factor. Following closely is Service Quality with a variance contribution rate of 9.998%. The impact of the other three factors on showrooming is relatively smaller but still significant.

Through exploratory factor analysis, the 44 items were categorized into five dimensions, ultimately identifying the main factors influencing showrooming phenomenon: Price Factors, Perceived Trust, Service Quality, Perceived Value, and Perceived Risk. Price differentials exert a strong attraction on the young consumer group, driving consumers to "offline selection, online purchase." The price differential in a dual-channel environment remains a core issue leading to showrooming. Service Quality reflects business philosophies and corporate culture; consumers

perceive service quality more distinctly during offline experiences, making it a crucial factor contributing to corporate competitiveness.

4. Conclusion

This study employed exploratory factor analysis to delve into the primary factors influencing the showrooming phenomenon. The results demonstrate that Price Factors and Service Quality are two critical factors influencing consumer shopping behavior. Online shopping offers competitive pricing advantages, particularly by eliminating store and salesperson expenses, which appeals significantly to the young consumer group. However, while price is a decisive factor, relying solely on price advantages is insufficient to gain long-term consumer loyalty. Service Quality also plays a crucial role in the consumer decision-making process. Offline shopping provides real product experiences and detailed explanations, enhancing consumer trust. High-quality services, including professional salespersons and personalized service, provide consumers with added value during the shopping process. Meanwhile, efficient logistics services and quality online customer support further enhance consumer satisfaction with online shopping. Therefore, while price is important, Service Quality must not be overlooked.

Additionally, Perceived Trust, Perceived Value, and Perceived Risk also influence consumer purchasing decisions to a certain extent. Offline experiences enhance consumer trust in products and fulfill their emotional value needs. Despite the convenience of online shopping, consumer concerns about payment security, information leakage, and product quality persist.

In summary, this study confirms the central role of Price Factors and Service Quality in the showrooming phenomenon while revealing the roles of other influencing factors. Through these findings, we can better understand consumer behavior in a multi-channel shopping environment and provide theoretical support for further optimizing retail strategies. While price is a critical factor in attracting consumers, excellent service and shopping experiences are key to earning consumer loyalty.

To address these findings, we propose the following recommendations for brick-and-mortar retailers and online stores:

(1) Actively Explore New Ways to Offer Price Discounts

To enhance the purchasing value within physical stores, retailers can encourage on-site purchases by offering special deals and discounts. Retailers should promote the use of in-store services and ensure an adequate number of sales personnel to reduce customer wait times. Creating special customer experiences can also prevent customers from feeling bored while waiting. It is crucial to prioritize investments in service quality by providing knowledgeable and friendly staff. Despite potential cost increases, high-quality service can maintain customer loyalty to offline channels.

Regarding price differentials, efforts should be made to minimize the gap with online prices. Retailers can offset price disadvantages by offering in-store benefits such as after-sales services and discounts on supplementary products (e.g., special care products for sport shoes, clothing dry cleaning services). Additionally, improving customer experiences can enhance the perceived value of purchases, such as providing opportunities to test shoes on different floor surfaces or in varied temperatures, thereby increasing customer perception of price fairness.

(2) Comprehensively Enhance Offline and Online Service Quality

The experience economy provides new avenues for enhancing service quality in physical stores. Retailers can offer richer experiential activities such as cosmetics try-ons, customized services at shoe stores, and virtual fitting screens at clothing stores. These experiential activities significantly enhance consumer shopping experiences and increase the attractiveness of physical retail.

For online shopping platforms, to reduce perceived risks, efforts should focus on exploring more secure and convenient payment methods. Companies need to take measures to ensure consumer privacy and payment security, thereby enhancing consumer confidence in online shopping.

Furthermore, leveraging e-commerce development, brick-and-mortar retailers should accelerate channel integration and service upgrades, drawing lessons from excellent domestic and international brands. For example, brands like UNIQLO have established exclusive online shopping channels and achieved price parity online and offline, fully leveraging the experiential advantages of physical stores.

(3) Accelerate the Establishment of Brand Image

Research shows that consumer perceived utility influences their shopping decisions. In the future, integrated development of offline and online channels will become a trend. Retail stores and online stores should establish unique brand selling points and adopt differentiated service strategies to meet actual consumer needs. Simultaneously, building a brand image requires integrating multiple channels. Brands like GOME and Supor have set up experiential stores offline, offering only experience and consulting services to enhance brand image, consumer perceived utility, and brand loyalty.

(4) Utilize New Technologies to Enhance Shopping Experience

Brick-and-mortar retailers and online stores should actively adopt new technologies such as Virtual Reality (VR) and Augmented Reality (AR) to enhance the consumer shopping experience. For example, virtual dressing rooms and VR shoe try-on technologies allow consumers to easily experience products at home or in-store, making more satisfying purchasing decisions. These technologies not only enhance the fun of shopping but also significantly improve customer satisfaction and loyalty.

Through these measures, retailers and e-commerce platforms can better meet consumer demands, enhance overall service quality and brand image, and stand out in the competitive market environment.

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