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How Online Promotional Mechanisms Shape Purchasing Behavior: A Comparison Between Rural and Urban Areas

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Abstract. The rapid growth of e-commerce in China has made online commercial promotions an important driver behind consumers' purchasing decisions. Due to variations in shopping environment, experience, or personal circumstances, however, it is possible that urban and rural consumers will react differently to such strategies. In this paper, it investigates the impact of online commercial promotions on Chinese consumers' purchasing behaviour by contrasting its effect on urban and rural consumers. Based on the Stimulus-Organism-Response (S-O-R) model, this paper reviews the literature on perceived value, trust, perceived risk, social influence, and promotional strategies. The findings show that certain promotional tactics can lead to higher levels of purchase intention; yet does not always result in actual purchasing behavior. Although both urban and rural consumers consider similar factors while making purchases, they exhibit different reactions toward scarcity promotions within live-streaming e-commerce. Yet the findings are not generalizable across all types of online promotional activities. Moreover, this paper emphasizes balancing different consumer groups' needs when developing promotional strategies, and calls upon future researchers to compare the relationship between purchase intentions and actual purchasing behavior with respect to urban and rural populations.

Keywords: Online purchase, Purchase behavior, S-O-R Model

1. Introduction

Along with the advancement in digital technology, online shopping is one of key components of China's retail market. The online retail sales for China reached RMB 15.52 trillion in 2024, which increased by 7.2% compared to last year [1]. Through online platforms, companies can reach their customers fast and promote their message via discounts, coupons, limited-time offers, livestream shopping, or even just a single slogan if they scan webpages. These promotions are inevitable, they could impact how consumers evaluate products and make purchase decisions. Hence, an increasing need arises to explore the relationship between online commercial promotions and consumer purchasing behavior. This paper attempts to address how online promotions influence purchasing decisions and if there exists any difference between rural and urban areas. Although urban consumers play a significant part for online retail, but it cannot ignore the importance of rural consumers while studying digital consumption in China. According to data collected by the China Internet Network Information Center, as of December 2023, the Internet penetration rate in rural

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areas of China has reached 66.5%, online shopping and promotion have been successfully extended to rural areas [2]. Might exist differences in shopping environments between urban and rural consumers; they could have different experiences with regards to accessing online products and promotional information. It is crucial to research whether the impact of online promotional activities on both groups is similar or different.

Some previous work investigated how online marketing activities influence consumers' psychological reactions and purchase intentions. In one such study, Zhou studied scarcity promotions in live-streaming e-commerce and found disparities in the responses of urban and rural consumers to those promotions [3]. They delved deep into the role of emotional experience in influencing purchase intentions. But results obtained from specific promotional context can't necessarily extend to other forms of online promotion. Further comparisons are necessary so that this study can get insight into how different promotional strategies affect consumers' decision-making in urban and rural areas.

This study's goal is to investigate the impact of online commercial promotions on consumer purchasing behavior in both urban and rural areas in China and examine their similarities and differences. This paper will analyze the effect of promotional stimuli on consumers' psychological responses and their purchase behaviors based upon the Stimulus-Organism-Response (S-O-R) model. Comparing these two groups helps gain a deeper understanding about consumers' reactions towards online promotional activities and what drives and shapes online purchasing behavior in rural and urban areas.

2. Literature review

2.1. Factors influencing purchasing decisions

There are many factors which affect when a consumer decides to purchase a product, such as psychological, economic and social. Consumers consider not just price but other aspects like the product's perceived value, purchase risk, design etc., along with others' opinions. It is important to understand these factors so that the public know why some consumers react differently to the marketing strategies and promotional campaigns.

One of the most important factors is the perceived value. For example, how much value consumers think they get out of a product depending upon the balance between its benefits and cost. Price plays a significant role since customers will buy a product if they feel it is competitive and reasonable. Sullivan and Kim found that in an e-commerce setting, perceived product quality and competitive pricing can help enhance the perceived value [4]. They find that perceived value is a key predictor for consumers' willingness to repurchase. Strategies such as promoting price reductions and discounts could encourage purchases by enhancing the perceived benefits of the transaction. Lower price does not guarantee a purchase; consumers might also consider the quality of the product or if the product meets their needs.

If uncertain about the quality of the product, the reliability of the seller, or the security of the transaction, it can deter consumers to buy the product. A meta-analysis of previous studies has shown that trust, perceived risk, perceived security, and electronic word-of-mouth are key factors for e-commerce purchase decisions [5]. Trust decreases consumer's uncertainty while perceived risk can hamper their willingness to complete a transaction. Positive customer reviews and reliable seller information increases consumers' confidence on a product whereas negative reviews and uncertainties over product quality hinders purchasing behavior. Although a promotional campaign

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gives attractive discounts, consumers would not be willing to buy if they don't trust the seller or perceive the risks to outweigh the benefits.

Besides personal evaluations, there are other marketing strategies as well as social influences that affect purchases. Discounts might attract attention towards a product; time-limited offers and information on limited stock might create a sense of urgency leading consumers to decide fast. Recommendations by friends, online reviews, and social media content also plays an influential role in shaping consumer's evaluation of products. These factors could become particularly important when consumers do not have any information or experience regarding a particular product. Personal preferences, financial situations, and previous shopping experiences all contribute to how promotional messages get interpreted. Consumers' purchasing decisions are influenced through the combination of perceived value, trust, perceived risk, and external influences. They offer a basis to understand consumers' response to commercial promotions. But they might be affected depending on where consumers come across promotional messages.

2.2. Online sales and physical stores

E-commerce's growth has changed the manner in which people search for information, compare products, and make purchase decisions. In contrast to brick-and-mortar retail, online shopping provides greater convenience; allowing customers to access a wide variety of products without having to visit a store. The two different shopping channels vary on product evaluation, available information, and consumer experience. Such differences might affect consumers' perception of products and response to promotional strategies.

A major advantage of online shopping is its convenience and easy comparison of prices. It allows consumers to easily browse through various sellers, compare product specs, and find discounts in a short period of time. They have an option to checkout promotions such as discount coupons or limited-time offers while shopping. All these conveniences make them more price sensitive. While shopping online, they tend to go back and forth with the options to get the best value for money and hesitate to make purchases. Online shopping just involves clicking buttons without any tangible experience compared to brick-and-mortar shopping. Brick-and-mortar retail gives consumers the opportunity to buy products right away and immediately get help from sales staff. Lee and Tan conducted research into how consumers made choices between online and in-store shopping and found that the perceived utility of the shopping environment significantly impacts channel choice [6]. They suggest that consumers don't always shop by price alone, however, the surrounding environment and other factors (sales staff recommendations and praise), could impact their decision-making process. Paying and getting the physical product instantly satisfies consumers' needs, which gives an entirely new experience in brick-and-mortar shopping than online shopping.

A second difference concerns product evaluation and perceived risk. Consumers in physical stores are able to physically view the products, check for quality, and try them out prior to purchase if they want. Whereas online consumers usually have access to product descriptions, images, ratings or customer reviews to evaluate products. There may be some uncertainty if the product does not match what it shows online. Lee and Tan found that perceived product and service risks influence consumer's choice between online and brick-and-mortar retail [6]. Uncertainty seems to make consumers more demanding and discerning while shopping online, and more sensitive to the attitude and evaluation of others since these are their only way of getting direct insight into the actual user experience of a product.

Moreover, online shopping allows for various forms of presenting promotional information that affect consumer's purchase decisions. Digital platforms allow personalized product

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recommendations, discount coupons, countdown timers, and limited stock notification which might attract consumer's attention, make an offer appealing, or generate a feeling of urgency. Brick-and-mortar stores could leverage discounts and promotional displays to encounter consumers while physically shopping at their store. Success of promotional strategy relies upon not only the amount of discounts given but also its display and perception of what is available to the consumer. In general, both online and brick-and-mortar retail have different advantages and limitations which may affect consumer purchasing behavior. Although online shopping provides easy access to product information and promotional offers, brick-and-mortar stores provide opportunity for direct product evaluation and personal interaction. These differences matter when studying how consumers react to online promotional strategies. However, they might not respond equally to the same promotional campaign (e.g., shopping habits, price sensitivity, access to online services or trust in digital platforms) may influence their response. Studying those factors among urban and rural consumers in China helps understand if online promotions impact them differently.

3. S-O-R model

This paper used the SOR model to further clarify the research topic. Developed by Mehrabian and Russell, the Stimulus-Organism-Response (S-O-R) model describes how external environmental stimuli affect the internal state of an individual who then responds with a behavior or response [7]. It comprises of three parts. Stimulus (S) refers to external factors experienced by the individual that impact them; Organism (O) indicates that internal cognitive and emotional processes within the individual; Response (R) stresses behavioral result. Unlike other models where external stimuli are assumed to have direct effects upon behavior, the S-O-R model highlights the importance of the individual's internal psychological state when they respond. Therefore, the S-O-R model is especially helpful in explaining consumer purchasing decisions since individuals can perceive the same marketing stimuli differently depending on their own perception and circumstance.

The purpose of this study is to use the S-O-R model to explain the effect of online commercial promotions on consumer's purchasing behavior. Online retailers' promotional strategies, e.g., price discounts, limited-time offers, scarcity promotions, and live-streaming promotions are examples that can draw consumers' attention and affect their evaluation of products. Consumers' internal psychological responses to those promotional activities include perceived value, trust, perceived risk, and sense of urgency, as mentioned earlier. A discount makes a product seem cheaper, which increases consumers' perceived value. But if there were any doubt about the quality of the product or the reliability of the seller, then consumers' perceived risk will decrease their willingness to purchase. Besides, the outcome of all these psychological processes. Purchase intention, actual purchase decision, impulse purchases, or deciding against it. Thus, the effects of online promotions depend not just on the promotional strategies used, but also on how they are interpreted and evaluated by consumers.

This study has relevance with respect to the S-O-R model since it helps investigate possible differences between urban and rural consumers in China. Consumers from both groups might face similar online promotions but they could respond differently owing to differences in shopping experience, level of trust in online retailers or price sensitivity. The aim of this study is to explore if consumers in different regions will react differently when consuming online products; which can be done by considering urban and rural context as contextual factor that can help further determine whether these factors influencing consumption differ across geographic areas. In general terms, the S-O-R model connects online promotional strategies to consumer psychology and purchasing

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behavior, forming the basis upon which researchers can investigate whether there are differences in the impact of online commercial promotions on urban and rural consumers.

4. Differences and similarities in consumer behavior between urban and rural areas

4.1. Similarities and differences in consumer purchasing behavior

A paper based on data from three waves of the China Family Panel Studies (CFPS), which studied urban and rural consumers, found that trust has a positive correlation with e-commerce consumption especially in urban areas [8]. This implies that trust is an important aspect of online shopping irrespective of whether one lives in a rural or urban area. But there could still exist the possibility that rural people are more likely to trust tangible objects by inspection as opposed to digital product images online, but there was no direct evidence supporting such a relationship. While the data cannot provide insight into what exact level of trust in e-commerce is necessary for rural and urban consumers to feel confident about their purchase, it provides ground work for further research indicating that consumption in both rural and urban areas is grounded in trust.

To address this issue, a study based on CFPS data between 2014 and 2022 showed that rural households' online shopping behavior has significant influences from their peers, especially for those who have lower income or education levels [9]. The results imply that recommendations and the experience of local community members could be helpful in making purchase decisions. Since this study mainly concentrates on rural households, it cannot be directly concluded whether there is greater peer influence in rural areas compared to urban areas. Meanwhile, Cui et al. found that the professionalism of live-streaming hosts, quality of product information, perceived usefulness, and trust all relate to the online consumption behavior of rural residents [10]. These studies demonstrate that rural consumers' decisions are affected by factors beyond price alone.

The overall shopping environment could play an important role for changing consumer behaviors too. A study on China's rural e-commerce expansion program showed that some rural households benefit from lower living costs due to e-commerce overcoming logistical barriers [11]. However, only a few households (especially young and affluent ones or located in remote markets) received such benefits. Thus, it seems that online shopping does not provide the same benefits for every rural consumer. Jiang et al.'s research shows that e-commerce development leads to changes in rural households' consumption structure [12]. Both show that online shopping expands choices available to rural consumers; however, they might vary depending on their circumstance and access to services.

In summary, while both urban and rural consumers have similar basic purchasing considerations, different factors hold greater importance than others. Factors like trust, product information, social influence and e-commerce channels can affect purchasing decisions. Existing evidence does not indicate that either group has a uniform shopping pattern. Differences within groups, such as income, education, age, and access to online services, need to be taken into account.

4.2. Similarities and differences in the effectiveness of online commercial promotions

Promotions offered through online commerce promote consideration for a product's affordability or create a sense of urgency to buy. Whether a consumer will make a purchase is dependent upon their response to the offer. Zhou used 687 online surveys and found that scarcity promotions in live-stream e-commerce positively influence purchase intention, indicating that information regarding limited time or quantity encourages purchases [3]. However, these results are only applicable to

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scarcity promotions in live-streaming e-commerce and not all types of online promotions. Importantly, Zhou et al. show differences between urban and rural consumers [9]. Scarcity promotions had a larger impact on the emotional experience of urban consumers and a greater impact on purchase intention of rural consumers. The conclusion here implies that there could be different responses from both groups towards the same promotional strategy. Urban consumers display stronger emotional responses (purchase intention), whereas rural consumers demonstrate stronger reactions. Emotional engagement does not necessarily translate into purchase intention. This study offers direct evidence that the efficacy of certain online promotions might vary depending on whether they are directed at urban or rural consumers, despite having a positive effect overall.

Results in rural e-commerce studies further show that promotional messages do not exist independently. For example, Cui et al. find that product information quality, host's professionalism during live stream, perceived usefulness, and trust influence rural residents' online consumption behavior, meaning that when consumers doubt products/sellers, discounts will lose their persuasiveness [10]. However, according to Zhou's findings, scarcity promotions might exert greater impacts on rural consumers' purchase intentions while evoking stronger emotions for urban consumers [3]. This shows that the effect of promotions is dependent upon what kind of consumer response they measure.

In summary, both urban and rural consumers may respond positively to online promotions, but the strength of the effect may vary depending on the type of promotion and the outcome under examination. Currently, the most direct evidence of urban-rural differences comes from scarcity promotions in live-stream e-commerce. This distinction is important for this study because it implies that even if rural and urban areas implement the same promotional campaign and achieve similar results, the motivations behind their purchasing behavior may be fundamentally different.

5. Conclusion

This paper investigates how online commercial promotions affect Chinese consumers' purchasing behavior and if there are any differences for urban versus rural consumers. Drawing from previous studies and the Stimulus-Overture-Response (S-O-R) model, this study finds that online promotions have an effect on purchase decisions through changing consumer's perceived value, trust, perceived risk, and emotion. Yet, it does not guarantee a purchase because consumers might react differently due to their own circumstance, shopping experience or perception about the product and seller. By comparing urban and rural consumers, some similarities and possible differences have been found. Both groups of consumers take into account factors like trust, product information, and price while shopping online; although they react differently to scarcity promotions in live-stream e-commerce, these findings are inconclusive regarding fundamental difference in purchasing behaviors among urban and rural consumers.

These results provide insights that are useful for online retailers and marketing platforms. Businesses could consider different consumer needs, shopping environment, and response to promotional messages when promoting products instead of using the same strategy with every consumer. Scarcity promotions might be able to promote purchase intent; whereas clear product information, reliable seller details, and customer reviews might help reduce uncertainty. Retailers need to evaluate if their promotional campaigns result in actual purchases and long-term customer satisfaction as opposed to simply engaging emotionally or purchasing intent. Such approaches will enable businesses to create more effective and trustworthy marketing strategies for consumers in both urban and rural areas.

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In the future, it can be explored how effects on urban and rural consumers work through various kinds of online promotions (e.g., price discounts, digital coupons, limited-time offers, live stream promotion). A survey or interview with consumers from both regions will allow for a better comparison of their motives, perceptions, and purchasing decisions. Future research may separate purchase intent versus actual purchasing behavior because some consumers have expressed purchase intent but did not actually make the transaction. It is necessary to consider other factors like income, age, educational level, and access to online shopping services; this way, it provides deeper insight into how online commercial promotions impact different consumer groups in China.

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