

Innovative Market Research for Identifying Untapped Consumer Segments in China's E-commerce Market

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Abstract: The rapid advancement of modern information technology has propelled the swift emergence and maturation of e-commerce. This phenomenon has not only transformed traditional business models but also provided contemporary consumers with more convenient shopping options. Against this backdrop, consumer purchasing behaviour has undergone significant shifts, leading to an increasingly segmented e-commerce market where numerous unidentified and untapped consumer groups persist. This paper briefly analyses the e-commerce market and the concept of untapped consumer groups, summarises the characteristics of such groups within China's e-commerce landscape, and outlines the principles for identifying innovative markets among these untapped consumers. Ultimately, it proposes corresponding strategies to promote the sustainable development of the e-commerce market, aiming to provide reference for professionals.

Keywords: Chinese E-commerce Market; Untapped Consumers; Innovative Markets; Identification Methods

Published: Dec 30, 2025

DOI: <https://doi.org/10.62177/apemr.v2i6.1012>

Introduction

E-commerce, a product of the information technology era, has evolved at a rapid pace, continuously driving transformations in global business models. China's e-commerce market is currently transitioning from high-speed growth towards high-quality, sustainable development^[1]. By leveraging technological innovation to unlock domestic market potential, in-depth research into identifying untapped consumer segments within China's e-commerce market can assist enterprises in formulating more precise marketing strategies, maintaining market order, and fostering harmonious socio-economic development^[2]. To this end, diversified approaches should be adopted in practice to identify innovative markets for untapped consumer groups^[3].

1. The E-commerce Market and the Essence of Untapped Consumer Segments

1.1 The E-commerce Market

The e-commerce market specifically refers to an online transactional ecosystem utilising the internet as its medium, employing modern digital technologies to facilitate the exchange of goods, services, and information. It transcends the temporal and spatial constraints of traditional markets, precisely connecting buyers and sellers across numerous models including business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C). Its core lies in applying network technologies to optimise supply-demand matching and reduce transaction costs, constituting a central form

of modern commercial activity ^[1]. The characteristics of the e-commerce market manifest in three principal aspects. Firstly, e-commerce overcomes the temporal and spatial constraints of traditional commerce, enabling consumer groups to purchase and browse goods via the internet at any time and location. Secondly, the e-commerce market encompasses vast quantities of product information, allowing consumers to compare prices and performance to make optimal decisions. Thirdly, the modern technologies derived within the e-commerce market can precisely align with consumers' individualised demands, significantly streamlining transaction processes.

1.2 Untapped Consumer Segments

Untapped consumer segments within the e-commerce market primarily refer to potential user groups that remain inactive and unreachable by existing e-commerce models due to behavioural habits, demographics, and numerous other factors. These consumer groups are substantial in scale but remain underdeveloped owing to inadequate adaptability. They can be activated through various means, including simplified interactions and optimised infrastructure.

2.Characteristics of Untapped Consumer Segments in China's E-commerce Market

2.1 Concentrated Distribution with Inadequate Device Infrastructure

Underserved consumer groups in China's e-commerce market exhibit concentrated distribution yet inadequate device provision. On one hand, these groups are predominantly located in rural areas or lower-tier cities, characterised by relatively remote geographical positions and low network coverage density. Even after purchase, delivery times remain lengthy, creating an impasse in the "last mile" of online transactions. Conversely, these regions lack convenient access to modern tools like mobile payments and digital authentication. Some consumers, hindered by unstable network environments and limited digital literacy, struggle to complete online transactions. These characteristics prevent standard e-commerce models from effectively replicating services or precisely targeting this demographic.

2.2 Significant Variations in Age and Skill Levels

The underserved consumer demographic exhibits considerable variation in age and skill levels, encompassing middle-aged and elderly individuals, low-income groups, students, and homemakers. Middle-aged and elderly individuals possess limited proficiency with modern smart devices, struggle with complex interactive interfaces, and exhibit consumer apprehension. Low-income groups face constraints in device capabilities and online spending, resulting in insufficient browsing and transaction time. Whilst students and homemakers demonstrate some digital engagement, their overall consumption decisions are heavily influenced by practical constraints, leading to distinct priorities in their demand for e-commerce services.

2.3 Preference for Value for Money and Practicality

The preference for value for money and practicality among untapped consumer groups manifests in two primary ways. Firstly, these groups exhibit significantly higher price sensitivity than pursuit of personalisation, tending to select products that fulfil basic needs with clear functionality. They demonstrate greater enthusiasm for discount promotions and preferential policies. Secondly, when choosing goods, such groups typically prioritise ease of use, durability, and product compatibility.

2.4 Unfamiliarity and Distrust Towards Transactions

This segment frequently exhibits unfamiliarity and distrust towards transactions. Firstly, they are often unfamiliar with online transaction processes, unclear about how to search for products or handle returns and exchanges, and may experience frustration during the process. Secondly, some express concerns about the security of online transactions, including risks of user information leakage and products not matching descriptions. This characteristic directly impedes the effectiveness of standard e-commerce traffic conversion strategies.

3.Principles for Identifying Untapped Consumer Segments in China's E-commerce Market Innovation

3.1 Demand-Oriented Principle

The foremost principle in identifying untapped consumer segments within China's e-commerce market is demand orientation. The identification process must prioritise addressing the disconnect between existing e-commerce offerings and the needs of these untapped groups. This involves comprehensively gathering behavioural data from untapped consumers to uncover gaps

arising from contextual limitations or capability constraints. This ensures identification efforts precisely align with the actual requirements of these segments, avoiding the pitfall of prioritising coverage over fundamental needs. This approach lays the groundwork for subsequent marketing strategies.

3.2 Precise Segmentation Principle

The precision segmentation principle addresses the disparate needs within untapped consumer groups. Rather than treating them as a homogeneous entity, identification requires dividing them into distinct tiers based on actual circumstances. This prevents resource misallocation stemming from broad categorisation or one-size-fits-all approaches. Examples include segmenting unidentified consumer groups by age or income level.

3.3 Feasibility Principle

The Feasibility Principle requires that while data mining identifies potential consumer groups, the assessment must also evaluate whether existing technology and costs can support these untapped consumers' participation in consumption. If a group's needs cannot be reached by technology or if multiple constraints prevent their participation in consumption, such groups should be excluded from the scope of untapped consumer identification.

4. Innovative Market Strategies for Identifying Untapped Consumer Segments in China's E-commerce Market

4.1 Implementing Multi-Data Fusion Approach for Identification

Multi-data fusion aims to combine three data sources to identify untapped consumer groups due to mismatched capability requirements or contextual scenarios, as shown in Table 1.

Table 1: Data Categories and Specific Contents for Identification

Data Category	Specific Content
In-platform behavioural data	Group browsing trajectories, dwell time, search keywords
External Environmental Data	Per capita disposable income, digital infrastructure indicators, consumption expenditure structure
Attribute Data	Age, device performance tiering

The three primary data categories encompass: analysing behavioural data from untapped consumer segments within the platform, covering browsing paths, search keywords, dwell time, etc., to precisely capture consumer interest inclinations and actual needs. Collecting external environmental data, including regional digital infrastructure metrics, per capita disposable income, and consumption expenditure structure, to assess accessibility challenges and environmental constraints^[2]. Collecting attribute data on untapped consumer groups—such as age and device performance tiering—enables precise characterisation of their engagement capabilities. Subsequently, after gathering extensive data, construct a model based on “demand intensity, initial difficulty, and conversion potential”. Finally, synthesise analyses to define diverse group profiles—including demand perspectives and development priorities—providing a foundation for subsequent strategy formulation and ensuring more comprehensive identification.

4.2 Scenario-Based Demand Exploration and Untapped Market Positioning

By systematically mining actual user needs across diverse scenarios originating from the real-life contexts of untapped consumer groups, effective identification can be achieved. Firstly, conduct scenario collection and classification, employing modern language processing techniques to perform sentiment analysis on texts such as user reviews and customer service dialogues within e-commerce platforms, extracting high-frequency demand keywords and specific contexts. Secondly, transform scenarios into service and product requirement elements. For instance, in emergency procurement scenarios, users prioritise reliability and timeliness, while festive gifting scenarios emphasise convenience and cultural appropriateness. This approach avoids identifying untapped consumer groups based solely on product categories. Instead, it uncovers structural gaps through demand discovery, pinpointing entry points and providing clear direction for precise identification.

4.3 Implementing Low-Threshold Design and Inclusive Experiences

Implementing low-barrier design and inclusive experiences aims to reduce market entry barriers for untapped consumer

groups, lowering operational and cognitive difficulties to facilitate seamless access to e-commerce. Firstly, optimise visual presentation on e-commerce platforms by employing large font sizes, high-contrast colour schemes, combined with simplified icons and linear layouts to enhance usability for these groups. Secondly, streamline user engagement processes by converting search, order placement, and payment interfaces into one-click access and default options. Thirdly, enhance network configurations in remote areas, prioritising front-end resource loading optimisation to ensure e-commerce platforms function reliably on low-performance devices and unstable networks^[3]. Finally, establish trust and security through design by incorporating straightforward prompts and verifiable security badges within service windows. Implementing these multifaceted approaches will ensure untapped consumer groups can promptly engage with the e-commerce market.

4.4 Leveraging Ecological Synergy and Regional Supply Adaptation

Leveraging ecosystem collaboration and regional supply adaptation aims to integrate regional services, logistics, and other ecosystem entities. This approach supports networks tailored to the capabilities and geographical characteristics of untapped consumer groups, addressing participation barriers caused by insufficient supply or inadequate infrastructure. On one hand, establishing regional logistics hubs or village/community collection points in underdeveloped areas shortens the “last mile”. Simultaneously, deliveries are optimised based on the consumption patterns of untapped consumer groups, enhancing delivery reliability and timeliness. Concurrently, regional supply chains are consolidated by selecting merchants with operational capacity within the area. This reduces reliance on cross-regional and long-distance logistics, thereby enhancing trust among untapped consumer groups. Through this approach, untapped consumers develop online transaction habits while enjoying convenient and trustworthy experiences, enabling precise identification.

Conclusion

In summary, untapped consumer segments within China’s e-commerce market exhibit concentrated distribution yet inadequate device access, significant age and skill disparities, a preference for value-for-money and practicality, alongside unfamiliarity and distrust towards transactions. Practical strategies should be grounded in these characteristics, employing multiple approaches including: implementing multi-data fusion for identification; exploring scenario-based needs and identifying untapped market segments; developing low-barrier designs and inclusive experiences; and leveraging ecosystem collaboration with regional supply adaptation. These measures will foster the healthy and sustainable development of the e-commerce market.

Funding

No

Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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