

FACTORS AFFECTING CONSUMER CHOICE OF MOBILE SERVICE PROVIDER IN KUNMING, CHINA

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ABSTRACT

The objectives of this study were: 1) To study the marketing mixed toward customer choice in using the service of Telecommunication in Kunming, China. 2) To study the consumer behavior toward customer choice in using the service of Telecommunication in Kunming, China. And 3) To study the relationship of factor that influence the customer choice in using the service of Telecommunication in Kunming, China. Population consists of in Kunming was 6.626 million. The samples were 400 people in Kunming, China as determined by Taro Yamane formula. The research instrument was a 5 rating scale questionnaire. Statistics used for data analysis were percentage, frequency, mean, standard deviation and correlation coefficient.

The research results revealed that: 1) the marketing mix 7Ps were significant to influence with consumer choice of the telecommunication service provider in Kunming, China. 2) Consumer behavior can significantly influence a customer's choice of telecommunication service providers in Kunming, China. It's determined that if China Telecom, China Unicom, and China Mobile operators strive to improve the factors of consumer behavior, they will get the benefit of attracting customers' attention and making purchase decisions. and 3) make decisions based on marketing mix and reliability are the most acceptable and it is found that consumer behavior has a high positive relationship with the decision to use mobile phone network services at a statistical significance at the 0.001, environment (Mean = 3.84, SD = 0.615) and the entertainment (Mean = 3.80, SD = 0.6).

Keywords: Consumer Choice, Mobile Service Provider, Marketing Mix

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INTRODUCTION

The China's 5G infrastructure market is emerging as one of the most dynamic and rapidly expanding sectors in the global telecommunications landscape. In 2021, the market was valued at US\$ 10,561.3 million, with projections indicating swift expansion driven by several critical factors. Central to this growth is the presence of industry-leading 5G equipment manufacturers like ZTE and Huawei, both of which play a pivotal role in the development and deployment of 5G technologies. These companies, through their cutting-edge innovations and collaborative efforts with Chinese telecom providers, are helping to establish China as a global leader in the rollout of 5G networks. The rapid advancement of 5G infrastructure is further supported by substantial investments from Chinese telecommunications firms. These firms, such as China Mobile, China Telecom, and China Unicom, are channeling considerable resources into enhancing their existing networks and rolling out 5G Radio Access Networks (RAN) in key cities including Shanghai, Kunming, Shenzhen, and Guangzhou. Each of these cities has crafted comprehensive development roadmaps and launched local initiatives that prioritize 5G implementation, with the goal of transforming themselves into global hubs of advanced telecommunications technology. These cities' roles as leaders in the adoption of 5G infrastructure are further solidified by their economic importance and their strategic initiatives to integrate 5G into sectors such as smart cities, transportation, and industrial automation.

A notable achievement of China's 5G development is the establishment of more than 180 million 5G terminal connections and approximately 700,000 5G base stations across the country by 2021. This impressive infrastructure enables higher network speeds, lower latency, and more reliable connectivity, which are crucial for applications in industries ranging from healthcare and transportation to manufacturing and entertainment. This large-scale deployment of 5G infrastructure places China at the forefront of global 5G adoption, setting the stage for future technological advancements and reinforcing the country's ambition to lead the world in next-generation telecommunications technology. In addition to the physical infrastructure, the innovation within the Chinese telecom sector is further highlighted by the experimental deployment of Dynamic Spectrum Sharing (DSS) solutions. DSS enables operators to use the same spectrum for both 4G and 5G, improving efficiency in spectrum usage and accelerating the expansion of 5G coverage. Leading telecommunications companies such as China Telecom, China Unicom, and China Mobile, in collaboration with prominent vendors including Huawei, ZTE, and Ericsson, have been at the forefront of this technology's experimentation across several provinces. The deployment of DSS solutions demonstrates China's commitment to maximizing the potential of its existing telecommunications infrastructure while ensuring a smooth and scalable transition to full 5G networks. China Mobile, as the largest telecommunications service provider in China, is playing a critical role in this 5G revolution. The group provides a broad range of communications and information services across all 31 provinces, autonomous regions, and directly administered municipalities, as well as Hong Kong SAR. With the largest network and customer base in the world, China Mobile has cemented its status as a global leader, not just in terms of scale, but also in profitability and market value. By the end of 2021, China Mobile had 957 million mobile subscribers and 240 million wireline internet consumers, reflecting its significant market penetration and dominance. Moreover, the company employed 449,934 individuals, indicating its vast operational scope. China Mobile's financial performance further underscores its leadership in the telecommunications industry. The company generated annual revenue of RMB848.3 billion in 2021, driven by its extensive range of services, including mobile and data services, broadband, and other offerings. China Mobile's principal shareholder, China Mobile Communications Group Co., Ltd. (CMCC), holds a controlling interest of approximately 72.72% of the company's total issued shares, while 27.28% is retained by public investors. This structure provides China Mobile with both the backing of a state-owned enterprise and

the flexibility of a publicly traded company, which allows for broader strategic initiatives and financial stability. China Mobile's global recognition is evident in its inclusion in several prestigious rankings. In 2021, the company was listed among Forbes magazine's Global 2,000 World's Largest Public Companies and was included in the Fortune Global 500. The strength of its brand was further highlighted by its 68th ranking in the BrandZ™ Top 100 Most Valuable Global Brands by Milward Brown. These accolades reflect China Mobile's leading position not only in the Chinese market but also on the global stage, where its brand and financial performance continue to garner recognition. A crucial aspect of China Mobile's success lies in its strong financial footing and creditworthiness. The company's corporate credit ratings align with China's sovereign credit ratings, receiving an A+/Outlook Stable from Standard & Poor's and A1/Outlook Stable from Moody's. These ratings reflect the company's financial stability, ability to generate strong cash flows, and its favorable position in the global market. Such a strong financial base allows China Mobile to continue investing heavily in its 5G infrastructure, ensuring that it remains competitive and adaptable to future technological advancements. In conclusion, China's 5G infrastructure market, fueled by the presence of major 5G equipment makers and substantial investments from its leading telecom firms, is poised for significant growth in the years ahead. The strategic deployment of 5G RAN and DSS solutions, coupled with China Mobile's leadership, underscores the country's commitment to becoming a global leader in 5G technology. As China continues to build out its 5G networks and enhance its telecommunications infrastructure, the nation is well-positioned to lead the next wave of digital transformation, fostering innovation across a wide range of industries and creating new economic opportunities on a global scale.

LITERATURE REVIEWS

The content provided in the image outlines key concepts from marketing mix theory, including the evolution from the traditional 4 Ps (Product, Price, Place, Promotion) to the expanded 7 Ps framework (adding People, Process, and Physical Evidence). Here's an analysis of the literature review based on the key themes presented:

Literature Review: Evolution of the Marketing Mix

The marketing mix, traditionally conceptualized by E. Jerome McCarthy in 1960, is a foundational framework for understanding and designing marketing strategies. It originally comprised four elements—Product, Price, Place, and Promotion—collectively known as the 4 Ps of Marketing. These components were aimed at ensuring that a product is designed, priced, distributed, and communicated in a way that satisfies both the business's objectives and the customer's needs.

Expansion to the 7 Ps:

In the late 1970s and early 1980s, as services became a more prominent part of global economies, the traditional 4 Ps framework was deemed insufficient to address the unique characteristics of service marketing. This led to the introduction of three additional elements—People, Process, and Physical Evidence—in what is now referred to as the Extended Marketing Mix or 7 Ps of Marketing.

Booms and Bitner (1981) argued that the original 4 Ps were focused too narrowly on products, which have tangible and more controllable characteristics. Services, on the other hand, are intangible and require a more complex interaction between the provider and the customer, which is why elements like People (who deliver the service), Process (how the service is delivered), and Physical Evidence (tangible cues that support the service environment) became essential.

Product and Pricing:

As highlighted in the provided content, Product remains the cornerstone of the marketing mix. Whether tangible (physical products) or intangible (services), the product must align with

customer expectations and provide value, a principle consistently emphasized in both classic and modern marketing literature (e.g., Kotler et al., 2019). The idea that consumers may be willing to pay a premium for products that meet their needs effectively, even if they are not the least expensive, aligns with earlier research on value-based pricing (e.g., Niklas, 2012).

Price, as discussed in the document, is a critical determinant in consumer decision-making and has been extensively studied in behavioral pricing theory. The distinction between explicit memory (the conscious recall of price) and implicit memory (unconscious influences on decision-making) offers insights into how consumers process pricing information over time (Niklas, 2012). Such theories contribute to the broader understanding of price sensitivity and price awareness in retail environments.

Place (Distribution):

The Place or distribution aspect refers to making products available in locations convenient to customers. As mentioned, this could involve traditional brick-and-mortar settings (e.g., High Street, mail order) or modern e-commerce platforms, demonstrating how the distribution strategies have evolved to accommodate digital shifts in consumer purchasing behaviors. The role of service as part of this component is emphasized in services marketing, where customer interaction often takes place in specific locations that add value to the consumer experience (Dabholkar et al., 1996).

Promotion:

Promotion has evolved from traditional media (advertising, sales promotions, personal selling) to include digital channels, particularly social media, as a critical promotional tool. This reflects broader trends in integrated marketing communications (IMC), where businesses use a cohesive strategy across multiple platforms to create a consistent brand message that resonates with both informed and emotionally-driven consumer preferences. The inclusion of social media as a promotional tool highlights the adaptability of the marketing mix in response to technological advancements and changing customer touchpoints.

People, Process, and Physical Evidence:

People: The expanded 7 Ps framework underscores the importance of individuals involved in service delivery, from front-line personnel to top management. The significance of people in marketing is well-documented in service marketing literature (Kotler et al., 2019). The interaction between staff and customers can heavily influence consumer perceptions of quality and satisfaction.

Process: The manner in which services are delivered is a crucial part of customer satisfaction. Process efficiency, transparency, and convenience all play roles in shaping the consumer experience.

Physical Evidence: In service industries, even intangible services rely on some form of physical manifestation (e.g., a haircut or an insurance policy) to help consumers evaluate the service. The concept of physical evidence serves as a cue for quality and reassurance, playing an important role in consumer decision-making, particularly in services where the product is not immediately visible or tangible.

Impact on Consumer Behavior:

Consumer behavior theory is central to marketing mix strategies, as it provides a deep understanding of the decision-making processes that influence purchasing habits. Marketing strategies, therefore, need to be aligned with consumer psychology to predict how and when customers make purchases. For example, consumer behavior research has shown that various factors, such as the perceived value, price sensitivity, and even brand loyalty, influence consumer decisions (Beckwith, 2001; Mostaani, 2005). By understanding these factors, businesses can customize their product offerings, communication strategies, and service processes to better align with consumer needs and preferences.

Continued Relevance of the Marketing Mix:

Despite being introduced decades ago, the 7 Ps remain relevant in today's dynamic commercial environment. The flexibility and adaptability of the marketing mix are key reasons why it continues to be extensively taught and applied. With the advent of new communication channels, evolving customer expectations, and changes in consumption patterns, marketers have continually modified and updated the marketing mix to stay relevant. For instance, the shift to digital marketing, the growth of e-commerce, and the rise of social media marketing have forced marketers to rethink traditional approaches, leading to innovations in how the 7 Ps are applied across industries.

The literature surrounding the 4 Ps and the subsequent expansion to the 7 Ps reflects the adaptability of the marketing mix as a tool for both product marketing and service marketing. Scholars like Booms and Bitner, as well as contemporary marketing thought leaders, emphasize that while the fundamentals of the marketing mix remain strong, its application continues to evolve. As marketing strategies adapt to changes in consumer behavior, technology, and market dynamics, the marketing mix remains a crucial framework for businesses seeking to optimize their marketing efforts and maintain competitive advantage.

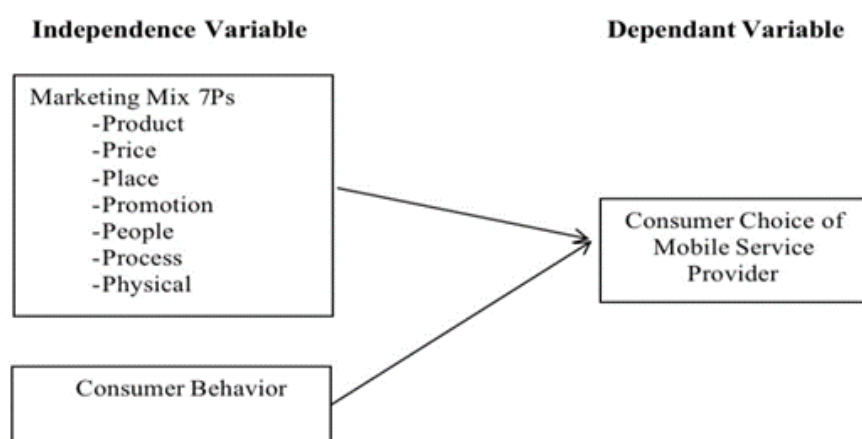


Figure 1 Conceptual Framework

RESEARCH METHODOLOGY

Population and sample Group

The population of this study is the customers who have experience to use the telecom service of China Telecom, China Unicom, China Mobile in China. The questionnaire survey was distributed as sample of this research to customers who have experience to use the telecom service of China Telecom, China Unicom, China Mobile in Kunming. The total population in Kunming was 6.626 million (World population review, 2023) and this research adopts convenient method which is non-probability as sampling method. The sample size was 400 based on Yamane's (1973) formula with a confidence level of 95% and the margin of error of ± 5 for the purpose of this study.

Research Instruments

This research is quantitative research, the researcher uses questionnaire as a tool for data collecting process. According to Given, Lisa M. (2008). quantitative research is the systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques in natural sciences and social sciences. The study aims to examine the relationship between the marketing mix 7Ps, brand equity, consumer behavior and consumer choice of the telecommunication service provider in Kunming, China. Besides, this research also uses the techniques of survey by distributing the questionnaires as gathering the primary data with 400 customers who are who have experience to use the telecom service of

China Telecom, China Unicom, China Mobile in Kunming, China by simple random sampling. All respondents are voluntary and agree to use the data to focus their answers.

Data Collection

The following procedures described data collection for the survey. In this study, the original questionnaire is in English. In order to investigate consumer choice of the telecommunication service provider in Kunming, China. To begin with, the questionnaires were distributed to 50 samples to be pretested. After pretesting to 50 respondents, the questionnaire was proved the credibility and feasibility. Then the questionnaires were distributed to target respondents in China. The respondents filled up the questions independently and completed the survey within 10 to 15 minutes. During the process of completing questionnaires, it roughly spent one month to collect data and responders were selected randomly.

Data Analysis and Statistics

- Percentage
- Frequency
- Mean
- Standard Deviation
- Correlation Coefficient

RESEARCH RESULTS

Table 1: Cross Table of the relationship of factor that influence the customer choice

Factor	Customer Choice			
	r	Sig	Direction	Level
Marketing Mixed	0.94	0.000***	+	High
Consumer Behavior	0.88	0.000***	+	High
Total	0.91	0.000***	+	High

***Sig. < 0.001

Table 1 indicates a strong positive correlation between marketing mix and consumer behavior regarding the use of mobile phone network services by individuals in Kunming, China. The table provided outlines the relationship between two major factors, the Marketing Mix and Consumer Behavior, and their influence on customer choice in the context of mobile phone network services in Kunming, China. Here's a detailed analysis based on the information presented:

The total correlation between the factors (Marketing Mix and Consumer Behavior) and customer choice is $r = 0.91$, which is both strong and statistically significant (Sig. = 0.000*, $p < 0.001$). This strong correlation suggests that both factors—Marketing Mix and Consumer Behavior—play crucial roles in shaping how customers decide on mobile network services in Kunming, China. The statistical significance indicates that this relationship is not due to random chance but reflects a real, meaningful connection between these variables.

Factor-Specific Insights:

Marketing Mix: The correlation between the marketing mix and customer choice is particularly high ($r = 0.94$) and statistically significant (Sig. = 0.000*). This strong positive correlation indicates that favorable perceptions of the marketing mix elements—such as product, price, place, promotion, people, process, and physical evidence—are closely associated with increased use of mobile phone network services. In other words, when customers in Kunming perceive the mobile network provider's marketing strategy as aligned with their needs and expectations, they are more likely to choose or continue using that service. This aligns with existing marketing literature, which underscores that an optimized marketing mix can

significantly influence consumer behavior and preferences, especially in competitive markets like telecommunications.

Consumer Behavior:

The relationship between consumer behavior and customer choice also shows a strong correlation ($r = 0.88$), with the relationship being statistically significant ($\text{Sig.} = 0.000^*$). While slightly lower than the marketing mix correlation, consumer behavior still plays a major role in influencing customer decisions regarding mobile network services. This indicates that factors such as consumer preferences, decision-making processes, and purchasing habits are important in determining which mobile network service a consumer in Kunming will select or stay loyal to.

Interpretation of Significance Levels: The significance level for both factors is extremely high, with p-values less than 0.001. This further validates the strength of the observed relationships between these factors and customer choice. In research, such low p-values indicate that the probability of these relationships occurring by random chance is extremely low (less than 0.1%), making the results highly reliable.

Direction and Level of Correlation:

The table indicates that both factors (Marketing Mix and Consumer Behavior) exhibit a positive direction, meaning that as perceptions of these factors improve, the likelihood of customers choosing or continuing to use a mobile network service increases.

The correlation is classified as "High" for both factors, signifying that these relationships are not just statistically significant but also substantial in their influence.

Interpretation in the Context of Kunming, China:

This data sheds light on the specific factors that influence customer choices in the mobile network service market in Kunming. Given the high correlation between the marketing mix and customer choice, mobile network providers in Kunming can infer that their marketing strategies—encompassing elements like pricing structures, promotional efforts, service quality, and accessibility—are critical in winning and retaining customers. By refining these aspects to better align with consumer expectations, providers could enhance customer satisfaction and loyalty.

Similarly, understanding consumer behavior—such as their motivations, attitudes, and habitual tendencies—can allow mobile service providers to tailor their offerings to better match the lifestyle and preferences of Kunming residents. For example, if residents of Kunming show particular behaviors such as price sensitivity or a preference for mobile services that include robust data packages, providers can adjust their offerings to meet these specific needs.

Strategic Implications for Mobile Network Providers:

Marketing Focus: Given the stronger correlation of the marketing mix with customer choice ($r = 0.94$), mobile network providers in Kunming should invest heavily in optimizing their marketing strategies. They should ensure that their product offerings meet customer expectations in terms of quality and functionality, provide competitive pricing, and maintain a strong presence in both physical and digital retail channels. Moreover, effective promotion—using both traditional and social media channels—can play a pivotal role in influencing consumer perception and driving higher service adoption rates.

Customer-Centric Strategies:

While the marketing mix plays a slightly stronger role, understanding and catering to consumer behavior is equally essential. Providers should engage in customer research to understand the specific needs and preferences of their target market in Kunming. Insights derived from such research can inform decisions about product offerings, pricing strategies, and even customer service policies.

Long-Term Customer Loyalty:

The data also suggests that improving both marketing strategies and understanding of consumer behavior could result in higher customer retention. This is especially important in markets like telecommunications, where customer loyalty can lead to long-term revenue generation.

The table presents clear evidence that both the marketing mix and consumer behavior significantly influence customer choices regarding mobile network services in Kunming, China. The marketing mix appears to have a slightly stronger correlation, emphasizing the importance of well-structured marketing strategies. However, consumer behavior remains a key factor, highlighting the need for mobile network providers to not only focus on marketing but also understand and anticipate customer preferences. Together, these factors offer a comprehensive framework for improving customer satisfaction and loyalty in Kunming's mobile phone network services market.

DISCUSSION & CONCLUSION

Discussion

1) Marketing Mix and Customer Choice:

The study aimed to examine the impact of the marketing mix on customer choice in Kunming's telecommunications sector. The analysis revealed a strong positive correlation ($r = 0.94$) between the marketing mix and customer choice, signifying that the effective application of marketing strategies plays a key role in influencing customers' decisions. Elements such as product quality, competitive pricing, service accessibility (place), and promotional activities were identified as significant contributors to customer satisfaction and retention.

In Kunming, the telecommunication companies that tailor their services to fit the local market, offering both affordability and high-quality service, are more likely to secure customer loyalty. The positive relationship suggests that companies must continue refining their marketing mix to keep up with evolving customer expectations. Factors like digital advertising, personalized customer experiences, and continuous engagement through online platforms are becoming increasingly important in maintaining competitiveness in this sector.

2) Consumer Behavior and Customer Choice:

The study also examined the relationship between consumer behavior and customer choice, revealing a strong correlation ($r = 0.88$). Although slightly less influential than the marketing mix, consumer behavior remains a crucial factor in determining customer preferences in telecommunications. Consumer behavior analysis in this context highlighted factors such as individual purchasing habits, brand perception, social influences, and lifestyle preferences.

The findings suggest that telecom companies in Kunming must adopt a more consumer-centric approach to better understand and anticipate the needs of their target audience. Insights into consumer behavior, such as preferences for reliable network coverage, cost-effective plans, and after-sales support, allow companies to craft more tailored and effective strategies to meet the specific demands of local consumers.

3) Relationship of Factors Influencing Customer Choice:

The combined analysis of both the marketing mix and consumer behavior revealed a total correlation of $r = 0.91$, which indicates that both factors together have a very strong influence on customer choice. The data confirmed that a well-balanced approach incorporating both strategic marketing efforts and an in-depth understanding of consumer behavior leads to better customer acquisition and retention.

The study highlighted that the marketing mix has a slightly stronger correlation, meaning that telecommunications companies should place significant emphasis on refining their product offerings, pricing, and promotional strategies. At the same time, companies should not overlook the importance of understanding consumer preferences and behaviors, as these

insights are essential for creating more targeted marketing campaigns and improving customer satisfaction.

Conclusion

This research provides valuable insights into the factors influencing customer choice in the telecommunications industry in Kunming, China. The findings demonstrate that both the marketing mix and consumer behavior are integral to shaping consumer decisions, with the marketing mix showing a slightly higher correlation. The success of telecommunication service providers in Kunming will depend on their ability to integrate these two elements into a cohesive strategy that both appeals to and meets the needs of their customers.

To maintain a competitive edge, telecommunication companies must continually adapt their marketing strategies to reflect the changing preferences of consumers. This includes offering competitive pricing, innovative products, and comprehensive promotional campaigns that engage and retain customers. In parallel, understanding consumer behavior, such as preferences for certain brands, network coverage needs, and spending patterns, will allow companies to develop more personalized services that resonate with the local market.

In conclusion, the combination of an effective marketing mix and a deep understanding of consumer behavior can provide telecommunication companies in Kunming with a significant competitive advantage. By focusing on both strategic marketing and customer-centric approaches, companies can enhance customer satisfaction and build long-term loyalty in a rapidly evolving market.

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