

Research on Consumers' Channel Choice and Consumption Behavior under Multi-channels

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Abstract

By combing the relationship between the evolution mode of retail channel and the change of consumer demand, this paper analyzes the motivation of consumer channel choice and online consumption behavior, and comments on the corresponding research methods. The change of consumer demand is an important driving force driving the evolution of retail channel model. In consumer channel choice, consumers are mainly affected by the perceived utility of shopping channel attributes. including channel convenience, information effectiveness, entertainment experience and social interaction, and by combing the research methods of consumer channel choice, this paper creatively puts forward the research methods of consumer channel choice. In consumers' online purchase behavior, consumer characteristics, external environmental characteristics, economic interests and logistics service quality have a major impact on online purchase.

Keywords

Multi-channel Retail; Channel Evolution Process; Channel Selection; Online Purchase.

1. Introduction

The mature development of e-commerce makes online digital shopping channels keep pace with offline physical shopping channels, providing consumers with another alternative shopping channel in addition to traditional retail channels. Consumers no longer regard traditional channels as the first choice to meet shopping needs, but more skillfully participate in digital shopping channels. According to the 47th Statistical report on the Development of China's Internet released by the China Internet Network Information Center (CNNIC, 2021), by December 2020, the number of Internet users in China had reached 989 million, and the Internet penetration rate reached 70.4%. The number of online shopping users reached 782 million, accounting for 79.1% of the total Internet users. Consumers who are experienced and highly digital in online shopping are more rational, no longer passively accept the products or services provided by merchants, and do not directly complete the whole shopping process in a single channel after generating the purchase demand for a certain product. in order to collect and compare product-related information and maximize utility, consumers usually switch frequently between physical stores, mobile e-commerce platforms, social stores and other channels. Through practice, it is found that the traditional retail enterprises that open the online retail channel face the challenge of low operation effect of the online retail channel because of the differences in product price and service quality between the channels. it not only brings bad consumer experience to consumers, but also leads to poor corporate income. Retail enterprises gradually realize that they need to pay attention to consumer channel preferences from the stage of consumer choice, and carry out differentiated marketing management according to the attributes and characteristics of online retail channels, so as to improve the realization of online traffic. clarifying the evolution of retail channels can make a clearer study of consumer behavior.

Based on this, this paper analyzes consumers' online channel selection and purchase behavior under the background of Multi-channel retailing, including the evolution process and motivation of retail channels, consumers' Multi-channel retail choices and purchase factors, and puts forward the prospect of the research on consumers' Multi-channel retail decision-making behavior. the purpose of this paper is to analyze consumers' preference, choice and application of different channels provided by enterprises in the context of Multi-channel retail. The purpose of this paper is to provide a reference for enterprises to better the whole different channels and to choose appropriate products and price promotion strategies in the future.

2. Evolution Process and Power of Retail Channel Model

2.1. Evolution of Retail Channel

Retail channel is a way and platform for retail enterprises to provide products or services to end consumers. With the development of information technology, retail channel model has experienced four evolution stages: single-channel retail, Multi-channel retail, Cross-channel retail and Omni-channel retail (Qi, 2017). Each stage has its own distinct characteristics.

Single-channel retail model. The traditional single-channel retail is the era of physical stores, the market is mostly occupied by brand enterprises, minority or new brands of enterprises have small living space, serve a small number of customers, and narrow coverage. The emergence of e-commerce makes retail channels diversified, but there is no connection between channels, online is the market of emerging brand enterprises, lack of traditional brand giants, consumers are faced with online and offline choice conflicts. In the single-channel retail mode, retailers only provide one retail channel offline or online, and there is no connection between online and offline, so consumers can only choose one channel for shopping.

Multi-channel retail model. The rapid development of e-commerce continues to erode the pure physical retail market share, while the price dividend of online retail is also gradually disappearing. In order to open up the market, retail enterprises adopt the online and offline dual-channel retail model, that is, Multi-channel retail. In this retail model, the channels are independent of each other, there are no unified operating standards and norms, and each channel independently completes all the functions of the sales or purchase process. At the same time, because the channels are independent of each other, it highlights the problems such as different prices of the same payment, which leads to the operation effect is not obvious.

Cross-channel retail model. In order to solve the problems caused by channel independence under Multi-channels, Cross-channel retail arises at the historic moment. Cross-channel retail integrates the functions of online and offline channels, allowing consumers to move and collaborate across channels in search, payment and other links. For example, the Japanese clothing chain Uniqlo has not only established offline physical stores, but also opened Tmall flagship stores, official websites and APP applications. For the same product, online and offline channels have the same price and quality.

Omni-channel retail model. In order to enhance the consumer shopping experience, Cross-channel retail has been further upgraded to Omni-channel retail. Omni-channel and Cross-channel are technically consistent, but Omni-channel has more obvious advantages in data mining, data identification and data analysis. Omni-channel retail embodies the idea of taking consumers as the center and provides consumers with a full-time and global shopping scene. In Omni-channel retail mode, online and offline channels are deeply integrated, consumers can trigger scene shopping at any time, and can freely switch online and offline channels.

Table 1. The concept and characteristics of single channel, Multi-channel, Cross-channel and Omni-channel

Time	Concept	Concrete form	Characteristics
Single channel	Retailers only provide one kind of retail channel offline or online, and there is no connection between online and offline, so consumers can only choose one channel for shopping.	The era of traditional physical stores and era of pure e-commerce	Physical retail has a rich interaction with customers, but the consumer group is restricted by region. The e-commerce model breaks geographical restrictions, but the brand is poor.
Multi-channel	A collection of activities that sell goods or services through multiple channels. There is no integration between channels and channel interaction cannot be realized.	A combination of multiple single channels, each channel completes all the functions of the channel, each channel strategy usually faces different types of customers.	It is conducive to the brand to expand the market, but the independence of online and offline causes conflicts, blur brand positioning, and poor consumer shopping experience.
Cross-channel	A set of activities involved in selling goods or services through multiple channels, part of the channel is integrated, and part of the channel interaction is realized.	The basis of cross-device and Cross-channel is data link technology, accurate digital marketing and effective communication with customers.	It is conducive for brands to communicate through the most suitable channels, integrate all channel data, and accurately evaluate the effects of each event.
Omni-channel	It provides a wide range of shopping channels, realizing full-scenario shopping, fully integrating channels, and realizing all channel interactions.	It is an upgraded version of Cross-channel retail, using data from multiple channels to improve all retail businesses and optimize customer experience.	Under Omni-channels, online and offline data are more closely matched, and through the selection and integration of channels, consumers can obtain a good customer experience.

2.2. Dynamics of Retail Channel Evolution

The changes in the retail channel model are rooted in the changes in consumer demand. Consumer demand is the starting point for all value creation activities of retail enterprises. Retail channels serve consumers. What kind of shopping process does consumers expect to achieve higher Consumer experience inevitably requires what kind of retail channels the company has.

Under the traditional retail business model, retail is sold directly to consumers. Retail is small and sporadic. Retailers pay little attention to consumer demand. Distributed consumers and diversified demands have stimulated the strategic transformation of the retail layout. The physical retail scale has begun to expand to the large-scale retail stage, and physical forms such as department stores, supermarkets, and entertainment shopping centers have appeared. Internet-based e-commerce breaks the limitations of time and space and provides consumers with convenient shopping channels. At the same time, consumers begin to participate in the value chain with the help of the Internet, and consumers begin to be more customized, personalized, and price-based. More demanding has forced retail companies to shift their focus from supply chain to demand chain.

With the changes in consumer demand, consumers are no longer limited to a single channel, but alternately use multiple channels according to their own consumer needs. Single-channel retail is no longer able to meet consumers' needs for Multi-channel shopping, but pays more attention to the service and quality of goods, brand, and quality of life and efficiency. With the

rise of mobile Internet, social media and O2O integrated service models, Multi-channel retail has begun to emerge. Multi-channel retail is beginning to emerge. After the emergence of Multi-channel sales by retail companies, with the improvement of consumption levels, the consumption level is pulled down, the "herd effect" of consumption gradually disappears, and personalized and diversified consumer demand rises on a large scale and gradually becomes the mainstream. Consumers have more say in the two-way communication attribute of the new generation of digital media, and occupy a dominant position in the relationship with the brand. They are gradually beginning to be dissatisfied with completing the entire purchase process in the same channel, hoping to obtain more transaction information and Complete the shopping process in as many channels as possible. In terms of consumer demand, essential consumer demand began to shift to optional consumer demand. Retail companies began to integrate different channel functions, such as collecting information in one channel and completing purchases in another channel. At this time, Cross-channel functional requirements appear.

After the emergence of Cross-channel retail, consumer demand has changed from the past "product + service" to "business + service + content". Consumers' demand for functions has declined, and they pay more attention to the individual characteristics of products and consumers' experience needs such as social experience, value recognition and sense of participation. In terms of consumer demand, I hope that brand owners can give them "anytime, anywhere" contacts, that is, use any medium they face to provide them with the services and content they want at any time. With the development of information technology, consumers' demand for channels has changed, and retail channels have begun to transform to Omni-channel retail at the advanced stage of retail.

3. Consumer Channel Choice Motivations and Research Methods

3.1. The Motivation of Consumer Channel Choice

Adam Smith proposed the "rational economic man" hypothesis in human economic behavior. He believed that people's thinking and behavior are goal-rational, and that consumers reasonably infer on the basis of existing resources and known information to maximize or maximize their own interests. The option to maximize utility. Later, on the basis of "rational economic man", Simon further proposed the concept of "bounded rationality". He believed that human beings are in a complex and uncertain environment with limited cognition and calculation ability of the environment, so it is impossible to deal with all situations. All standardized calculations can only be in a state of "bounded rationality" between completely rational and irrational. Therefore, in a Multi-channel retail environment, the channel selection process of rational consumers is the process of achieving the maximum overall utility with limited cognition and grasp of uncertain factors such as information and environment. Consumers' perception of channel utility is Consumers' psychological perception of benefits (Bigelow, 2008) or value (Khan, 2015) on the basis of trust (Janine, 2016). Any retail channel has its specific value attributes. These decisive value attributes can be observed or measured by entity variables, and they are also the standards used by consumers to measure the effectiveness of channels, specifically, include the following aspects:

1. Channel convenience

Channel convenience is divided into search convenience and purchase convenience. Search convenience mainly includes the ease of obtaining information, products or services and the level of cost required. Purchase convenience mainly includes the ease and speed of obtaining physical products or services. Whether it is the information search stage or the product purchase stage in the shopping process, convenience is the first factor that consumers consider. Channel convenience is also a significant difference between online and offline

channels. For offline channels, consumers need to spend time, energy, and money to complete information search or product purchases. Compared with offline channels, online channels break Due to time and space constraints, consumers only need to rely on the digital shopping platform to complete the above shopping process under the condition of a smooth network.

2. Information validity

Product information includes many aspects such as product price information, instructions for use, and word-of-mouth evaluation, and is the main content of the search stage. The retail channel is an important medium for providing product information. The comprehensive and effective product information provided by the retail channel can save consumers extra time and energy to identify the authenticity of product information, thereby shortening the time for consumers to choose channels. Generally, consumers can obtain limited information in a short time through offline shopping channels, and the information is relatively passive and single. However, the product information provided on online shopping platforms is more abundant than offline platforms, and consumers can quickly extract useful information for comparison.

3. Entertainment experience

The entertainment of offline channels is reflected in the fun of shopping with multiple consumers, while the entertainment of online channels is reflected in the comfort of consumers' free choice. Offline channels have strong experience. Consumers can experience product performance through physical contact. However, due to spatial and geographical constraints, online channels have low experience. With the development of information technology, emerging technologies such as AR/VR have been fully applied to online shopping platforms, and the entertainment experience of online shopping channels has gradually increased in completely different ways.

4. Social interactivity

Interpersonal interaction is the interaction between consumers and shopping channels. It is the quality of service provided by the shopping channel. It is an indispensable functional attribute of the shopping channel. It is a measure of the quality of service by consumers. Offline channels provide the relationship between service personnel and consumers. Online channels provide digital services. Social interaction is fun outside of products or services, and good service quality can enhance consumers' shopping experience.

3.2. Research Methods of Consumer Channel Selection

In the research on consumer channel selection, perceived utility and perceived value are the theoretical basis in many studies. On the theoretical basis, statistical methods such as regression analysis, correlation analysis (Ma, 2016), and structural equation model (Zhang, 2014) have been used successively Empirical research on the influencing factors of consumer channel choice, but regression analysis cannot explain the relationship between variables well, nor can it solve the problem of latent variable measurement error; the construction of the entire path analysis framework in the structural equation model depends on subjective Assumptions and judgments, different path settings will produce different results, and it is difficult to ensure the stability of the structural equation model. At the same time, regression analysis and structural equation models can only test simple causal relationships between variables, and cannot conduct in-depth quantitative research on complex interactions between variables. In the research methods of consumer channel selection, in addition to relying on statistical software on a theoretical basis, scholars (Ding, 2019) predict consumer channel selection behavior by constructing mathematical models. Mathematical models overcome subjectivity to a certain extent, but ignore the test of causality between variables.

In the study of consumer channel choice behavior, latent variables such as cognition, attitude, behavior, and willingness are often difficult to measure, and they need to be expressed

through observational variables. There are many factors that affect consumer behavior, and it is not only necessary to test the causality between the variables. Relationships, the complex relationships among them also require in-depth analysis, and the behavior is also predictable. Therefore, using an empirical research method alone can only test the relationship between variables and cannot conduct quantitative research. To test the causal relationship between variables, structural equation models can be used to pre-select several factors that affect consumer behavior based on the occurrence characteristics of consumer choice behavior, set relevant observed variables and latent variables, and build path analysis models. Bayesian network is a statistical method that expresses the causal relationship between variables, predicts and diagnoses the relationship between variables. Its good predictive and diagnostic capabilities can accurately analyze consumer purchase behavior (Song, 2011), although the Bayesian network model can Predicting consumer behavior, but unable to calibrate the impact relationship between variables, lack of empirical ability to explain the causal relationship between variables, and there may be complex correlations between variables. Combining the functional characteristics of structural equation models and Bayesian networks, researchers often combine structural equation models and Bayesian networks to discuss problems in a certain field. For example, Gerassis et al. (2019) proposed combining structural equation models and Bayesian networks. The Sri Lanka network assesses the interactive effects of land use and climate change on freshwater macroinvertebrates. Research shows that combining the two methods can provide a more in-depth analysis of the complex relationships between variables. A domestic researcher (Zong, 2018) combined structural equation modeling and Bayesian networks to assess conventional public transport risks. Research shows that the combination of the two has high prediction accuracy and can be used for quantitative risk assessment. Li (2018) combined with PLS -SEM and Bayesian analysis of the relationship between online transaction costs and purchase intention, accurately analyze the factors that affect purchase intention and the relationship between them. At present, in the research on consumer channel selection behavior, there is no research combining structural equation model and Bayesian network.

4. Consumers' Online Consumption Motivations and Research Methods

4.1. The Motivation of Consumers Online Consumption

By December 2020, the number of online shopping users in China has reached 782 million, an increase of 72.15 million compared with March 2020 (CNNIC, 2021) Online consumption has become a way of shopping that consumers accept or even rely on. Taken together, the motivation of consumers' online consumption is as follows:

1. Consumer characteristics

In terms of consumer characteristics, the first is that Chinese Internet users are generally more educated and younger. This group of people has a fast-paced life and focuses on the efficient and convenient shopping. According to the survey, saving energy and time encourages consumers to spend online. The main reason. Second, Chinese consumers have a high degree of digitalization, rich online shopping experience, strong ability to distinguish the authenticity of online information, higher self-efficacy, and a stronger willingness to try and accept new things. Therefore, even if online shopping is more risky than offline physical shopping, it will not affect consumers' choice of online shopping to a large extent.

2. External environment

The external environment is divided into micro-environment and macro-environment. In the micro-environment, individual consumers are mainly influenced by the reference group when they make their purchasing decisions. As long as one person forms a top sheep effect through online shopping, the others will also be affected and participate in online consumption one

after another. This is also one of the reasons for the rapid development of e-commerce in my country. The macro environment includes the economic environment, social environment, etc. For example, during the prevention and control of the new crown epidemic, residents' daily outing activities are restricted. In order to ensure their daily lives, offline consumption scenes are forced to move to online for a long time. Online purchases This new consumption habit is being cultivated invisibly, bringing unexpected opportunities to the online consumer industry. In 2021, in the context of local initiatives to "Chinese New Year in situ", consumers' online purchases of New Year's goods and other "home consumption" will further promote the outbreak of the online economy.

3. Economic benefits

The economic cost of a product is not only the price of the product itself, but also the transportation and transportation costs that consumers need to bear in order to obtain the product. Compared with offline retail channels, consumers can save additional costs by purchasing products online. In addition, in order to obtain the most cost-effective product, consumers will collect information through multiple channels to compare the price of the same product before purchasing the product. When the product price is the same, consumers will further compare the strength of merchant discounts. Usually, offline stores hold periodic Promotion activities, and promotion activities on the online shopping platform are more frequent than offline stores, and the promotion efforts are more comparable.

4. Logistics Service

Logistics services are the tentacles of consumers' online shopping and the key link between consumers and online retailers. Convenient, efficient and safe logistics services can alleviate consumers' shopping burden and reduce the risks of consumers' online shopping. Therefore, when consumers shop online, high-quality logistics services are an important reason for consumers to choose online shopping. Whether merchants provide free shipping services, free shipping insurance, and appoint logistics companies for distribution and other logistics services can improve consumers' shopping Experience. During the prevention and control of the new crown epidemic, logistics services are the basic guarantee for the daily consumption of residents.

4.2. Research Methods of Consumers' Online Consumption

Because of the complexity of online purchase behavior, consumers' online purchase behavior has always been a hot research field of e-commerce and consumer behavior. Scholars usually combine economics and social psychology to study consumer behavior, trying to identify the factors that affect consumers' online purchase from different angles, such as attitude, motivation, willingness and behavior, and explore the correlation between these factors. The research on consumer behavior in the Multi-channel retail environment is rich. Through the collation of the literature, it is found that the main theories for analyzing consumer attitude, behavior motivation and trust are rational behavior theory, planned behavior theory and trust theory. With the deepening of the research, on the basis of rational economic man, scholars think that consumers will weigh the perceived benefit and the perceived cost of obtaining products or services before making a purchase decision. Customer value theory, income-risk theory and so on have been applied to this research. Scholars realize that online consumption behavior is a process, and the consumer decision-making process model based on consumer behavior process is gradually widely used.

On the basis of theory, researchers can use discussion method, observation method, induction method, experimental method and other methods for qualitative analysis, but more scholars use statistical software for quantitative analysis, such as cluster analysis, regression analysis, molecular analysis, correlation analysis and so on.

5. Research Summary

Multi-channel retail is not only the main retail strategy adopted by retail enterprises, but also a hot field of consumer behavior research. By combing the evolution process of retail channel, it is found that the research results on the evolution process and concept definition of retail channel in each stage have been relatively mature. its core is that the change of consumer demand promotes the evolution of retail channel from single-channel, Multi-channel, Cross-channel to full-channel model, but in the existing research, there is no unified conclusion and mature measurement scale on the measurement of Multi-channel retail variables. Secondly, there are many influencing factors of consumer channel choice. compared with the traditional retail channel choice, the differences of influencing factors and the influence coefficient of various factors have not been systematically explored in the existing research. Finally, in terms of research methods, previous studies mostly used regression analysis, linear analysis or structural equation model to test the causal relationship between variables, but there is a lack of research on the combination of qualitative research and quantitative research. Bayesian network has good diagnosis and prediction function, but it lacks empirical ability, so in the future research on consumer decision-making behavior, structural equation model and Bayesian network can be combined to quantitatively analyze consumer decision-making behavior.

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