

A Cutting Edge Review of Cross-Cultural Marketing and Consumer Behaviour Analysis - A Data-Driven Strategy

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Abstract. Cross-cultural marketing faces unprecedented challenges and opportunities in the context of globalisation and digitalisation. This paper provides an overview of key topics in cross-cultural marketing, discusses the importance of consumer behaviour analysis, and focuses on the application of data-driven marketing strategies in cross-cultural marketing. Through in-depth research and case studies, this paper reveals the key role of data in understanding consumer needs, optimising marketing strategies and improving market competitiveness, providing effective strategic advice and practical guidance for international companies.

Keywords: Cross-cultural marketing; consumer behaviour analysis; data-driven; marketing strategy.

1. Introduction

With the acceleration of globalisation, enterprises are increasingly required to compete in international markets. However, there are significant differences in the cultural background, values and consumption habits of different countries and regions, which poses a serious challenge to international marketing. Cross-cultural marketing requires not only an in-depth understanding of the cultural characteristics of the target market, but also effective strategies to meet the needs of local consumers. Data-driven marketing strategies provide new ideas and approaches for this purpose. The purpose of this paper is to review the cutting-edge research on cross-cultural marketing and consumer behaviour analysis, and to discuss the application and effectiveness of data-driven strategies in cross-cultural marketing.

2. Challenges and Opportunities of Cross-Cultural Marketing

2.1. Impact of cultural differences

Cultural differences are undoubtedly the most significant and hard-to-ignore influencing factor in international marketing[1]. Such differences go beyond simple language barriers to include customs, religious beliefs, values, aesthetics and even lifestyles. In Asian markets, consumers tend to pay more attention to the price-performance ratio of products and the social status and image conveyed by the brand, and they tend to choose brands that reflect their own identity and values. In contrast, consumers in Western markets are more interested in innovation, personalisation and whether the product fits their lifestyle. This difference in demand requires international marketers to study the cultural characteristics of the target market and accurately capture consumer preferences and expectations, so as to develop a marketing strategy that is both culturally appropriate and able to stimulate purchasing desire.

2.2. Diversified market opportunities

While cultural differences pose a major challenge in international marketing, it is this diversity that provides companies with vast market opportunities. By implementing a localised marketing strategy, companies are able to differentiate themselves from the competition by offering products and services tailored to consumers from different cultural backgrounds. Localisation is not only about incorporating local cultural elements into product design and functionality, but also about innovation in brand communication and marketing[2]. Some international brands have successfully combined their brand stories with local culture to create products and services with unique regional

characteristics, and this deep cultural integration has not only won the favour of local consumers, but also promoted the shaping of brand image and deepened cultural exchange.

In this process, companies need to be highly culturally sensitive and flexible, able to quickly adapt to the cultural environment of different markets while maintaining a balance between core brand values and global consistency[3]. Through continuous market research and consumer insights, companies can continually optimise their products and services to meet the diverse needs of consumers across the globe, thus achieving sustainable growth and success in cross-cultural marketing.

3. The Importance of Consumer Behaviour Analysis

3.1. Influences on consumer behaviour

Consumer behaviour is a complex and multidimensional concept that is influenced by the intertwining of a variety of internal and external factors. In the context of cross-cultural marketing, these factors can be broadly classified into four main categories: cultural, social, personal and psychological.

Cultural factor is the most significant and difficult to ignore influence factor in cross-cultural marketing[4]. It not only covers consumers' explicit cultural characteristics such as language, customs and religious beliefs, but also penetrates into the implicit level such as values and worldview. These cultural characteristics have a profound impact on consumers' purchasing decisions and brand preferences.

Social factors, on the other hand, relate to the social environment in which consumers live, including family, friends, colleagues and social class. These factors not only influence consumers' purchasing behaviour, but also shape their consumption perceptions and brand preferences[5]. Consumers' consumption habits and brand loyalty may be very different in different social environments.

Individual factors, on the other hand, cover individual differences such as age, gender, occupation, income level, education level and so on. These factors have a direct impact on consumers' spending power and consumption habits[6]. Young consumers may be more inclined to pursue fashion and personalised products, while middle-aged and old-aged consumers pay more attention to the practicality and cost-effectiveness of products.

Psychological factors, on the other hand, involve psychological processes such as motivation, perception, learning and memory of consumers. These factors determine consumers' perception, evaluation and choice of products[7]. Consumer loyalty to a brand often stems from recognition of brand value and emotional connection, which need to be established and maintained through effective marketing strategies.

3.2. Methods of consumer behaviour analysis

The methods of consumer behaviour analysis mainly include questionnaires, interviews, observations and experiments. Questionnaire survey is one of the most commonly used methods, and a large number of consumers' opinions and feedbacks can be collected through reasonably designed questionnaires. Interviews, on the other hand, provide an in-depth understanding of consumer needs and preferences through face-to-face communication. Observation method reveals consumers' potential needs by observing their purchasing behaviour and usage habits[8]. The experimental method studies the impact of different factors on consumer behaviour by controlling variables. These methods can complement each other to improve the accuracy and reliability of the analysis.

3.3. Application of consumer behaviour analysis

The application of consumer behaviour analysis in cross-cultural marketing is extensive and far-reaching. By analysing consumers' needs and preferences, enterprises can formulate product and service solutions that meet the local market and improve market competitiveness. After understanding

the preferences of consumers in the target market in terms of product functions, design and price, enterprises can adjust their product strategies to meet the needs of local consumers.

Consumer behaviour analysis can also help companies understand their competitors and develop differentiated competitive strategies. By investigating consumers' evaluation and satisfaction with competitors' products, enterprises can identify their own strengths and weaknesses for improvement and optimisation. If consumers generally express dissatisfaction with competitors' products in a certain aspect, enterprises can seize this opportunity to launch competitive products and capture market share.

Consumer behaviour analysis can also provide enterprises with the basis for market segmentation and positioning[9]. By analysing the characteristics and needs of different consumer groups, enterprises can segment the market into multiple sub-markets and choose the most suitable target market for their positioning. This precise market positioning and segmentation strategy helps enterprises to improve marketing efficiency and effectiveness and achieve sustainable development.

4. Data-driven Marketing Strategies

4.1. The Importance of Data-Driven Marketing

In the digital age, data has become one of the key factors for business success. Data-driven marketing strategies optimise marketing activities and increase ROI by collecting and analysing consumer data[10]. The core of data-driven marketing lies in the use of big data, artificial intelligence and other technologies to dig deeper into consumer needs and behavioural patterns to achieve precision marketing and personalised services. This strategy not only improves marketing efficiency and effectiveness, but also reduces marketing costs and enhances the market competitiveness of enterprises.

4.2. Methods of data collection and analysis

The first step in data-driven marketing is data collection. Companies can collect relevant data through a variety of channels, including social media, website analytics, and customer relationship management (CRM) systems. Social media platforms provide rich data on user interactions and comments, which can reflect consumers' real thoughts and needs[11]. Website analytics tools can monitor website traffic, user behaviour and conversion rates, providing valuable marketing insights for businesses, while CRM systems record customers' purchasing history and preferences, helping businesses understand the long-term value of their customers.

Data analysis is a key part of data-driven marketing. Enterprises can use data mining, machine learning and other technologies to conduct in-depth analyses of collected data and extract valuable information. Data analysis can not only help enterprises identify market opportunities, but also reveal potential risks and challenges. By analysing consumers' purchasing behaviours and preferences, enterprises can discover new market segments and develop more precise marketing strategies.

4.3. Data-driven marketing strategies

Data-driven marketing strategies include personalised marketing, precision advertising and social media marketing. Personalised marketing provides tailor-made products and services for each consumer by analysing consumer data. By analysing consumers' purchasing history and preferences, companies can recommend products and services that meet their needs and increase consumer satisfaction and loyalty[12]. Precise advertising is achieved by analysing consumers' behaviour and interests to achieve precise placement of advertisements and increase the click rate and conversion rate of advertisements. Social media marketing, on the other hand, uses social media platforms to interact with consumers in real time and increase brand awareness and reputation.

5. Data-driven Strategies in Cross-cultural Marketing

5.1. Data applications in intercultural communication

Cross-cultural communication is the key to successful international marketing. Effective cross-cultural communication can help marketers better understand the needs of consumers in their target markets and avoid misunderstandings and conflicts caused by cultural differences. Data plays an important role in cross-cultural communication[13]. By analysing consumer data, companies can understand consumer needs and preferences in different cultures and formulate marketing strategies in line with the local market. By analysing consumer data and consumption habits in different countries and regions, companies can find out the impact of cultural differences on consumer behaviour, so as to make targeted adjustments and optimisation.

5.2. Data-driven localisation strategies

Localisation strategy is an important tool in cross-cultural marketing. Through in-depth understanding of the cultural background and consumer needs of the target market, companies can develop product and service solutions that are in line with the local market. Data-driven localisation strategy makes use of big data and artificial intelligence technology to conduct in-depth analysis of the local market and achieve precision marketing and personalised services. Some international brands have successfully attracted the attention and love of local consumers by combining with local cultural elements and launching products and services with regional characteristics[14]. This localisation strategy not only enhances brand competitiveness, but also promotes cultural exchange and integration.

5.3. Data-driven social media marketing

Social media has become an important platform for companies to interact with consumers. In cross-cultural marketing, social media marketing has a wide range of applications. Through social media platforms, enterprises can interact with consumers in their target markets in real time and understand their needs and feedback. At the same time, social media can also help companies expand the scope of brand communication and increase brand exposure and influence[15]. Data-driven social media marketing optimises marketing strategies and content to improve marketing effectiveness and ROI by analysing user interaction and comment data on social media. By analysing user feedback and trends on social media, enterprises can identify changes in consumer perceptions and attitudes towards their brands, so that timely adjustments and optimisation can be made.

6. Apple's Marketing Strategy in The Chinese Market

As a global leader in the technology industry, Apple's marketing strategy in the Chinese market demonstrates deep market insights and flexible strategic adjustments. Since entering the Chinese market, Apple has not only maintained its globally consistent brand positioning and product innovation, but has also implemented a number of localised strategies based on the special environment and consumer needs of the Chinese market.

(1) Deep insight into local needs

Apple's share of industry profits in China's smartphone market is a whopping 62%, yet its share of shipments is only 9.1%. Faced with such figures, Apple realised that it needed to further expand its market share. Through in-depth analysis of market data, Apple discovered that Chinese consumers have unique needs when it comes to their smartphone choices.

According to relevant market research data (similar to Counterpoint data), Apple found that Chinese consumers have a high demand for dual SIM dual standby function. When analysing shipment share data for the Chinese smartphone market, Apple saw that Huawei led the way with 26.4% of shipments, partly due to the fact that Huawei's handsets are better suited to the needs of Chinese consumers in terms of functionality, including dual SIM and dual standby features.

Based on such data insights, Apple made decisions to target innovation in product features. For example, Apple added dual SIM functionality to the iPhone XR and iPhone XS Max, and incorporated Chinese elements into its product design, such as launching a special red version of the iPhone. These decisions were based on in-depth mining of market data, and were designed to satisfy the needs of Chinese consumers, thereby increasing its share of shipments in the Chinese market, and in turn, boosting its overall profitability.

Table 1. Industry Profit and Shipment Share in China Smartphone Market

| brand name | Industry Profit Share | Share of shipments |
|----------------|-----------------------|--------------------|
| pomegranate | 62% | 9.1% |
| Huawei (brand) | 8% | 26.4% |
| oppo | 5% | 19.8% |
| vivo | 4% | 19.1% |
| millet | 3% | 13.1% |

Source: Based on information from Counterpoint, a data research organisation.

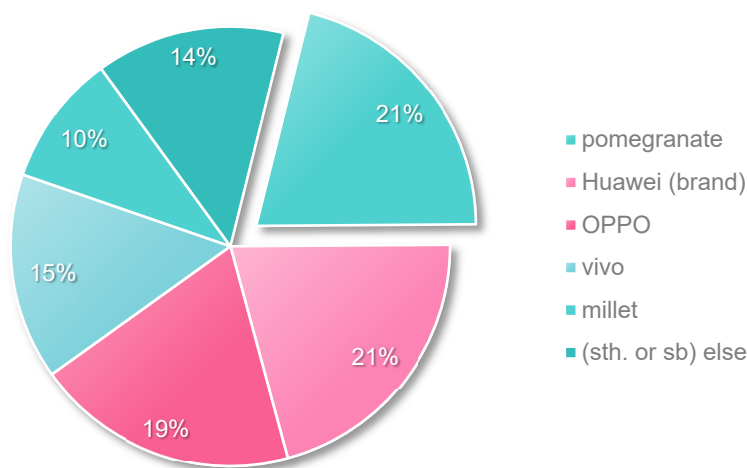


Figure 1. Smartphone Market Ownership Rate in China

Data Source: Apple Revenue in China Market, 2015-2018

(2) Multi-channel sales strategy

From the perspective of Apple's operating revenue share, Greater China accounts for 25%, ranking third in the revenue share by region, after the Americas (44%) and Europe (15%), which indicates that Greater China is of great significance to Apple's revenue. Meanwhile, in terms of the age structure of Apple's mobile phone users in the Chinese market, the proportion of users aged 18-34 reached 68.6% (31.50% for those aged 18-24 and 37.10% for those aged 25-34), which indicates that the younger group is the main consumer group of Apple's mobile phones in China. Based on these data, Apple made the decision to expand its multi-channel sales strategy. When analysing the Chinese market, Apple found that young people, as the main consumer group, have a high preference and reliance on online shopping channels. At the same time, by analysing the data of China's telecommunication market, Apple realised that cooperating with the country's major telecommunication operators could effectively reach a wider range of consumers.

For example, China Mobile, China Unicom and China Telecom have a large subscriber base in China's telecoms market, and in-depth co-operation with these carriers can leverage their large subscriber networks and offline shops to enhance the sales channels for Apple mobile phones. By analysing the data of e-commerce platforms, Apple found that platforms such as Tmall and Jingdong occupy an important share of China's online shopping market, and their user groups are highly overlapping with the main consumer group of Apple mobile phones (18-34 years old).

Therefore, Apple decided to establish partnerships with these e-commerce platforms to further enhance its brand awareness and market share in the Chinese market through online and offline multi-channel layout. The online platforms are able to accurately reach young consumers, while the offline operators and retailers can provide convenient purchasing services and enhance brand exposure, thus attracting more consumers of different age groups.

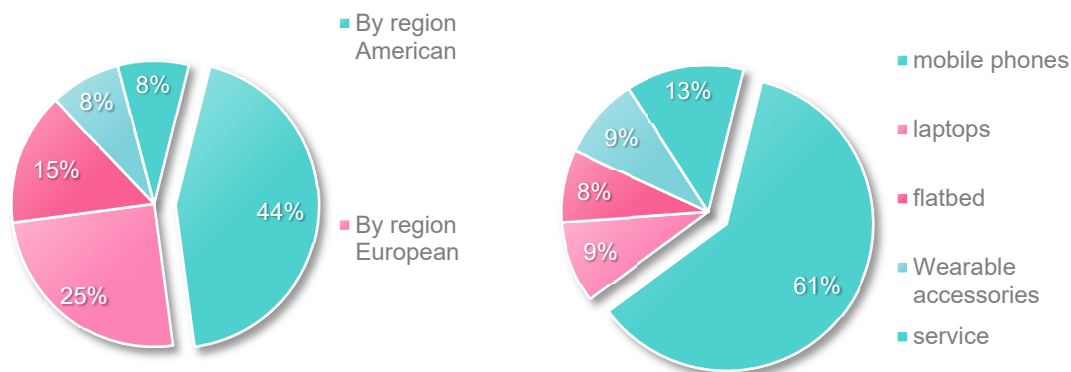


Figure 2. Apple's Operating Revenue Share

Table 2. Age structure of Apple mobile phone users in China market

| age range | percentage |
|-------------------|------------|
| Under 18 | 19.90% |
| 18-24 years | 31.50% |
| 25-34 years | 37.10% |
| 35-44 years | 6.90% |
| 45 years and over | 4.70% |

Source: <https://www.mob.com/mobdata/report/33>

(3) Data-driven marketing innovation

Apple's market share in China shows some volatility in terms of its revenue figures from 2015-2023. The market share was 3.2% in 2015, then increased year by year, reaching a peak of 13.6% in 2020, but then declined. In terms of growth rates, most years in the 2015-2020 period saw more significant growth, including a high of 70.69 per cent in 2016 and 57.5 per cent in 2020, but negative or lower growth was seen in 2021-2023.

In analysing the consumer data, Apple conducted a segmentation study of different regions and age groups. According to Apple's operating revenue share (Figure 2), Greater China accounts for 25 per cent of the total, and occupies an important position in Apple's global market. Combined with the age structure of Apple mobile phone users in the Chinese market (Table 2), the proportion of users aged 18-34 reached 68.6%, indicating that the younger group is one of the major consumer groups of Apple mobile phones in China. And, judging from the market share data, consumers in first-tier cities contribute more to Apple's market share growth during the growth phase (2015-2020), as these areas have strong consumption power and high acceptance of high-end products.

Based on these data, Apple found that China's Tier 1 city consumers and young consumer groups play an important role in its revenue growth, and that this group has a high propensity to demand high-end smartphones. As a result, Apple made the decision to increase its marketing efforts for high-end products such as the iPhone Pro series. For example, in terms of marketing strategy, it increased advertising and the layout of experience shops for high-traffic business districts in first-tier cities, and carried out precise marketing on social media platforms where young people gather to showcase the high-end performance and fashionable design of the iPhone Pro series, which successfully attracted target customer groups and enhanced brand image and market share.

Table 3. Apple Revenue in China Market, 2015-2018

| vintages | Market share (%) | Growth rate (%) |
|----------|------------------|-----------------|
| 2015 | 3.2 | 37.5 |
| 2016 | 4.4 | 70.69 |
| 2017 | 7.5 | 10.7 |
| 2018 | 8.3 | 6.5 |
| 2019 | 8.8 | 13.6 |
| 2020 | 13.6 | 57.5 |
| 2021 | 9.6 | -29 |
| 2022 | 9.3 | -3.2 |
| 2023 | 9.1 | -2.2 |

Source: Apple Revenue in China Market, 2015-2018

(4) Social Media Interaction

With the prevalence of social media today, Apple also makes full use of this platform to interact with Chinese consumers. Through social media platforms such as Weibo and WeChat, Apple not only releases product information and event previews, but also actively responds to consumer feedback and builds a good brand image. This kind of instant and direct communication not only enhances consumers' sense of participation and belonging, but also provides Apple with valuable market insights that help it continuously optimise its products and services.

7. Future Trends and Challenges

7.1. Future trends in international marketing

(1) Deep integration of digitalisation and intelligence

In the future of international marketing, digitalisation and intelligence will become an irreversible mainstream trend. Enterprises need to accelerate their own digital transformation and make full use of advanced technologies such as artificial intelligence (AI), big data and cloud computing to optimise the marketing process and improve the accuracy and efficiency of marketing decisions. By analysing consumer behaviour data through AI algorithms, enterprises can more accurately predict market demand and achieve personalised marketing[16]. Meanwhile, an intelligent customer relationship management (CRM) system will help enterprises deepen their interaction with consumers and enhance customer loyalty.

(2) Highlighting of consumers' individual needs

With the increasing diversification and personalisation of consumer demand, enterprises must divide the market more finely and pinpoint the target consumer groups. By digging deeper into consumer preferences, companies can customise products and services to meet market demand, thus winning consumers' favour. This requires not only strong data analysis capabilities, but also a flexible production and supply chain system to respond quickly to market changes.

(3) Strategic position of brand building

Branding will play a crucial role in international marketing in the future. A strong brand not only enhances the added value of products, but also strengthens consumer trust and loyalty. Therefore, enterprises need to increase their efforts in brand building and promotion, and shape a unique brand image and reputation through multi-channel and multi-platform communication strategies. At the same time, active participation in social responsibility activities to enhance the social value of brand image is also an indispensable part of brand building.

(4) Importance of intercultural communication

In the context of globalisation, intercultural communication skills have become the key to the success of an enterprise's international marketing. Enterprises need to cultivate cross-cultural awareness and enhance their sensitivity to the cultural characteristics of target markets in order to

avoid misunderstandings and conflicts caused by cultural differences. This includes an in-depth understanding of the language, customs and religious beliefs of the target market, as well as the establishment of channels and mechanisms for effective communication with local consumers.

7.2. Challenges and Strategies

(1) Challenges of cultural differences

Cultural differences are one of the most direct and unavoidable challenges in international marketing. In order to overcome this obstacle, enterprises should strengthen cross-cultural training and enhance the cultural sensitivity and adaptability of their employees. In addition, establishing a team of consultants composed of local professionals to provide professional guidance on market access, laws and regulations, and cultural practices is also a strategy to effectively deal with cultural differences.

(2) Increased market competition

With the opening up of global markets and the intensification of competition, enterprises face double pressure from domestic and foreign competitors. In order to maintain their competitive advantages, enterprises need to innovate continuously and enhance the differentiation of their products and services[17]. At the same time, strengthen market research, accurately grasp consumer demand and market dynamics, and flexibly adjust marketing strategies to respond to market changes.

(3) Data security and privacy protection

In the era of digital marketing, data security has become an important issue that enterprises cannot ignore. Enterprises need to establish sound data management and protection mechanisms to ensure the lawful and compliant use of consumer data. This includes strengthening data encryption technology to prevent data leakage; clearly informing consumers of the purpose and scope of data collection, use and sharing, and respecting their privacy rights; and regularly reviewing data protection policies to ensure that they comply with the latest legal and regulatory requirements.

(4) Complexity of supply chain management

Supply chain management has become more complex and vulnerable in the context of globalisation. Enterprises need to optimise their supply chain management processes and improve the transparency and flexibility of their supply chains to cope with the impact of unexpected events (e.g. natural disasters, political unrest, etc.) on their supply chains. At the same time, establishing a diversified supplier network and reducing reliance on a single supplier are also important measures to improve supply chain resilience.

8. Conclusion

Cross-cultural marketing and consumer behaviour analysis are important topics in the field of marketing. Under the background of globalisation and digitalisation, enterprises need to compete in the international market, and cultural differences pose a serious challenge to international marketing. By gaining a deeper understanding of the cultural background and consumer needs of the target market, formulating marketing strategies in line with the local market, strengthening cross-cultural communication and integration, as well as continuously exploring and innovating marketing strategies and tools, international marketers can better cope with the challenges of the market and realise their marketing goals.

Data-driven marketing strategies provide new ideas and methods for cross-cultural marketing. By collecting and analysing consumer data, companies can gain a deeper understanding of consumer needs and preferences, optimise marketing strategies and content, and improve marketing efficiency and effectiveness. In the future, as technology continues to advance and consumer needs diversify, data-driven marketing strategies will become smarter and more precise. Enterprises should actively embrace this trend and strengthen their digital transformation and intelligence levels to achieve sustainable development and competitive advantage.

References

- [1] Mavis B ,Daniela W .Origin and dairy consumption in West Africa: a cross-cultural analysis of consumer behaviour[J].Cogent Food & Agriculture,2023,9(1).
- [2] A. K S ,J. E S .INCREASING INTERCULTURAL COMPETENCY IN STUDY ABROAD MARKETING CLASSES: IMPLEMENTING THE INTERCULTURAL DEVELOPMENT INVENTORY [J]. Marketing Education Review, 2023, 33(1): 86-96.
- [3] Pei W ,Sindy C .A cross-cultural analysis of impulsive buying behaviour : Comparing the effect of longterm orientation and shopping values of Chinese and US consumers[J].JOURNAL OF CULTURAL MARKETING STRATEGY,2023,7(2):174-186.
- [4] Jin S .Assessing the Impact of We-Media on Marketing: a Case Study of the New Trend of Digital Media[J]. 2022,10(3).
- [5] Songyan H ,Zhongxue H .RESEARCH ON COPING STRATEGIES OF CONSUMER BEHAVIOR BARRIERS IN MARKETING[J].Psychiatria Danubina,2021,33(S8):173-174.
- [6] Říha D ,Heinze T ,Stros M .Intercultural Variations in Personal Sales Factors in the Czech and U.S. Automotive Markets: Practical Implications for Marketing [J]. Central European Business Review, 2017, 6(1): 26-47.
- [7] Mavis B ,Daniela W .Origin and dairy consumption in West Africa: A cross-cultural analysis of consumer behaviour[J].Cogent Food & Agriculture,2023,9(1):
- [8] Pei W ,Sindy C .A cross-cultural analysis of impulsive buying behaviour : Comparing the effect of longterm orientation and shopping values of Chinese and US consumers[J].JOURNAL OF CULTURAL MARKETING STRATEGY,2023,7(2):174-186.
- [9] Jin S .Assessing the Impact of We-Media on Marketing: A Case Study of the New Trend of Digital Media [J]. Journal of Economics, Business and Management,2022,10(3):
- [10] Songyan H ,Zhongxue H .RESEARCH ON COPING STRATEGIES OF CONSUMER BEHAVIOR BARRIERS IN MARKETING[J].Psychiatria Danubina,2021,33(S8):173-174.
- [11] W. D P ,J. A P ,Berna M , et al.Preventing brand name blunders in doing business across cultures: Theory and research[J].Journal of Global Scholars of Marketing Science,2020,30(2):115-146.
- [12] Reyes M .Consumer Behavior and Marketing [M]. IntechOpen: 2020-03-04. DOI:10.5772/INTECHOPEN.77647.
- [13] Olena N ,Svitlana B ,Mariia N .Luxury consumers' behavior: a cross-cultural aspect[J].Innovative Marketing,2019,15(4):1-13.
- [14] Li C ,Li D ,Chiu C , et al.Strong Brand From Consumers' Perspective: A Cross-Cultural Study[J].Journal of Cross-Cultural Psychology,2019,50(1):116-129.
- [15] Galina T ,Urkmez T ,Ralf W .Cross-Cultural Variations in Consumer Behavior: A Literature Review of International Studies[J].South East European Journal of Economics and Business,2018,13(2):49-71.
- [16] Choudhury .Nationalism, Diversity, and Human Rights: An Ethnographic Study of Buddhism and Tagore and Thoughts for Marketing Intercultural Understanding[J].Journal of Nonprofit & Public Sector Marketing,2018,30(2):151-167.
- [17] Mooij D M .Cross-cultural research in international marketing: clearing up some of the confusion [J]. International Marketing Review,2015,32(6):646-662.