Overseas Online Shopping Consumer Risk Perception Mechanism and Risk Aversion Strategy Research

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Abstract. This paper studies the overseas online shopping phenomenon from the perspective of consumer behavior. The methods of literature review, the research present situation of consumers' risk perception, the adoption of questionnaire and interview method to collect overseas online shopping consumer perception of risk dimension data, the relevant data processing method is adopted to build overseas online shopping consumer perceived risk impact on consumer buying behavior model, from overseas online shopping consumer perspective to explore the risk perception of consumers the internal influence mechanism of consumer purchase decisions and avoid risk strategy is put forward.

Oversea online shopping refers to the online shopping behavior in which consumers browse and select commodities on overseas commercial websites through the Internet, submit electronic orders and complete the payment through electronic payment, deliver the goods directly through international express, or transfer companies collect the goods on behalf and forward them to consumers. Chinese consumers' overseas online shopping behavior originated from the 2008 Chinese dairy products contamination incident. With the development of economy, the demand for foreign products also increases, and overseas online shopping comes into being. With the help of Internet technology, payment means and logistics technology, overseas shopping becomes more and more convenient, and more Chinese consumers begin to "overseas online shopping".

Current Situation of “Overseas Online Shopping”

According to the 2017-2018 China cross-border e-commerce market Research report released by iiMedia Research, the overall transaction scale of cross-border e-commerce (including retail and B2B) reached 7.6 trillion yuan in 2017, with a considerable growth rate. According to the 2017 Pay Pal survey report on shopping habits and payment preferences of Chinese consumers, 51 percent of respondents said they used shopping on foreign websites in 2017. Monitoring data from China e-commerce research center shows that in 2014, the scale of overseas transactions has exceeded 100 billion yuan, and in 2018, overseas online shopping transactions have reached 1 trillion yuan.

Review of Domestic and Foreign Studies

Scholars at home and abroad have started to study the risk perception mechanism and risk avoidance strategy of overseas online shopping consumers for a long time. Abroad, since 1960, when Bauer, a scholar at Harvard University, first introduced the concept of "perceived risk" from psychology to consumer behavior, perceived risk has been used to explain traditional shopping behaviors, shopping behaviors at home (shopping or mail order) and shopping risks related to various media in the west. Mitchell (1999) believes that consumers tend to reduce their perceived risk rather than maximize their perceived value when making purchase decisions, and that perceived risk is more powerful in explaining consumer behavior. Kotler (1997) once pointed out that consumers' change, delay or cancel purchase decisions are largely influenced by perceived risks.

The study of the theory of the relevant domestic overseas online shopping is relatively less, and most of them discuss the content of the main around the description of this phenomenon, the
influence of overseas online shopping problem such as development present situation, obstacles and countermeasures, and from the perspective of consumer behavior study of literature is almost blank. Based on this background, we investigated and studied overseas online shopping phenomenon from the perspective of consumer behavior to broaden the existing perspective of overseas online shopping research.

**Consumer Risk Perception Mechanism**

Risk perception is a subjective judgment made by people on the characteristics and severity of a particular risk. Although "overseas online shopping" and "Taobao", "the Jingdong" and other domestic shopping way, there is no difference, the overseas online shopping operators in foreign countries, and language translation, geographic area, and expensive costs, as well as the reason of the difference of legal system is the "overseas online shopping consumer rights and interest protection has formed a" block, once the problem is, it is difficult to adjust.

Combined with already in the literature, overseas online shopping consumer perceived risk and purchase decision of existing research results, this study puts forward 6 reason variables: financial risk, physical risk, functional risk, social risk, time risk and information risk, mediation variables: information search and three result variables: the choice of product/service, payment options and logistics. The reason variables will positively affect the information collection of consumers, thus affecting consumer product/service choice, payment choice and logistics choice.

(1) Financial risks. That is, overseas online shopping consumers may suffer property losses in the process of transaction, such as Internet fraud, purchase of fake and inferior commodities, goods in transport appear damaged. (2) Physical risk. The loss of potential harm to the body caused by the consumer's expected purchase or use of a certain product. That is, overseas online shopping foreign goods bring personal injury to consumers, such as some foreign food, drugs, health care products without inspection and quarantine into the domestic, endangering the lives and health of consumers; Even if it meets the safety standards of foreign countries, but the geographical differences are relatively far, different eating habits, overseas products may cause harm to the health of Chinese consumers. (3) Functional risks. The risk that a product's function or quality does not meet consumer expectations. In other words, overseas online shopping and shopping products/services cannot be used or fail to meet consumers' expectations in terms of functions, such as foreign goods that do not conform to the use habits of domestic consumers due to standards and other reasons. (4) Social risks. The potential loss when a consumer purchases a product that is not recognized by its social value. That is to say, consumers suffer negative social evaluation due to overseas online shopping overseas commodities. Since overseas commodities are involved in overseas goods entry, they must comply with relevant foreign trade policies, inspection and quarantine requirements, customs system, etc. Therefore, this social risk is mainly manifested as legal risk. (5) Time risk. Consumers may lose time and energy when buying, that is, the time consumers spend on overseas online shopping foreign goods. Due to the fact that “overseas online shopping” needs to compare and choose commodities and merchants in the global scope, and involves a long international logistics distribution, the time risk problem is relatively prominent. (6) Information risk. Because in order, payment, logistics and other links are required to provide accurate identity, address, credit card and other information, and once these information is abused, the consequences will be unimaginable. (7) Information search. Overseas online shopping consumers need to collect information from various aspects before making a purchase decision to understand information such as commodity quality, merchant credit and service level. (8) Product and service selection. In the decision-making process of products and services, overseas online shopping consumers are mainly faced with the screening and selection of overseas e-commerce enterprises and commodities they need to buy. Factors such as commodity price, function, safety, merchant's credit and service level are the main factors influencing consumer's decision. (9) Payment options. In the payment decision, consumers are mainly faced with the choice of payment tools and payment methods. Consumers are concerned about payment security, including financial security and personal information security. (10) Logistics selection. In the logistics decision, consumers are mainly faced with the choice of logistics service providers and logistics channels.
Consumers can choose the international direct mail provided by overseas e-commerce, or they can choose to transport by themselves. If transshipment is chosen, the logistics cost, security, convenience and tariff should be taken into consideration.

The scoring method adopted in the questionnaire is Likert five-point measurement, and the scoring expression is set as strongly disagree, disagree, general, agree and strongly agree, with 1-5 points assigned respectively. Measurement indicators and scales are as follows.

| Question number | research variables | Quantitative indicators | Measurement problems |
|-----------------|--------------------|-------------------------|----------------------|
| Finan1          | Financial risk     | Internet fraud          | You're worried about getting scammed online during overseas online shopping. |
| Finan2          | And inferior commodities | You worry about buying fake products in the overseas online shopping process. |
| Finan3          | Damage to the goods | You are worried that the goods may be damaged in transit. |
| Body1           | Physical risks     | Health standard         | You worry that the food you buy does not meet the national hygiene standards. |
| Body2           | Security testing   | You worry overseas online shopping product because area difference is farther, habit is different, may not accord with domestic safety standard, can affect your body health. |
| Body3           | Quality standard   | You are worried that the products you buy do not meet the domestic quality standards. |
| Feat1           | Risk function      | Use habits              | You are worried that the product you bought does not conform to my usage habits. |
| Feat2           | Goods not board    | You are worried that overseas online shopping and shopping products/services cannot meet my psychological expectations in terms of functions. |
| Feat3           | The quality of the product | You are worried that overseas online shopping businessmen provide me with substandard goods. |
| Society1        | Social evaluation  | You worry about the negative social evaluation of overseas commodities. |
| Society2        | tariffs            | You worry about tax evasion by buying overseas online shopping products. |
| Society3        | Foreign trade policy | You are worried that the overseas online shopping product you bought does not conform to the relevant foreign trade policy. |
| Time1           | Logistics distribution | Overseas online shopping goods need to go through a long international logistics distribution. |
| Time2           | Choosing a businessman | You need to compare and choose products and businesses around the world. |
| Time3           | After-sales service | It is difficult for you to negotiate with the service personnel to provide after-sales service for the problem product. |
| Infor1          | Identity information | You worry about identity information being leaked during overseas online shopping. |
| Infor2          | Address information | You worry about the address information being leaked during overseas online shopping. |
| Infor3          | Credit card information | You worry about credit card information being leaked during overseas online shopping. |
| Search1         | network            | You can find relevant overseas online shopping information through the Internet. |
| Search2         | Friends            | You can ask your friends for overseas online shopping information. |
| Search3         | books              | You can borrow overseas online shopping related books in the library for information. |
| Pro1            | Commodity prices   | The price of goods is the main factor that determines your purchase. |
| Pro2            | Business credit    | Merchant credit is the main factor that determines your purchase. |
| Pro3            | The service level   | The service level of the merchant is the main factor that determines your purchase. |
| Pay1            | Financial security | You will choose the payment tool with high security. |
You will choose payment methods that are reliable.

You need to protect your account information from disclosure during the payment process.

You will choose the more affordable logistics.

You will choose the fast customs clearance logistics.

You will choose the logistics method with fast delivery speed.

In the end, 242 questionnaires were recovered, and 210 questionnaires were finally obtained after checking one by one, in which 32 questionnaires that were too short in time and answered with obvious irrationality were deleted, with an effective rate of 86.78%.

Table 2. Describes the statistics.

|       | N  | The minimum | The maximum | The mean | The standard deviation |
|-------|----|-------------|-------------|---------|-----------------------|
| Finan1| 210| 2           | 5           | 3.75    | .796                  |
| Finan2| 210| 2           | 5           | 3.83    | .768                  |
| Finan3| 210| 2           | 5           | 3.83    | .735                  |
| Body 4| 210| 2           | 5           | 4.29    | .710                  |
| Body 5| 210| 2           | 5           | 4.15    | .768                  |
| Body 6| 210| 2           | 5           | 4.07    | .701                  |
| Feat 7| 210| 2           | 5           | 4.39    | .686                  |
| Feat 8| 210| 2           | 5           | 4.41    | .652                  |
| Feat 9| 210| 2           | 5           | 4.30    | .654                  |
| Society 10| 210| 2       | 5           | 4.11    | .730                  |
| Society 11| 210| 2       | 5           | 4.27    | .728                  |
| Society 12| 210| 2       | 5           | 4.23    | .725                  |
| Time 13| 210| 2       | 5           | 4.38    | .621                  |
| Time 14| 210| 3       | 5           | 4.35    | .616                  |
| Time 15| 210| 2       | 5           | 4.30    | .612                  |
| Infor.16| 210| 3       | 5           | 4.28    | .633                  |
| Infor.17| 210| 3       | 5           | 4.25    | .659                  |
| Infor.18| 210| 3       | 5           | 4.26    | .600                  |
| Search 19| 210| 2       | 5           | 4.22    | .674                  |
| Search 20| 210| 2       | 5           | 4.27    | .705                  |
| Search 21| 210| 2       | 5           | 4.21    | .658                  |
| Pro 22| 210| 2       | 5           | 3.99    | .698                  |
| Pro 23| 210| 2       | 5           | 4.03    | .760                  |
| Pro 24| 210| 2       | 5           | 4.02    | .686                  |
| Pro 25| 210| 2       | 5           | 4.00    | .704                  |
| Pro 26| 210| 2       | 5           | 4.11    | .748                  |
| Pro 27| 210| 3       | 5           | 4.10    | .635                  |
| Log28| 210| 2       | 5           | 4.14    | .764                  |
| Log29| 210| 2       | 5           | 4.14    | .785                  |
| Log30| 210| 2       | 5           | 4.16    | .743                  |
| Valid N (list state) | 210 | | | | |
It can be concluded from the above table that:

In terms of financial risks, most overseas online shopping consumers are afraid of buying fake and inferior products in the process of overseas online shopping, and they are also afraid of the damage of products in the process of transportation. In comparison, consumers who are afraid of Internet fraud are relatively weak. Therefore, we can infer that overseas online shopping consumers tend to choose the website they trust when shopping online.

In terms of physical risks, many overseas online shopping consumers are mainly worried that the food in overseas online shopping products does not meet the domestic health standards, and they also worry that the products have not passed safety inspection, which will affect the health of consumers.

In terms of functional risk, it highlights one aspect that consumers attach great importance to when shopping abroad: they worry that overseas online shopping products cannot meet their psychological expectations. This point reaches the highest value in the whole influence variable, which indicates that overseas online shopping consumers value the utility of overseas online shopping products most in the process of overseas online shopping, and also expounds the essential requirements of overseas online shopping products—that is, consumers value the efficacy of products.

In terms of social risks, most overseas online shopping consumers are worried that overseas online shopping products will lead to negative social evaluation and that overseas online shopping products do not conform to relevant foreign trade policies. Among them, what worries consumers most is tax evasion caused by purchasing overseas products.

In terms of time risk, overseas online shopping consumers believe that products need to go through long international logistics distribution, which is an important factor influencing their purchase. At the same time, it is often difficult to communicate with overseas online shopping sellers about problems such as language barriers.

In terms of information risk, a large number of overseas online shopping consumers are worried about their identity, credit card, address and other information being leaked, all of which rank above 4, with a small standard deviation. From this we can see that the group of consumers who shopping online still have great doubts about their information security. This reminds us that we should improve the protection of overseas online shopping consumers’ rights and interests and vigorously rectify and standardize overseas online shopping website to ensure consumer safety.

In terms of information search, in general, the number of people who consult friends for relevant overseas online shopping information is the largest, while the number of people who borrow relevant books in the library to obtain overseas online shopping information is relatively small. This shows that most people tend to ask people they trust for overseas online shopping information.

In terms of product/service selection: the credit status of merchants is often the most important aspect that influences overseas online shopping consumers in choosing products, while the price of overseas online shopping products generally has little influence in choosing products or services. The service level of merchants also influences overseas online shopping consumers' choice of products or services to a certain extent.

In terms of payment options, consumers will choose payment tools with high security and reliability. During the payment process, overseas online shopping consumers also have the awareness to prevent their accounts from being leaked. Overseas online shopping consumers generally have a strong sense of self-account protection.

In terms of logistics choice, most overseas online shopping consumers choose the logistics mode with faster delivery speed, and the logistics mode with more affordable charging standard and faster customs clearance rate ranks second with the same data. This indicates that overseas online shopping consumers tend to support the fast way of logistics in their choice of logistics.

After validity and fitting test, the structural equation model (figure 1) was constructed according to the corresponding measurement variables set above, including the measurement model and the structural model. The path connecting ellipse and rectangle is the measurement model, and the path connecting ellipse and ellipse is the structure model. The variables in 30 rectangles are observation
variables, and the variables in 10 ellipses are potential variables. AMOS software was used to calculate the corresponding structural equation model measurement equation coefficients, as shown in figure 1, and the standard regression line coefficients were shown in table 3.

**Table 3. Regression path coefficients of structural equation model.**

| Serial number | Causal relationship between latent variables | Parameter estimation |
|---------------|---------------------------------------------|----------------------|
| 1             | Financial risk → information search          | 0.34                 |
| 2             | Physical risk → information search           | 0.23                 |
| 3             | Functional risk → information search         | 0.41                 |
| 4             | Social risk → information search             | 0.22                 |
| 5             | Time risk → information search               | 0.31                 |
| 6             | Information risk → information search        | 0.36                 |
| 7             | Information search → product/service selection | 0.67             |
| 8             | Information search → payment options         | 0.65                 |
| 9             | Information search → logistics selection     | 0.56                 |

We can see intuitively by above model, the financial risk, physical risk, functional risk, social risk, time risk, information risk that six variables to the direct effect of information search, respectively is 0.34, 0.23, 0.41, 0.22, 0.31, 0.36, from the perspective of the value of gamma coefficient, is the most influential function risk, followed by information risk. The influence paths of information search on consumer product/service choice, payment choice and logistics choice are 0.67, 0.65 and 0.56 respectively, all of which are greater than 0.5. It can be seen that information search is an important factor leading consumer shopping choice.

According to the formula of structural equation, we can further obtain the indirect effect of cause variable on result variable. Taking financial risk as an example, the indirect effects of this potential variable on product/service selection, payment selection and logistics selection are respectively 0.23, 0.22 and 0.19.Among them, the indirect effect of financial risk on product/service selection is 0.23, which indicates that when other conditions remain unchanged, the product/service selection variable will be increased by 0.23 units for every unit of financial risk.

**Summary and Suggestions**

(1) Appropriately raise the compensation standard for infringement on the rights and interests of consumers. The reason why there are a large number of fake and inferior commodities in 'overseas
online shopping” is to a large extent that the compensation standard related to the infringement of the rights and interests of consumers is too low and the illegal cost of operators is too low. Overseas e-commerce companies use this point to sell the defective products to China. In order to protect the legitimate rights and interests of overseas online shopping consumers in China, China should refer to the requirements of the convention on the application of law on product liability, timely revise domestic legislation, and appropriately improve the compensation standard for infringing on the rights and interests of consumers.

(2) Use emerging technologies to combat information fraud. The quality of "overseas online shopping" goods is related to consumers' own rights and interests and the reputation and influence of "overseas online shopping" platform. Therefore, it is necessary to combat fake goods at the technical level and maintain the development of the platform itself. At present, some e-commerce platforms with overseas online shopping function in China have started to adopt "block chain" technology to ensure that all links of products from overseas to domestic can be traced back to the source and can be viewed by consumers at the same time. In addition, some domestic e-commerce platforms have started to cooperate with foreign institutions and brands to jointly supervise and control, so as to ensure that all the products on the e-commerce platforms are authentic.

(3) Establish overseas warehouses. Overseas warehousing means that e-commerce companies rent warehouses in the destination country in advance to transport goods with large sales volume to the warehouse for storage. When an overseas buyer places an order on the e-commerce platform, the seller can quickly notify the local warehouse, and then deliver goods directly there, which effectively reduces the transportation cost and time.

(4) Improve the supervision system of customs postal service. First of all, there are some problems existing in the existing supervision mode of customs shipping and mail, such as unreasonable allocation of supervision resources, weak supervision efficiency, low degree of application of risk management and low level of informatization. Whether it can effectively protect the legitimate rights and interests of overseas online shopping consumers, the customs supervision system of postal service plays an important role.

Secondly, the existing information level of the supervision business of the customs bank and mail is inconsistent with the demand. Although some of the customs have developed and applied some business management systems, there is no unified national information management system, resulting in a small coverage of the supervision business information, poor universality, and unable to effectively play the overall effectiveness. Now "overseas online shopping" number of consumers continue to increase, to manage such a large information, customs needs to build information comprehensive docking system, the user for information sharing in the system, according to the information, the customs can improve the efficiency of import goods customs, electronically to handle the customs declaration form of modification and revocation of the business, keep 365 days 24 hours of working, to flourish in the parcel, also won't appear customs clearance delays, etc., improve the consumer shopping experience.

(6) Strengthen the supervision of online payment. To guard against the risk of third-party payment market may appear, the China banking regulatory commission and the bank of China should publish relevant laws and regulations as soon as possible, checks on the professional qualification of the third party payment platform, and clearly the responsibility of the different subjects in the process of trading obligations, to found the illegal act of heavier punishment, so as to safeguard the legitimate rights and interests of consumers in the process of overseas online shopping. In addition, Banks and other relevant departments should cooperate with qualified third-party payment platforms to supervise the whole transaction process, carefully verify the identity information of cross-border payment transactions, and strictly check all links in the transaction to ensure the safety and legality of the whole transaction process. Finally, Banks and third-party payment platforms should assume their own responsibilities and use "identity identification", "data encryption technology" and "firewall technology" to reduce payment risks such as credit card theft, personal information disclosure, and crack down on tax evasion, money laundering and other illegal activities.
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