

Retraction

Retracted: Research on Value Co-Creation New Business Model of Import Cross-Border E-Commerce Platform Ecosystem

Security and Communication Networks

Received 8 January 2024; Accepted 8 January 2024; Published 9 January 2024

Copyright © 2024 Security and Communication Networks. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] C. Peng, X. Jing, J. Tie et al., "Research on Value Co-Creation New Business Model of Import Cross-Border E-Commerce Platform Ecosystem," *Security and Communication Networks*, vol. 2022, Article ID 8726075, 14 pages, 2022.

Research Article

Research on Value Co-Creation New Business Model of Import Cross-Border E-Commerce Platform Ecosystem

Cheng Peng, Xi Jing, Jing Tie , Yue Tian, Jiyu Kong, Ke Xue, and Yu Zhou

International Business School, Yunnan University of Finance and Economics, Kunming, China

Correspondence should be addressed to Jing Tie; zz1865@ynufe.edu.cn

Received 18 July 2022; Revised 10 August 2022; Accepted 22 August 2022; Published 23 September 2022

Academic Editor: Jun Liu

Copyright © 2022 Cheng Peng et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Since the outbreak of COVID-19, the cross-border e-commerce platform has been rising rapidly because of its unique advantages. However, with the widespread application of information technologies such as mobile Internet and big data, fundamental changes have taken place in consumer preferences, consumption patterns, and marketing channels in cross-border e-commerce platforms. They also change the logic of value co-creation (VCC). The platform can achieve survive, expansion, and sustainable development by realising the value co-creation of the whole platform ecosystem. Based on the perspective of the platform ecosystem, this paper uses the grounded theory analysis method and NVivo 11.0 software carries out three-level coding on the obtained original data, and finally summarises and extracts four core categories of value co-creation mechanism: connection and interaction of value co-creators, demand mining, resource integration, and system support. The first two categories reflect stakeholders' internal connection and interaction mechanism, and the last two categories reflect the external support mechanism in value co-creation.

1. Introduction

The COVID-19 pandemic has swept the world since the beginning of 2020, and the outbreak has had a significant impact on cross-border trade. The World Trade Organization (WTO) has predicted that global trade will collapse in 2020, even the most serious after World War II. The WTO also predicted that the growth rate of Global trade would be only about 7.2% in 2021, much lower than the 21.3% rebound previously predicted. These data are derived from the trade statistics and Outlook report. The latest statistics report shows that in 2020, the value of world commodity exports decreased by 8%, while service trade contracted by 21% [1]. In this case, the traditional offline trade channels face the problem of “financial interruption” failure. At the same time, the new cross-border e-commerce platform relies on the Internet. The rapid rise of new cross-border e-commerce platforms relying on technologies such as the Internet, artificial intelligence, big data, and cloud computing has become the key to maintaining global trade during the epidemic.

Cross-border e-commerce can break through the limitations of time and space. It can meet the increasingly

personalised needs of consumers. Especially during the epidemic, it can reduce body contact during the trade process, promoting the rapid transformation of international trade mode with its unique advantages. However, due to the shrinking global demand and the strengthening of trade barriers in various countries, market competition has become increasingly fierce. During this period, many cross-border e-commerce companies could only strive for the market through price advantages, which led to serious business model duplication and product homogeneity. In addition, the ultra-low profit rate, low customer satisfaction, and loyalty have caused a series of problems in cross-border e-commerce companies, such as poor operational sustainability and a short life cycle. According to a report released by the China E-commerce Research Center, 13 cross-border e-commerce companies will have closed down in China in 2020, and this number may be expected to continue to rise in 2021 [2]. Therefore, cross-border e-commerce companies must form a new model of the platform ecosystem that centres on platform companies and gathers supply-side, demand-side, and other stakeholders. For cross-border e-commerce companies to achieve sustainable development,

they need to achieve two points: 1. Form a platform ecosystem that centres on platform companies and gathers supply-side, demand-side, and other stakeholders. 2. Break the traditional single corporate value creation model, then apply multistakeholders' VcC new model.

However, the current research on the value co-innovation model of the cross-border e-commerce platform ecosystem is at the initial stage of theoretical construction. These studies cannot meet the needs of business practice development. In addition, Storbacka and Brodie [3] think the value co-creation (VcC) mechanism of the platform ecosystem is still in a "black box" state, which needs to be further explored. Christoph and Paul's [4] research emphasises that VcC is the expected behaviour of different subjects such as suppliers, demanders, and customers, and expands the scope of VcC from the dual scope of customers and enterprises to the scope of business network systems. However, the current related research mainly discusses the VcC among multistakeholders from an innovation network and innovation process. There may be a lack of VcC research on the platform ecosystem as the research object, especially the imported cross-border electricity with many stakeholders. Researchers rarely involve the business platform ecosystem.

The research logic of this article is based on the above theoretical analysis. In addition, to avoid conceptual confusion caused by too many stakeholders when setting the research object, this article takes the import trade model of a cross-border e-commerce platform as the research object. The sample selected representative cross-border e-commerce platforms, such as JD.MALL, and interviewed the three main stakeholders of these platforms, including managers, overseas suppliers, and Chinese consumers. We construct a grounded theoretical model of the multistakeholders' VcC mechanism of the imported cross-border e-commerce platform ecosystem through the original sentence. Use open coding, main axial coding, and selective coding to clarify the VcC path and the VcC of various stakeholders' relationships. Based on this, we find out the critical points of the VcC of the export cross-border e-commerce platform ecosystem and then propose a theoretical plan to build a value co-innovation model.

2. Literature Review

2.1. Cross-Border e-Commerce Platform Ecosystem. With the further development of the Internet economy, academia pays more and more attention to the research of platform organisation form. At present, the academic community has made fruitful achievements in researching platform theoretical basis, platform competition, and platform governance. The platform ecosystem is developed from the business ecosystem and is the specific expression of the business ecosystem. Therefore, scholars primarily extend the existing research on business ecosystems to platform ecosystems.

Moore [5, 6] first proposed the concept of the business ecosystem in 1993, defined it as an economic community composed of multiple interrelated stakeholders, and pointed

out that the members of a business ecosystem include customers, suppliers, investors, business partners, trade unions, and government. Kim et al. [7] considered that each enterprise constituting the business ecosystem could create more value than a single enterprise through collaborative cooperation. Iansti et al. [8] also supported Moore's view by comparing other ecosystems with business ecosystems. They defined business ecosystems as a group of loosely connected but necessary system participants who make progress together, value creation, and sharing. After the research on the definition of business ecosystems was relatively mature, more scholars focused on the business ecosystems of impact on other fields (e.g., [9, 10]). Penttil et al. [11] developed an empirical model to analyse the personal managers' sense-making, which is affected by the changing of the business environment and the various stakeholders in that network. Other scholars believe that, in the business ecosystem, the cooperation form and value-sharing mechanism of stakeholders will affect the innovation performance of enterprises. Many scholars have put the business ecosystem theory into cross-border trade in recent years [12]. Cha [13] constructed a method to promote the quality of global trade strategic governance of multinational corporations by using the business ecosystem theory. Tomas et al. [14] applied the Uppsala model to the ecosystem of the cross-border business platform, which provided a new marketing theory for the trade model.

With the in-depth study of the platform ecosystem, the relationship with sustainable commercial development is more and more inseparable. Chen et al. [15] and others believed that the business ecosystem could provide a new perspective for modern enterprises, and combined with FAHP method, and they further put forward the symbiosis and evolution scheme of bionic systems and conclude that enterprises can benefit from the platform and promote the growth of the whole ecosystem. Rong et al. [16] pointed out that the stakeholders in the business ecosystem can be closely or loosely coupled. They should cooperate and compete and jointly develop new products or services around the theme of innovation to meet customers' needs. Li [17] proposed that the business ecosystem goes beyond market positioning and enterprise organisation. It embodies three main characteristics: symbiosis, platform, and collaborative evolution. As a part of the business ecosystem, the platform ecosystem is a more complex ecosystem composed of platform enterprises, suppliers, demands, and other stakeholders. The realisation of VcC also depends on a good platform ecosystem environment. Other scholars have studied the platform ecosystem from the perspective of Ecological Symbiosis Theory and believe that the symbiotic environment is an essential external condition to promote the evolution of the cross-border e-commerce ecosystem. By continuously optimising the ecosystem, we provide primary conditions for the sustainable and stable development of cross-border e-commerce platforms [18]. Wei et al. [19] focused the research on the service recovery effect of the online platform ecosystem. The research revealed that the emotional intelligence of platform employees has a positive impact on the relationship quality between customers and

service providers and has a positive impact on the relationship quality between customers and online platforms. Jarkko et al. [20] and other scholars found that the infrastructure for building the ecosystem of e-commerce platform includes digital infrastructure and tools, which can provide information retrieval and networking helps to network agents, company representatives, and researchers, to promote the synergy and stability of the platform ecosystem. Kim [21] also focused the research on the e-commerce platform ecosystem. The research interviewed relevant personnel of 12 cases through 30 in-depth interviews and two focus group interviews to obtain primary data and put forward the conceptual framework of “12 different types of quality management and revenue structure strategies.” Mukhopadhyay et al. [22, 23] believe that the cooperation of various stakeholders in the platform ecosystem can promote products’ development efficiency and provide strong support for the success of disruptive business platforms. Recent perspectives on the platform ecosystem are shown in Table 1.

2.2. VcC Theory of e-Commerce Platform. As a new research field in recent years, VcC has been developed by more and more scholars. Theoretically, there is no unified definition of VcC. Gummesson et al. [24, 25] believed that it is not enough to only focus on the dual relationship between enterprises and customers but also recognise the diversity of participants involved in the process of value creation. Different studies describe VcC as an activity in which consumers participate. VcC behaviour exists in the process of service and innovation, which expands the value chain and the scope of the activity (e.g., [26–28]). Gummesson and Mele [29] divide the whole process of VcC into two stages: consumer enterprise interaction and resource integration.

In recent years, VCC has attracted the attention of researchers as an emerging field of research. In theory, there is no single definition of VCC. Gummesson et al. argued that focusing only on the one-to-one relationship between a company and its customers is not sufficient, and acknowledging the diversity of actors involved in the value creation process is not sufficient. Several studies describe venture capital as a customer-related activity. The essence of VCC is a service and innovation process that spans the value chain and scope.

From the connotation and characteristics of VcC studied by different scholars, they all emphasise the role of stakeholders in expanding interaction in VcC, especially the critical role of customers’ participation in VcC. In the process of VcC, customers realise the transformation from consumer identity to creator identity by re-configuring their roles [30]. Leone et al. [31] studied how different artificial intelligence solutions help suppliers carry out value creation activities with B2B e-commerce platforms. Saarijarvi et al. [32] pointed out that the roles of customers and enterprises are constantly changing and the “creation” of value creation. It re-configures the traditional roles between customers and enterprises to use their resources in new ways and focuses on how to participate in the enterprise value creation process

through customer resources to enhance the influence of VcC continuously. Scott et al. [33] found that the probability of salespeople renewing the VcC contract between enterprises depends on the strategy provided by the service department and its interaction and communication with customers.

With the increasingly prominent role of VcC in the sustainable development of commercial economies, scholars have conducted fruitful research from the perspective of the impact mechanism of VcC. Rong et al. [16] pointed out that the key to the success of the business ecosystem lies in the joint development among stakeholders and the shared creation of customer value, highlighting the importance of VcC to the sustainable development of business. Ramaswamy and Ozcan [34] studied and discussed the basic theoretical framework of the VcC paradigm, linked it with the industrial marketing and procurement literature of hybrid network and system ontology, and then verified the system dynamics through increasing the technology of practitioners to promote the critical business management theory in this field finally. Sales VIV ó et al. [35] conducted an empirical comparison on the sample collection of 77 companies in the Spanish furniture industry. It is considered very meaningful to establish a long-term VCC chain with all business partners, which makes up for the research weakness of VcC in the context of B2B. Solving the VCC problem is conducive to constructing the overall ecosystem of companies and enterprises, both academically and administratively [36].

Moreover, the logic of business environment and ecosystem characterised by jointly creating value is the basic premise to enhance and maintain competitiveness, which is conducive to the joint sustainable development of stakeholders (e.g., [37, 38]). As a platform economy, cross-border e-commerce is related to VcC, but there are few discussions on the VcC mechanism of e-commerce platform stakeholders in the existing research. Mainly few scholars focus on the VcC behaviour of the platform ecosystem. VcC is the only way to develop and upgrade cross-border e-commerce enterprises. It can promote enterprises to subvert the traditional model and move towards the high end of the value chain [39]. Therefore, the joint creation of value among stakeholders under the cross-border e-commerce platform ecosystem has become the primary way to expand its value chain. The discussion on how stakeholders in the cross-border e-commerce platform ecosystem can jointly create value and form a new model for cross-border e-commerce development is an urgent problem to be answered in this paper.

According to the existing literature, the research on platform ecosystems mainly focuses on concept research and influencing factors. The current research on the composition and operation process of the business and platform ecosystems has been relatively mature in terms of concept. In terms of influencing factors, the current research mainly focuses on the impact of the business ecosystem on enterprise innovation, executive behaviour, and cross-border trade. The research on VcC mainly focuses on the concept and co-creation mechanism: in terms of concept, the current research on the concept and components of VcC has been

TABLE 1: Recent perspectives on the platform ecosystem.

Approach	Authors	Refs
The concept of ecosystem	Moore (1993, 1996)	[5, 6]
	Kim et al. (2010)	[7]
	Iansiti et al. (2004)	[8]
Impact of business ecosystem on other business elements	Shin et al. (2021)	[9]
	Li (2018)	[10]
	Penni et al. (2020)	[11]
	Tsou et al. (2019)	[12]
Cross-border business platform ecosystem	Wei et al. (2021)	[19]
	Cha (2020)	[13]
	Hult et al. (2020)	[14]
	Kim (2016)	[21]
Relationship between platform ecosystem and business sustainable development	Chen et al. (2021)	[15]
	Rong et al. (2018)	[16]
	Li (2009)	[17]
	Visnjic et al. (2016)	[23]

relatively mature. The current research on the dual VcC process and methods between enterprises and customers has been relatively mature in the co-creation mechanism. However, the analysis shows that there is less research on the operation mechanism and stakeholders of the online platform ecosystem, and there is a lack of literature on the VcC of the ecosystem of cross-border e-commerce platforms. This research field is still a “Greenland” to be exploited. Main references of the literature review in platform value co-creation are shown in Table 2.

3. Research Methods

This paper adopts the qualitative research method of grounded theory, and its primary purpose is to establish a theory based on empirical data [40]. Therefore, this study does not have theoretical assumptions but directly starts with the original data obtained from practical observation, summarises the generic concepts and categories related to VcC, and finally rises to theory. This article mainly uses the three coding steps of procedural grounded theory to analyse the original data obtained qualitatively and then uses the analysis conclusions to explore the mechanism and path of VcC of the imported cross-border e-commerce platform ecosystem. The first step is to break up and analyse the original data through open coding, find the concept category from the data, name it, and then get the initial category. The second step is to summarise the initial categories through the central axial coding, discover and establish various connections between the concept categories, and then express the organic relationships between the various parts of the data to obtain the main category. The third step is to filter the existing categories through selective coding. Systematic analysis and selection of “core categories” establish core categories and finally reach theoretical saturation. The second step is to summarise the initial category through axial coding, find and establish various relationships between conceptual categories to express the organic relationship between various parts of the data, and obtain the main category. The third step is to select the “core category” after

systematic analysis among all the discovered main categories through selective coding, establish the core category, and finally achieve theoretical saturation. The flow chart of grounded theory research method is shown in Figure 1.

The first step was to decompose and analyse the raw data using open coding, identify conceptual categories from the data, name them, and then derive preliminary categories. The second step consisted of summarizing the initial categories by coding the central axis, identifying and establishing various relationships between conceptual categories, and then identifying organic relationships between different components of the data to obtain the main income. In the third step, the available categories are filtered through the coding selection.

3.1. Sample Selection. This paper selects two representative cross-border e-commerce platform enterprises focusing on import trade in China: JD.MALL international and China Southeast Asia South Asia digital business port. JD.MALL international is the first consumption platform in China that focuses on large-scale import business in an all-around way. Through value creation in the four dimensions of consumption scenario, marketing ecology, quality and service, and investment attraction, JD.MALL International brings consumers a more high-quality and prosperous shopping import experience to create a reliable one-stop consumption platform for imported goods. JD.MALL international uses big data technology to realise its value, and customers and businesses are subjects of the VcC of JD.MALL international platform. China Southeast Asia South Asia digital business port is the largest cross-border e-commerce platform for trade between China and Laos, Myanmar, and other South and Southeast Asian countries. The platform mainly imports valuable commodities from South and Southeast Asian countries, such as fresh fruit, dried fruit and other food products, characteristic beauty products, rubber, and other bulk commodities. The following forms of VcC of the platform could conclude as follows: (1) invite foreign suppliers to hold online and offline seminars to understand

TABLE 2: Main references of the literature review in platform value co-creation.

Approach	Authors	Refs
The concept of value co-creation	Gummesson (2007, 2008b)	[24, 25]
	Leclercq et al. (2016)	[26]
	Galvagno and Dalli (2014)	[27]
	Ranjan and Read (2016)	[28]
	Gummesson et al. (2010)	[29]
Customer criticality	Saarijärvi et al. (2013)	[32]
	Scott et al. (2020)	[33]
Impact of value co-creation	Rong et al. (2018)	[16]
	Sales-Vivó et al. (2020)	[35]
	Ramaswamy and Ozcan (2020)	[34]
	Goel (2010)	[36]
Cross-border e-commerce and value creation	Lin et al. (2017)	[38]
	Zhang et al. (2021)	[37]
	Xiaodong (2019)	[39]

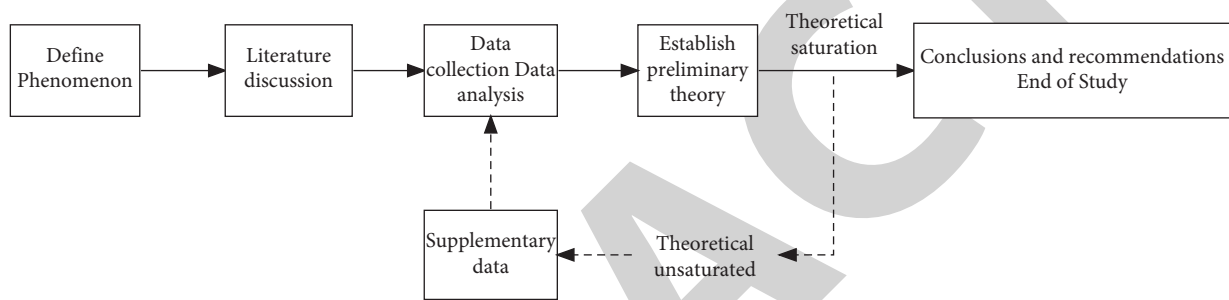


FIGURE 1: The flow chart of grounded theory research method.

suppliers' demands and discuss platform development planning; (2) increase contact with consumers and understand consumer needs by establishing sales specialists; and (3) the platform, suppliers, and consumers work together to complete each website section's functional improvement and page beautification.

Jingdong Mall International and China Southeast Asia South Asia digital trade port: Jingdong Mall International is the first consumer platform in China that focuses on wholesale import business. Southeast Asia Digital Trade Port Southeast Asia is the largest cross-border e-commerce platform between China and Laos, Myanmar, and other South and Southeast Asian countries.

3.2. Data Collection Scheme. In terms of data and data collection, based on the principle of "everything is data," it is carried out through online and offline interviews, questionnaire surveys, and internal data access. The data collected in this paper include (1) online in-depth interviews with five people from JD.MALL international management; (2) offline in-depth interviews with six people from the management of Yunnan cross-border digital commerce engineering research centre; (3) there are 17 supplier representatives attended the GMS (Greater Mekong Subregion) enterprise Symposium under the enterprise alliance of cross-border e-commerce cooperation platform, mainly from Myanmar, Thailand, Japan, and other countries. They obtained detailed information on the operation of enterprises in different industries and countries on the cross-border platform. At the same time, the research team interviewed seven enterprise leaders

and recorded the content. (4) Due to geographical location, a questionnaire was distributed to 20 staff of JD.MALL global purchase business operation Department in China and the contents of the questionnaire were sorted out. (5) Due to a large number of consumers and the biased coverage of in-depth interviews, this study uses the combination of interview and questionnaire to collect consumer-related data. There are 20 interviewees, 123 points of interview questionnaire are distributed, and 87 valid questionnaires are recovered. The interview text is first-hand data rooted in theoretical research. The data collection of this paper mainly relies on personal interviews and questionnaires, which generate sufficient textual data, and then refine concepts and categories from a large number of original sentences.

In order to ensure the systematisation and science of the data analysis process to the greatest extent, this paper focuses on NVivo 11.0 software coding, supplemented by manual coding. A total of three members of the research group participated in the data coding work, sorted out the original materials, including the interview text and survey questionnaire text in the form of meeting, and sorted out the text of more than 10,000 words. On this basis, the coding work is carried out.

4. Modelling Process of VcC Grounded Theory

4.1. Open Coding. This paper uses NVivo 11.0 software to browse and encode the original data to avoid omission. The step-by-step coding of actual data is the core link of grounded theory and the most significant link of quantitative characteristics. Open coding is the first stage of the

coding process, breaking up all the original data, giving concepts, and then recombining and operating them in a new way. Open coding mainly includes several steps: labelling phenomena-discovering genera-naming genera-conceptualising genera [41]. In order to avoid the omission of data, this article uses NVivo 11.0 software to browse-encode the original data. This article first summarised the phenomenon and initially organises the original interview texts sentence by sentence according to the requirements of open coding, and then extracts the original sentences of the expected behaviour of the platform and other parties, and uses these sentences to establish free nodes. We decomposed these nodes into different independent information units and got 136 original sentences, such as: "I think the most important reason a brand can continue to attract me to buy is that the quality can always remain stable." The second is to develop conceptual categories. Due to the large number of concepts formed by the initial coding and the existence of semantic crossover, our research can only abstract the critical information that reflects the connection and interaction of value co-creators through continuous comparison of critical sentences, analysis, and induction them, and then formed 54 initial concepts. For example, the concept of "marketing integration" is abstracted through the original sentence: "At the same time, the platform is also working hard for merchants and enterprises, and constantly using content marketing to attract buyers." The last step is to refine the category. The category is the further refinement of the concept, which is more directional and selective than the concept itself. This step takes a particular concept as the centre, gathers other kinds of concepts in the concept to form a concept group, and then refines the initial category through concept induction. For example, the concepts of "big data technology, questionnaire methods, feedback supervision, postpurchase evaluation, and social platform feedback" are further integrated and included in the category of "demand mining."

Through open coding and combined with relevant literature, this paper abstracts 18 initial categories at this stage, namely, imported cross-border e-commerce platforms and other e-commerce platforms, imported cross-border e-commerce platforms and suppliers, imported cross-border e-commerce platforms and consumers, suppliers and consumers, suppliers, big data technology, questionnaire methods, feedback supervision, postpurchase evaluation social platform feedback, export country policies, domestic policy subsidies, government support, industrial chain integration, providing platform resources, providing information channels, online + offline, and intelligent logistics, to lay a preliminary foundation for the following axial coding. For ease of understanding, Table 3 lists the resulting categories and some original sentences. During the preparation of free nodes, there are 101 reference points in total.

4.2. Axial Coding. Axial coding refers to the secondary coding of existing coding data. At this stage, researchers are required to conduct an in-depth analysis of only one

category at a time and look for relevant relations around this category. With the deepening of research, the relationship between various types becomes more and more specific and clear to find the "Axis." The particular method at this stage is to classify the categories of similar topics into one category and summarise the main types according to the relationship and logical order between different categories. The research theme of this paper is to explore the evolution mechanism of relevant subjects of ecosystem VcC of imported cross-border e-commerce platforms. After axial coding, it is found that there is organic correlation and logical order among 18 initial categories. For example, "industrial chain integration, online + offline" and "export country policy and government support" conform to the category of "resource integration and system support" in the platform and government behaviour in the process of VcC. According to the above theory, 18 initial categories formed by open coding are summarised at this stage. Finally, four main categories of "connection and interaction of value co-creators, resource integration, demand mining, system support" are formed. The concepts represented by each category are shown in Table 3:

4.3. Selective Coding. Selective coding refers to mining core categories from data, systematically analysing the categories obtained from axial coding, and supplementing the incomplete categories. The core category must be repeatedly proven to be dominant compared to other categories and include the most research results in a relatively broad theoretical scope. Through the reintegration of free nodes and tree nodes and the merger and reorganisation of axial codes, it is finally summarised into four core dimensions: connection and interaction of value co-creators, demand mining, resource integration, and system support. Then, it develops into a new substantive theoretical framework. To more intuitively understand the content covered by these structural dimensions, this paper uses NVivo 11.0 software has create a model of cross-border e-commerce platform ecosystem VcC dimension and content system, as shown in Figure 2.

5. Data Analysis

The research team analysed the results obtained from the coding, identified the critical node factors of the VcC realisation path of the imported cross-border e-commerce platform ecosystem, and then constructed a four-factor VcC model. They are "connection and interaction of value co-creators-resource integration-demand mining-system support." These four factors are highly condensed and covered in the VcC theory for stakeholders in the imported cross-border e-commerce platform ecosystem. It covers the theory of VcC realised by stakeholders under the ecosystem of imported cross-border e-commerce platforms. Among them, the connection and interaction of value co-creators constitute the causal conditions for the realisation of VcC. Resource integration constitutes the intermediary material condition for realising VcC. Demand mining is the action

TABLE 3: Example of a category formed by axial coding.

Main categories	Initial category	Original representative statement in the interview text
Connection and interaction of value co-creators	Cross-border e-commerce platforms and other platforms	We always maintain a close relationship with suppliers, and the platform is actually doing very well in this regard. They did their best to serve their customers.
	Cross-border e-commerce platforms and suppliers Cross-border e-commerce platforms and consumers Suppliers and consumers' suppliers	The communication and exchange between suppliers on the cross-border e-commerce platform is very important, which is conducive to the development of enterprise thinking and help the platform create more values.
Resource integration	Industrial chain integration	The growth of platform users has now entered a bottleneck period. If the platform wants to increase the number of users, it must formulate incentive policies to allow suppliers to carry out marketing flexibly on the platform.
	Providing platform resources Building information channels Online + offline Intelligent logistics	The platform is a distribution centre of information, including order information, payment information, settlement information, and logistics information of both buyers and sellers. When the above information is combined, many related businesses, such as finance and logistics, can be generated. These derivative industries will facilitate the expansion of the value chain of the platform.
Demand mining	Big data technology Questionnaire method Feedback supervision Postpurchase evaluation Social platform feedback	Social media segments should be added to cross-border e-commerce platforms. These sections can bring customers a better sense of experience, so as to increase the use of the platform. In hot or active communities, I would like to express my views and suggestions, which is similar to the super voice communication group of Micro-Blog. This form of social media can stimulate my desire to express.
System support	Export country policies Domestic policy subsidies Government support	Thanks to the government's effort, tariffs on many goods are gradually being reduced and even become zero tariff. China has always had strong support from the Chinese government. A case in point is the policy guidance for e-commerce under the background of RCEP.

strategy to realise VcC, and system support is the external environment support to realise VcC. Based on this, a new stakeholder VcC model under the import cross-border e-commerce platform ecosystem will be finally formed. The four factors in the model are described as follows.

5.1. Connection and Interaction of Value Co-Creators. The impact of the connection and interaction of value co-creators on the VcC mechanism of the ecosystem of imported cross-border e-commerce platforms is mainly reflected in five categories: cross-border e-commerce platforms and other platforms' cross-border e-commerce platforms and suppliers, cross-border e-commerce platforms and consumers, suppliers and consumers, and suppliers. The relationship between them is shown in Figure 3.

Under the cross-border e-commerce platform ecosystem, as a bridge connecting stakeholders in VcC, especially with the support of the Internet, the platform can analyse and apply massive data by using modern information technologies such as artificial intelligence, big data, and cloud computing. It is an information distribution centre for the interaction process of multiple stakeholders in VcC. The platform creates a collectively shared value ecosystem. Suppliers can adjust their business and integrate their relationships with consumers through the platform to realise the joint creation of value. The current Internet economy has

a typical feature: users are king. The term "platform usage" often appears in the interviews and coding of the person in charge of the e-commerce platform and the supplier; for example, the person in charge of China JD.MALL global shopping division said: "users, platform users' growth is now a bottleneck period. It is necessary to open up the whole network users pool as soon as possible and let businesses do overall online marketing. What many businesses want to do, platform systems or rules, make it impossible for businesses to do." Therefore, the traditional cross-border e-commerce platform is just a place for shopping transactions, which is different from the platform that can realise content marketing, attracting users more quickly and sustainably.

In recent years, many social platforms focusing on content marketing in China are gradually expanding their business territory and stepping into the e-commerce industry. Take the Chinese largest social networking platform, TikTok and Weibo, as an example. The platform can market and promote products and services by increasing the function of living goods and opening window shops on the page of Internet celebrities. In the highly competitive cross-border e-commerce platform market, achieving long-term and stable users increase the key to the sustainable development of the platform. Traditional cross-border e-commerce platforms can cooperate with popular social media.

On the contrary, traditional platforms cannot guarantee the long-term stable growth of platform users, which is not

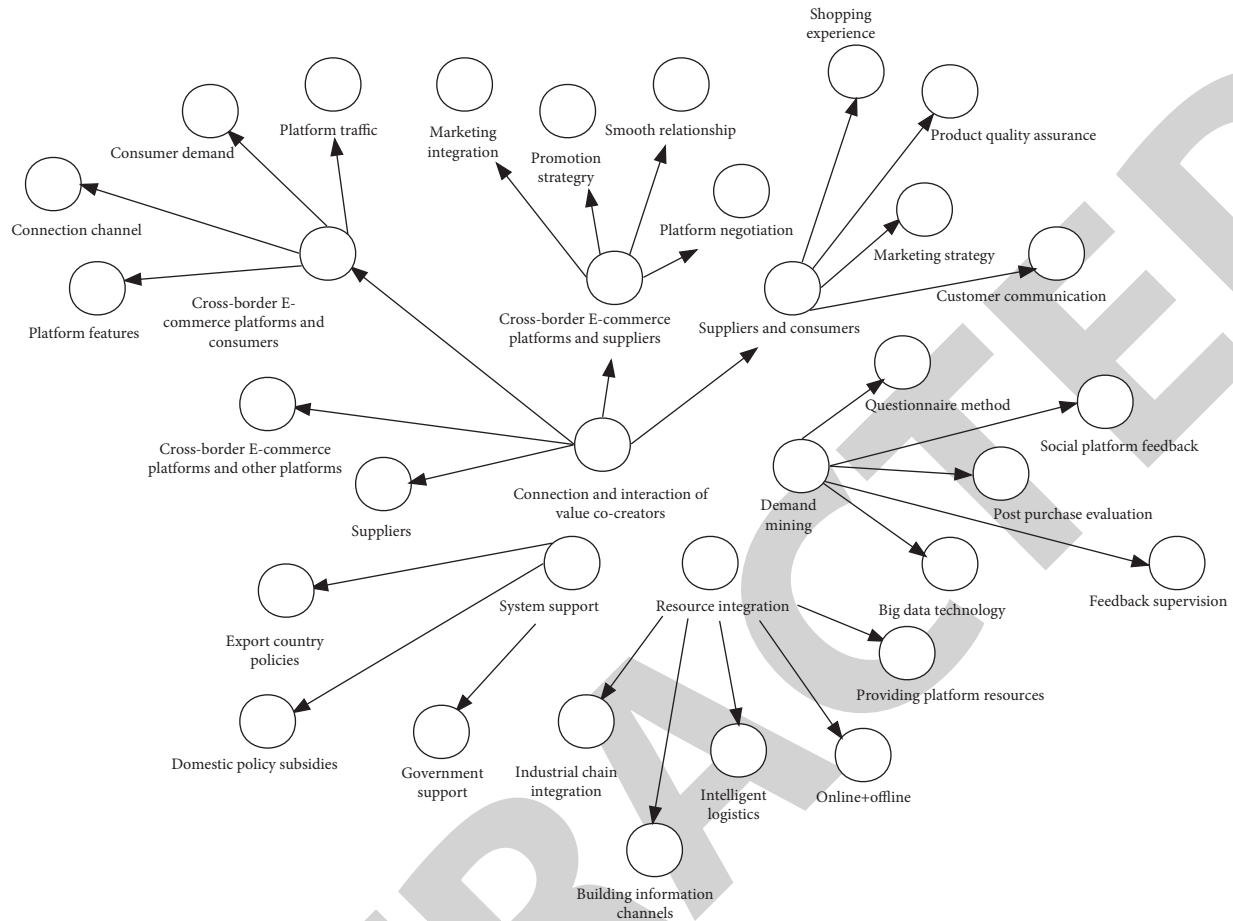


FIGURE 2: The structural dimensions and content system of value co-creation.

conducive to long-term maintenance of consumer stickiness, which will eventually lead to the dispersion of passenger flow. While the platform carries out third-party promotion activities, the “ecosystem + social” model of cross-border e-commerce platforms can be used by adding content marketing sections. The platform also needs to do the following to stimulate consumer purchase intention and maintain consumer stickiness: 1. continuously optimise the operation interface; 2. enhance the aesthetics of the page; and 3. continue to expand the information flow.

The traditional model cannot guarantee the long-term growth of the network user base, cannot maintain the user base for a long time, and eventually leads to the dispersion of passengers. Traditional cross-border e-commerce platforms are just platforms for commercial marketing, which are different from platforms where content marketing complements each other and attracts users quickly and sustainably.

In addition, cross-border e-commerce platforms can build different knowledge contribution platforms for popular imported products. For example, they built a luxury authenticity identification platform, health product recommendation platform, and infant scientific feeding platform. These services can fully mobilise consumers’ enthusiasm for inclusive knowledge learning and ultimately realise knowledge co-creation. At the same time, the

platform “Empowers” its suppliers. The platform’s channels of “Empowering” can be summarised into three paths: accurate transaction matching, operation mode optimisation, and innovation-driven: first, we help suppliers efficiently match business opportunities and closely connect with many Chinese end consumers. Second, by providing intensive services such as payment, marketing, and logistics, we optimise the operation mode of suppliers, improve the ability of suppliers in network marketing and customer management, and bring more lasting competitive advantages to suppliers. Third, we drive supplier innovation with open strategy and shared resources to combine the shared resources provided by the platform according to their own needs and promote upgrading products and services. The “Empowerment” of the platform can improve the efficiency of suppliers and reduce their costs. Stimulate the vitality of suppliers’ continuous innovation to a certain extent, enable suppliers to participate in the VcC process, and better create and deliver products and services worldwide. Empowerment of the platform has a positive role in promoting the VcC of suppliers and consumers under the platform ecosystem.

Under the cross-border e-commerce platform ecosystem, VcC is no longer limited to a simple binary interactive relationship but an ecological process in which multiple parties participate. Especially in the increasingly competitive market environment, cross-border e-commerce platforms

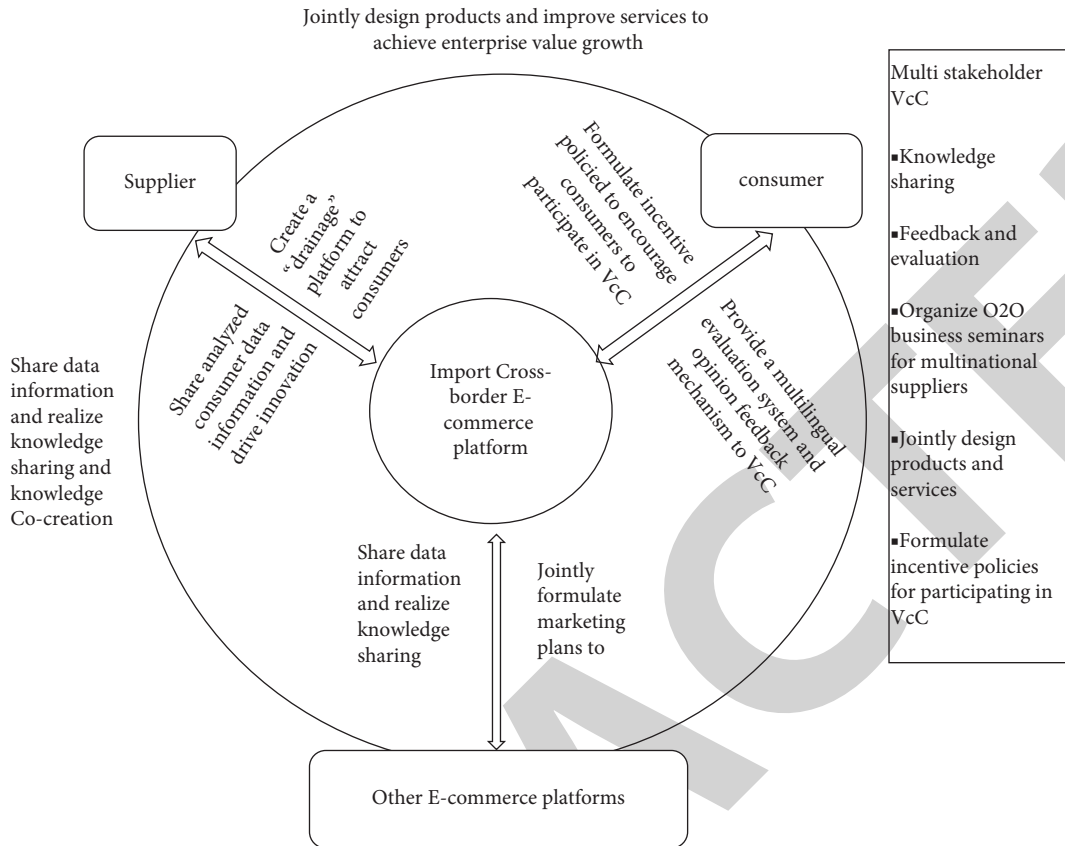


FIGURE 3: Connection and interaction of value co-creators of imported cross-border e-commerce platform.

cannot win only by “price advantage.” The homogenisation of products and repeated business models prove that they cannot achieve long-term, stable, and good business performance only by themselves and even face the risk of being eliminated by the market at any time. In this case, the platform constantly drives the innovation of products and services to resist the cruel market. The cross-border e-commerce platform can take full advantage of its vital position in the ecosystem, unique information digital technology, and robust data resource integration ability to continuously promote the inflow of external rich knowledge resources into the platform to better dig and meet consumer needs continuously improve consumer satisfaction and loyalty. Finally, it will solve a series of difficulties such as poor operation sustainability and the short life cycle of cross-border e-commerce platforms. During the coding process, researchers found some purchasers have stated that “the communication between the suppliers on the platform is excellent, and this is conducive to the advantage of the platform” so that cross-border e-commerce platforms need to identify the needs of suppliers and intelligently classify and organise relevant information. In this way, cross-border e-commerce platforms can enter the process of VcC through the collaborative allocation of resources, such as sharing industry information with suppliers, supporting information exchanges between suppliers in the same industry, and holding industry sharing conferences. This process requires the platform to work with suppliers to make plans, jointly

solve problems, and make flexible adjustments to promote more effective VcC. In general, the external driving force of cross-border e-commerce platforms for VcC is to meet personalised and diversified consumers. The internal driving force is the development motivation for innovation, efficiency, and winning in the industry. The internal and external driving forces together constitute the driving structure of their VcC activities.

Platforms continue to innovate products and services to combat raw markets. Cross-border e-commerce platforms can make full use of their excellent position in the ecosystem, unique information digitisation technologies and strong information resource integration capabilities, and can continuously promote the flow of rich external information resources on the platform for better use and satisfaction of needs. We increase customer satisfaction and loyalty.

Consumers realise a high degree of cooperation with suppliers through stable networks and communities on the cross-border e-commerce platform, which is not limited by time and region. The platform creates a collectively shared value ecosystem. This good environment stimulates consumers’ willingness to participate in VcC in motivation and behaviour. Consumer participation in VcC is mainly concentrated in two stages: product design and product marketing. These two stages can be seen from respondents’ representative views: “I have subscribed to the platform marketing number of my favourite brand. Because of the news push, I can see whether I like it or not and whether to

buy it. I have my ideas and hope that my favourite brand can solicit more opinions and opinions of old customers on new products, but there is no such way.” It can be seen that they have personalised consumer demand and a strong willingness to create, can provide rich creative resources for suppliers, and stimulate consumers to contribute their demands and creativity, which is particularly important for the brand construction of suppliers. Enhancing consumers’ brand preference through VcC has also become a hot issue in cross-border e-commerce.

Based on the above analysis, it is not difficult to see that the platform is a bridge for VcC between consumers and suppliers. The platform needs to continuously improve the quality of transaction products and mutual trust between stakeholders to improve the platform’s value interaction function. The platform needs to meet consumers and suppliers’ diverse and personalised communication needs. After the above conditions are met, the platform can achieve sustainable development through VcC. It can also allow stakeholders to share value to form a community of interests and promote VcC.

5.2. Resource Integration. The impact of resource integration on the ecosystem VcC mechanism of imported cross-border e-commerce platforms is mainly reflected in the five categories of industrial chain integration, providing platform resources, building information channels, online + offline, and intelligent logistics. With its pivotal position in the ecosystem, unique information digital technology, and strong resource integration ability, the Internet platform provides a resource guarantee for VcC. However, owning data resources is only the first step. However, owning data resources is only the first step. A more standardised integration of resources is required for imported cross-border e-commerce platforms to give full play to big data. During the coding process, both the charge person of the supplier and the consumer mentioned many times that they hoped the platform would make more efforts in data sharing and information communication. It can be seen that the platform is at the centre of the ecosystem and should play a good role. In recent years, the number of participants of cross-border e-commerce platforms has been increasing, and the scope has gradually expanded from large suppliers to small- and medium-sized suppliers. The platform has continuously improved its service functions and started integrating deep within and across industries.

The actual situation is that the entire cross-border e-commerce industry is still full of difficulties. First, although the quality of goods on the platform can be guaranteed, commodity transportation can reach consumers only through a series of international and domestic logistics procedures. Fake goods are easy to be mixed in the circulation process. At the same time, an effective commodity tracking system has not been fully established. That is, the “last mile” is represented by intelligent logistics, and the commodity return and exchange mechanism still need to be improved. Second, cross-border electronic payment faces

institutional difficulties and technical risks. As the cross-border settlement is limited by credit and payment scope, the whole settlement process is very complex. Technically speaking, cross-border electronic payment is also threatened by security. Third, cross-border logistics needs to be further improved. Logistics plays a vital role in cross-border e-commerce. Logistics cost determines profitability, and logistics speed determines profitability. Especially for most small- and medium-sized suppliers, logistics is critical before the reality of low-profit rate. Cross-border e-commerce platforms face various problems and need to integrate services such as online payment, cross-border logistics, supply chain, customs clearance, and foreign exchange settlement to improve the overall service efficiency of the platform. The platform can provide merchants with more comprehensive supporting services by building a cross-border e-commerce ecosystem and genuinely realising the integration of the cross-border e-commerce industry chain.

- (1) Although the quality of the goods on the platform can be guaranteed, the shipment of goods can only reach users through various international and domestic logistics procedures. Counterfeit materials are easily mixed during the circulation process.
- (2) Cross-border electronic payments involve institutional difficulties and technical risks. Since international settlement is limited in terms of credit and payment amount, the whole settlement process is very complicated.

The massive data mastered by the cross-border e-commerce platform is an important strategic asset, so the platform should pay attention to data operation, data collection, and management. Only through these two stages can the value of data be fully reflected. Only by realising data-based operation and analysing consumers’ purchase preferences through consumers’ browse records and orders can the platform and suppliers’ accurate marketing and accurate prediction be realised. For suppliers, only if the platform is willing to share the obtained data resources to mine adequate information from the data to study users’ consumption habits, predict market trends, and continuously expand sales channels can they effectively reduce operating costs. At the same time, suppliers transform and innovate products and services through the information fed back by the platform, more accurately meet the needs of consumers, and obtain market opportunities and driving force for sustainable development.

Only by implementing data-driven transactions and analysing customer preferences through research and their order data can retailers and vendors achieve consistent sales and forecasting. For businesses, there is only one platform that is ready to share data resources, obtain sufficient information from data, analyse user usage patterns, predict market problems, and continuously improve sales channels, so that labour costs can be effectively reduced.

During the interview, the person in charge of the platform and supplier repeatedly stressed the importance of

using all data resources to achieve precision marketing. Therefore, it is necessary to achieve deep integration of online and offline. For example, actively carry out another new model O2O in the cross-border e-commerce industry, creating offline physical experience stores, and combining online shopping and offline experience with improving consumers' sense of user experience. The ultimate goal of the cross-border e-commerce platform ecosystem is to realise online and offline integration and enable platforms, suppliers, and consumers to participate in VcC through resource integration deeply.

5.3. Demand Mining. The impact of demand mining on the ecosystem VcC mechanism of imported cross-border e-commerce platforms is mainly reflected in five categories: big data technology, questionnaire method, feedback supervision, postpurchase evaluation, and social platform feedback. Big data is a new energy for the development of cross-border e-commerce. Cross-border e-commerce platforms focus more on collecting, mining, and applying big data. They can use big data technology to timely deliver data resources such as market changes and product demand information to suppliers. Furthermore, this will become the future competitive advantage of platforms and suppliers. Especially in the Internet age, if suppliers continue to follow the traditional closed innovation and rely on internal employees and self-reliance to create and develop innovation, it has been challenging to meet the times' needs.

The impact of demand mining on export e-commerce platforms to the domestic VcC system can be seen in five main areas: big data technology, research process, feedback management, postpurchase evaluation, and community feedback. Big data is a new force in cross-border marketing. Cross-border e-commerce platforms collect and use big data with great care. They can use big data technology to transmit data tools like market changes and information to sell products in time.

Moreover, mining consumer demand is also the process of consumers participating in VcC. VcC itself is to satisfy consumers better. For suppliers, products will directly face more personalised and diversified consumers. Therefore, it is urgent to dig into the needs of consumers deeply. In the process of consumers' participation in VcC, suppliers need to increase openness and release control so that customers can become active co-creators, creators, and decision-makers.

Feedback, supervision, and after-sales evaluation are the main ways for cross-border e-commerce platforms to create value with consumers. They are also essential links for direct interaction between the platform and consumers and demand mining. The platform can directly use background orders to generate data such as commodity repurchase rate and industry benefits to achieve preliminary mining of consumer demand. However, at present, the communication links of many cross-border e-commerce platforms have not been fully opened up. For example, the platform can respond to consumers' questions at any time by adding the number of customer service specialists so as not to keep consumers

waiting. At the same time, a complete set of scientific feedback mechanisms should be improved. In this link, the feedback module function should be added, and the operation specialist should be arranged to sort out and analyse consumer opinions, suggestions, and other information. As mentioned above, the new "e-commerce + social networking" model is also a meaningful way to dig consumer demand for platforms and suppliers. We must understand that consumers are not just recipients of unilateral value but want to create value with suppliers. What consumers want is "interaction," not "indoctrination." Therefore, platforms and suppliers should cooperate extensively to build a social e-commerce ecosystem. The platform can use virtual community forums to allow consumers to participate in product design and product marketing to stimulate their needs and desires. The platform can also use data analysis technology to mine hotly discussed products in the comment area, allowing consumers to participate in product innovation. These activities can meet the individual needs of consumers, cultivate customer groups, and help suppliers make strategic decisions. Statistics from relevant research institutions show that Chinese social e-commerce has 170 million monthly active users, effectively meeting consumers' multilevel and diversified needs.

Demand mining process under the ecosystem of import cross-border e-commerce platform is shown in Figure 4.

5.4. System Support. The impact of system support on the ecosystem VcC mechanism of imported cross-border e-commerce platforms is mainly reflected in three categories: export country policies, domestic policy subsidies, and government support. Cross-border e-commerce has brought new development opportunities to more countries and groups and is essential for building an open world economy. In the early stage of Chinese cross-border e-commerce development, the government adopted an attitude of affirming and encouraging the development of new things. The rapid rise of the cross-border e-commerce industry primarily benefits from the improvement and standardisation of the policy environment. The suppliers discussed in this paper come from different countries, so the tolerance and support of exporting countries for the cross-border e-commerce industry is significant. Facing many problems and development bottlenecks in the cross-border e-commerce industry, the Matthew effect of the e-commerce platform is noticeable. The original regulatory system and import and export process have become the main factors restricting the development. In addition, the credit problems of cross-border payments and the infringement of various types of brands are still occurring. These two issues need to be resolved by the Chinese government through continuous improvement of relevant industry rules, laws, and regulations. These measures will play a positive role in the VcC of the cross-border e-commerce platform ecosystem. Of course, the Chinese government is also making continuous efforts, such as selecting some cities as pilots to explore the management systems and rules for developing cross-border e-commerce. At the same time, the government

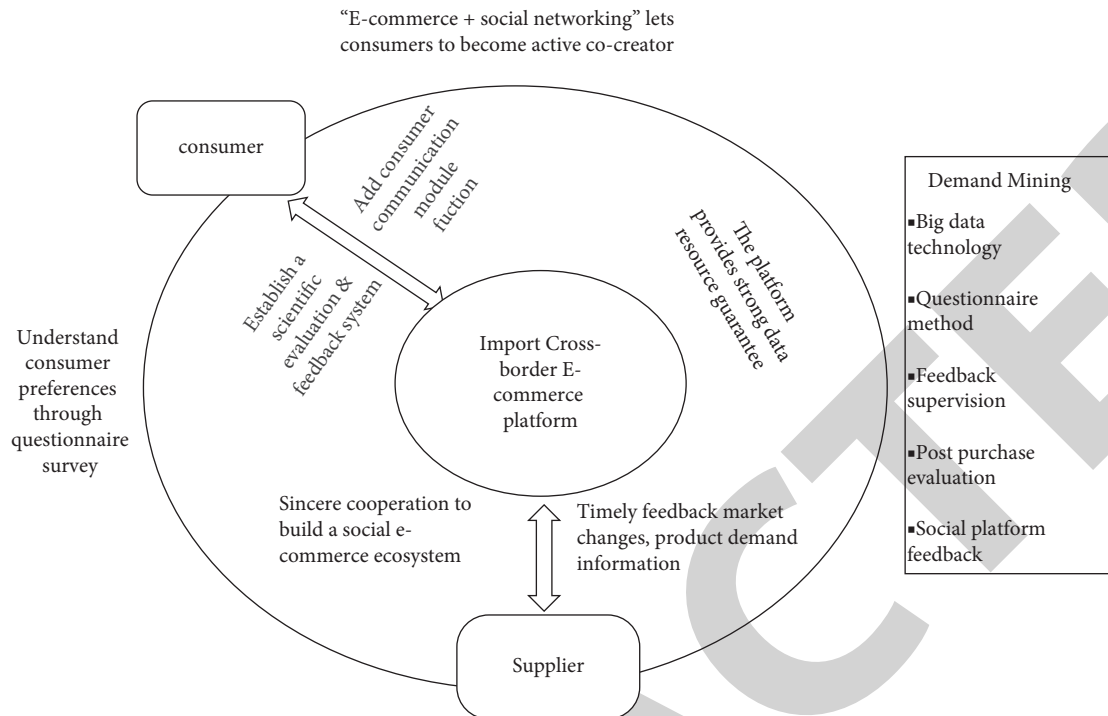


FIGURE 4: Demand mining process under the ecosystem of import cross-border e-commerce platform.

comprehensively promoted the “six systems” of regulatory services such as cross-border e-commerce information sharing, financial services, intelligent logistics, and risk prevention and control, and mature management experience such as “two platforms” of comprehensive online services and comprehensive offline areas, to drive cross-border e-commerce into the rapid development.

The healthy development of any industry is inseparable from good industry rules. The governments of many supplier countries have successively issued institutional guidelines to regulate the cross-border e-commerce industry and issued several policies such as industrial subsidies and product tariff subsidies to support cross-border e-commerce exports. However, due to the rapid rise of cross-border e-commerce platforms and the emergence of new operation modes and promotion modes, the original industry rules cannot keep up with the current changes. Given various problems existing in the industry, governments should constantly improve the existing regulatory system. The policy support of governments to the cross-border e-commerce industry is also an essential basis for effective VcC in continuously and improving the industry development environment of cross-border e-commerce. The government’s strong support is significant for the VcC of cross-border e-commerce platform ecosystem stakeholders. In the future, the government should increase support for cross-border e-commerce.

6. Conclusion

This paper uses grounded theoretical analysis methods to conduct an exploratory study on the mechanism and path of

VcC of stakeholders in the imported cross-border e-commerce platform ecosystem. This article finally summarises four significant factors: connection and interaction of value co-creators, resource integration, demand mining, and system support. It summarises and extracts four factors: the connection and interaction of value co-creators, resource integration, demand mining, and institutional support. The theoretical contribution of this paper is reflected in three aspects: (1) the previous research related to cross-border e-commerce platforms mainly focused on a platform concept, platform construction mode, platform competition, platform business model, and others. There is no research to connect cross-border e-commerce with the platform ecosystem, which is a valuable supplement to the existing theory of the platform ecosystem; (2) due to the large number of stakeholders involved in the imported cross-border e-commerce platform, the binary interactive subjects in the existing research are expanded. The research involving more subjects also means that the research is more complex, which is a further in-depth exploration of the research on VcC. (3) The existing research primarily focuses on the connotation and influencing factors of VcC. This paper selects the grounded theory method to study the VcC mechanism of stakeholders under the ecosystem of imported cross-border e-commerce platforms, combs the main paths of VcC among platform, suppliers, and consumers, and can provide a theoretical basis for the follow-up study of the stakeholder VcC mechanism.

This paper focuses on cross-border e-commerce platforms and suppliers to make better use of the platform ecosystem. The realisation of sustainable development has brought the following two management enlightenment: (1)

by discussing the VcC mechanism and path of the ecosystem of imported cross-border e-commerce platforms. The four dimensions can help the cross-border e-commerce platform and supplier management understand VcC more deeply and play a guiding role in specific business operations in practice combined with relevant theories. (2) In order to successfully realise the transformation from VcC to enterprise performance, suppliers should strive to establish a suitable trust mechanism with the platform, form a community of interests, and uniformly promote effective implementation methods of VcC. The two sides can improve enterprise performance through the following three VcC activities: A. formulate plans to optimise strategic decisions; B. solve problems together to improve work efficiency; C. establish a communication and negotiation mechanism to increase market shares. (3) Encourage consumers to create value and cultivate brand preference. This preference can strongly stimulate consumers' purchases and promote continuous purchases, which is very important for the sustainable development of suppliers' brands.

In the future, the research team plans further to expand its research results in the following three directions: (1) add two representative cross-border e-commerce platform enterprises in China as samples and add crawler technology to the original data collection method to obtain more enterprise information and consumer behaviour data. (2) Logistics parties and financial institutions are added to the original stakeholders of VcC, and the theory of ecosystem VcC mechanism of imported cross-border e-commerce platforms is further combed through the expansion of extensive sample data and research scope. (3) Join quantitative research methods such as regression analysis and empirical research methods to verify the impact mechanism of external and internal factors on the VcC efficiency of multiparticipants.

Data Availability

The experimental data used to support the findings of this study can be obtained from the corresponding author upon request.

Conflicts of Interest

The authors declared that they have no conflicts of interest regarding this work.

Authors' Contributions

C.P. conceptualised the data, wrote, and edited; X.J. conceptualised, formally analysed the data, performed coding of software, and validated the data; J.T. reviewed and edited the study; P.C. conceptualised the data, and reviewed and edited the study. All authors have read and agreed to the published version of the manuscript.

Acknowledgments

This work was sponsored in part by the National Natural Science Foundation of China (NSFC) project: Study on the

coupling mechanism of urban agglomeration spatial structure and economic resilience under the impact of major events (72063033) and by the Decision Making Project of Yunnan Provincial Government (2021-10).

References

- [1] World Trade Organization, "Trade statistics and outlook report," 2021, <https://www.wto.org>.
- [2] Network Economy Research Society, "List of "dead" of Chinese cross-border e-commerce enterprises in 2020," 2021, <http://www.100ec.cn/home/detail--6582864.html>.
- [3] K. Storbacka, R. J. Brodie, T. Böhmman, P. P. Maglio, and S. Nenonen, "Actor engagement as a microfoundation for value co-creation," *Journal of Business Research*, vol. 69, no. 8, pp. 3008–3017, 2016.
- [4] C. F. Breidbach and P. P. Maglio, "Technology-enabled value co-creation: an empirical analysis of actors, resources, and practices," *Industrial Marketing Management*, vol. 56, pp. 73–85, 2016.
- [5] J. F. Moore, *The Death of Competition: Leadership and Strategy in the Age of Business Ecosystems*, Harper Business, New York, NY, USA, 1996.
- [6] J. F. Moore, "Predators and prey: a new ecology of competition," *Harvard Business Review*, vol. 71, pp. 75–86, 1999.
- [7] H. Kim, J. N. Lee, and J. Han, "The role of it in business ecosystems," *Communications of the ACM*, vol. 53, no. 5, pp. 151–156, 2010.
- [8] M. Iansiti, R. Levien, M. Iansiti, and R. Levien, *The keystone Advantage: What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability*, Harvard Business School Press, Boston, MA, USA, 2004.
- [9] M. M. Shin, S. Jung, and J. S. Rha, "Study on business ecosystem research trend using network text analysis," *Sustainability*, vol. 13, no. 19, pp. 1–17, Article ID 10727, 2021.
- [10] D. Li, "The ever-evolving business ecosystem," *Business Horizons*, vol. 61, no. 4, pp. 497–499, 2018.
- [11] K. Penttilä, A. Ravald, J. Dahl, and P. Björk, "Managerial sensemaking in a transforming business ecosystem: conditioning forces, moderating frames, and strategizing options," *Industrial Marketing Management*, vol. 91, pp. 209–222, 2020.
- [12] H. T. Tsou, J. S. Chen, and Y. W. D. Yu, "Antecedents of co-development and its effect on innovation performance: a business ecosystem perspective," *Management Decision*, vol. 57, no. 7, pp. 1609–1637, 2019.
- [13] H. Cha, "A paradigm shift in the global strategy of mnes towards business ecosystems: a research agenda for new theory development," *Journal of International Management*, vol. 26, no. 3, pp. 1–15, Article ID 100755, 2020.
- [14] G. T. M. Hult, M. A. Gonzalez-Perez, K. Lagerström, and L. Katarina, "The theoretical evolution and use of the uppsala model of internationalization in the international business ecosystem," *Journal of International Business Studies*, vol. 51, no. 1, pp. 38–49, 2020.
- [15] M. K. Chen, C. M. Wu, L. S. Chen, and Y. P. Huang, "The influential factors of taiwan SMEs' clustering keystone business strategy—the perspective of business ecosystem using FAHP," *Sustainability*, vol. 13, no. 18, Article ID 10304, 2021.
- [16] K. Rong, Y. Lin, B. Li, T. Burström, L. Butel, and J. Yu, "Business ecosystem research agenda: more dynamic, more embedded, and more internationalized," *Asian Business & Management*, vol. 17, no. 3, pp. 167–182, 2018.

- [17] Y. R. Li, "The technological roadmap of cisco's business ecosystem," *Technovation*, vol. 29, no. 5, pp. 379–386, 2009.
- [18] Z. Henan and X. zhengliang, "Research on the framework and evolution of cross-border e-commerce ecosystem," *Social Sciences*, vol. 12, pp. 28–39, 2020.
- [19] J. Wei, X. Lin, Y. Jiang, and X. Zhou, "The influence of emotional intelligence and relationship quality on the service recovery effect of online platform ecosystem," *Current Psychology*, no. 2, pp. 1–13, 2021.
- [20] H. Jarkko, K. Markus, S. Tanja, L. Kari, and S. F. Jaakko, "A platform for digital partnering and business ecosystem creation," *It Professional*, vol. 21, pp. 74–81, 2019.
- [21] J. Kim, "The platform business model and business ecosystem: quality management and revenue structures," *European Planning Studies*, vol. 24, no. 12, pp. 2113–2132, 2016.
- [22] S. Mukhopadhyay and J. Whalley, "The emergence and evolution of a disruptive platform ecosystem: evidence from the indian mobile services industry," *Electronic Markets*, vol. 32, no. 2, pp. 669–686, 2021.
- [23] I. Visnjic, A. Neely, C. Cennamo, and N. Visnjic, "Governing the city: unleashing value from the business ecosystem," *California Management Review*, vol. 59, no. 1, pp. 109–140, 2016.
- [24] E. Gummesson, "Exit services marketing - enter service marketing," *Journal of Customer Behaviour*, vol. 6, no. 2, pp. 113–141, 2007.
- [25] E. Gummesson and E. Gummesson, "Customer centricity: reality or a wild goose chase?" *European Business Review*, vol. 20, no. 4, pp. 315–330, 2008.
- [26] T. Leclercq, W. Hammedi, and I. Poncin, "Ten years of value cocreation: an integrative review," *Recherche et Applications en Marketing*, vol. 31, no. 3, pp. 26–60, 2016.
- [27] M. Galvagno and D. Dalli, "Theory of value co-creation. a systematic literature review," *Journal of Service Theory and Practice*, vol. 24, no. 6, pp. 643–683, 2014, [CrossRef].
- [28] K. R. Ranjan and S. Read, "Value co-creation: concept and measurement," *Journal of the Academy of Marketing Science*, vol. 44, no. 3, pp. 290–315, 2016.
- [29] E. Gummesson and C. Mele, "Marketing as value co-creation through network interaction and resource integration," *Journal of Business Market Management*, vol. 4, pp. 181–198, 2010, [CrossRef].
- [30] C. Fuchs, "Wikinomics: how mass collaboration changes everything - by don tapscott & anthony d. williams," *Journal of Communication*, vol. 58, no. 2, pp. 402–403, 2008.
- [31] D. F. Leone, F. Schiavone, F. P. Appio, and B. Chiao, "How does artificial intelligence enable and enhance value co-creation in industrial markets? an exploratory case study in the healthcare ecosystem," *Journal of Business Research*, vol. 129, pp. 849–859, 2021.
- [32] H. Saarijärvi, P. K. Kannan, and H. Kuusela, "Value co-creation: theoretical approaches and practical implications," *European Business Review*, vol. 25, no. 1, pp. 6–19, 2013.
- [33] B. F. Scott, M. Avinash, and J. F. Gregory, "What drives customer re-engagement? the foundational role of the sales-service interplay in episodic value co-creation," *Industrial Marketing Management*, vol. 84, pp. 271–286, 2020.
- [34] V. Ramaswamy and K. Ozcan, "The "interacted" actor in platformed networks: theorizing practices of managerial experience value co-creation," *Journal of Business & Industrial Marketing*, vol. 35, no. 7, pp. 1165–1178, 2020.
- [35] V. Sales-Vivó, I. Gil-Saura, and M. G. Gallarza, "Value co-creation and satisfaction in b2b context: a triadic study in the furniture industry," *Sustainability*, vol. 13, pp. 1–17, 2020.
- [36] P. Goel, "Triple bottom line reporting: an analytical approach for corporate sustainability," *Journal of Finance Accounting & Management*, vol. 1, pp. 27–42, 2010.
- [37] H. Zhang, J. B. Yi, and Q. Wang, "Research on the collaborative evolution of blockchain industry ecosystems in terms of value co-creation," *Sustainability*, vol. 13, no. 21, pp. 1–17, Article ID 11567, 2021.
- [38] Z. Lin, Y. Chen, and R. Filieri, "Resident-tourist value co-creation: the role of residents' perceived tourism impacts and life satisfaction," *Tourism Management*, vol. 61, pp. 436–442, 2017.
- [39] Z. Xiaodong, "The impact of cross-border E-commerce consumers' participation in value Co-creation on brand preference," *Business Economics and management*, vol. 10, pp. 20–29, 2019.
- [40] C. Amin, S. Sukamdi, and R. Rijanta, "Exploring migration hold factors in climate change hazard-prone area using grounded theory study: evidence from coastal semarang, Indonesia," *Sustainability*, vol. 13, no. 8, p. 4335, 2021.
- [41] N. Vincens, M. Stafström, E. Ferreira, and M. Emmelin, "Constructing social identity through multiple "us and them:" a grounded theory study of how contextual factors are manifested in the lives of residents of a vulnerable district in Brazil," *International Journal for Equity in Health*, vol. 19, no. 1, pp. 83–95, 2020, [CrossRef].