Journal of Digital Intelligence and Economic Growth
Website: https://www.jdieg.com
Vol. 2 No. 1, March 2025, 50-61

ISSN (Print): 3058-3535
ISSN (Online): 3058-6518
DOI: https://doi.org/10.63768/jdieg.v2i1.004

Exploring the Multifaceted Drivers of Korea's Overseas Online Shopping Expansion: An Empirical Study Using Dynamic QCA

Di An[1], Fande Kong[2*]

[1] Ph.D. Student, Department of Tourism Management, Kyonggi University, Seoul, South Korea
[2] Ph.D. Student, Department of Global Trade and Management, Shinhan University, Seoul, South Korea

Abstract: Research Purpose: This study provides a comprehensive and in-depth examination of the driving mechanism of the growth of Korea's overseas online shopping market. A number of key factors such as South Korea's GDP per capita, trade relations between China and South Korea, the popularity of mobile Internet technology, and logistics efficiency are taken into account. Research Methodology: The experiment adopts Dynamic QCA histogram analysis method for the GDP per capita of South Korea and the trade data between China and South Korea. Factors including China's primary industry value-added, total exports to Korea, and industrial output value-added were analysed and processed. Findings: The rapid expansion of South Korea's overseas online shopping market results from the combined influence of multiple factors. The sustained growth of GDP per capita provides a solid economic foundation for the market, the close trade relations between China and South Korea provide consumers with more diversified and high-quality choices of goods, while the popularity of mobile Internet technology and the improvement of logistics efficiency further enhance the attractiveness and convenience of overseas online shopping. Research significance: It reveals the multifaceted drivers of the growth of Korea's overseas online shopping market, providing valuable references for policy makers and marketers. By analysing these dynamic mechanisms in depth, policymakers can formulate relevant policies more precisely to promote the healthy development of the market.

Keywords: Driving Mechanism; Dynamic QCA; GDP per capita; Overseas Online Shopping

* Author Correspondence: (First author) Di An (andi0429@naver.com), (Corresponding author) Fande Kong (289781808@qq.com)
Received 20 November 2024, Revised 15 March 2025, Accepted 30 March 2025

1 Introduction

In recent years, the Korean public has shown significant growth in spending on overseas online shopping platforms. This trend not only reflects a shift in consumer shopping habits but also underscores Korea's pivotal role in the global supply chain as a key market. The widespread adoption of the Internet and the rapid development of cross-border e-commerce have further facilitated global shopping for Korean consumers (Chung & Shin, 2010). As a result, an increasing number of Koreans are turning to overseas online platforms to purchase goods (J. I. Shin, Chung, Oh, & Lee, 2013).

Several factors contribute to this shift. First, consumer demand for high-quality and diversified products has grown significantly. Second, price advantages offered by neighboring countries, particularly China, have become more appealing amid domestic inflation (H. Y. Lee, Qu, & Kim, 2007). These factors collectively drive the expansion of overseas online shopping among Korean consumers.

To better understand this phenomenon, it is crucial to conduct an in-depth analysis of the Korean public's overseas online shopping habits and explore the underlying reasons behind this trend. Such research is not only of strategic importance but also holds significant implications for Korea's economic development (Jin & Gu Suh, 2005).

Domestic and foreign scholars have conducted extensive and in-depth research on the significant growth of overseas online shopping consumption in Korea and other countries (M.-J. Kim, Chung, & Lee, 2011). These studies have made substantial contributions to the field. On the one hand, they have enriched the theoretical frameworks of supply and demand as well as applied economics. On the other hand, they have provided valuable insights into the expansion motives and sustainable development strategies of overseas online shopping markets (C. Park & Jun, 2003).

Foreign scholars have comprehensively analysed the reasons for the growth of overseas online shopping consumption from various perspectives, including consumer behaviour (Dennis, Merrilees, Jayawardhena, & Tiu Wright, 2009), market supply (Zhao, Wang, & Chen, 2019), and global supply chain dynamics (Koberg & Longoni, 2019). For instance, S. Gilboa's research on online purchasing behaviour in global shopping operations reveals that cultural factors significantly influence consumer behaviour in wealthy countries, while economic status plays a more prominent role in poorer countries (Gilboa & Mitchell, 2020). Additionally, a country's per capita income has been shown to directly affect consumers' willingness to purchase goods (J.-k. Park, Ryu, & Lee, 2019).

The COVID-19 pandemic has profoundly impacted consumer behaviour and habits in Korea (Hanghun Jo, Eunha Shin, & Heungsoon Kim, 2020). During the pandemic, the Korean public increasingly turned to online shopping as a response to anti-epidemic measures, a trend that persisted even after restrictions were lifted. Simultaneously, heightened concerns about health and safety have led consumers to prioritize the purchase of healthy and safe food and daily necessities (Moon, Choe, & Song, 2021). Furthermore, the economic pressures induced by the pandemic have made consumers more rational, with a greater focus on value for money (H Jo, E Shin, & H Kim, 2020).

From a supply chain perspective, the expansion of China's primary and secondary industries has provided Korean consumers with access to diversified and low-priced products (Liu & Hong, 2016). The close trade relations between China and South Korea have also created a favourable environment for cross-border e-commerce, further driving the growth of South Korea's overseas online shopping market (Gereffi, 2019).

Domestic scholars, on the other hand, typically analyse the development of overseas online shopping markets from multiple dimensions. At the macro level, studies focus on economic growth, industrial structure, employment, and inflation. For example, B. N. Jeon's research highlights how Korea's economic growth and industrial restructuring have contributed to the popularity of online shopping (Jeon, Han, & Lee, 2006). As the economy has grown steadily, consumers' purchasing power has increased, leading to greater demand for convenient and diverse shopping options (Umar, Liesl, Himawan, & Mustikasari, 2023). Additionally, employment stability and manageable inflation levels have bolstered consumer confidence in online spending (Quelch & Klein, 1996). Conversely, rising inflationary pressures have made online shopping an attractive option for cost-conscious consumers due to its price transparency and convenience (Xu & Jackson, 2019).

At the micro level, domestic scholars examine factors such as household income (D. Park & Rhee, 2005), expenditure, and consumption patterns (Xu & Jackson, 2019). For instance, E. Ko's research on consumer technology perception found that perceived usefulness, enjoyment, and ease of use significantly influence consumers' intention to purchase fashion products through mobile shopping (E. Ko, Kim, & Lee, 2009).

The growth of Korea's overseas online shopping market is further supported by the close trade relations between China and Korea, as well as the overall state of Korea's economy (J. W. Lee, 2016). This study examines several key factors, including GDP per capita, purchasing power parity (PPP), total Chinese exports to South Korea, the number of mobile Internet users, and the volume of overseas direct mailings from South Korea.

First, the increase in GDP per capita has improved the living standards of Koreans and significantly enhanced their purchasing power, providing a solid foundation for the expansion of the overseas online shopping market (Ghauri & Cateora, 2014). Second, the rise in purchasing power parity has further strengthened Korean consumers' ability to purchase overseas goods (Wu, Cheng, & Hou, 2011). Third, the growth in China's total exports to Korea has brought an abundance of affordable products to the Korean market, meeting the diverse needs of consumers (Dingyu Wang, 2023). Fourth, the rapid increase in the number of mobile Internet users in Korea has made overseas online shopping more convenient, enabling consumers to make purchases anytime and anywhere (J. Kim et al., 2004). Finally, the steady growth in the volume of overseas direct mailings to Korea directly reflects the vitality of the overseas online shopping market, with a large number of goods entering the Korean market and further driving the growth of overseas online shopping (Han, Kim, & Lee, 2018).

The aim of this paper is to explore the key factors influencing the sustained growth of Korea's overseas online shopping market and to investigate whether these factors can be combined in specific ways to produce equivalent outcomes (Thomann & Maggetti, 2020). Additionally, we employ dynamic Qualitative Comparative Analysis (QCA) to examine whether these factors exhibit time-specific effects—that is, whether their impact changes over time (Schneider & Rohlfing, 2013).

This study utilizes panel data from Statistics Korea, China's National Bureau of Statistics, and UNFO for the period 2015–2021 as a case study. The dynamic QCA methodology is applied to reveal the key factors influencing the growth of Korea's overseas online shopping market over time. Through dynamic QCA analysis, we aim to delve deeper into the changes in each factor at different time points and their dynamic relationship with the market's growth (Hino, 2009). This approach addresses the limitations of traditional regression analyses in dealing with complex social phenomena, as it more comprehensively considers the interactions and combinatorial effects of different factors (Schneider & Wagemann, 2010).

2 Research Methodology and Data Construction

2.1 Differences Between Dynamic QCA and Traditional QCA

This study employs Dynamic Qualitative Comparative Analysis (Dynamic QCA) rather than traditional QCA methods to examine the driving forces behind South Korea's cross-border online shopping market growth. Whereas conventional QCA demonstrates robust capabilities in identifying causal configurations and necessary/sufficient conditions in cross-sectional data (Schneider & Wagemann, 2012; Ragin, 2008), it remains limited in capturing temporal dynamics and time-varying effects.

In contrast, dynamic QCA extends the traditional approach by incorporating a temporal dimension, enabling researchers to investigate: 1.The evolution of causal configurations over time 2.Variations in their impacts across different periods(Schneider & Rohlfing, 2013)

This methodological advancement proves particularly valuable for our research context, where market growth is influenced by factors exhibiting significant temporal heterogeneity—including economic trends (e.g., GDP fluctuations), technological advancements (e.g., mobile commerce adoption), and shifts in consumer behavior (e.g., pandemic-induced changes). The dynamic QCA framework allows for precise identification of these time-sensitive relationships, yielding nuanced insights into market development trajectories.

2.2 Framework Construction

As shown in Figure 1. The rapid growth in the amount of overseas online purchases made by Koreans can be constructed and analysed from a number of perspectives, and the following is based on three aspects: purchasing power-related indicators, the perspective of the economic closeness between China and Korea (China's production and industry indicators), and consumer and market indicators:

The continued prosperity of the Korean economy has laid a solid foundation for the rapid growth of the overseas online shopping market(Westphal, 2002).As Korea's GDP per capita has risen each year, the purchasing power of consumers has increased significantly. At the same time, the increase in purchasing power parity means that Korean consumers have further enhanced their purchasing power in the global market and are able to purchase more high-quality and reasonably priced overseas goods(Islam & Ahmed, 1999).This increase in purchasing power has directly contributed to the rapid growth in the amount of overseas online purchases in Korea, providing Korean consumers with more choices and convenience(Jun & Park, 2016).

The economic closeness between China and South Korea has played an important role in fuelling the growth of South Korea's overseas online shopping market(Fumagalli, 2016).As an important trading partner of Korea, China's total exports to Korea have continued to grow, especially in the primary and manufacturing sectors. Meanwhile, the close co-operation between China and South Korea in trade and investment has also provided strong support for the development of South Korea's overseas online shopping market(Kang, 2009).

The dynamism of the Korean consumer market and the growth of consumer demand are key factors in the rapid growth of the amount of overseas online purchases(J. Shin, Park, & Lee, 2016).In recent years, food price inflation in Korea has been effectively controlled and consumers' purchasing power has been secured(Westphal, Rhee, & Pursell, 1979).At the same time, the popularity of mobile Internet and the increase in the number of smartphone users have made online shopping more convenient(Cao, Lu, Gupta, & Yang, 2015).In addition, the increase in the number of overseas direct mailings from Korea reflects growing consumer demand for overseas goods, further fuelling the boom in the overseas online shopping market(Westphal et al., 1979).

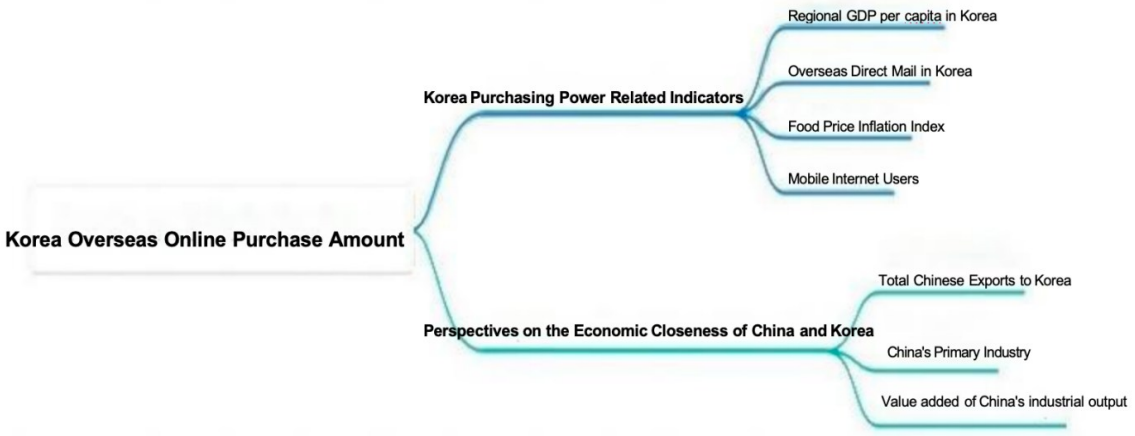

Figure 1. Theoretical framework

2.3 Dynamic QCA Data Construction

Dynamic QCA (Qualitative Comparative Analysis) data construction for the growth of Korea's overseas online shopping market can be performed on a number of dimensions, and the following is a detailed analysis of several of the key metrics you mentioned:

Korean purchasing power related indicators are important drivers of the growth of the Korean overseas online shopping market(Simas, Pauliuk, Wood, Hertwich, & Stadler, 2017).The growth in per capita GDP in the Korean region is a direct reflection of consumers' increased purchasing power, while the increase in the number of overseas direct mailings from Korea is a direct reflection of the vibrancy of the overseas online shopping market and the growth in consumer demand(Ji & Lee, 2021).Together, the growing trend in these two indicators illustrates the increasing spending power and willingness of Korean

consumers to make online purchases overseas(N. N. Kim, 2012).The above indicators in this paper use publicly available data from the National Statistical Office of Korea (NSO) and the Food and Agriculture Organization of the United Nations (FAO) for 2015-2021(Anstalt, 2013).

The angle of economic closeness between China and Korea has also played an important role in the growth of Korea's overseas online shopping market. The increase in China's total exports to Korea has provided the Korean market with a more diverse selection of goods to meet the diverse needs of Korean consumers(K. Lee & Kim, 2004).The value-added of China's primary sector and China's industrial output, on the other hand, reflects the steady development of China's economy and the optimisation of its industrial structure, which provides Korea with more high-quality commodity supplies.(Befani, 2016).Data from the China Statistical Yearbook 2015-2021, a statistical yearbook published by the Government(Guo et al., 2014).The steady growth of these economic indicators has further contributed to the prosperity of the overseas online shopping market in Korea.

Based on the government's publicly available food price inflation index data for 2015-2021 released by the United Nations Food and Co-operation Organization's survey of Korea, we can use the dynamic QCA method to construct and analyse the growth trend of the overseas online shopping market in Korea. Consumer and market indicators also reflect the dynamics of the Korean overseas online shopping market. The relative stability of food price inflation has safeguarded the purchasing power of Korean consumers, while the increase in mobile internet users has made online shopping more convenient. The Food Price Inflation Index reflects changes in consumer purchasing power and market demand, referencing Wang.D's research and data, reflecting the vibrancy of the Korean consumer market and driving the growth of the Korean overseas online shopping market.(Dingqing Wang, Zhang, & Qiu, 2022).

2.4 Constructing the LSTM Forecasting Model for the Overseas Online Shopping Market in Korea

To construct the LSTM (Long Short-Term Memory) forecasting model for the overseas online shopping market in South Korea, it is first necessary to collect the historical data of the overseas online shopping market in South Korea for the period of 2015-2021, including sales, growth rate, and other key indicators.(Song et al., 2020).Then, using these data as inputs, LSTM models are constructed and divided into training and test sets(Lipton, Kale, Elkan, & Wetzel, 2015).

In the model construction stage, the number of LSTM layers and the number of neurons in each layer can be adjusted according to the data characteristics, and the appropriate optimiser and loss function can be set at the same time(Yu et al., 2020).Next, the model is trained using a training set that allows it to learn patterns and trends in the data. The model is validated using a test set to assess its predictive performance. Once the model is validated, it can be used to make future predictions about the Korean overseas online shopping market using the latest data input into the model.

3 Data analysis and empirical results

3.1 Calibration

In this paper, the direct calibration method was chosen to calibrate the data for A (GDP per capita/USD in Korea), B (value added in China's primary industry/trillion), C (China's total exports to Korea/trillion), D (value added in China's industrial output/trillion), as well as the data for E (Korea's food price inflation), F (Korea's mobile Internet users/million), G (Korea's number of overseas direct mails/million), and Y (Korea's overseas online purchasing (Korea's overseas direct mail volume/billion US dollars) are precisely adjusted(Ide & Mello, 2022).During the calibration process, special emphasis was placed on the 95% quartile, 50% quartile (median) and 5% quartile as the key calibration reference points. These quartiles represent different levels of data distribution, with the 95% quartile reflecting the upper level of the data, the 50% quartile demonstrating the central tendency of the data, and the 5% quartile revealing the lower limit of the data. Through the comprehensive consideration of these benchmark points, we are able to grasp the overall characteristics and distribution of the data more comprehensively and accurately, providing a solid foundation for subsequent analyses.(Oana, Schneider, & Thomann, 2021).The specific calibration results are shown in Table 1.

Table 1. Calibration of variables

	Variable name	Fully Affiliated	Intersection	Completely unaffiliated
Outcome Variables	Y	7.38	3.22	1.36
	A	43790.12	41965.9	39124.5
	B	8.16	6.48	5.85
	C	1379.06	1087.56	959.96
condition variable	D	43.11	36.48	28.56
	E	6.10	4.07	0.217
	F	51.640	46.70	42.51
	G	71.72	32.26	48.41

3.2 Necessity analysis of single factor

According to the set-theoretic group theory of Boolean algebra, there is a significant correlation between the adjustment distance of QCA (Qualitative Comparative Analysis) panel data and its consistency precision. In the analytical framework of QCA, the adjustment distance is regarded as an important indicator of the sensitivity of the data to change and the degree of analytical refinement. By reducing the adjustment distance, we can more accurately capture subtle differences and variations in the data, which is crucial for improving consistency accuracy(Schneider, 2023).

However, it is true that adjustment distances (e.g., Euclidean distances) in statistical and qualitative comparative analyses (QCA) do not have fixed criteria or clear rules, but need to be flexibly determined based on the specific research context, data characteristics, and experimental objectives. Two crucial considerations in QCA experimental analyses are the size of the data and the degree of data inclusion, which directly affect the choice of the adjustment distance. In this experiment, in order to explore the effects of different adjustment distances on QCA results, we refer to the study of Oana scholars and select 0.25 Euclidean distance as the mediator value. This choice is based on a preliminary analysis of the current dataset to explore the necessity of 0.25 Euclidean distance as the adjustment distance and its accuracy and reliability on the experimental results and conclusions(Oana & Schneider, 2024).

Table 2. Analysis of the necessary conditions

varian	Y			~Y		
	Aggregate Consistency	Aggregate coverage	Inter-group consistency	Aggregate Consistency	Aggregate coverage	Inter-group consistency
A	0.93	0.95	0.04	0.37	0.40	0.25
~A	0.41	0.38	0.21	0.95	0.94	0.05
B	0.99	0.98	0.01	0.36	0.38	0.24
~B	0.36	0.34	0.24	0.97	0.99	0.02
C	0.85	0.75	0.10	0.54	0.51	0.20
~C	0.44	0.46	0.27	0.73	0.84	0.18
D	0.93	0.98	0.03	0.36	0.41	0.26
~D	0.43	0.39	0.21	0.99	0.93	0.06
E	0.77	0.81	0.18	0.38	0.43	0.27
~E	0.47	0.43	0.21	0.84	0.80	0.06
F	0.94	0.98	0.11	0.33	0.36	0.20
~F	0.39	0.35	0.23	0.91	0.94	0.01
G	0.99	0.58	0.01	0.99	0.62	0.01
~G	0.35	0.99	0.20	0.39	0.99	0.27

According to the results of the analyses shown in Table 2, there are three conditional variables A (GDP per capita/USD in Korea), B (value added in primary industry/trillion in China), and F (mobile Internet users/million in Korea) that have an adjusted distance of less than 0.25, which is a positive sign that there is a high degree of data matching between these conditional variables and the outcome variable. However, although the adjusted distances of these variables satisfy the criterion of less than 0.25, their pooled consistency is all less than 0.9, which implies that these conditional variables do not constitute a necessary condition for the outcome variable. For the other four conditional variables C (total exports from China to

Korea/trillion), D (value added of industrial output in China/trillion), and E (food price inflation in Korea), and G (number of direct mail pieces from Korea overseas/million pieces) there are instances in which the adjusted distances between groups are greater than 0.25. This suggests that in some subgroups, the data match between the amount of overseas online purchases in Korea and the outcome variable may be low, requiring researchers to further examine and analyse the impact of this conditioning variable in different contexts.

Table 3. Data between groups with adjusted distances greater than 0.25

Situation	Causal combination situations	Intergroup	2015	2016	2017	2018	2019	2020	2021
a	~C and Y	consistency	0.99	0.99	0.61	0.98	0.65	0.45	0.01
b	D and ~Y	consistency	0.05	0.07	0.28	0.99	0.99	0.99	0.98
c	E and ~Y	consistency	0.16	0.56	0.08	0.99	0.14	0.99	0.99
d	~G and ~Y	consistency	0.02	0.07	0.21	0.99	0.97	0.89	0.99

After an in-depth analysis of the intergroup consistency and coverage in Table 3, the following conclusion is drawn: the year-to-year increase in the amount of overseas online purchases in South Korea is a complex process in which several factors interact with each other. In this process, no single factor can independently constitute its necessary conditions. In particular, the fact that the average level of consistency of the data across years does not reach the threshold of 0.9 in the context of an adjustment distance of more than 0.25 further strengthens our view that the growth of Korea's overseas online purchases is not driven by a single factor. This finding emphasises the need to comprehensively consider the interactions and combined effects of various factors when understanding the drivers of its growth.

3.3 Results of the group analysisTable 4 Configuration truth table

Table 4. Configuration truth table

Conditional variables	parameterisation1	Parameterisation2
（A）	●	●
（B）	●	
（C）	●	●
（D）	●	●
（E）		●
（F）	●	●
（G）	●	●
Consistency	0.9	0.9
Original Coverage	0.8	0.6
PRI	0.9	0.9
Overall PRI	0.9	
Overall Consistency	0.9	
Overall Coverage	0.7	

Note:●and ⊗indicate presence and absence of core; blank indicates that presence and absence are also possible.

Cohort analysis is a core component of the Qualitative Comparative Analysis (QCA) methodology, which endeavours to explore how different antecedent conditions combine to collectively influence the production of an outcome(Rihoux, 2013).In the current study, we adhered to the consistency level of no less than 0.80 as proposed by scholar B. Rihoux; however, given the particular context of this study and previous findings, we adopted a higher standard in constructing the truth table, specifically setting a consistency threshold of 0.9, a frequency threshold of 1, and determining a PRI threshold of 0.7(Befani, 2016).After constructing the truth table, we recognised that the influence of antecedent conditions on the outcome showed diversified characteristics, so we did not presuppose the direction in which the conditions acted. to comprehensively examine how different combinations of conditions affect outcomes. This approach allows us to elucidate more precisely how different conditions act together to produce outcomes.

The results of the overall grouping analysis are shown in Table 4. Group state 1 demonstrates that the booming overseas online shopping market in Korea is the result of a combination of factors. In particular, the growth of Korea's GDP per capita

(A), which is directly associated with the increase in purchasing power of Korean consumers, is the core driver of the growth in the amount of overseas online purchases. With the sustained growth of the Korean economy and the steady increase in GDP per capita, consumers' shopping demand and purchasing power have been greatly released, further driving the continued prosperity of the Korean overseas online shopping market. In addition, factors such as the value-added of China's primary industry (B), China's total exports to Korea (C), and the value-added of China's industrial output (D) not only reflect the close trade relationship between China and Korea, but also provide Korean consumers with more diversified choices of goods, thus stimulating the growth of overseas online shopping. Meanwhile, the rapid growth of Korean mobile Internet users (F) and the increase in the number of Korean overseas direct mail (G) have provided Korean consumers with more convenient shopping channels and faster logistics experience, further enhancing the attractiveness and convenience of overseas online shopping.

Grouping 2 indicates that the growth in the amount of overseas online shopping (Y) in Korea is not only an economic phenomenon, but also the result of the intertwined influence of a variety of social factors. Among these social factors, Korean GDP per capita (A), total Chinese exports to Korea (C), value-added of China's industrial output (D), Korean food price inflation (E), Korean mobile Internet users (F), and the number of Korean direct mailers overseas (G) all play a significant role.

From a sociological point of view, both histograms I and II emphasise the role of Korean GDP per capita in driving overseas online purchases, but differ in the selection of mobile internet users and value added of China's primary industry. Histogram 1 may have focused more on technology-driven shopping convenience and food import demand, while Histogram 2 may have considered more factors such as logistics and payment systems, as well as the complexity of the trade structure between China and South Korea. This difference reflects the need for sociological analyses to consider multiple factors and their interactions when explaining complex social phenomena.

3.4 Forecasting the amount of overseas online purchases in Korea

As shown in Figure 2. In order to verify the prediction accuracy and reliability of the model, we used the test set data to validate the trained model.(Van Houdt, Mosquera, & Nápoles, 2020).The calculation results show that the root mean square error (RMSE) of the model is only 0.01, which is much lower than the threshold of 0.05, fully demonstrating the high accuracy and reliability of the model in terms of predictive consistency(Hua et al., 2019).As can be seen in Figure 2 of the forecast trend, the amount of overseas online purchases in Korea fluctuated slightly at first, but then showed strong growth. This trend reflects the dynamism and potential of the Korean overseas online shopping market. Of particular note, the model predicts that the value of Korea's overseas online purchases will exceed $900 million in 2024, a forecast result that signals the continued steady growth of Korea's overseas online purchases market.

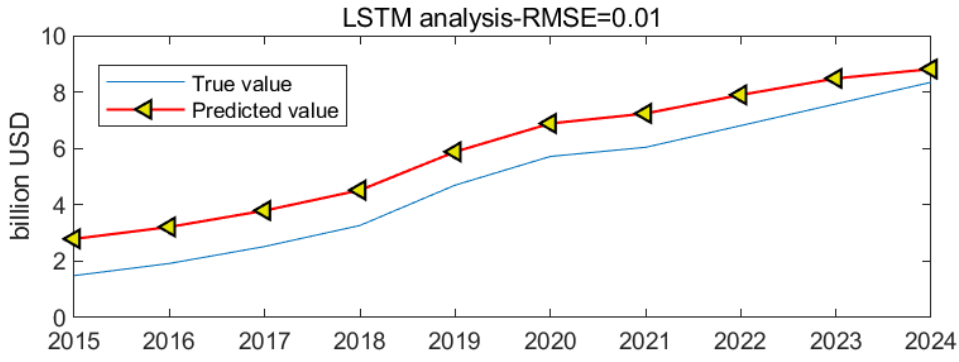

Figure 2. Matlab Korean overseas online purchase amount prediction

4 Conclusion and Discussion

This study provides a comprehensive and in-depth analysis of the growth drivers of the overseas online shopping market in South Korea through group analysis. The findings reveal that the development of this market is shaped by multiple interwoven factors.

First, the steady increase in per capita GDP is identified as a fundamental driver. Unlike previous studies that primarily

focus on domestic consumption, our research highlights how rising income levels specifically facilitate cross-border online shopping, extending the economic influence beyond national boundaries.

Second, the close trade relationship between China and South Korea is found to be a key enabler of this market's growth. While prior research has examined bilateral trade in traditional sectors, this study extends the discussion by demonstrating how trade-related factors—such as value-added in China's industrial output and exports to Korea—affect consumer behavior in digital commerce. This insight underscores the interconnectedness of international trade and e-commerce development.

Third, the rapid advancement of mobile internet technology has further accelerated the market's expansion. The increasing number of mobile users and the prevalence of overseas direct mail services significantly enhance accessibility and convenience for consumers engaging in cross-border e-commerce.

Beyond confirming existing theories, this study makes three key contributions. First, by integrating macroeconomic indicators with digital commerce dynamics, it offers a multidimensional perspective that extends beyond conventional e-commerce studies. Second, it provides a predictive model estimating that South Korea's overseas online shopping market will surpass $900 million by 2024, contributing forward-looking insights that are rarely addressed in prior literature. Third, it highlights the necessity of considering external economic linkages—particularly with China—as a structural factor shaping consumer behavior, a perspective often overlooked in single-country e-commerce studies.

Nevertheless, this study acknowledges certain limitations. While key factors have been identified, real-world influences are inherently complex. Factors such as consumer psychology, competitive market structures, and unforeseen events (e.g., public health crises) can also significantly shape online shopping behaviors. Future research should incorporate a broader range of variables, adopt mixed-method approaches, and integrate real-time market data to refine our understanding of this evolving landscape. Additionally, monitoring shifts in consumer demand will be essential for providing more precise and practical recommendations for policymakers and industry stakeholders.

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Author Introduction

First author, Di An, Female, born in 1989, Ph.D. student, Department of Tourism Management, Kyonggi University, research interest in Healing Tourism, email: andi0429@naver.com.

Corresponding author , Fande Kong, Male, born in 1983, Ph.D. student, Department of Global Trade and Management, Shinhan University, research interest in Applications of artificial intelligence, email: 289781808@qq.com.