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Department of Sociology, Economic
Theory and International Processes
38.04.01 Economics
International Economics and Business

GRADUATION THESIS

on

Global female economy: cosmetics and garment markets

Master's degree student

Cai
Rangji

signature, date

Academic adviser

Salnikova O. V.

signature, date

Compliance supervisor

Vlazneva S. A.

signature, date

Reviewer

Barbashova S. A.

signature, date

Head of the Department
of Economics and Finance of Penza Branch of
Federal State Educational Budgetary
Institution of Higher Education
Financial University under the Government of
the Russian Federation

The thesis was approved for defence (record of the department meeting dated _____ no.____)

Head of the Department

Rozhkova L.V.

signature, date

The thesis was defended and marked _____ (record of the State Examination Board dated
_____ no.____)

Secretary of the SEB

Rasskazova N. V.

signature, date

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FSBEI HE Penza State University
Institute of Economics and Administration
Department of Sociology, Economic Theory and International Processes
Field of study 38.04.01 Economics,
Master's degree programme International Economics and Business

APPROVED BY:
Head of the Department
Doctor of Social Sciences,
Professor
Rozhkova L.V.

«_____» _____ 20__

ASSIGNMENT
FOR THE GRADUATION THESIS OF

Master's degree student Cai Rangji, group 23ЭЭВам1, full-time mode of study

1 The topic of the graduation thesis: "Global female economy: cosmetics and garment markets"

was approved by the university order
dated «___» _____ 20__ no. _____

2 The deadline for the Master's degree student to complete the graduation thesis is 11.06.2025.

3 The input data for the graduation thesis is the regulatory and legal framework, scientific literature and reference books, and Internet data.

4 The list of issues to be studied includes overview of the global female economy; impact of global female economy on cosmetics and garment manufacturing industries; challenges and opportunities in trade of cosmetics industry and garment manufacturing industry.

5 The list of visuals contains tables and figures.

6 The date of setting the assignment is 7.09.2023.

Academic adviser _____ / Salnikova O. V./
(signature) (full name)

The assignment was accepted by Master's degree student _____ / Cai Rangji/
(signature) (full name)

Schedule for completing the graduation thesis

№ п/п	Content of the thesis	Deadline for completion	Due date, signature of the academic adviser
First year of study			
1	Substantiating of the research topic and methodology, subject and object of research	1.09.2023 – 31.10.2023	
2	Framing the scientific concept of research	1.11.2023 – 18.12.2023	
3	Collection of scientific literature for the thesis	19.12.2023 – 15.01.2024	
4	Substantiating the relevance, concept, and novelty of the research	16.01.2024 – 19.02.2024	
5	Framing of a detailed plan and layout of the research	20.02.2024 – 12.03.2024	
6	Studying new literature sources within the topic of the thesis	13.03.2024 – 26.03.2024	
7	Conducting theoretical research within the first chapter of the thesis	27.03.2024 – 30.04.2024	
8	Preparing the first chapter of the thesis	1.05.2024 – 30.06.2024	
Second year of study			
9	Conducting analytical research within the second chapter of the thesis	1.09.2024 – 22.10.2024	
10	Preparing the second chapter of the thesis	23.10.2024 – 24.12.2024	
11	Conducting analytical research within the third chapter of the thesis	25.12.2024 – 25.02.2025	
12	Preparing the third chapter of the thesis	26.02.2025 – 21.04.2025	
13	Preparing the introduction and conclusion	22.04.2025 – 12.05.2025	
14	Completing the graduation thesis	13.05.2025 – 26.05.2025	
15	Handing in the thesis for compliance control and antiplagiat	27.05.2025 – 9.06.2025	
16	Getting acquainted with the feedback and review	10.06.2025	
17	Presenting the written thesis	11.06.2025	

Academic adviser _____ / Salnikova O. V. /
(signature) (full name)

The assignment was accepted by Master's degree student _____ / Cai Rangji /
(signature) (full name)

Summary

The graduation thesis comprises 74 pages, 3 chapters, 12 figures, 1 tables, 61 sources.

GLOBAL FEMALE ECONOMY, COSMETIC TRADE, GARMENT TRADE, FEMALE CONSUMPTION, TRADE DYNAMICS, COSMETIC INDUSTRY, GARMENT MANUFACTORY INDUSTRY.

The target of research is the transformative impact of the global female economy on international trade within the cosmetics and garment manufacturing industries, examining how female economic empowerment reshapes trade scales, regional patterns, and industrial competitiveness.

The goal of work is to study – how female consumers demand dynamics (e.g., personalized products, sustainable consumption) drive trade growth and structural shifts in both sectors; the mechanisms through which female consumption behaviors (e.g., social media-driven purchases, cross-border e-commerce) influence market access and brand strategies; challenges and opportunities arising from gender-driven trade transformations, including supply chain resilience and regulatory adaptability.

The methodological framework of the paper is formed by the complex of theoretical and practical methods such as neoclassical trade theory to analyze comparative advantages in female-dominated markets, gender economics to model the correlation between female labor participation and export performance.

The results of research include: trade scale and trends; drivers and innovations (digitalization and sustainability); challenges raw material volatility and regulatory barriers.

The recommendations on disseminating and applying the results are as follows: industry strategies – adopt dual supply chains (e.g., hybrid natural/synthetic materials) to mitigate raw material risks; invest in cultural localization (e.g., MAC's Mulan co-branding) and AI-driven personalization (Lancôme's custom foundation service).

Novelty of the research is policy proposals establish cross-regional regulatory harmonization (e.g., mutual recognition of cosmetic safety standards); promote female entrepreneurship in trade through initiatives like RCEP's SME support programs.

The theoretical relevance of the thesis is established by integrating gender economics with trade theory to explain the shift from “efficiency-first” to “human-value” industrial logic.

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Introduction

Driven by globalization and the gender equality movement, the global female economy is reshaping the industrial trade landscape. As the core of the 'she economy,' the cosmetics and apparel manufacturing sectors have seen their trade volumes surpass 500 billion and 700 billion US dollars, respectively (Euromonitor International, 2023; WTO, 2023), forming a new trade network focused on female consumption. With women making 70% of household consumption decisions (Silverstein & Sayre, 2009) and accounting for 63% of labor participation (UN, 2023), the industry's logic is shifting from 'efficiency first' to 'human value.'

The Asia-Pacific region, as the core driver of women's economic activities, accounts for 41.5% of global cosmetics trade and 23.4% of clothing exports. China, the largest cosmetics importer (18.5 billion USD in 2023) and exporter (175.4 billion USD), is a key player in 'consumption upgrade' and 'industry transformation.' South Korea has boosted its cosmetics exports by 60% over five years through the export of K-Beauty, with products reaching 120 countries. Southeast Asian countries, including Vietnam (with an 8.2% growth rate in clothing exports), are diverting orders to lower-cost markets, forming a tiered pattern of 'European and American R&D-Asian manufacturing-emerging market processing.'

According to the 2024 trade data, China's knitted clothing exports grew by 4% to \$73.06 billion, while woven clothing exports fell by 3.3%, with prices dropping by 7.6% and 15%, respectively. These figures reflect changes in consumer spending power and the impact of cross-border e-commerce. Meanwhile, the cosmetics trade deficit narrowed, with imports down 9.0% and exports up 10.8%, indicating the growing competitiveness of domestic brands.

Women's consumption has shifted from 'function satisfaction' to 'value resonance,' with 65% of consumers prioritizing brand value (McKinsey, 2023). In the cosmetics industry, over 65% of women are part of the 'ingredient-focused' consumer group, driving L'Oréal to invest 1.03 billion euros annually in R&D for patented ingredients, resulting in a 40% premium on high-end products in the Asia-Pacific region. The fashion industry is experiencing a decline in fast fashion and a rise in slow fashion, with sustainable brand

Eileen Fisher seeing a 15% increase in annual sales and a 280% increase in organic cotton purchases over five years (World Bank, 2023).

Digital technology is reshaping the trade chain: TikTok Female e-commerce users place an average of 32 orders annually, and live streaming has shortened the overseas launch cycle for cosmetics from 18 months to just 6 months; on Xiaohongshu, user-generated content (UGC) has boosted Amazon's sales by 300%; ZARA's 3D virtual fitting technology has increased online try-on rates by 50% and reduced return rates by 20%. Cultural exports are building trade barriers: Korean dramas have boosted Southeast Asian sales of lipsticks by 200%, and the Paris Fashion Week has influenced 60% of global procurement decisions.

Chain vulnerabilities have become more apparent: the price of shea butter has risen by 40% over four years, affecting 70% of skincare product costs, while fluctuations in cotton prices have increased costs by 25%, necessitating a dual supply chain strategy. The EU's CBAM (Common Agricultural and Food Market Access) has raised the cost of polyester clothing exports from China by 12%, compelling a 3 billion yuan green upgrade. High technical barriers: there are 37 differences in sunscreen standards between China and the US, and new Chinese regulations have led to compliance costs for small and medium-sized brands surging by 200-500%. India's 'local procurement $\geq 30\%$ ' policy has forced H&M to invest an additional 45%. Emerging markets present paradoxes: in India, cosmetics account for 12% of the market, with 65% growth driven by local brands; in Africa, 70% of clothing consumption is second-hand, and China's 'cross-border' second-hand clothing transformation' has increased by 150% annually.

Emerging markets are brimming with opportunities: Vietnam has secured 15% of ZARA's orders through the Regional Comprehensive Economic Partnership (RCEP), Saudi Arabia's cosmetics market is growing by 18% annually, and African designer brands have seen a 220% increase in exports. Technology is driving innovation: blockchain traceability has boosted product trust by 40%, AI predictions have reduced clothing inventory turnover to 21 days, and 3D-printed custom bikinis have cut costs by 30%. ESG is becoming a breakthrough: in the EU, the penetration rate of clothing rental services is 28%, reducing emissions by 40%; Aesop's recyclable packaging has boosted sales in the Asia-Pacific region by 25% and reduced waste by 60%.

This study takes "trade scale-structure-competitiveness" as the dimension, and verifies the positive correlation between female labor force participation rate and cosmetics export through gravity model (coefficient = 0.72, $p < 0.01$). It compares the "culture empowerment" and "manufacturing driven" models of China and South Korea, and tracks the cross-border path of new consumer brands.

The target of research is the transformative impact of the global female economy on international trade within the cosmetics and garment manufacturing industries, examining how female economic empowerment reshapes trade scales, regional patterns, and industrial competitiveness.

The goal of work is to study :

- 1 How female consumers demand dynamics (e.g., personalized products, sustainable consumption) drive trade growth and structural shifts in both sectors;
- 2 The mechanisms through which female consumption behaviors (e.g., social media-driven purchases, cross-border e-commerce) influence market access and brand strategies;
- 3 The challenges and opportunities arising from gender-driven trade transformations, including supply chain resilience and regulatory adaptability.

The novelty of this research is:

- 1 Industry strategies – adopt dual supply chains (e.g., hybrid natural/synthetic materials) to mitigate raw material risks; invest in cultural localization (e.g., MAC's Mulan co-branding) and AI-driven personalization (Lancôme's custom foundation service).
- 2 Policy proposals – establish cross-regional regulatory harmonization (e.g., mutual recognition of cosmetic safety standards); promote female entrepreneurship in trade through initiatives like RCEP's SME support programs.

The trade transformation driven by the women's economy is fundamentally a fusion of industrial logic and individual needs. Companies need to balance R&D with cultural narratives, building resilient supply chains. Future competition will focus on technological ethics, global governance collaboration, and women's empowerment. As 3D printing and blockchain bridge the gap between large-scale production and personalized demand, only by anchoring in women's value can we build an inclusive new business civilization. Understanding the women's economy is key to understanding the future direction of global trade.

Chapter 1 Overview of the global female economy

1.1 Concept and characteristics of the female economy

The female economy, namely the "she economy", is a unique economic form formed based on the enhancement of women's consumption ability and economic status. In the current global economic landscape, the female economy, as an emerging and powerful force, is profoundly influencing the development and trade trends of numerous industries [24]. The concept of the "she economy", proposed by economist Ms. Shi Qingqi and included in the newly announced Chinese words by the Ministry of Education in August 2007, refers to the unique economic circle and phenomena formed around women's income, financial management, and consumption with the improvement of women's economic and social status [1].

With the development of society, women's participation in the economic field has been continuously increasing. They have achieved remarkable accomplishments in employment, entrepreneurship, etc., thus obtaining more independent economic income. This economic independence gives women greater say and decision-making power in the consumer market. A series of economic activities and phenomena formed around female consumption constitute the scope of the female economy. From a macro perspective, the female economy encompasses multiple industrial fields, including but not limited to beauty, fashion, health, education, finance, as shown in Figure 1.

These industries, by meeting women's needs in different aspects, form a huge and interconnected economic system. Michael J Silverstein and Kate Sayre (2009) pointed out in *The Female Economy* that women, as consumers, control a huge consumer market. They control consumer spending of \$20 trillion, and this figure is likely to grow to \$28 trillion in the next five years. Women's dominant position in consumption decision-making drives the world economy, thus forming economic phenomena with female consumption as the core, which can be regarded as an important part of the female economy [11].

Global Female Consumer Spending (2024)

Share of \$85 Trillion Global Consumption



Female Spending by Category (\$32 Trillion Total)

Female Spending by Category (\$32 Trillion Total)

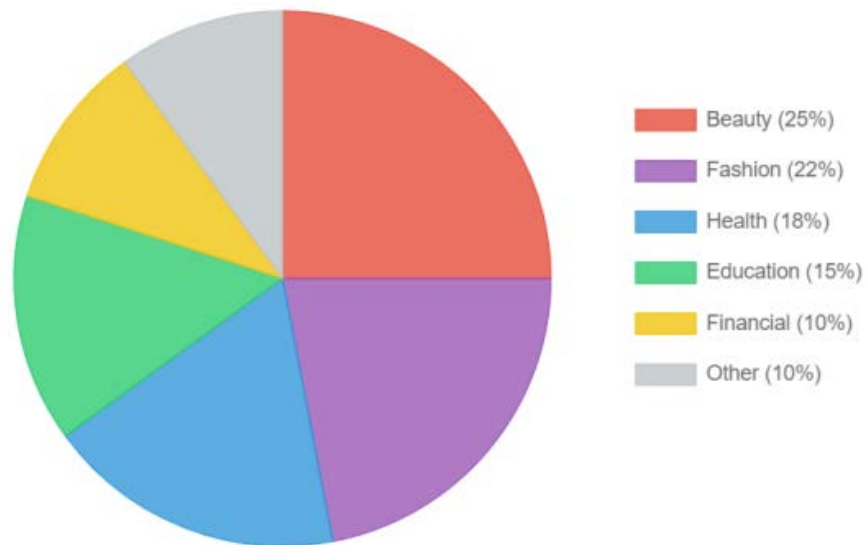


Figure 1 – Global female consumer spending as a percentage of 2024 [33]

For example, women's demand for beauty and skincare has promoted the development of the cosmetics industry, and their pursuit of fashion has driven the prosperity of the garment manufacturing industry. At the same time, women's needs in health management, education and training, and investment and financing have also prompted related industries to continuously innovate and develop to meet the increasingly diverse needs of women.

From a micro-level analysis, the female economy is not only reflected in the influence of consumption behavior but also extends to multiple economic aspects such as production and investment. In the wave of entrepreneurship, an increasing number of women, with their keen market insight and unique innovative thinking, have engaged in the business field. Take the Internet industry as an example. Many female entrepreneurs have seized emerging

opportunities such as e-commerce live streaming and content creation to build brands and business models with distinct female characteristics.

The Xiaohongshu platform, initially founded by female entrepreneurs, entered the market with beauty and fashion sharing, accurately targeting the needs of female users. Now, it has evolved into a comprehensive social e-commerce platform covering all areas of lifestyle, attracting a vast number of female users to participate in content creation and consumption, thus forming a unique "her economy" ecological closed loop. In the job market, women are gradually breaking through the gender barriers of traditional occupations and standing out in fields such as technology, finance, and law, which have traditionally been dominated by men. Data from Goldman Sachs shows that globally, the proportion of women in senior management positions in the financial industry is increasing year by year.

These professional women, with their professional capabilities, have accumulated considerable wealth, thereby influencing the landscape of the investment market. They tend to favor diversified investment portfolios. In addition to traditional investments in real estate and funds, they show significant interest in green financial products related to environmental protection and sustainable development, driving the innovation and optimization of the product structure in the financial market. From the perspective of consumer psychology, the decision-making process of female consumers is often more meticulous and emphasizes emotional experiences. Compared with mere product functions, they attach greater importance to the stories behind brands, brand values, and the emotional resonance with themselves.

For instance, Pat McGrath Labs, an internationally renowned high-end cosmetics brand, has its founder, Pat McGrath, infuse the brand with the essence of her legendary career in makeup artistry. By telling professional and innovative brand stories, it has precisely captured the hearts of female consumers worldwide. Even with high product prices, its products remain in short supply. Meanwhile, female consumers are enthusiastic about sharing their consumption experiences on social media, creating a powerful word-of-mouth communication effect. This "social consumption" model not only rapidly enhances brand awareness but also forces enterprises to continuously improve product quality and service levels. At the social and cultural level, the rise of the female economy has had far-

reaching impacts. It has broken the traditional gender division of labor model, prompting society to redefine female roles. With the enhancement of women's status in the economic field, the economic decision-making model within families has also transformed.

An increasing number of families are adopting a joint decision-making model, and women have gained more say in family financial management, education planning, and other aspects. Moreover, the development of the female economy has promoted the dissemination of the concept of gender equality, inspiring more women to pursue self-actualization, forming a virtuous cycle and further promoting the sustainable development of the social economy [35]. In summary, the female economy, with its unique vitality and creativity, has become an indispensable and crucial force in global economic development, continuously rewriting the rules and landscape of the business world.

Women's consumption demands are extremely diverse. In the cosmetics field, women not only pay attention to the basic functions of products, such as moisturizing, whitening, and anti-wrinkle, but also have high requirements for product ingredients, brand images, and packaging designs. For example, with the increasing attention of consumers to natural and organic ingredients, more and more cosmetics brands are launching products with plant extracts, natural oils, etc. as the main ingredients. In the garment manufacturing industry, women's demands for clothing cover various categories such as daily wear, workwear, casual wear, and evening dresses, and their preferences for styles, materials, and colors also vary. This diversified demand requires enterprises to continuously innovate products and segment the market to meet the consumption needs of different female groups.

In addition, the diversification of female consumption demands is also reflected in the extension and integration of consumption scenarios. Take the maternal and infant consumption as an example. The demands of young mothers have long exceeded basic products such as milk powder and diapers, and have expanded into service fields such as postpartum rehabilitation, parent-child photography, and maternal and infant tourism.

According to data from iResearch, the scale of China's maternal and infant service market exceeded one trillion yuan in 2023, with the annual growth rate of sub - sectors such as maternity centers and early education courses exceeding 20% (figure 2).

China Maternal & Child Services Market (2020-2024)

Market Size and Growth Rate Trends

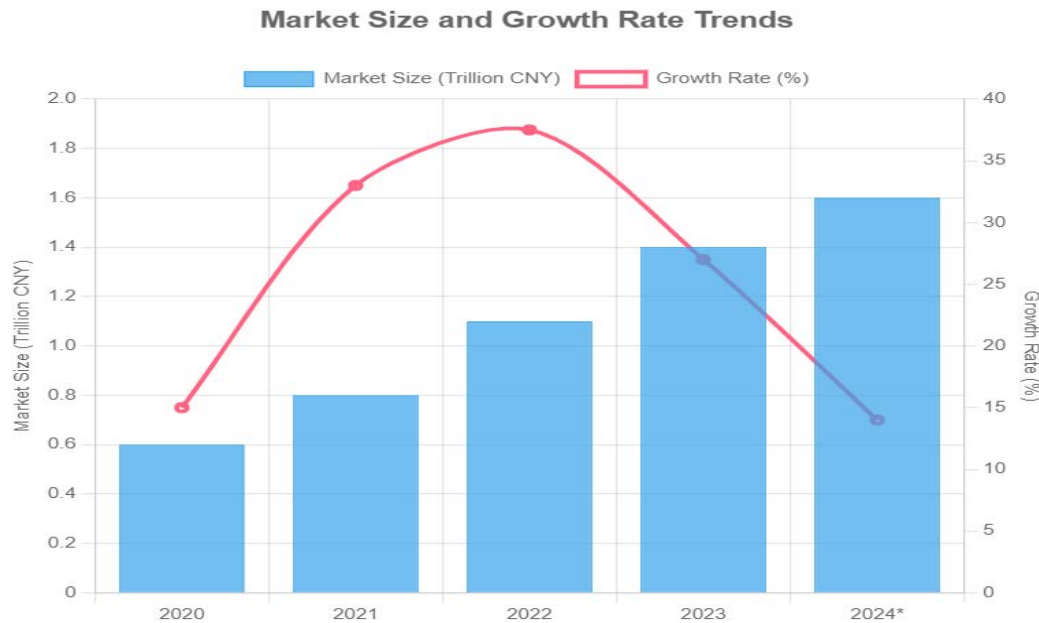


Figure 2 – Market size and growth rate of China's maternal and infant services [34]

Meanwhile, female consumers are enthusiastic about the cross - border integration of different consumption scenarios. For instance, in the fitness consumption area, in addition to sports equipment and fitness courses, peripheral consumption such as sports - themed coffee and healthy light meals has emerged, giving rise to composite consumption scenarios like "fitness + social interaction + catering", which create more business opportunities for the market. In terms of consumption levels, there is a trend of female demands upgrading from material satisfaction to spiritual consumption.

Besides the demand for physical goods, women's willingness to consume in the fields of culture, entertainment, and self - improvement has been continuously increasing. Statistics show that female users account for more than 65% of online education platforms, actively participating in language learning, art training, workplace skills courses, etc. In the cultural consumption field, female audiences play a crucial role in the markets of dramas and stand - up comedy shows. Data from Damai in 2023 indicates that female users contributed 73% of the box - office revenue of stand - up comedy performances. This upgrade in consumption levels has prompted the cultural and education industries to

continuously optimize their product structures and launch more personalized and high - quality services to meet the growing spiritual needs of female consumers.

At the same time, with the progress of social concepts, female consumption concepts are undergoing profound changes. Concepts such as sustainable consumption and rational consumption have gradually gained popularity. An increasing number of women give priority to the environmental attributes, cost - performance, and practicality of products when shopping. Data from the second - hand trading platform Zhuanzhuan shows that the proportion of female users in second - hand luxury goods and maternal and infant products transactions has been rising year by year, reflecting a more rational consumption attitude. In the field of environmental protection - related consumption, female consumers have a significantly higher acceptance of products made from degradable materials and low - carbon lifestyle services than male consumers, driving enterprises to increase investment in green technology research and development and accelerating the sustainable transformation of industries.

Compared with men, women are more likely to be influenced by emotional factors during the consumption process. They pay more attention to the emotional value conveyed by products and the cultural connotations contained in brands. For example, a cosmetic with a unique design concept or associated with an emotional story is more likely to attract the attention of female consumers. When choosing clothing, women may choose to buy a piece of clothing due to emotional factors such as the sense of confidence, comfort, or the fit with their own image that it brings. This emotional tendency in consumption requires enterprises to pay more attention to the integration of emotional elements in product design, marketing promotion, etc., and trigger emotional resonance among female consumers through brand stories, advertising, and other means, so as to improve the market competitiveness of products.

Emotional marketing has demonstrated strong vitality in the era of social media. Take Perfect Diary as an example. The brand created the persona of "ingredient enthusiasts", told stories about laboratory research and development, and published a large number of real user experiences and emotional sharing on platforms such as Xiaohongshu and Douyin, quickly establishing an emotional connection with young female consumers. Its animal -

themed eyeshadow palette series, with the theme of protecting endangered animals, combined product sales with a sense of public welfare. It sold over one million units in the first month of its launch. The emotional interaction between the brand and users has formed a powerful word - of - mouth effect. Data shows that Perfect Diary's customer repurchase rate is as high as 40%, far exceeding the industry average. Female consumers also tend to integrate consumption behavior with social and emotional needs. For example, Starbucks launched products such as "best - friend cups" and "festival - limited gift boxes". By creating a warm and sharing emotional atmosphere, these products stimulate female consumers' desire for social interaction and purchasing impulse. In the beauty industry, brands initiate online activities such as the "best - friend challenge" and "mother - daughter beauty interaction", encouraging female users to share beautiful moments of using products.

This not only enhances user stickiness but also significantly increases brand exposure through emotional social communication. Statistics show that such emotion - driven social marketing activities can increase a brand's social media interaction volume by 3 to 5 times. In addition, creating emotional scenarios has become an important means for enterprises to attract female consumers. In the maternal and infant industry, Kidsland stores create warm parent - child interaction spaces, set up picture - book reading areas, play experience areas, etc., transforming the shopping scene into an emotional experience scene. This enables mothers to feel the wonderful time of accompanying their children during the consumption process, thereby increasing the time spent on consumption and the frequency of purchases. Data shows that the average customer transaction value in Kidsland stores exceeds 500 yuan, significantly higher than that of traditional maternal and infant stores. This strategy of integrating emotions into the consumption scenario effectively meets female consumers' pursuit of emotional value and creates higher commercial value for enterprises.

Women often refer to the opinions and suggestions of others during the consumption decision-making process. Word-of-mouth communication has an important influence among female consumer groups. For example, when purchasing cosmetics, women may learn about the usage experience and evaluation of products from their friends, colleagues, or beauty bloggers on social media. For clothing brands, word-of-mouth communication among consumers can effectively affect brand awareness and reputation. Therefore,

enterprises should attach great importance to product quality and user experience, win the trust and praise of female consumers by providing high-quality products and services, and then expand brand influence through word-of-mouth communication to attract more potential consumers.

In the era of the vigorous development of social media, word-of-mouth communication has broken through the limitations of traditional interpersonal communication and exhibits the characteristic of fission-like diffusion. Take Xiaohongshu as an example. More than 80% of the platform's users are women, and tens of thousands of consumption-related notes are shared every day. A domestic skincare brand adopted a strategy involving real reviews from ordinary users and in-depth promotion by beauty influencers. After publishing over 100,000 product experience notes on Xiaohongshu, the brand's search volume surged by 500% within three months, driving a 300% increase in online sales. This kind of word-of-mouth content based on real user experiences is more persuasive than traditional advertisements and can quickly create consumption hotspots among female consumers. User-generated content (UGC) has become the core driving force behind word-of-mouth communication. Female consumers are enthusiastic about sharing their shopping experiences, dressing tips, and lifestyles on social platforms.

These contents not only satisfy their desire for self-expression but also provide important decision-making references for other consumers. For instance, on the Douyin platform, topics such as "Learn Dressing from Bloggers" and "Unboxing Reviews of Good Products" have garnered over 10 billion views each. A large number of female users discover and are attracted to related products through watching these shared videos. According to surveys, 76% of female consumers indicate that user reviews on social media significantly influence their purchasing decisions, and positive word-of-mouth recommendations can increase product conversion rates by more than 40%. Word-of-mouth communication has far-reaching implications for long-term brand building. Good word-of-mouth not only drives short-term sales growth but also helps establish a reliable image of the brand in the minds of female consumers. Take the Japanese skincare brand SK-II as an example. Its classic product, "Facial Treatment Essence," has become a holy grail in skincare among Asian women through word-of-mouth. The brand continuously launches

themed marketing campaigns such as "Change Destiny," encouraging female users to share their stories of transformation and growth after using the product. These authentic emotional stories spread widely on social platforms, further enhancing the brand's emotional value and user loyalty. Data shows that the repeat purchase cycle of SK-II users has been shortened by 20%, and the brand's premium ability ranks at the forefront among similar products. For enterprises, establishing a comprehensive word-of-mouth management system and actively guiding positive word-of-mouth communication has become a key strategy for gaining a competitive edge in the female consumer market.

With the popularization of Internet technology and the development of e-commerce, women have gradually become the main force in online consumption. The convenience of online shopping, the rich product selection, and diverse promotional activities have attracted a large number of female consumers. Whether it is cosmetics or clothing, women are more inclined to purchase through online platforms. In addition, female Internet users are also very active in using mobile Internet. They browse product information and place orders through mobile applications, providing broad space for enterprises to carry out mobile marketing. At the same time, women also pay more attention to social interaction during online consumption. For example, they share shopping experiences and evaluate products on shopping platforms, and this social consumption behavior further promotes the development of the female economy in the online field.

In addition, female netizens are also extremely active in their use of mobile Internet. They browse product information and place orders anytime and anywhere through mobile applications, which provides vast opportunities for enterprises to carry out mobile marketing. Take Pinduoduo as an example. The platform has launched exclusive mobile-only activities such as "10 Billion Yuan Subsidy" and "Limited-Time Flash Sale", precisely attracting female users. Data shows that female users on Pinduoduo spend an average of 45 minutes per day on the platform, which is higher than the industry average. Short-video platforms like Douyin and Kuaishou also enable female consumers to make purchasing decisions during fragmented time periods through the convenient chain of "watching videos - viewing live streams - placing orders". In 2023, female users on Douyin e-commerce placed an average of 32 orders per person per year, and mobile consumption accounted for

more than 95%, demonstrating the strong penetration of mobile shopping among female consumers. At the same time, female consumers also attach great importance to social interaction during online shopping. They share shopping experiences and evaluate products on e-commerce platforms. This socialized consumption behavior further promotes the development of the female economy in the online field. The social e-commerce platform Xiaohongshu has built an ecosystem for female consumers to communicate and share through its "product recommendation notes + community interaction" model. More than 90% of the notes on the platform are related to consumption content, and users can directly jump to the product purchase page while browsing the notes, forming a closed-loop of "discovery - sharing - purchase". In addition, live-streaming e-commerce, as an emerging form of online consumption, is deeply loved by female users. According to data from Taobao Live, female viewers accounted for 76% of the total audience in 2023. In the live-streaming rooms of top influencers such as Li Jiaqi, known as the "Lipstick King", the proportion of female fans has remained above 85% for a long time. Through real-time interaction, product demonstrations, and time-limited discounts, influencers stimulate the purchasing impulse of female consumers. The transaction volume of a single live-streaming session often exceeds tens of millions of yuan, making live-streaming e-commerce a powerful engine for the growth of online consumption.

1.2 Trade analysis of the cosmetics industry

In recent years, the trade scale of the global cosmetics industry has shown a continuous growth trend, as shown in figure 3. According to relevant statistical data, the sales of the global cosmetics market have been continuously rising, and the corresponding international trade volume has also been expanding. This is mainly due to the development of the global economy, the improvement of people's living standards, and the increasing pursuit of beauty. There are differences in the scale of the cosmetics market in different regions. The Asia-Pacific region, Europe, and North America are the main cosmetics consumption markets in the world and also important trading regions.

Year	Market Size (USD Billion)	Growth Rate
2019	429	+4.3%
2020	433	+1.0% (COVID Impact)
2021	483	+11.5%
2022	512	+6.0%
2023	525.5	+2.6%

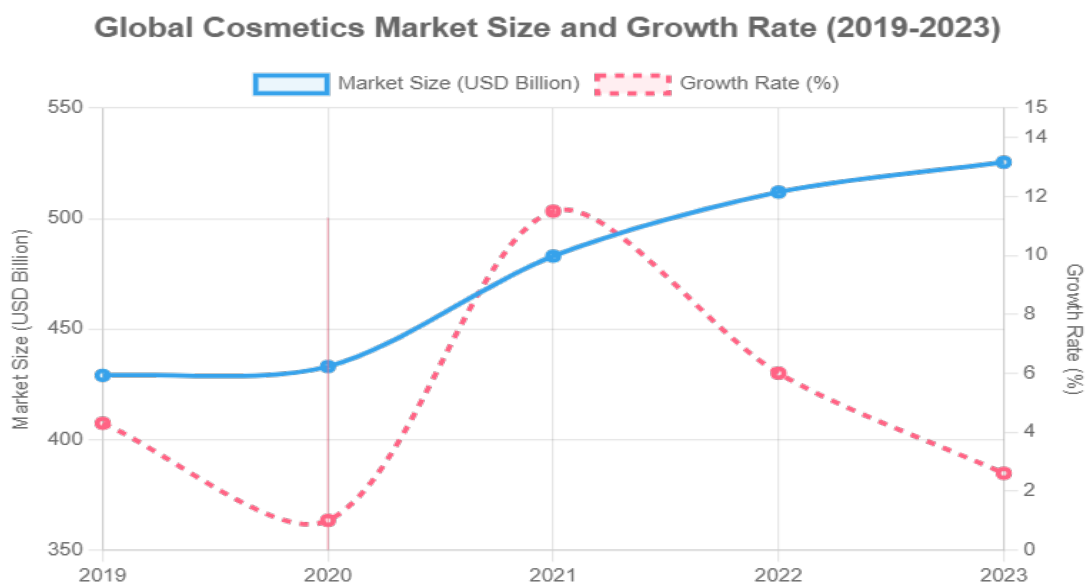


Figure 3 – Global Cosmetics Market Size and Growth Rate 2019-2023 [35]

As shown in Figure 4, due to its large population, rapid economic growth, and increasing attention of consumers to beauty and skincare, the Asia-Pacific region has become an important driving force for the growth of the global cosmetics market.

From a specific data perspective, reports from Euromonitor International show that in 2023, the global cosmetics market size reached \$525.5 billion, representing a year - on - year growth of 5.8%, with international trade accounting for more than 35% of the total. The Asia - Pacific region plays a crucial role in global cosmetics trade. In 2023, the region's cosmetics market size reached \$218 billion, accounting for 41.5% of the global market share. As the largest cosmetics consumer in the Asia - Pacific region, China's cosmetics retail sales reached 498 [43]. 1 billion yuan in 2023, with imports as high as \$18.5 billion. Imported products cover various categories such as high - end skincare and color cosmetics, mainly sourced from South Korea, Japan, and France.

Region	Market Share	Key Countries
Asia-Pacific	41.5%	China (23%), Japan (8%), South Korea (5%)
Europe	28%	France, Germany, UK, Italy
North America	22%	USA (19%), Canada
Other Regions	8.5%	Latin America, Middle East, Africa

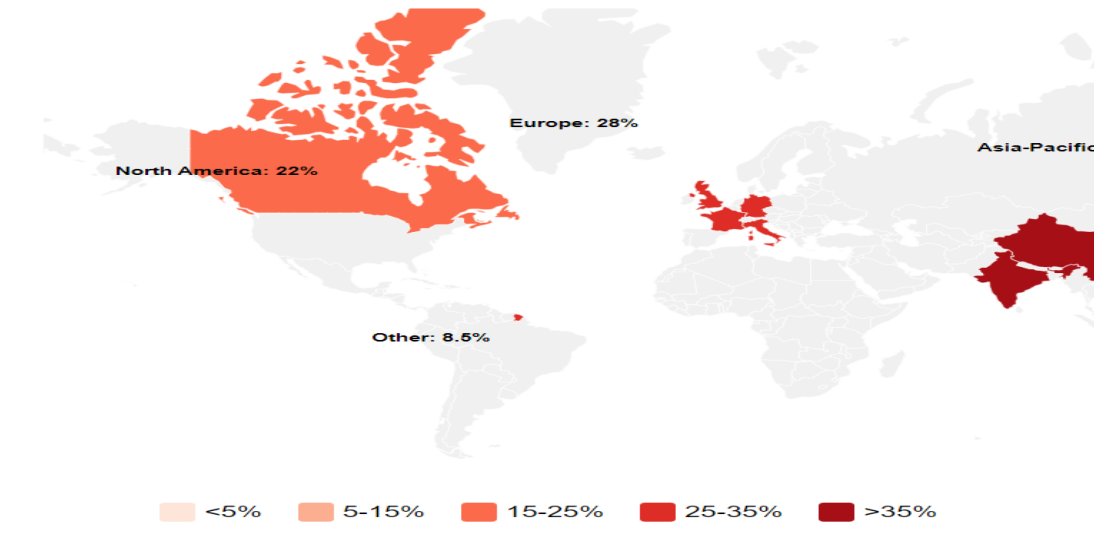


Figure 4 – Global Cosmetics Consumption Regional Distribution in 2023 [36]

Thanks to the global spread of K - Beauty culture, South Korea's cosmetics exports reached \$8.2 billion in 2023, a year - on - year increase of 12%. Products like facial masks and cushion foundations are popular in Asian and European - American markets, as shown in figure 5. Europe also plays a significant role in global cosmetics trade. As the birthplace of high - end cosmetics brands, cosmetics enterprises in countries such as France, Germany, and Italy have profound historical heritage and technical advantages. French cosmetics are renowned worldwide for their perfume and skincare brands. In 2023, France's cosmetics exports reached 14.5 billion euros. Brands like Lancôme and Dior distribute their products worldwide through a global sales network. Cosmetics trade within Europe is also very active. Cosmetics imports and exports among EU member states account for the majority of regional trade. Convenient logistics and unified industry standards promote the prosperity of intra - regional trade. In North America, the United States is one of the largest cosmetics consumer markets globally. In 2023, its market size reached \$123 billion.

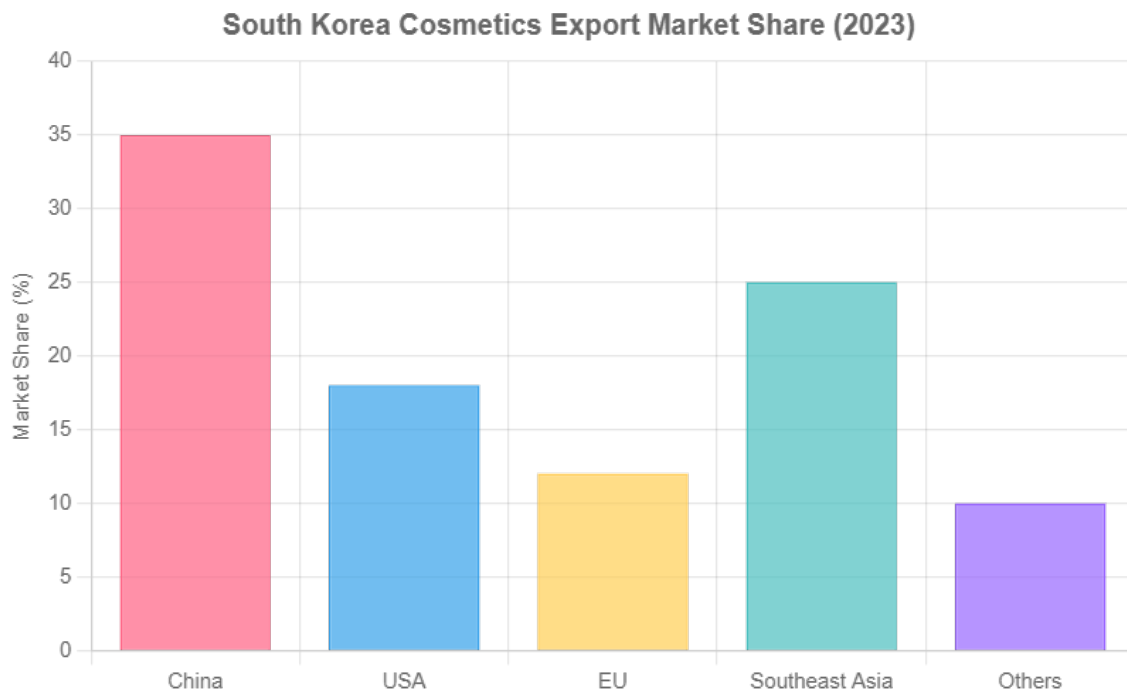


Table 5 – Proportion of South Korean Cosmetics exports and major markets in 2023 [37]

Local American cosmetics brands such as Estée Lauder and L'Oréal USA have a high global market share, while also importing a large number of specialty cosmetics from Europe and Asia. Additionally, the Canadian cosmetics market has maintained steady growth, with natural and organic cosmetics being a highlight of its trade. Local brands, by emphasizing the naturalness of raw materials and environmental protection concepts, have gained recognition not only in the North American market but also gradually expanded into European and Asian markets. The cosmetics trade in emerging markets such as the Middle East and Latin America is also rapidly rising. With local economic development and changing consumer attitudes, the demand for color cosmetics, perfumes, and other products is increasing continuously, injecting new impetus into the sustained expansion of the global cosmetics trade scale.

Trade trends:

1 Rise of emerging markets: With the rapid development of emerging economies, such as China, India, Brazil, and other countries, the potential of their cosmetics markets is gradually being released. The middle class in these countries is expanding, and their consumption ability is increasing. The demand for cosmetics is not only growing in quantity but also has higher requirements for quality and brands. Taking China as an example, in

recent years, the scale of China's cosmetics market has continued to grow, becoming an important market that global cosmetics enterprises are competing for. At the same time, local cosmetics brands in these emerging market countries are also growing and gradually emerging in the international market, promoting changes in the global cosmetics trade pattern.

2 Rapid growth of online trade: With the popularization of the Internet and e-commerce, online trade of cosmetics has shown explosive growth. Consumers are more inclined to purchase cosmetics through online platforms, which is not only convenient but also allows them to obtain more product information and discounts. Major cosmetics brands are increasing their investment in the e-commerce field and expanding online sales channels. At the same time, the development of cross-border e-commerce provides a new platform for the international trade of cosmetics, enabling consumers to more easily purchase cosmetics products from different countries, further promoting the development of global cosmetics trade.

3 Sustainable development becoming a trend: Against the backdrop of increasing global environmental awareness, consumers have higher requirements for the sustainability of cosmetics. They pay more attention to the source of cosmetics ingredients, the environmental friendliness of the production process, and the recyclability of product packaging. Therefore, some cosmetics brands that focus on sustainable development are favored by consumers, and their share in trade is gradually increasing. For example, some brands use natural and organic ingredients, reduce the use of chemical additives, and adopt environmentally friendly packaging materials to meet consumers' needs for sustainable development. This trend also prompts cosmetics enterprises to continuously adjust their product strategies in international trade to adapt to market changes.

South Korea occupies an important position in the global cosmetics industry, and its cosmetics exports rank among the top in the world. South Korean cosmetics attract global consumers with their innovative product concepts, high-quality products, and unique elements of the Korean Wave culture. Through network analysis research, it is found that the world export value of South Korean cosmetics ranked 16th in 2006 and rose to the 3rd place in 2016. Although the overall influence in terms of network centrality did not change

much between 2006 and 2016, the significant improvement in the export status indicates that the competitiveness of South Korean cosmetics in the global market is constantly increasing [3]. The success of South Korea's cosmetics industry benefits from various factors, including the government's support policies for the cosmetics industry, strong R&D capabilities, and effective marketing strategies. South Korean cosmetics enterprises focus on product R&D and innovation, continuously launch new products that meet consumers' needs, and enhance the popularity and influence of South Korean cosmetics brands by leveraging the spread of the Korean Wave culture, such as Korean dramas and Korean entertainment stars.

The United States is one of the largest cosmetics consumption markets in the world and also an important cosmetics exporter. In the United States, cosmetics are regulated by the *Food, Drug, and Cosmetic Act* and the *Fair Packaging and Labeling Act*. Therefore, except for color additives, cosmetic ingredients do not require pre-market approval. However, they must not be adulterated or mislabeled [4]. The US cosmetics industry has diversified characteristics and covers many internationally renowned brands. These brands have a wide sales network and a large number of loyal consumers globally. US cosmetics enterprises are in a leading position in R&D investment, focus on the combination of technology and beauty, and continuously launch innovative products with high-tech content. For example, some brands have achieved remarkable scientific research results in the fields of anti-aging and skin repair and have applied them to their products. In addition, the perfect market system and developed marketing channels in the United States provide strong support for the international trade of cosmetics.

As a whole, the European Union has a long history and profound heritage in the cosmetics industry. The cosmetics industries of countries such as France, Germany, and Italy have high international popularity and influence. France is famous for its fashionable and high-end cosmetics brands, such as Chanel, Dior, etc. These brands not only represent high-quality products but also carry the unique fashion culture of France. German cosmetics focus on the scientific nature and rigor of products and have advantages in the R&D and production of skincare products. The regulations and standards for cosmetics in EU countries are relatively strict, which not only protects consumers' rights and interests to a

certain extent but also prompts EU cosmetics enterprises to continuously improve product quality to meet strict regulatory requirements. However, these strict regulations also form a certain technical barrier for cosmetics from other countries to enter the EU market.

There are differences in the regulations and standards for cosmetics in different countries and regions, which have an important impact on the international trade of the cosmetics industry. For example, the European Union has formulated strict cosmetics regulations, with detailed provisions on cosmetic ingredients, safety assessments, labels, etc. The US Food and Drug Administration (FDA) also strictly supervises the production and sales of cosmetics. These regulations and standards aim to protect consumers' health and safety, but they also increase the difficulty for cosmetics enterprises to enter the international market. Enterprises need to invest more time and cost to meet the regulatory requirements of different countries and regions. Otherwise, they may face risks such as product recalls and sales bans.

In the highly competitive cosmetics market environment, brands and marketing are key factors affecting trade. Well-known brands often have higher market recognition and consumer loyalty, enabling them to obtain a larger market share in international trade. Cosmetics enterprises enhance brand awareness and influence through various means such as advertising, celebrity endorsements, and social media marketing. For example, some internationally renowned cosmetics brands invite globally famous stars as brand ambassadors to attract consumers to purchase products through the influence of these stars. In addition, enterprises also pay attention to participating in international cosmetics exhibitions, holding new product launch events, etc., to display brand images and product advantages and expand the international market.

Consumers' demands for cosmetics are constantly changing, and they have higher requirements for product efficacy, ingredients, texture, etc. Therefore, product innovation and R&D capabilities have become important factors for cosmetics enterprises to gain a competitive advantage in international trade. Enterprises need to continuously invest in R&D to develop products with unique efficacy and high quality. For example, with the increasing demand for natural and organic cosmetics among consumers, enterprises are increasing their research and application of natural ingredients and launching a series of

cosmetics products with natural plant extracts as the main ingredients. At the same time, some enterprises are also researching and developing intelligent cosmetics, such as beauty instruments with skin monitoring functions combined with cosmetics, to meet consumers' needs for high-tech beauty products.

1.3 Trade analysis of the garment manufacturing industry

The trade scale of the global garment manufacturing industry is huge (figure 6). As a necessity of people's lives, the international trade volume of clothing has always remained at a high level. With the growth of the global population and the improvement of people's living standards, the demand for clothing is also increasing, driving the continuous expansion of the trade scale of the garment manufacturing industry. Different types of clothing, such as men's wear, women's wear, and children's wear, all occupy a certain share in international trade.



Figure 6 – Global clothing trade volume and proportion of women's clothing [38]

Among them, the women's wear market accounts for a relatively large proportion in clothing trade due to the large number of female consumers and their diverse consumption

demands. At the same time, the trade of the garment manufacturing industry involves multiple links such as raw material procurement, production processing, and sales, forming a huge industrial chain.

In terms of data, according to statistics from the World Trade Organization (WTO), the global clothing trade volume reached approximately \$750 billion in 2023, with an average annual growth rate of about 3.2% over the past five years. Women's wear dominates the market, accounting for about 55% of the total trade volume. Take Inditex, the parent company of the fast - fashion giant ZARA, as an example.

In 2023, women's wear sales accounted for 62% of the group's total sales, reaching 24 billion euros, and its products were sold to more than 180 countries and regions around the world, fully demonstrating the significance of the women's wear market in global clothing trade. The children's wear market has also shown a strong growth momentum. With the gradual recovery of the global fertility rate and parents' increasing requirements for the quality of children's clothing, the global children's wear trade volume reached \$120 billion in 2023, with an annual growth rate of 5.1%, higher than the overall growth rate of the clothing industry.

In terms of regional trade, Asia is the world's largest clothing export region. Countries such as China, Vietnam, and Bangladesh have become important global clothing manufacturing and export bases thanks to their abundant labor resources and complete industrial supporting facilities.

Table 1 – Export volume and growth rate of major garment exporting countries in 2023 [39]

Country	Export, billion dollars	Growth rate, %
China	175.4	+1.2
Vietnam	44.0	+8.2
Italy	43.0	+3.5
USA (import)	18.0	-0.5

In 2023, China's clothing export volume reached \$175.4 billion, accounting for 23.4% of the global total clothing export volume, covering a full range of products from high - end fashion to mass - market fast - fashion clothing. Vietnam has risen rapidly in recent years. In 2023, its clothing export volume reached \$44 billion, a year - on - year increase of 8.2%,

and its share in the European and American markets has been continuously expanding. International brands such as Nike and Adidas have set up numerous subcontracting factories in Vietnam. Europe is an important clothing consumption and trade region. Countries like Italy and France are renowned for high - end fashion design and manufacturing. Italy's clothing export volume reached 32 billion euros in 2023, and the fashion trends released at Milan Fashion Week have a profound impact on global clothing consumption trends. Meanwhile, clothing trade within the European Union is very active. The unified tariff policy and convenient logistics system have promoted the free flow of clothing within the region. In North America, the United States is the world's largest clothing importer. In 2023, its clothing import volume reached a staggering \$180 billion. Although local brands such as Gap and Levi's enjoy high popularity in the global market, a large amount of basic - style clothing still relies on imports from Asia.

From the perspective of the industrial chain, the upstream of the trade in the clothing manufacturing industry involves the international trade of raw materials such as cotton and chemical fibers. Take cotton as an example. The United States, India, and Brazil are the world's major cotton exporters. The global cotton trade volume reached 12 million tons in 2023, and these raw materials are distributed through trade to major clothing - producing countries such as China and Vietnam. In the mid - stream production and processing link, multinational clothing enterprises reduce costs by globally distributing production bases.

For instance, H&M has established factories in many regions of Asia and Africa, leveraging local labor advantages for production before selling the finished products to the global market. In the downstream sales link, the rise of e - commerce platforms has significantly transformed the clothing trade model. Platforms like Amazon and Alibaba have broken down geographical barriers. In 2023, the proportion of global online clothing sales in total sales increased to 32%, accelerating the global circulation of clothing products and further driving the expansion of the trade scale of the clothing manufacturing industry [45].

Trade trends:

1 Influence of the fast fashion trend. the fast fashion model has rapidly risen in the global clothing market, having a profound impact on the trade of the garment manufacturing industry. Fast fashion brands attract a large number of consumers with their fast product

update speed, fashionable styles, and relatively affordable prices. These brands can quickly capture fashion trends and transform them into products and launch them into the market in a short time. For example, fast fashion brands such as ZARA and H&M have numerous stores globally, and their products occupy a certain share in international clothing trade. The development of the fast fashion model prompts garment manufacturing enterprises to improve production efficiency and optimize supply chain management to adapt to the rapidly changing market demand.

2 Growth of sustainable development demands. Similar to the cosmetics industry, the garment manufacturing industry also faces increasing requirements for sustainable development. Consumers are paying more and more attention to environmentally friendly and sustainable clothing products. They hope to buy clothing made from environmentally friendly fabrics and produced in an environmentally friendly process. Some international organizations and brands have launched sustainable clothing initiatives, promoting the transformation of the entire industry towards sustainable development. For example, some brands use environmentally friendly fabrics such as organic cotton and recycled fibers to make clothing and pay attention to energy conservation and emission reduction during the production process to reduce the impact on the environment. This trend of sustainable development is gradually emerging in international clothing trade, and consumers are more inclined to purchase clothing products with sustainable development certifications.

3 Accelerated digital transformation. With the development of information technology, the digital transformation process of the garment manufacturing industry is accelerating. From design, production to sales, digital technologies are being introduced in all aspects. In the design link, designers use computer-aided design software for clothing style design, improving design efficiency and accuracy. In the production link, the application of digital production equipment and intelligent manufacturing systems has realized the automation and intelligence of the production process, improving production efficiency and product quality. In the sales link, the development of e-commerce platforms has broken through geographical limitations, allowing consumers to purchase clothing products from all over the world through the Internet. Digital transformation not only

enhances the competitiveness of garment manufacturing enterprises but also brings new opportunities and challenges to international clothing trade.

China is one of the largest garment production and export countries in the world. China's garment manufacturing industry has a complete industrial chain, with strong production capabilities in all aspects from raw material supply, textile printing and dyeing to garment processing and manufacturing. Chinese clothing has strong competitiveness in the international market with its rich styles and high cost-effectiveness. In recent years, Chinese garment enterprises have made certain progress in brand building and product innovation, and some local brands are gradually entering the international market. At the same time, China's garment manufacturing industry has certain advantages in labor costs, industrial cluster advantages, etc., but also faces challenges such as fluctuations in raw material prices and trade frictions. Due to the availability of raw materials and low-wage labor, Southeast Asia is expected to become the next hot spot in textile and garment trade. Therefore, many Chinese industrial groups hope to obtain comparative business advantages by investing in manufacturing locations in Southeast Asia [5].

India's garment manufacturing industry also occupies an important position in global trade. India has rich textile raw material resources, such as cotton, providing a good foundation for garment manufacturing. Indian clothing is loved by international consumers for its unique ethnic style and exquisite handicraft. Especially some clothing products with traditional Indian characteristics, such as sarees, have high international popularity. In addition, the relatively low labor cost in India gives Indian clothing a certain price competitiveness. However, India's garment manufacturing industry still needs to be further improved in production technology, infrastructure, etc., to enhance its competitiveness in the international market.

The garment manufacturing industry in EU countries is known for its high-end and fashionable clothing brands. Countries such as France and Italy are world fashion capitals, with many internationally renowned clothing brands, such as Louis Vuitton, Gucci, etc. These brands occupy a high-end position in the global clothing market with their exquisite craftsmanship, unique designs, and high-quality products. The garment manufacturing in EU countries pays attention to design innovation and quality control and has an important

influence in leading fashion trends. At the same time, the garment industry in EU countries also faces challenges such as high labor costs and fierce market competition. Therefore, some enterprises outsource the production link to countries and regions with lower labor costs to reduce production costs.

Trade policies and trade barriers have a significant impact on the international trade of the garment manufacturing industry. To protect their domestic garment industries, countries may adopt trade protection measures such as tariffs, quotas, and anti - dumping actions. For example, some countries impose high tariffs on imported clothing to increase the prices of imported garments, thereby safeguarding the market share of domestic garment enterprises. In addition, some countries also set up technical trade barriers, such as strict requirements for the quality standards and environmental protection standards of clothing. For garment enterprises in exporting countries, they need to meet these standards to enter the market of these countries, which increases trade costs and difficulties.

The garment industry highly depends on changes in fashion trends and consumer demands. Consumers' preferences for clothing styles, colors, materials, etc., change rapidly. Garment enterprises need to promptly capture these changes and adjust their product design and production plans. For instance, fashion trends each year influence the direction of clothing design. Enterprises need to launch corresponding clothing products according to the popular trends to meet consumer demands. If enterprises fail to keep up with changes in fashion trends and consumer demands in a timely manner, their products may experience poor sales, affecting their international trade business.

Some developing countries, such as Bangladesh and Vietnam, have obvious advantages in labor costs. Bangladesh has a large labor force with relatively low labor costs, enabling it to carry out large - scale production at a low cost in the garment manufacturing industry and attract purchasers with price advantages in the international market [6]. Vietnam is the same. The relatively low labor cost has become an important part of the competitiveness of its garment exports, promoting the rapid development of its garment industry and helping it gain a certain share in global garment trade.

However, labor quality is also crucial for the trade competitiveness of the garment manufacturing industry. In developed countries like Germany, although labor costs are high,

the overall quality of the labor force is relatively high. Workers can accurately execute complex processes during the garment - making process, ensuring product quality and production efficiency. The high - quality labor force gives German garment enterprises an advantage in producing high - end and customized clothing products. These products often have high added values and can obtain higher profits in the international market.

Chapter 2 Impact of global female economy on cosmetics and garment manufacturing industries

2.1 The role of female consumers' demands in promoting industry trade

Regardless of which historical period we look back on, women's innate love for cosmetics has undoubtedly spanned thousands of years. Cosmetics have always been highly favored by women, and they are willing to spend a large amount of money on purchasing them. In today's increasingly competitive economic society, the consumption demands of female consumers directly drive the continuous expansion of the cosmetics market. Scholars have studied and analyzed the psychological characteristics of female college students in China. They have adopted methods such as literature research and case studies of consumption behavior [7]. The conclusion of the article is that the characteristics of female consumption behavior include a preference for exploratory experiential shopping and online shopping, and there is a lack of rationality in consumption. Female college students account for a large proportion among students globally. During this period, due to physical or psychological reasons, women will become obsessed with cosmetics. In some countries, wearing makeup is even an expression of etiquette and is more like a social identity attribute. Emerging cosmetics companies will also launch various types of cosmetics suitable for low-income and low-consumption groups. The huge market demand promotes the high-quality development of small and medium-sized enterprises. For example, Procter & Gamble acquired Company L to meet consumers' growing demand for natural and organic menstrual products (figure 7). The owner of the brand is the Is This Is company, and the products of the L brand mainly include cosmetics-related products such as organic cotton tampons, sanitary napkins, panty liners, and wet wipes. This measure fully reflects the company's emphasis on the demands of female consumers and the driving role of female consumers' demands in the trade of the cosmetics industry.

With the improvement of women's consumption ability, while pursuing beauty, female consumers have put forward higher requirements for the quality, efficacy, and safety of cosmetics. This prompts cosmetics companies to increase their investment in research

and development and launch innovative products that better meet the needs of female consumers. Some scholars have studied the factors influencing the purchase patterns of environmentally friendly cosmetics among female consumers in Mauritius and used methods such as data simplification techniques and multiple regression analysis [8]. The study found that women's purchase patterns focus on environmental protection.

Procter & Gamble Market Share Change After Acquiring Company L



Figure 7 – Procter & Gamble's market share before and after the acquisition of Company L [40]

Cosmetics are influenced by factors such as lifestyle, health status, economic level, and price sensitivity. Women's willingness to purchase environmentally friendly cosmetics is gradually increasing.

With female consumers' pursuit of environmental protection and green cosmetics, enterprises have begun to develop and produce more environmentally friendly cosmetics. The characteristic that female consumers are willing to draw on the consumption experiences of others also prompts enterprises to pay more attention to word-of-mouth marketing and user experience, thus driving product innovation and improvement. Female consumers' increasing attention to health and the environment has led to a growing demand for organic cosmetics. As stated in "Factors Influencing Pakistani Women's Behavior in Purchasing Organic Cosmetics," due to the advantages of organic cosmetics in terms of health and environmental protection in Pakistan, consumers' preferences are rapidly shifting towards organic cosmetics. This demand prompts cosmetics companies to increase their investment in the research and development of natural and organic ingredients. Enterprises

need to find safer and more effective natural ingredients to meet female consumers' pursuit of healthy cosmetics. For example, effective ingredients extracted from plants, such as various flower extracts and herbal extracts, are not only gentle on the skin but also have specific skin care effects, such as antioxidant, moisturizing, and soothing effects.

When purchasing cosmetics, female consumers often pay more attention to the brand's popularity and reputation. Therefore, cosmetics companies enhance brand influence through brand building and marketing promotion to attract more female consumers. During the pandemic, online sales have shown strong momentum. The popularity of the Internet enables women to purchase cosmetics brands from all over the world without going out. Even for expensive cosmetics, payment methods such as installment payments and credit card overdrafts in advance allow women with average incomes to achieve freedom in cosmetics consumption. For example, South Korean cosmetics companies have enhanced the brand influence and export competitiveness of Korean cosmetics by spreading brand culture and implementing localization strategies in the host country. At the same time, South Korea's extremely developed plastic surgery industry also makes female consumers more inclined to Korean cosmetics. Word-of-mouth communication also plays an important role in the promotion of brand influence. A good reputation can establish a positive brand image and make consumers trust the brand. The study found that in Indonesia, the cosmetics industry is developing rapidly, and word-of-mouth and brand image (such as the "Beauty Cosmetics" brand) have an important impact on consumers' purchase decisions [9]. If female consumers have a good experience using a certain cosmetics brand, they will recommend the brand to people around them through word-of-mouth, thus enhancing the brand's image and influence.

With the popularization of the Internet and women's increasing pursuit of the beauty of clothing, female consumers' sensitivity to fashion is also constantly increasing, and their dressing often leads fashion trends. This prompts garment manufacturing enterprises to pay attention to fashion trends and launch clothing products that conform to fashion trends. In order to meet female consumers' demand for fashion, garment manufacturing enterprises need to continuously innovate in design, improve product quality, and enhance brand image, thus promoting the development of the garment manufacturing industry. In the garment

manufacturing industry, the word-of-mouth of female consumers can increase brand awareness. As a world-renowned clothing brand, Zara attracts young female consumers through marketing strategies such as "more styles, fewer quantities, affordable prices, and rapid updates," in which word-of-mouth communication plays an important role. By sharing their love for Zara clothing and purchase experiences, consumers let more people know about the brand, thus increasing brand awareness. Global garment manufacturers conduct market research to understand female consumers' preferences for different styles, colors, and patterns and carry out targeted design innovations. To meet the personalized needs of female consumers, they provide garment customization services. Big data technology is used to collect information such as female consumers' body shape and style preferences, and modular design is adopted to combine large-scale production with personalized customization [10]. Most companies have established online customization platforms to allow consumers to participate in the design process and choose fabrics, styles, colors, etc., to improve consumers' participation and satisfaction.

When purchasing clothing, female consumers often pay more attention to style, color, and quality. Their needs are diverse, including not only daily wear but also the need for clothing for special occasions. This increases the market demand for the garment manufacturing industry, prompting enterprises to continue to expand production scale and improve production efficiency. And according to the psychological characteristics of female consumers, they shape a unique brand image and brand concept. Create a fashionable, elegant, confident, and free brand image to attract the attention of female consumers. Through channels such as advertising and social media, they spread brand concepts and values, improve brand awareness and reputation, and further promote female consumption. At the same time, we provide high-quality pre-sales, in-sales, and after-sales services to enhance consumers' trust and loyalty to the brand. Establish a professional customer service team to promptly answer customers' questions and concerns. Provide free maintenance services, product selection suggestions, return and exchange services, etc., to enhance consumers' shopping experience, and also ensure a certain return rate. For example, the European Union is an important region for China's textile and garment exports. In the post-quota era, China's textile and garment exports will face the test of various trade protection

measures in the European Union. In order to meet the needs of female consumers in the EU market, garment manufacturing enterprises in various countries need to continuously improve product quality, strengthen brand building, and enhance competitiveness.

Female consumers have high requirements for the quality and comfort of clothing, which prompts garment manufacturing enterprises to continuously increase their investment in technological innovation and research and development to improve product quality and added value. At the same time, female consumers' attention to environmental protection and sustainable development is also constantly increasing, which prompts garment manufacturing enterprises to adopt more environmentally friendly materials and production processes and promotes the industrial upgrading of the garment manufacturing industry. For example, in the international competition and industrial upgrading strategies of the global garment industry, national-level data shows that from 2001 to 2007, with the intensification of competition, countries have invested more funds in the import of garment and textile manufacturing machinery, indicating that countries have invested resources in process upgrading. Enterprises improve production efficiency and product quality by introducing advanced intelligent manufacturing technologies. By using automated production lines, robots, and other equipment, they reduce manual operations and lower production costs [11]. At the same time, technologies such as big data and the Internet of Things are used to achieve intelligent management of the production process, improving production flexibility and response speed. The anti-counterfeiting and traceability functions of blockchain are used to ensure the quality and traceability of clothing. Consumers can understand information such as the production process and raw material sources of clothing by scanning QR codes, enhancing their trust in products. At the same time, blockchain technology can also help enterprises optimize supply chain management and improve the transparency and efficiency of the supply chain.

The consumption demands of female consumers play an important role in the trade of the cosmetics industry and the garment manufacturing industry. Their demands drive the expansion of the global cosmetics and garment manufacturing markets, promote product innovation and brand influence, not only lead fashion trends but also increase market demand and promote industrial upgrading. Therefore, cosmetics enterprises and garment

manufacturing enterprises should fully pay attention to the needs of female consumers, continuously introduce new products, and enhance brand images to meet the needs of female consumers, thus promoting the development of international trade in the global cosmetics and garment manufacturing industries.

2.2 Impact of female consumers' behavior on markets of two industries

The increasingly prominent status of consumers has brought a comprehensive impact on the cosmetics industry. In terms of products, they show the characteristics of diversification and personalization, and customization services have also emerged. There is an acceleration in the layout of online channels. By leveraging e-commerce platforms and new marketing methods, the industry can promote growth and achieve precise strategic adjustments. In terms of quality and safety, enterprises are encouraged to strictly control quality and safety, and at the same time, industry supervision should be strengthened. Meanwhile, new consumption trends such as environmental protection and men's cosmetics have emerged, expanding the new space and boundaries of industry development, reshaping the pattern of the cosmetics industry, and driving its continuous transformation and development [45; 50] In today's highly competitive market economy environment, exploring female consumption behavior is of great practical significance for cosmetics marketing and even becomes a decisive factor for the growth of corporate economic benefits [12].

From the perspective of product innovation, the pursuit of personalization and differentiation by female consumers has prompted cosmetic companies to launch customized products. For example, IT Cosmetics, a brand under the L'Oréal Group, has introduced a "customized foundation" service. Consumers can input information such as their skin tone, skin type, and coverage needs through an online platform. The brand uses AI algorithms and big data analysis to formulate exclusive foundation products for consumers. This customized service not only meets female consumers' demand for unique products but also significantly enhances brand loyalty. Statistics show that within six months of the launch of this customized service, IT Cosmetics' repurchase rate increased by 25%,

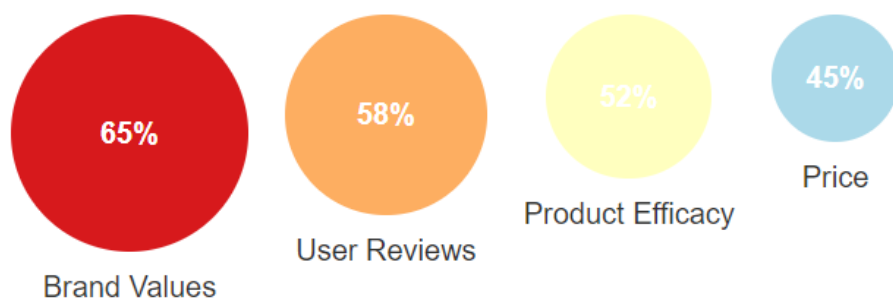
and the average order value rose by 30%. In addition, with the rise of "ingredient-conscious" female consumers, the attention to the transparency and efficacy of product ingredients has reached an unprecedented level. Brands such as Estée Lauder and Lancôme have launched product lines with ingredient visualization, clearly marking the core ingredients and their scientific basis on product packaging and in promotions to meet consumers' demands for product professionalism and safety. In terms of online channel expansion, live - streaming e - commerce has become a new growth engine for the cosmetics industry. Take the Chinese market as an example. The scale of beauty live - streaming e - commerce on platforms like Douyin and Taobao has been increasing year by year. In 2023, the sales of beauty products through live - streaming e - commerce in China exceeded 300 billion yuan, with female consumers contributing more than 80% of the transaction volume.

By collaborating with top influencers, brands conduct product trial demonstrations, limited - time discounts, and other activities, which can quickly increase product awareness and sales. For instance, during Florasis' exclusive live - streaming sessions in Li Jiaqi's live - streaming room, the single - session sales exceeded 100 million yuan on multiple occasions. Meanwhile, beauty tutorials, unboxing reviews, and other content on short - video platforms have also become important promotion methods for cosmetic brands. There are more than 500 million notes related to "beauty" on Xiaohongshu. Many small and medium - sized brands have achieved brand growth from scratch through grassroots recommendations and promotion by key opinion consumers (KOCs). In terms of quality and safety supervision, female consumers' emphasis on product quality and safety has forced the cosmetics industry to improve quality standards and supervision systems. In recent years, there have been numerous cases of cosmetic brands facing public outcry due to product quality issues, prompting governments around the world to strengthen supervision [61].

For example, the National Medical Products Administration of China has continuously revised the "Regulations on the Supervision and Administration of Cosmetics," putting forward stricter requirements for the safety of cosmetic raw materials, production norms, label identification, and other aspects. Enterprises have also increased their investment in quality inspection and research and development. Shiseido has established multiple research centers globally, investing a large amount of capital in raw

material screening, formula optimization, and safety testing to ensure that product quality meets consumers' high standards.

In recent years, women's consumption levels have been continuously rising. When purchasing goods, they have shifted from simply meeting material needs to pursuing psychological needs. The single sales model of cosmetics can no longer satisfy their demands, which presents both new opportunities and challenges for the cosmetics industry.



Source: McKinsey, 2023

Figure 8 – Factors influencing the purchasing decision of female consumers [12]

Enterprises need to formulate appropriate marketing strategies based on the consumption behavior of female consumers to enhance their competitiveness. For example, enterprises can gain an in-depth understanding of female consumers' needs and expectations for cosmetics, develop products that better meet their psychological needs, and improve product popularity and reputation through effective marketing means such as social media marketing and recommendations from internet celebrities [43].

Emotional marketing has emerged as a crucial strategy for enterprises to establish deep connections with female consumers. Brands tap into the emotional needs of female consumers at different life stages, closely integrating products with emotional narratives. For example, SK-II's "Change Destiny" marketing campaign centered on the stories of real female users breaking through age and career biases, paired with the brand proposition of "Life Without Limits," resonated strongly with women worldwide. During this campaign, SK-II's social media topics achieved over 1 billion views, and product sales increased by 35% year-on-year. Lancôme, on the other hand, focused on the theme of "Female

Empowerment," inviting outstanding women from various fields as brand ambassadors to convey values of confidence and independence, successfully enhancing brand recognition among high-end female consumers. The rise of community operation models has provided new avenues for precise marketing in the cosmetics industry. Enterprises establish exclusive brand communities, gathering female users with similar interests and consumption preferences, and conduct online and offline interactive activities. Perfect Diary created the "Little Wanzi" IP, which engages in daily interactions with users through WeChat communities, regularly shares makeup tutorials and product trial experiences, and hosts limited-time discount events, achieving efficient conversion from traffic to sales. Data shows that Perfect Diary's WeChat private traffic pool exceeds 20 million users, and the repurchase rate of community users is 40% higher than that of ordinary users.

Additionally, brands utilize communities to collect user feedback, which in turn guides product research, development, and improvement, forming a virtuous cycle of "user participation - product optimization - word-of-mouth dissemination." Cross-border co-branding marketing has become a popular means of attracting the attention of female consumers. Cosmetics brands collaborate with art, culture, animation, and other fields, endowing products with unique cultural connotations and artistic values. MAC's "Mulan" makeup collection, co-branded with Disney and inspired by the film *Mulan*, integrated traditional Chinese cultural elements into product designs.

Upon launch, it triggered a buying frenzy, with some popular shades selling out during the pre-sale period. The makeup gift box jointly launched by 3CE and the popular Korean webtoon *True Beauty* attracted a large number of young female consumers with the webtoon's popularity and exquisite packaging design, leading to a 200% increase in product sales during the co-branding period. Such cross-border collaborations not only enrich the cultural attributes of products but also expand brand reach to new consumer groups through cross-circle dissemination. Experiential marketing has also gradually become an important strategy in the cosmetics industry. Offline experience stores create immersive scenarios, allowing female consumers to experience the charm of products during trials. Sephora launched "Makeup Classes" in its global stores, inviting professional makeup artists to provide one-on-one makeup tutorials and product trial guidance,

enhancing brand-consumer interaction. Meanwhile, online virtual try-on technology continues to evolve. L'Oréal's AR virtual try-on application enables consumers to virtually try on lipsticks, eyeshadows, and other products in real-time via their mobile phone cameras, effectively addressing the pain point of unable to try products when shopping online and improving the consumer shopping experience and purchase conversion rate.

With the development of the economy and the popularization of higher education, women have specific directions of consumption behavior in the market segmentation of the cosmetics industry.

Classification by age:

1 Young female consumers: Young women, such as college girls, usually have more diverse needs for cosmetics and pay attention to the fashion and innovation of products. They are more inclined to try new brands and products and have higher demands for cosmetics such as eyeshadows, lipsticks, and foundations. At the same time, young women also pay more attention to the packaging design of cosmetics and like fashionable and personalized packaging styles. In terms of purchasing channels, they are more inclined to online shopping and obtain product information through social media, beauty bloggers, and other channels. Many young women try new cosmetics brands because of the recommendations of online influencers.

2 Middle-aged female consumers: Middle-aged women pay more attention to the quality and efficacy of cosmetics. They focus more on the anti-wrinkle, firming, and other effects of skin care products and have relatively less demand for decorative cosmetics. In terms of brand selection, middle-aged women are more inclined to choose well-known brands because they believe that well-known brands are more reliable. In terms of purchasing channels, they are more inclined to buy at counters to obtain professional consultation and services. Middle-aged women are also more rational in consumption and will comprehensively consider the price and cost-effectiveness of products [13].

3 Elderly female consumers: The demand of elderly women for cosmetics mainly focuses on skin care products, especially products with moisturizing and nourishing effects are favored by the elderly group. Elderly women pay more attention to the safety and mildness of products when choosing cosmetics and are more cautious about irritating

products. In terms of purchasing channels, elderly women are more inclined to traditional channels such as shopping malls and supermarkets.

Classification according to consumer psychology:

1 Consumers pursuing quality: Such female consumers pay great attention to the quality and brand of cosmetics when purchasing. They are willing to pay higher prices for high-quality cosmetics, believing that you get what you pay for and firmly believing that brands are a guarantee of product quality. They are reluctant to take risks to try new products. For example, high-end cosmetics brands such as Lancôme and Estée Lauder are favored by female consumers who pursue quality. When purchasing cosmetics, these consumers will carefully study the ingredients, efficacy, and other information of products and choose the products that best suit them.

2 Consumers pursuing fashion: Female consumers who pursue fashion are very sensitive to the fashion and popularity trends of cosmetics. They keep up with fashion trends and purchase the latest cosmetics products. Such consumers usually pay attention to fashion magazines, beauty bloggers, and other channels to obtain the latest cosmetics information. Cosmetics are the focus of their attention, such as popular eyeshadow colors, lipstick styles, and so on.

3 Consumers focusing on cost-effectiveness: Female consumers who focus on cost-effectiveness will consider the price and quality of cosmetics when purchasing. They hope to buy cosmetics products with reasonable prices and good quality. Such consumers usually compare the prices and efficacy of different brands and products and choose the products with the highest cost-effectiveness. Some mass-market brands and domestic cosmetics brands may be more favored by them.

Classification by usage scenarios:

1 Daily makeup consumers: Female consumers with daily makeup needs mainly demand natural and fresh effects from cosmetics. They will choose some light liquid foundations, blushes, lipsticks, and other products to create a natural makeup look. When choosing cosmetics, these consumers will pay attention to the durability and comfort of products, hoping that cosmetics can maintain a good state in daily work and life.

2 Consumers for special occasions: Female consumers for special occasions such as weddings and banquets pay more attention to the demand for cosmetics and the stunning effects. They will choose some cosmetics products with bright colors and obvious effects, such as thick false eyelashes, shiny eyeshadows, and so on. At the same time, such consumers also pay more attention to the quality and brand of cosmetics, hoping to show their best side on special occasions.

Classification by region:

1 Urban female consumers: Urban female consumers usually have access to more cosmetics brands and information, and their demand for cosmetics is more diversified and personalized. They are inclined to choose international well-known brands and high-end products, and also pay attention to some niche brands and emerging brands. Urban female consumers have more diversified purchasing channels. In addition to traditional shopping malls and counters, they also choose online shopping, beauty stores, and other channels.

2 Rural female consumers: The demand of rural female consumers for cosmetics is relatively simple, mainly focusing on skin care products and basic cosmetics products. When choosing cosmetics, they pay more attention to the practicality and price of products. Rural female consumers are more inclined to choose domestic and local brands with relatively affordable prices. In terms of purchasing channels, rural female consumers may rely more on traditional channels such as supermarkets and grocery stores.

Classification by education level:

1 Female consumers with higher education: Female consumers with higher education usually have a deeper understanding of the ingredients and efficacy of cosmetics. When purchasing cosmetics, they pay more attention to products with scientific and professional features. Such consumers are more inclined to choose brands and products with a scientific background. At the same time, female consumers with higher education also pay more attention to the brand image and cultural connotations, hoping to show their taste and personality through the use of cosmetics [11].

2 Female consumers with lower education level: Female consumers with lower education level may pay more attention to the practicality and price of cosmetics when purchasing. They have relatively less understanding of the ingredients and functions of

cosmetics and are more inclined to choose products with a good reputation and affordable prices. In terms of brand selection, female consumers with lower education level are more inclined to choose some popular brands and local brands.

Classification by lifestyle:

1 Consumers with healthy lifestyle: Such female consumers pay attention to a healthy and natural lifestyle, and their demand for cosmetics also tends to be natural, organic, and green products. They will choose cosmetics without harmful chemical substances, such as skin care products made from natural plant extracts and organic makeup products. Such consumers also pay attention to the environmental protection of cosmetics and hope to choose environmentally friendly products.

2 Consumers with busy lifestyle: Female consumers with a busy lifestyle pay more attention to the performance of cosmetics, such as convenience, practicality, and efficiency. They will choose products that are easy to use and can be applied quickly, such as cushion foundations and eyebrow pencils. When purchasing cosmetics, such consumers also pay more attention to the durability of products, hoping that cosmetics can maintain a good state in busy work and life.

The "consumption upgrading" of global female consumers is still deepening and spreading, and "aesthetic upgrading" will be the next stage of consumption upgrading. Products that are more in line with consumers' aesthetic preferences and emotional resonance will be more popular. In the context of "consumption upgrading", "upgraded generation" women under 30 years old are influenced by the information explosion and real-time synchronous experience brought by social media (such as social networks, live broadcasts, and short videos). Their consumption concepts show trends of emphasizing cost-effectiveness, aestheticism, and personalization. The "upgraded generation" of female clothing consumption highlights this change trend. From focusing on practicality to chasing trends and sharing experiences in purchasing behavior, designer brands, other niche brands, and personal brands are quite popular. Rational consumption through multiple comparisons and purchasing the most suitable clothing at the most affordable price has become the slogan of the new generation of female consumers. In order to meet the needs of female consumers for personalization and aesthetics, garment manufacturing enterprises not only increase their

investment in design innovation but also actively cultivate and introduce excellent fashion designers, always pay attention to fashion trends, and design clothing products with unique styles in combination with the preferences and needs of female consumers. Limited edition and customized clothing are launched to meet female consumers' pursuit of uniqueness.

Product quality is the lifeline of a company and an important factor to attract female consumers. Garment manufacturing enterprises have also started to strengthen quality management and strictly control all aspects of the production process to ensure the stable and reliable quality of products. Continuously improve the production process to enhance the comfort and durability of products. With the enhancement of environmental awareness, the market demand for green clothing continues to grow. Garment manufacturing enterprises actively develop green products and adopt environmentally friendly materials and production processes to reduce environmental pollution. For example, environmentally friendly materials such as organic cotton and recycled fibers can be used to promote sustainable production methods [14].

Strengthening industrial chain cooperation is also one of the impacts of female consumers' behavior on the enterprise market. Enterprises actively cooperate with designers to jointly develop new products and explore new product concepts. Designers bring innovative design concepts and fashion elements to enterprises to enhance the competitiveness of products. At the same time, enterprises can provide production and sales channels for designers to achieve mutual benefit and win-win results. Enterprises also strengthen cooperation with suppliers to ensure the quality and stability of raw material supply. Select environmentally friendly and high-quality raw material suppliers and jointly promote the construction of a green supply chain, carry out technological innovation, and improve production efficiency and product quality. At the same time, the company is committed to expanding sales channels, cooperating with online and offline sales channels to improve the market coverage of products, and collaborating with e-commerce platforms, fashion buyers, department stores, etc. to carry out joint promotional activities to enhance brand awareness and sales, as well as brand reputation.

In the future, "aesthetic upgrading" will become the core driving force of a new round of "consumption upgrading". In the field of clothing, it will promote the further "aesthetic

upgrading" of the industrial chain and give birth to more people engaged in "beauty" related work, including fashion designers, Internet celebrities, and fashion promoters. The changes in female consumers' clothing needs prompt garment manufacturing enterprises to continuously innovate, improve product design levels and quality to meet the aesthetic needs of female consumers. This promotes the upgrading of the clothing industrial chain, and all links from raw material supply, design and R&D, production and manufacturing to sales channels need to be continuously optimized to adapt to market changes [59].

When female consumers purchase clothing, factors such as brand status, attitude, image, popularity, high-end feeling, self-esteem, and reference groups will have a positive impact on their purchasing behavior [15]. Garment manufacturing enterprises need to understand female consumers' cognition and needs for brands, formulate effective brand strategies, and improve brand awareness and reputation. For example, shape brand images through advertising, celebrity endorsements, social media marketing, etc. to enhance brand influence. At the same time, enterprises also need to pay attention to product quality and design to improve brand competitiveness. Female consumers' consumption behavior has an important impact on the cosmetics industry and the garment manufacturing industry. Enterprises need to deeply understand the needs and behavior characteristics of female consumers, formulate effective marketing strategies and product development strategies to adapt to market changes and improve enterprise competitiveness. Enterprises are also committed to establishing a coordination mechanism between brand image and product quality. One mechanism is to shape the brand image based on product quality, taking product quality as the core support of the brand image and establishing a good brand reputation through high-quality product quality. When consumers purchase products, they first care about the quality and performance of products. If the product quality does not meet the standards, it is difficult to gain consumers' long-term trust even with a good brand image [4]. The second mechanism is to improve product quality guided by the brand image. The shaping of the brand image can provide direction and motivation for the improvement of product quality. By establishing a high-end and high-quality brand image, enterprises can attract more resources to invest in product R&D and quality improvement. At the same time, the improvement of the brand image can also increase consumers' expectations for product

quality, prompting enterprises to continuously strive to improve product quality to meet consumers' needs. For example, in the strategic research on Samsung's smartphone company, product quality and electronic reputation affect consumers' purchase decisions through brand image. This shows that enterprises can improve product quality by shaping a good brand image, thus changing consumers' purchase decisions [16].

In short, when formulating brand strategies for female consumers, enterprises need to strike a balance between brand image and product quality. By clarifying brand positioning and target audiences, focusing on improving product quality, shaping a good brand image, and establishing a collaborative mechanism between brand image and product quality, enterprises can achieve sustainable brand development and win the trust and loyalty of female consumers.

Chapter 3 Challenges and opportunities in trade of cosmetics industry and garment manufacturing industry

3.1 Challenges and opportunities in trade of cosmetics industry

In the context of the vigorous development of the global female economy, the cosmetics market has become a battlefield for numerous brands to compete. International well-known cosmetics brands, with their profound brand heritage, strong R&D capabilities, and extensive market channels, occupy a significant share in the global market. Take the L'Oréal Group as an example, which owns multiple high-end brands such as Lancôme and YSL. According to the L'Oréal Group's 2023 annual report data, the group invested as much as 1.03 billion euros in R&D, continuously launching a series of products that integrate advanced technology and high-quality raw materials. For instance, Lancôme's Pure and Radiant Cream is deeply loved by consumers for its excellent anti-aging effect. At the same time, L'Oréal promotes through multiple channels such as opening counters worldwide, cooperating with large retailers, and online marketing, maintaining a leading position in the global cosmetics market [17].

Emerging local cosmetics brands are also rising rapidly. Take the Chinese brand Perfect Diary as an example. By deeply studying the skin characteristics, aesthetic preferences, and consumption habits of local consumers, it has launched a series of color cosmetics products that meet the needs of the local market. According to relevant market research institution data, Perfect Diary has cooperated with more than 5,000 beauty bloggers on social media platforms such as Xiaohongshu to promote products. Through precise marketing on social media, it has occupied an important share in the domestic color cosmetics market in just a few years [18]. This competitive situation has brought great pressure to the trade of the cosmetics industry. Each brand needs to continuously innovate and optimize marketing strategies to stand out in the fierce market competition.

The intensification of homogeneous competition has become a prominent challenge in the industry's development. With the diversification of consumer demands, numerous brands have targeted niche markets, but the homogenization of product functions and

marketing models has become increasingly severe. In the skincare product sector, anti-aging and whitening products dominate the market. A large number of brands have launched serums, face creams, and other products with highly similar core ingredients and efficacy claims. For example, due to the popularity of niacinamide for its whitening effect, hundreds of skincare products containing niacinamide have emerged, ranging from high-end luxury brands to affordable domestic products. The product formulations and promotional language are largely identical, making it difficult for consumers to distinguish between brands. In terms of marketing, most brands rely on models such as influencer endorsements and live-streaming sales. Excessively similar marketing approaches reduce brand distinctiveness, plunging market competition into a vicious cycle of price wars. The increase in raw material and operational costs further squeezes corporate profit margins.

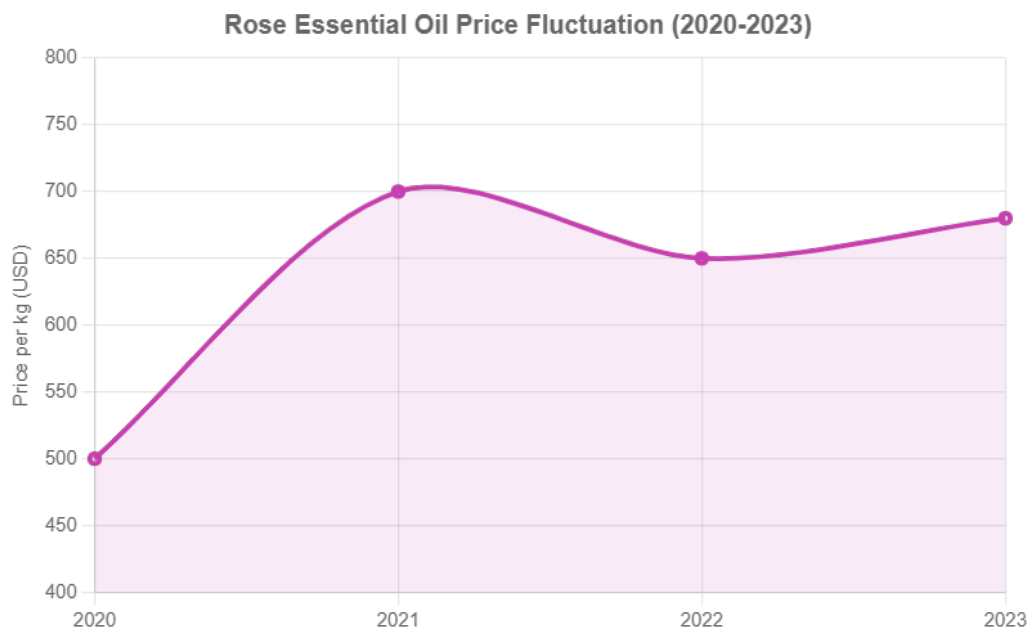


Figure 9 – Rose essential oil price fluctuation [41]

In recent years, global raw material market prices have fluctuated wildly, and the prices of raw materials required for cosmetics production, such as natural plant extracts and high-quality oils, have continued to rise. Take shea butter as an example. Affected by climate disasters and regional policies, its price increased by 40% in 2023 compared to 2020, directly increasing the production costs of skincare products. At the same time, online marketing costs have also skyrocketed. With the waning of traffic dividends on social media

platforms, the cost for brands to acquire users has increased significantly. Statistics show that the fees for a single collaboration with influencers on Xiaohongshu for beauty brands increased by 60% in 2023 compared to 2020. The rise in advertising costs forces companies to raise product prices, which may lead to customer loss, putting enterprises in a dilemma. Maintaining consumer loyalty has become more challenging. In the era of information overload, female consumers are exposed to an increasing amount of brand information, making brand loyalty more fragile. International brands, with their historical heritage and brand images, enjoy high trust among consumers. However, emerging brands continuously attract consumers to try new products through rapid product iterations and flexible marketing strategies.

For instance, Florasis has attracted a large number of young consumers with its design inspired by Eastern aesthetics and cultural connotations. But once other brands launch more distinctive products, consumers are likely to shift their attention. In addition, consumers now provide feedback on products more quickly, and the rapid spread of negative reviews on social media can severely damage a brand's reputation. An international luxury brand once faced a controversy over product ingredients, which triggered extensive discussions on social media. Within just one week, the brand's reputation score dropped by 30%, and sales declined by 15% year-on-year, highlighting the arduous task of maintaining consumer loyalty in intense competition [58].

The cosmetics industry is strictly regulated by laws and policies. Different countries and regions have different regulations on cosmetics ingredients, labels, safety testing, etc. The *Cosmetics Regulation* (EC) No 1223/2009 introduced by the European Union is one of the strictest cosmetics regulations in the world, banning the use of more than 1,300 substances and making detailed provisions on the safety assessment process of products. The US Food and Drug Administration (FDA) focuses on ensuring product safety and accurate labeling, but there are differences in the restrictions on certain ingredients compared with the European Union. For example, the European Union strictly restricts the ingredients of some hair dyes, while the FDA's regulations in this regard are relatively loose [19]. This complex and changing regulatory policy environment requires cosmetics enterprises to invest a lot of time and resources to understand and comply with local

regulatory requirements when conducting international trade. According to the relevant research of Gao and Chen (2019), a medium-sized cosmetics enterprise invests millions of dollars in regulatory affairs each year to meet the regulatory requirements of different countries [20]. Once an enterprise fails to adapt to regulatory changes in a timely manner, it may face serious consequences such as product recalls, fines, or market access bans. For example, a well-known cosmetics brand was severely fined by local regulatory authorities and ordered to recall related products due to product labels not meeting the regulatory requirements of a certain country, causing great damage to the brand's reputation.

The regulatory disparities in emerging markets further intensify the compliance challenges for enterprises. With the rapid growth of the cosmetics markets in regions such as Asia and Latin America, the regulatory systems in these areas exhibit a fragmented nature. Indonesia mandates that imported cosmetics undergo microbial testing in local laboratories, and the testing process can take several months. Brazil, on the other hand, has strict regulations regarding the language and font size for ingredient labeling on cosmetic packaging; products that fail to meet these standards are prohibited from entering the country. Such localized and specific requirements force enterprises to adjust product formulations, packaging designs, and supply chain processes for different markets. For example, in order to enter the Indian market, the South Korean company Amorepacific not only redesigned its product packaging to respect local religious and cultural taboos but also invested heavily in establishing a raw material testing system compliant with Indian regulations.

The upfront compliance costs accounted for more than 25% of the total investment. The accelerating pace of regulatory updates also poses higher challenges to enterprises. In recent years, global cosmetics regulations have entered a period of intensive revisions. The European Union updates its list of prohibited and restricted substances every two years. Since China implemented the new "Regulations on the Supervision and Administration of Cosmetics" in 2021, more than 20 supporting detailed rules have been successively introduced. In 2023, Health Canada proposed to include more nanomaterials under special supervision, requiring enterprises using related ingredients to complete a reassessment of product safety within six months. Small and medium-sized cosmetics enterprises often

struggle to keep up with policy changes due to the lack of specialized regulatory research teams. According to industry association surveys, approximately 40% of small and medium-sized enterprises experience delays in new product approval due to their failure to respond promptly to regulatory adjustments, causing them to miss the optimal product launch window.

Moreover, the technical adaptation challenges brought about by the trend of digital regulation are becoming increasingly prominent. China's electronic platform for cosmetics registration and filing requires enterprises to upload information such as 3D packaging images and raw material traceability data. The European Union's Cosmetics Digital Passport initiative, set to be implemented in 2025, mandates full traceability of product life cycle data. This not only requires enterprises to upgrade their internal management systems but also to establish digital connection mechanisms in raw material procurement, production, logistics, and other aspects. An international cosmetics group invested 80 million euros in building a blockchain traceability system to comply with the EU's new regulations. For small and medium-sized brands with profit margins generally below 15%, such compliance investments are almost unaffordable. Under the dual pressure of technology and regulations, cosmetics enterprises urgently need to establish a global compliance management system to navigate the complex and ever-changing policy environment.

The production of cosmetics highly depends on the stable supply and reasonable price of raw materials. Many cosmetics raw materials, such as plant extracts and rare minerals, are affected by various factors such as natural conditions, geopolitical situations, and market supply and demand. Take rose extract as an example. Bulgaria is one of the main rose producing regions in the world. If there are adverse weather conditions in the local area, the rose production will decline significantly, directly affecting the supply of products in the global cosmetics industry that use rose extract as a raw material. Some rare minerals from specific regions may face supply disruptions due to unstable political situations or changes in export policies in the local area.

The market demand for cosmetics raw materials continues to grow, while the supply of some raw materials is relatively limited, further exacerbating price fluctuations. Take hyaluronic acid as an example. With its extensive application in skin care products in recent

years, the market demand has increased sharply, leading to a significant increase in its price. According to market data, in the past five years, the price of hyaluronic acid has increased by more than 50% [21]. Such price fluctuations have brought great pressure to the cost control of cosmetics enterprises. Enterprises have to optimize the supply chain, search for alternative raw materials, and other means to cope with these challenges.

The vulnerability of the supply chain was fully exposed during emergencies. After the outbreak of the COVID-19 pandemic in 2020, global logistics were disrupted, and raw material transportation costs skyrocketed. As an important source of emulsifiers and lubricants in cosmetics, the maritime transportation costs of palm oil tripled during the pandemic, making it difficult for palm oil produced in Southeast Asia to be supplied smoothly to cosmetics factories in Europe, North America, and other regions. In addition, delays in international shipping left enterprises relying on imported raw materials with critically low inventories. Some small and medium-sized cosmetics manufacturers were forced to suspend production due to raw material shortages. A high-end French perfume brand had to postpone the launch of its new products due to the inability to obtain sandalwood raw materials from India in a timely manner, incurring potential sales losses of approximately 20 million euros. The research, development, and application of alternative raw materials also face numerous challenges.

When the prices of traditional raw materials are high or their supply is insufficient, enterprises attempt to use emerging raw materials as substitutes. For example, during the period of skyrocketing shea butter prices, some brands switched to argan oil as a substitute. However, alternative raw materials often lack long-term safety data accumulation, making it difficult to quickly pass regulatory reviews. Moreover, consumers have low awareness and acceptance of new raw materials, resulting in high costs for market education. A domestic brand launched a moisturizing product using algae extract as a substitute for hyaluronic acid. Although the cost was reduced by 30%, due to consumers' doubts about the efficacy of algae ingredients, the product's sales failed to meet expectations after its launch, leading to serious inventory backlogs.

Fluctuations in raw material prices also trigger a chain reaction within the industry. To shift the cost pressure, enterprises usually choose to raise product prices, but this

weakens the market competitiveness of their products. According to statistics from market research institutions, during the period of significant increases in hyaluronic acid prices, more than 60% of skin care brands raised prices one to three times, causing some price-sensitive consumers to switch to lower-priced competitors. The market share of high-end brands was also impacted by affordable products. At the same time, fluctuations in raw material prices have led enterprises to rely more on synthetic raw materials. For example, the proportion of synthetic fragrances and artificial pigments has increased, which may raise consumers' concerns about product safety and further affect brand reputation and market performance.

With the development of the global economy, the consumption ability of women in emerging market countries is constantly improving, becoming an important driving force for the growth of the cosmetics industry trade.

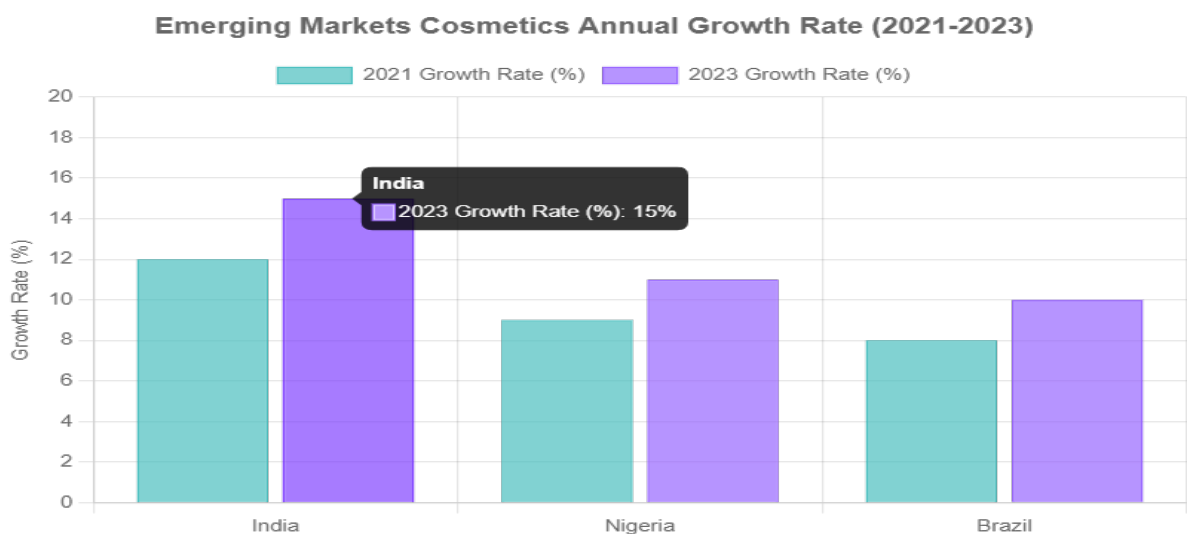


Figure 10 – Annual growth rate of cosmetics in emerging markets [43]

Take India as an example. According to Statista data, the Indian cosmetics market has maintained double-digit growth in recent years, and the market size is expected to reach \$20 billion by 2025. The rapid economic growth, accelerated urbanization process, and significant improvement in women's employment opportunities and income levels in India have led to a growing demand for cosmetics among Indian women. Their consumption concepts are gradually shifting from basic care to beauty and color cosmetics, and their

acceptance of international brands and high-end products is constantly increasing. [22] The African market also shows great potential. With the improvement of infrastructure in the African continent, the rise of e-commerce, and the enhancement of women's education levels, the demand for cosmetics among African women presents a trend of diversification and high-endization. For example, in countries like Nigeria, the market share of medium and high-end cosmetics is increasing year by year, providing broad market space for global cosmetics enterprises.

Under the influence of the global female economy, consumers' demand for cosmetics is no longer limited to basic functions but pays more attention to product quality, effectiveness, safety, and personalized experiences. Consumption upgrading has led to the continuous growth of the high-end cosmetics market. Consumers are willing to pay higher prices for products with excellent quality, unique formulas, and good reputations. For example, SK-II's Facial Treatment Essence, with its unique Pitera ingredient and remarkable skin care effects, has become a star product in the high-end skin care market and is deeply loved by consumers. In China, many SK-II enthusiasts even call the brand's masks "ex-boyfriend masks," meaning that this is a product that can make ex-boyfriends change their minds. The product's marketing strategy fully meets the needs of a large number of followers.

The rise of personalized needs has prompted cosmetics companies to launch customized product services. By using technologies such as big data analysis and artificial intelligence, enterprises can deeply understand consumers' personalized information such as skin types, skin tones, and preferences, and customize exclusive cosmetics products for consumers. For example, Lancôme has launched a customized foundation service. Consumers can upload information such as their skin tone photos through mobile applications, and Lancôme will formulate the most suitable foundation shade according to the algorithm, meeting consumers' demand for personalized products and improving consumer satisfaction and loyalty [23].

The rapid development of digital technology and the popularization of e-commerce have brought revolutionary changes to the trade of the cosmetics industry. The widespread application of the Internet and social media has made consumers' access to cosmetics

information more diversified and convenient, and also provides a platform for cosmetics enterprises to communicate and interact directly with consumers. Enterprises can release product information, share beauty knowledge, and carry out marketing activities through social media, brand official websites, online beauty communities, and other channels, attracting consumers' attention and building brand loyalty. For example, Estée Lauder posts product usage tutorials, new product previews, and other content on social media platforms such as Xiaohongshu, interacting with consumers and effectively improving brand awareness and product sales.

The rise of e-commerce platforms has greatly expanded the sales channels of cosmetics, breaking geographical restrictions and reducing the marketing and operating costs of enterprises. Consumers can easily purchase cosmetics products from all over the world through e-commerce platforms, providing broader market space and development opportunities for cosmetics enterprises, especially small and medium-sized brands. According to eMarketer data, global cosmetics e-commerce sales have maintained rapid growth in the past few years, and it is expected that by 24, e-commerce sales will account for more than 40% of the total global cosmetics sales.

3.2 Challenges and opportunities in garment manufacturing industry

The garment manufacturing industry is a highly globalized industry, with numerous garment manufacturing enterprises around the world, and the competition is extremely fierce. Asian countries such as China, India, and Bangladesh, with their abundant labor resources, complete industrial supporting facilities, and low production costs, occupy an important position in the global garment manufacturing market. For example, as the world's largest garment manufacturing country, China has a complete industrial chain, from textile raw material production to garment processing and manufacturing, and each link has strong production capabilities.

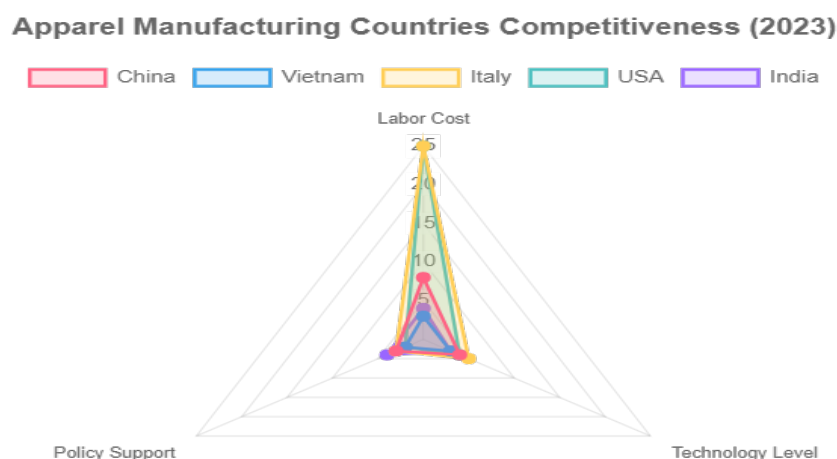


Figure 11 – Comparison of competitiveness of major garment manufacturing countries [42]

In recent years, with the increase in labor costs, fluctuations in raw material prices, and changes in the international trade environment, these traditional garment manufacturing powers are facing competition challenges from other countries and regions. Southeast Asian countries such as Vietnam and Cambodia are actively developing the garment manufacturing industry. Through providing more preferential investment policies, lower labor costs, and gradually improving infrastructure, they have attracted a large number of orders from international garment brands. At the same time, some developed countries are promoting the return of high-end garment manufacturing through technological innovation and industrial upgrading. For example, the United States' "Manufacturing Return" strategy uses advanced intelligent manufacturing technology to improve the efficiency and quality of garment production and reduce the dependence on imported clothing [25]. This global competition situation requires garment manufacturing enterprises to continuously enhance their competitiveness, optimize production processes, and reduce costs to cope with competition pressure from all sides.

The rise of emerging markets is accelerating the diversion of orders. In addition to Vietnam and Cambodia, Ethiopia has rapidly become a new favorite of fast-fashion brands, thanks to its duty-free trade agreements with European and American countries and extremely low labor costs of less than \$2 per day [52]. In 2023, H&M's order volume in

Ethiopia increased by 47% year-on-year, and the company plans to increase local production capacity to 15% of the group's total within the next five years. Leveraging its large domestic market and the policy dividends of the Regional Comprehensive Economic Partnership (RCEP), Indonesia has been actively attracting foreign investment while strongly supporting local clothing brands. ZALORA, a local fast-fashion brand in Indonesia, achieved a 32% year-on-year increase in sales in 2023. This multi-polar market landscape has led to a loss of orders for traditional manufacturing countries such as China and Bangladesh. In 2023, China's clothing export growth rate slowed to 1.2%, lower than the global average.

The technological barriers established by developed countries are delivering a devastating blow to traditional manufacturing models. Italy, relying on 3D virtual design and digital twin technologies, has reduced the sampling cycle for high-end custom clothing from two weeks to just 48 hours. These technologies also enable precise matching of customer body data, reducing the cost of single-piece customization by 30%. Smart factories in the United States have introduced AI cutting systems that can automatically optimize layout according to fabric textures, reducing fabric waste by 15% - 20%. Germany's "Clothing Industry 4.0" initiative has achieved interconnection of production equipment through the Internet of Things, bringing the costs of small-batch flexible production close to those of large-scale manufacturing. These technological innovations not only enhance the production efficiency of high-end clothing but also reshape the consumer experience, gradually nullifying the low-cost advantages that traditional manufacturing countries have relied on.

Trade protectionism has further complicated global competition. The United States has imposed tariffs of up to 25% on Chinese clothing, forcing brands like Nike and Adidas to relocate part of their production capacity to Mexico and Central American countries. The Carbon Border Adjustment Mechanism (CBAM) implemented by the European Union requires imported clothing to provide full life-cycle carbon emission data, posing stringent requirements for Asian manufacturing enterprises, which are mainly engaged in energy-intensive printing and dyeing processes. India's "Make in India" policy, through import quota restrictions and local procurement ratio requirements, protects its domestic textile and clothing industry, creating higher entry barriers for international brands looking to enter the

Indian market. These trade barriers not only increase the compliance costs for enterprises but also disrupt the global supply chain layout [57]. Small and medium-sized clothing enterprises are facing severe survival challenges in global competition. Confronted with the scale advantages and technological monopolies of leading enterprises, these SMEs struggle to afford the huge investments required for intelligent manufacturing upgrades. Take a Chinese clothing enterprise with an annual output value of 50 million yuan as an example: the investment required to introduce an automated cutting device is 8 million yuan, equivalent to 2.3 times its annual profit. Moreover, in terms of order acquisition, due to their lack of bargaining power, these enterprises are often forced to accept lower processing fees and shorter payment terms, further squeezing profit margins. Industry research shows that around 60% of small and medium-sized clothing enterprises globally have profit margins of less than 5%, and their survival risks continue to rise amidst intense global competition.

Fashion trends change rapidly, and consumers' demands for clothing styles, colors, materials, etc. are also constantly changing. Garment manufacturing enterprises need to be able to quickly capture fashion trends and adjust product design and production plans in a timely manner to meet consumer demands. However, this is not an easy task for many enterprises. On the one hand, predicting fashion trends has a certain degree of uncertainty, and enterprises may face product overstocking due to misjudging fashion trends. For example, a well-known clothing brand launched clothing styles in a certain season that failed to accurately grasp fashion trends, resulting in a large backlog of inventory and a significant decline in sales [27]. On the other hand, quickly responding to consumer demands requires enterprises to have efficient supply chain management capabilities, a strong design team, and a flexible production system. In actual operation, the supply chain of many garment manufacturing enterprises is complex, and information transmission is not smooth. The cycle from design to production and then to sales is relatively long, making it difficult to quickly adapt to market changes. For example, some traditional garment manufacturing enterprises may take several months to launch a newly designed garment on the market, and by then, market demand may have changed, resulting in product overstocking and damage to enterprise profits.

With the awakening of consumers' self-awareness, the demand for personalized products has experienced explosive growth, further increasing the difficulty for enterprises to respond. Consumers are no longer satisfied with uniform mass-produced styles and instead seek unique, customized clothing products. According to a McKinsey research report, approximately 70% of consumers globally are willing to pay a higher price for personalized clothing, especially among the younger consumer groups. In response to this trend, some enterprises have attempted to launch customization services. However, the entire process, from taking body measurements and selecting fabrics to production and delivery, places extremely high demands on the digital operation capabilities and flexible production levels of enterprises. A high-end custom clothing brand has a production cycle of up to 4 - 6 weeks, which fails to meet consumers' requirements for timeliness, resulting in a high customer churn rate. Even ZARA, a fast-fashion giant with a leading supply chain response speed in the industry, taking only 14 days from design to shelf, still struggles to fully meet the demand for in-depth personalization. Although the fast-fashion model is known for its rapid response to trends, it also faces the dual challenges of sustainability and cost. To keep up with fashion trends, fast-fashion enterprises need to frequently introduce new products, which shortens the product life cycle and increases inventory risks.

At the same time, issues such as environmental pollution and labor rights violations caused by rapid production have triggered a trust crisis among consumers towards fast-fashion brands. Data shows that in 2023, global consumers' attention to sustainable fashion increased by 45% compared to the previous year, and more and more consumers prefer to purchase environmentally friendly and recyclable clothing products [55]. For fast-fashion enterprises to transform towards sustainable development, they need to revamp the entire supply chain, including raw material procurement, production processes, and logistics distribution. This not only poses technical and financial pressures but may also affect their original rapid response advantages, leaving them in a dilemma. In addition, while the application of emerging technologies offers the possibility for enterprises to quickly respond to the market, the high threshold for technological transformation discourages many enterprises.

Technologies such as 3D virtual design and artificial intelligence prediction can help enterprises shorten the design cycle and accurately grasp fashion trends [47] but the research, development, and application of these technologies come at a high cost. For example, the upfront investment in introducing a mature 3D virtual clothing design system can reach millions of dollars, and it also requires long-term staff training. For small and medium-sized clothing enterprises with thin profit margins, it is difficult to afford such high technical investment. Moreover, the rapid iteration of technology exposes enterprises to investment risks. Once the technology is updated, the previous investment may be wasted. Therefore, how to balance technical investment and output and use emerging technologies to achieve a rapid response to consumer demand has become a pressing problem that clothing manufacturing enterprises need to solve.

The garment manufacturing industry is highly dependent on raw materials. The price fluctuations of raw materials such as cotton, chemical fibers, and leather directly affect the production costs of enterprises. In recent years, affected by factors such as global climate change, agricultural policy adjustments, and fluctuations in international crude oil prices, the prices of clothing raw materials have shown frequent fluctuations. For example, the price of cotton may rise due to production declines caused by weather disasters, and the price of chemical fibers may change with fluctuations in crude oil prices. The instability of raw material prices increases the difficulty of cost control for garment manufacturing enterprises and compresses their profit margins.

With the continuous improvement of consumers' environmental awareness, the requirements for the sustainability of clothing products are also getting higher and higher. The garment manufacturing process involves a large amount of water consumption, the use of chemical substances, and waste emissions and other environmental problems, which puts huge sustainable development pressure on enterprises. In order to meet consumers' demands for environmentally friendly products and comply with increasingly strict environmental protection regulations, enterprises need to invest more funds and technologies in green production transformation, such as using environmentally friendly materials, optimizing production processes, and reducing waste emissions. For example, a well-known clothing enterprise has invested in building sewage treatment facilities, using environmentally

friendly dyes, and launching clothing series made of recycled materials to achieve sustainable development goals. However, this undoubtedly increases the operating costs and management difficulties of enterprises.

The drastic fluctuations in raw material prices also trigger a chain reaction across the upstream and downstream of the industrial chain. When prices rise, fabric suppliers often increase product prices to shift cost pressures, leading to a significant increase in procurement costs for garment manufacturers. When prices plummet, such as the 18% year - on - year decline in cotton prices in 2023 due to a bumper global cotton harvest, although it reduces production costs in the short term, it also poses the risk of devaluation of raw material inventories. Small and medium - sized garment enterprises, lacking the ability to hedge against risks, are often severely hit by price fluctuations. Take a small and medium - sized denim garment enterprise as an example. In 2022, it stocked up a large amount of chemical fiber materials in anticipation of price increases. However, prices plummeted subsequently, resulting in inventory backlog losses exceeding 5 million yuan and directly affecting the enterprise's capital chain operation.

The transformation towards sustainable development faces dual obstacles in terms of technological research and development and market acceptance. Although environmentally friendly materials and processes such as bio - based fibers and recycled technologies for used textiles are emerging, most of these technologies are still in the laboratory stage or the initial stage of large - scale application. For example, the current mainstream chemical recycling technology for used clothing has problems such as high costs and unstable quality of recycled fibers, making the price of recycled fabrics 30% - 50% higher than that of conventional fabrics, which is difficult to popularize in the mass market. Market research shows that although 78% of consumers recognize the concept of sustainable clothing, only 32% are willing to pay a premium of more than 10% for environmental protection when making actual purchases [46].

This discrepancy between perception and behavior makes it difficult for enterprises to balance investment in the research and development of environmentally friendly products with market returns. Insufficient industry collaboration further intensifies the pressure for sustainable development. The garment industry chain covers multiple links, including raw

material cultivation, fabric production, garment manufacturing, logistics, and sales, with inconsistent environmental protection standards and implementation efforts at each link. For example, in the printing and dyeing process, some small and medium - sized enterprises lack environmental treatment equipment, and illegal discharges are difficult to eradicate. Although downstream brand owners launch environmentally friendly product lines, it is challenging to ensure the green compliance of the entire supply chain. In addition, when multinational garment enterprises globally distribute their production, they also face the challenge of differences in environmental regulations among different countries. After the wastewater discharge issues of H&M's factories in Southeast Asia were exposed, the brand's reputation was severely damaged, highlighting the complexity of managing transnational supply chains in the context of sustainable development.

Despite some uncertainties in the global economy, with the growth of the global population, the improvement of residents' income levels, and the transformation of consumption concepts, the global clothing consumption market generally shows a trend of continuous growth. This provides broad market space and development opportunities for garment manufacturing enterprises. Enterprises can meet the needs of consumers in different regions by expanding emerging markets, optimizing product structures, and enhancing brand images, and achieve business growth. For example, some garment manufacturing enterprises have designed and produced products specifically for the African market, which are loved by African consumers for their bright colors and unique styles, and have achieved good market feedback.

Especially in emerging market countries and regions such as the Asia-Pacific region, the Middle East region, and the African region, with the acceleration of urbanization and the rise of the middle class, residents' demand for clothing consumption is increasing. There is not only great growth space in quantity but also higher requirements for quality, style, brand, etc. For example, according to Euromonitor International data, the clothing consumption market in the Asia-Pacific region is expected to maintain stable growth in the coming years and become the main driving force for the growth of the global clothing consumption market [28].

The development of intelligent manufacturing technology has brought new changes and opportunities to the garment manufacturing industry. The application of advanced technologies such as automated production equipment, robotics, 3D printing technology, big data analysis, and artificial intelligence in the garment manufacturing field is gradually changing the traditional production model, improving production efficiency, reducing production costs, enhancing product quality, and strengthening the market competitiveness of enterprises (figure 12).

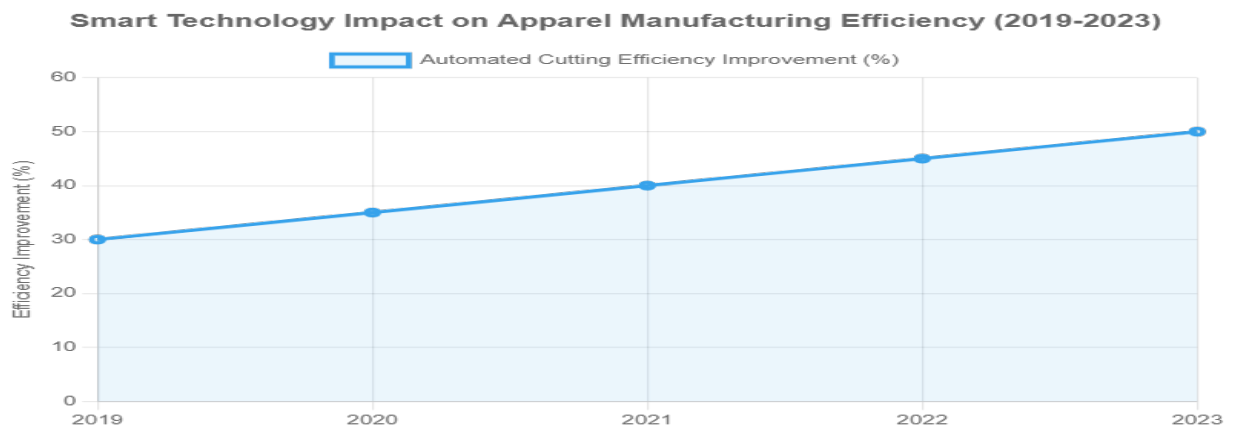


Figure 12 – Intelligent technology investment to improve the efficiency of clothing enterprises [29]

Automated cutting equipment and sewing robots can greatly improve the accuracy and speed of cutting and sewing, reducing labor costs and human errors. For example, some garment manufacturing enterprises in Japan have introduced advanced automated production equipment, which has increased production efficiency by more than 30% and reduced the defective rate to below 1% [29].

Using 3D printing technology, enterprises can quickly produce clothing samples, shorten the product development cycle, and also achieve personalized customized production. For example, some high-end clothing brands in the United States have started to use 3D printing technology to produce customized evening dresses, and it only takes a few days from design to finished products, meeting customers' needs for personalization and timeliness.

Through big data analysis and artificial intelligence technology, enterprises can deeply understand consumers' needs and behavior habits, optimize product design and

marketing strategies, and improve the market adaptability of products. For example, a clothing enterprise has analyzed consumers' purchase data on e-commerce platforms, understood consumers' preferences for certain styles and colors of clothing, and adjusted production plans accordingly, resulting in a significant increase in product sales [30]. In addition, technological innovation has also promoted the research and development and application of new garment materials, such as smart fabrics and environmentally friendly and degradable fabrics. These new materials can not only meet consumers' needs for the functionality and environmental protection of clothing but also bring new product innovation directions and market competitive advantages to garment manufacturing enterprises.

The vigorous development of e-commerce has opened up new sales channels for garment manufacturing enterprises, breaking the geographical limitations of the traditional offline sales model and enabling enterprises to directly reach consumers around the world. Through e-commerce platforms, garment manufacturing enterprises can display a rich variety of product styles, provide convenient shopping experiences, and achieve 24-hour uninterrupted sales. At the same time, e-commerce platforms also provide enterprises with big data analysis tools to help enterprises understand consumers' purchase behaviors, preferences, and demand trends, so as to accurately position the market, optimize product design, and marketing strategies. For example, a clothing enterprise has analyzed consumers' browsing records and purchase data on e-commerce platforms, discovered that consumers in a certain region have a high demand for a certain style of sportswear, and then increased the production and promotion of such products, achieving good sales performance.

The integrated development of social media and e-commerce, such as the rise of emerging marketing models like live streaming with goods and social e-commerce, has further expanded the sales channels and promotion methods of clothing products. Consumers can understand clothing product information in real-time through social media platforms, watch model try-on shows, and directly complete purchases on the platform. This interactive and highly experiential shopping method has greatly promoted the sales of clothing products. Garment manufacturing enterprises can effectively reduce marketing

costs, improve sales efficiency, and expand brand influence by actively embracing e-commerce platforms and online sales channels, and achieve rapid business growth.

In conclusion, the rise of the global female economy has become the core driving force for the development and transformation of the cosmetics and garment manufacturing industries. Female consumers, with their increasing economic independence and consumption decision-making power, not only drive the continuous expansion of the market scales of the two industries but also drive product innovation and reshape the pattern of brand influence with their diversified and personalized needs. In the cosmetics field, women's pursuit of quality, efficacy, and environmental protection prompts enterprises to increase R&D investment and accelerate product iteration and upgrading. In the garment manufacturing industry, their keen perception of fashion trends and demands for personalized and sustainable products drive enterprises to continuously optimize design, production, and supply chain management.

However, while the two industries enjoy the development opportunities brought by the female economy, they also face many challenges. The cosmetics industry needs to deal with fierce market competition, complex and changeable regulatory policies, and unstable raw material supply. The garment manufacturing industry needs to overcome global competition pressure, rapidly changing fashion trends, and urgent sustainable development requirements. At the same time, digital transformation, the rise of emerging markets, and consumption upgrading trends also bring broad development space to the two industries, such as the expansion of e-commerce channels and the rise of customized services.

In the future, cosmetics and garment manufacturing enterprises need to further deepen their research on the needs and behaviors of female consumers, take market changes as the guide, continuously enhance their innovation capabilities, optimize marketing strategies, strengthen brand building, and actively respond to various challenges and seize development opportunities. Only in this way can enterprises gain a firm foothold in the surging tide of the booming global female economy, achieve sustainable development, and further promote the coordinated prosperity of the global female economy and related industries.

Conclusion

The surge of the female economy has triggered profound transformations in the global cosmetics and apparel industries, reshaping trade dynamics, consumption behaviors, and industrial structures.

Trade data reveals industry landscape. In 2024, China's apparel exports reached 159.15 billion, a marginal 0.4% year-on-year increase, with a trade surplus of 148.71 billion. Knitted apparel exports grew by 4% to 73.06 billion, while woven apparel exports declined by 3.3% to 65.19 billion. Export prices for both categories dropped significantly, with knitted apparel down 7.6% and woven apparel down 15%, reflecting weakened international consumption and competition from low-cost cross-border e-commerce.

The cosmetics trade also showed notable trends. Total trade volume was 23.54 billion, down 3.7% year-on-year, but exports increased by 10.8% to 7.20 billion, narrowing the trade deficit. Imports, mainly from Europe, America, Japan, and South Korea (accounting for 79.9%), declined by 9.0%. Export markets were more diversified, indicating growing competitiveness of domestic cosmetics brands.

Regionally, apparel exports to Western economies grew steadily, accounting for 55.8% of total exports, with the US and EU seeing 8.7% and 4.8% growth respectively. However, exports to Belt and Road countries dropped by 4.3%. Cosmetics imports were dominated by France, Japan, South Korea, the US, and the UK, while exports targeted the US, Hong Kong, the UK, Japan, and Indonesia.

The female economy: core engine driving industry transformation. The female economy represents a paradigm shift from "efficiency-first" to "human-centric values." With women accounting for 63% of labor participation and 70% of household consumption decisions, they have rewritten the rules of the cosmetics and apparel industries.

In cosmetics, the market expanded from 280 billion in 2006 to 525.5 billion in 2023, driven by a triple transformation of "precise ingredients, scenario-based functions, and emotional value." K-Beauty exports grew by 60% in five years, and over 65% of Chinese female consumers prioritize ingredients. In the apparel industry, there is a trend of "fast fashion decline and slow fashion rise." Global apparel trade grew from 480 billion in 2006

to 750 billion in 2023, with women's apparel accounting for 55%. Brands like ZARA reduced product cycles to 14 days, while sustainable brands like Eileen Fisher grew 15% annually in the organic cotton market.

Consumption behavior reconstruction: from material consumption to value resonance. The essence of the female economy is the shift from "functional satisfaction" to "emotional identification." 65% of female consumers prioritize brand values over product features (McKinsey, 2023), leading to three new consumption paradigms.

Social media platforms like Xiaohongshu and Douyin have created a "discovery-experience-sharing" loop. 80% of female users on these platforms drove a domestic skincare brand's Amazon sales up by 300% through user-generated content. Live commerce has also thrived, with Douyin female users making 32 annual purchases on average.

Sustainable consumption values have emerged, with 78% of women favoring eco-friendly packaging. This has led to 30% of new cosmetics using biodegradable materials and apparel companies adopting organic cotton. The EU's Carbon Border Adjustment Mechanism increased Chinese synthetic fiber apparel export costs by 12%, but also spurred green technology upgrades.

Different generations of women have distinct demands. Young women drive fast fashion and makeup, middle-aged women focus on anti-aging skincare, and elderly women create niche markets for gentle products. Brands need "full lifecycle" product strategies to meet these diverse needs.

Industry challenges: transformation pressure under multiple variables. Raw material volatility is a major risk, with shea butter prices increasing 40% in four years and cotton prices fluctuating 25% annually. Geopolitical factors and regulations, such as the EU banning 1,300 cosmetic ingredients and India requiring 30% local apparel sourcing, add complexity. 60% of SMEs have profit margins below 5%, highlighting the urgency of building resilient supply chains.

The cosmetics industry faces strict regulatory disparities, with 37 differences in sunscreen filters between China and the US. New regulations in China have increased SME compliance costs by 200 - 500%. In apparel, "country of origin" labeling and digital tracking requirements, like the EU's 2025 Digital Product Passport, pose significant challenges.

Emerging markets offer opportunities but also challenges. In India, 65% of the cosmetics market is dominated by local "herbal" brands, forcing global players to invest 20% of revenue in localization. In Africa, 70% of the apparel market is second-hand, and cultural barriers are hard to overcome.

Solutions: technology empowerment and value co-creation. Digital technologies are reshaping the industry. 3D virtual design cuts haute couture costs by 30%, AI improves ingredient screening by 50%, and AR virtual try-ons boost online conversion by 40%. Sustainability has become crucial, with bio-based fibers reducing the apparel carbon footprint by 60% and refillable packaging cutting cosmetics waste by 70%.

Cultural adaptation is key to success. K-drama placements boosted lipstick sales by 200% in Southeast Asia, and Florasis' "Oriental aesthetics" commands a 50% premium in the West. Brands need to align with female values, as demonstrated by SK-II's "Change Destiny" campaign.

Future competition will focus on balancing technology and ethics, avoiding algorithmic bias in AI and big data. Collaborative global governance is needed to bridge regulatory disparities across 127 countries. Empowering women as entrepreneurs and technologists will be essential to achieve true female-centric value creation.

This study shows that the female economy has transformed the cosmetics and apparel industries in three ways: trade has shifted from Western dominance to Asian dynamism; consumption has evolved from functionality to emotional resonance; and the industry has upgraded from cost-driven to tech-enabled. For businesses, integrating the female economy's logic into strategies is key. For society, this transformation emphasizes the importance of human development in economic progress. Understanding women's values is the key to unlocking the future of global business, as the rise of the female economy represents a "human-centric" value movement.

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