

RESEARCH ARTICLE

Analysis and Investigation on the Core Competitiveness of Textile and Underwear Industry in the Mainland and Taiwan of China and Myanmar under the Global Value Chain

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Abstract: All the way in the “area”, “comprehensive economic partnership agreement” (RCEP), Association of Southeast Asian Nations (ASEAN) free trade area, the main economic corridor construction under the background of success, the mainland and Taiwan of China and southeast Asia has established the important relations of cooperation, industries are beginning to consider labor costs, raw materials, using the regional to invest policy and market comparative advantage. This paper starts from the investigation of Topline’s core competitiveness in China and Myanmar, and focuses on the analysis of lingerie industry in China and Myanmar, and the analysis of women’s underwear industry from the perspective of global value chain (GVC). Through the data analysis of the questionnaire survey, this paper summarizes the problems existing in the current situation of the industry, uses the intermediary analysis to analyze the correlation between the two variables, reveals the role of the core competitiveness of enterprises, and uses the GVC theory to analyze the problems existing in the industry of enterprises and their causes. According to relevant theories, the optimization path of enterprise value chain is put forward.

Keywords: Global value chain analysis, The questionnaire survey, Textile industry, Southeast Asia, Intermediary role

1. Introduction

Due to the advent of the era of internationalization, all industries begin to consider making use of the comparative advantages of labor costs, raw materials, policies and

markets in the region to make overseas investment. As an important source of foreign exchange in the Taiwan region, the textile industry has been attracted by preferential policies and investment opportunities since China’s

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reform and opening up in 1979. On the other hand, due to the fierce competition in the international market, it is slowly losing the advantage of high-quality and low-cost products and has become the first industry to invest in China. In the traditional textile industry, the Taiwan regional businessmen who invest in China's textile industry are mainly small and medium-sized enterprises in urgent need of transformation due to human cost factors. Because the textile industry is labor-intensive and it is difficult to upgrade research and development technology, the Taiwan regional businessmen often turn to the China and Southeast Asia and other regions with lower labor costs. Labor-intensive enterprises, especially textile enterprises, will cause low production efficiency and even financial losses. The problem of high dismissal rate and low loyalty has been plaguing the Taiwan regional businessmen, which leads to the urgent need for transformation of small and medium-sized textile enterprises in the new development environment. Compared with China, lower labor costs and better policy orientation make the next transformation opportunity of the Taiwan regional textile enterprises lock on Southeast Asia. China is in the process of technological innovation and upgrading high-tech quality standards from "a big textile country" to "a powerful textile country". The labor-intensive textile industry in the Taiwan region has gradually lost its competitive advantage.

Under the "belt and road" strategy advocated by the Chinese government, made in China has penetrated into part of the global value chain (GVC) and continued to form a new regional value chain to neighboring countries. China's infrastructure construction support in Southeast Asia under the initiative provides favorable conditions for the Taiwan regional businessmen to transform to Southeast Asia. Due to the impact of the China-United States trade war and the COVID-19 pandemic, developed countries have set off the "desinicization" of the whole industry, and the Taiwan regional textile industry is one of the production drivers in the GVC. Although southeast Asia was affected by the early economic environment, the textile industry started late, the industrial chain was incomplete, and raw materials were only imported. In recent years, due to the policy environment and preferential land attracted a large number of foreign investment, the garment and textile industry has developed rapidly and has become a pillar industry in some Southeast Asian countries. Labor intensive industries with low value-added and technological content, due to the need for a large amount of labor input, have chosen to transfer to Southeast Asia for production. The abundant labor force and tax incentives provided by Southeast Asian countries such as Myanmar are very attractive to foreign investment. The trans-

fer of textile industry production to Southeast Asia will bring cost advantages to dealing with the textile industry competition of developed countries.

Through the questionnaire survey on the core competitiveness of topline companies in the mainland and Taiwan of China and Myanmar, this paper confirms the research in three aspects: the transformation of competitive advantage of textile industry investment environment determined by the investment history of textile industry in China's mainland and Taiwan region, the positioning of international division of labor of small and medium-sized textile enterprises of the Taiwan regional businessmen under the GVC and the grasp of development opportunities in Southeast Asia, and the transformation and development strategy and direction choice of underwear enterprises of the Taiwan regional businessmen under the GVC. Through questionnaire survey and analysis, the implicit relationship between data is analyzed through data phenomena, which provides effective guidance for enterprise market activities. The survey results provide a basis for enterprise decision-making.

2. Literature Review

Wen-Tsung Wu et al. believe that the Taiwan regional textile industry mainly depends on original equipment manufacture (OEM) garment brands in Europe, America, Japan and other countries for survival. Transforming original brand manufacture (OBM) to improve design ability and organizational structure operation is the way out for the Taiwan regional textile industry in the future, and the ability of supply chain management and corporate cultural resource management is the core competence needed in the process of enterprise transformation ^[1]. Verhoef Peter C et al. believe that the business model transformation behavior of manufacturers under the background of digital transformation will fundamentally change consumers' expectations and behavior. The three specific stages of digital transformation, concrete digitization, virtual digitization and digital transformation all put forward specific requirements for the digital resources, organizational structure, growth strategy and various indicators of the transformed enterprises. In addition, enterprises also need to have digital development ^[2]. Therefore, enterprises need to absorb information technology analysis talents and establish a digital operation team to approach the target of digital transformation and improve corporate performance. Lin Peixin believes that the Taiwan regional textile industry was once a sunset industry. Although it was affected by internal problems such as high industry repeatability and high customer repeatability, after years of transformation and development, the Taiwan regional

businessmen now take flexible production and innovative research and development (R & D) as their core competitiveness^[3]. The future development is mainly constrained by the macro environment, such as China-United States trade war, COVID-19, global warming, resource depletion and various unpredictable events. The Taiwan regional businessmen should pay more attention to the sustainable development model under the circular economy. Shi Huici believes that industrial clusters, industrial policies, surrounding facilities, labor supply and other meso level factors are also important factors affecting the transformation and investment layout of the Taiwan regional textile enterprises^[4]. At the moment of rampant trade protectionism, the Taiwan regional textile suppliers due to the tariff competitive advantages of potential competitors in regional trade organizations such as Regional Comprehensive Economic Partnership (RCEP) and Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), as the largest market in the global supply chain, the China is actively promoting the transformation of economic structure. In the past, the profits of low value-added assembly and processing and low-grade production factors had decreased and were no longer encouraged by the local market. Therefore, the Taiwan regional businessmen need to consider the implementation effect of transforming regional strategy and localization strategy. Chung-Hsing Hsieh believes that the transformation of OEM should focus on the improvement of cost control ability and upgrade with the goal of high-end manufacturers^[5]. The reason is that due to the preemptive role of advanced entrants, enterprises will show a gradual transformation choice, and there will be heterogeneous equilibrium in market development. At this time, at the static level, the reduction of market entry threshold will only lead to more fierce competition, only the decline of cost can support a higher proportion of manufacturers to complete the transformation and upgrading, so the upgrading decision should mainly depend on the heterogeneity of manufacturers in business market, production technology and productivity and policy support.

From the perspective of consumers, the transformation of the Taiwan regional textile industry has brought economic benefits to retailers and consumers with the development of cross-border business platforms in recent years, but it also puts forward higher demands for suppliers, who need to improve product cognition and design ability according to consumer behavior to attract consumers' interest. At present, there are few studies on the impact of product cognition on consumers' purchase intention in cross-border shopping platforms. Zhu Wenlong et al. assessed the above impact by establishing a three-stage

model and found that product description, product cognition, platform persistent involvement and platform situational involvement have a positive impact on trust^[6]. Pituch K A et al. proposed that intermediary variables are links linking the relationship between two variables. Theoretically, intermediary variables mean some kind of internal mechanism. The change of variable X leads to the change of intermediate variable m, and the change of intermediate variable m leads to the change of factorial variable Y^[7]. In addition to platform persistent engagement, purchase intention is also positively influenced by platform situational engagement and trust belief. Perceptual trust plays a full mediating role in the three-stage model. On the cross-border shopping platform, consumer behavior is the occurrence mechanism from product cognition to platform emotion to behavior intention. Therefore, suppliers should pay attention to product R & D and cognitive ability screening in the process of transformation, and seek cross-border platform cooperation through the improvement of OBM product ability. Mu-Shiue Tsai and Kuo-I Chang used sensitivity analysis to study the Taiwan regional businessmen's investment data. It is found that labor intensive industries, labor demand, technological level and regional development potential are the main factors that affect foreign investment decisions^[8]. The Taiwan regional investment in China is far more than that in other regions. In the post epidemic era, Yuang-Shiang Chao and others analyzed the changes in the Taiwan regional investment risk and performance in China and made the investment location choice accelerate the transfer of production focus to Southeast Asia as an important observation index^[9]. This paper provides an analysis framework for the Taiwan regional businessmen's investment performance and operational risk in the new layout of investment in China and Southeast Asia. It is concluded that enterprises with U-shaped or L-shaped affected by epidemic impact can reverse the situation through mergers and acquisitions and internal innovation investment strategies, or relocate to new markets through repositioning. In addition, in the era of big data, Silva E S. et al. believe that R & D investment is the most critical factor affecting the overseas investment of manufacturing industry^[10]. R & D investment can promote technological innovation, but the lag of R & D investment will slow down the turnover speed of enterprises' assets, reduce capital liquidity, and bring about the problem of capital taking up. However, in the long run, technological innovation brought by R & D investment can save production costs and improve production efficiency. The service innovation brought by R & D investment can attract more consumers, expand market share, form a stable customer base, and lay a good foundation for improving the

operation ability of enterprises. Gomez-herrera E. et al. believe that enterprise internationalization is a process full of risks ^[11]. Based on the attention and emphasis on the phenomenon of investment uncertainty, they find that the impact of uncertainty on enterprise investment timing presents an U-shaped trend, when the uncertainty is small, the uncertainty will hinder enterprise investment. However, when the uncertainty is increasing and at a high level, it can encourage enterprises to invest. Hwangbo H. et al. believe that the entry timing of regions with different degrees of market opening and industry competition has different influences on enterprises' layout of foreign investment ^[12]. Marketization mainly adjusts the effect of service trade policy through the channel of commercial presence (FDI). It has become one of the main factors determining the comparative advantage of an enterprise. The difficulty of obtaining it will affect the competitiveness of downstream manufacturing enterprises, and it is also an important means for manufacturing enterprises to transform and upgrade and occupy the high-end position of the value chain.

Aksoy A and Ozturk N proposed that in terms of GVC, with the reform of global economic governance system, the evolution of GVC division of labor continues to advance ^[13]. Facing the more fiercely competitive environment, participating in the division of labor in the GVC has become the only way for enterprises to produce and operate. Qi X. et al. proposed that the GVC is to allocate resources around the world ^[14]. Due to the characteristics of the division of labor system of the GVC, if a process stage of product value industry chain and supply chain production fails, the task cannot be completed on schedule, and the whole production chain will be affected. Tsou Yita and Chen Hua-geng believe that in the context of the restructuring of GVC, in the face of the competitive advantages of China's textile industry and the increase of labor production costs and the transfer of traditional manufacturing to Southeast Asia, improving GVC participation rate and technological innovation is the basis for the textile and underwear industry to explore new competitive advantages ^[15]. Both location transfer and technology upgrade can effectively increase the added value of production in the value chain of textile enterprises, thus promoting the upgrade of GVC and strengthening enterprise risk management ability.

3. Questionnaire Design

The core competitiveness of an enterprise is its decision-making power, which is a series of skills and knowledge combinations that are deeply rooted and complementary to each other in a group or team. The questionnaire

was designed in consultation with the opinions of professors, students and other groups. After repeated trial filling and more than 20 modifications, the final draft was issued. The questionnaire contains 33 questions with 173 choices. The questionnaire was conducted for TL employees in the underwear textile industry in the mainland and Taiwan of China and Myanmar, aiming to obtain relevant information about the industry as well as the cognition and judgment of relevant employees. The results of the questionnaire provided examples to verify the research content. In this study, questionnaires were distributed through random sampling, convenient sampling and snowball sampling, mainly through the small program designed by the communication software APP.

Statistical Product Service Solutions (SPSS) was used for all statistical analysis in this study. The specific statistical analysis is as follows. First, the reliability analysis method is used to investigate the reliability of the questionnaire, which refers to the consistency or stability of the results obtained by the test tool and the indicator reflecting the true degree of the tested characteristics. Reliability analysis is an effective method to measure whether the comprehensive evaluation system has certain stability and reliability. Then descriptive analysis of the questionnaire results, according to the results to find the direction of data comparison. Finally, relativity analysis was conducted on the data that met the expectations, and mediation analysis was conducted on the data that met the requirements to confirm the conclusion. A total of 90 questionnaires were collected, and 90 were valid. It covers a large area, and involves a wide range. The investigation process is standardized, and the investigation results have strong objectivity and representativeness.

4. Questionnaire Analysis

4.1 The Reliability Analysis

It can be seen from Table 1 that the Cronbach alpha coefficient is 0.847, which is greater than 0.8, indicating that the reliability quality of the research data is high.

Table 1. Cronbach Reliability analysis - simplified format

number of terms	Sample size	Cronbach alpha coefficient
100	90	0.847

4.2 Summary and Presentation of Basic Information of Survey Subjects

The results of the questionnaire and Table 2 show that

there is a serious two-level differentiation in the working hours of the survey objects. 47% of the employees have worked for less than 1 year, and 36% have worked for more than 5 years, which indicates that the staff mobility in the underwear textile industry is great in recent years. In terms of age structure, 56% of employees are in the middle age range of 36-50 years old, reflecting that the industry is mainly composed of middle-aged employees and the industry is not dynamic enough. Underwear textile industry is a labor-intensive industry. The average salary of employees is low. 70% of the employees think that the salary distribution is just right. It can be seen that the salary in the industry is generally low but at a normal level, and the employees also accept this salary distribution. Most people in the underwear and textile industry believe the pandemic is holding back the industry. Most of the raw materials of underwear textile industry in the mainland and Taiwan of China and Myanmar come from China, and a small part comes from southeast Asia and other places. The main markets are mainly distributed in Europe and Japan, followed by the United States, China, and finally Southeast Asia. Market competition is extremely fierce, underwear enterprises are facing the competition of local well-known brands at the same time accompanied by many well-known brand OEM and online Internet enterprises e-commerce form of threat. In the transformation and upgrading of the underwear textile industry, the most important thing to do at present is to explore new markets, and establish the brand if there is a large enough market, so as to obtain long-term benefits in the market. This is followed by the improvement of production equipment, increasing production capacity and reducing operating costs. Then establish a stable and efficient logistics sales pipeline, and finally to expand the way of trading. The biggest problem of the underwear textile industry is that the market competition is too fierce, the market tends to be saturated, and the productivity is surplus. New markets are urgently needed to give enterprises living space, and only then will they consider the cultivation of brands and the improvement of production efficiency. 50% of the sample think the flow of talent is relatively stable and there is no significant change. 33.33% of the samples believed that there was an outflow of talents in the industry. Considering that this problem is subjective, except for the actual personnel in charge of human resource management, we judge that there is still a brain drain in the industry, but it is not serious and does not affect the development of the industry. The underwear textile industry is currently in great demand for talents. The current industry

is short of talents with leadership skills, excellent technical skills, appropriate professional skills and positive attitude. 53% of employees in the underwear textile industry attach great importance to the development in Southeast Asia, which shows that Southeast Asia will be the center of the underwear textile industry in the future.

At present, the technical standard of the industry is relatively high in the industry, which reflects the high degree of standardization of the product, the quality of the product is guaranteed, and the development of the industry is relatively mature. Industry employees are confident about the development of the industry. Reflects the industry still has the potential for development. The main cost of underwear textile industry comes from production cost. Materials are the most important part of underwear textile sales, so for the underwear textile industry, better materials mean higher sales. Price ranks second on average. Since underwear is used as a consumable commodity, consumers are sensitive to price changes. Production technology breakthrough, brand establishment, cost reduction are the key elements of the development of underwear textile industry. Among them, the most important is the breakthrough of production technology, which brings about the improvement of production efficiency and is the most fundamental part of the manufacturing industry. Subject to the labor intensive attribute and low technology content of the underwear production industry, the entry threshold of the underwear textile industry is relatively low. 56% of employees think that the updating speed of underwear textile products is average, which belongs to the normal product turnover of the industry. 41% of workers think the pace of renewal is faster. Considering that underwear textile products belong to women's necessities, and easy to consume characteristics. Underwear as just for goods from the alternatives are much less likely to appear on the classification, but as a products supplier of underwear manufacturing enterprises need to update your own styles, fabrics and designs, improve the appeal to customers and market share, through communication with clients as well as the improvement of the single system to observe the direction of the market, shorten the production cycle to improve competitiveness. We can think of underwear textile industry product turnover rate is relatively fast.

Bargaining power is mainly affected by the difference between supply and demand, technology R & D ability and information sensitivity. The bargaining power of underwear textile industry is not strong. For buyers, the benefits come from major e-commerce platforms. To solve the problem of information asymmetry, multi-level com-

Table 2. Basic information of questionnaire survey

name	Mean ± standard deviation	variance	median	Standard error	kurtosis	skewness	Coefficient of variation (CV)
gender	1.447±0.503	0.253	1.000	0.073	-2.040	0.221	34.734%
age	2.617±0.922	0.850	3.000	0.134	-0.521	-0.534	35.232%
level of education	3.383±1.526	2.328	4.000	0.223	-1.122	-0.573	45.105%
occupation	2.830±0.761	0.579	3.000	0.111	-1.189	0.301	26.892%
Working hours in lingerie textile topline	2.319±1.353	1.831	2.000	0.197	-1.785	0.264	58.342%
Average salary of employees of Topline underwear textile	2.213±0.954	0.910	2.000	0.139	-1.178	0.021	43.117%
What do you think is the current average salary of topline employees?	2.085±0.545	0.297	2.000	0.079	0.513	0.068	26.134%
Do you think that the raw materials of topline underwear textile are mainly from?	1.149±0.510	0.260	1.000	0.074	21.791	4.369	44.376%
Do you think the current underwear textile industry market competition?	4.298±0.778	0.605	4.000	0.113	-1.092	-0.584	18.098%
What do you think of the current talent flow in lingerie textile topline?	2.745±0.896	0.803	3.000	0.131	0.262	-0.219	32.648%
Do you think the key area of underwear textile industry development in the future is in?	2.936±1.071	1.148	3.000	0.156	-0.175	-0.755	36.492%
What do you think of topline's current standards in the product/technology module?	3.681±0.887	0.787	4.000	0.129	0.610	-0.481	24.105%
Do you think the future development of underwear textile industry?	3.426±0.651	0.424	4.000	0.095	-0.480	-0.700	19.002%
Do you think the current cost of underwear textile industry mainly comes from?	1.936±1.150	1.322	1.000	0.168	-0.989	0.757	59.383%
Do you think the entry threshold of underwear textile industry?	2.979±0.847	0.717	3.000	0.124	-0.508	-0.407	28.425%
Do you think underwear textile topline products stack speed?	3.638±0.845	0.714	3.000	0.123	-0.976	0.559	23.227%
Do you think lingerie textile topline's bargaining power in sales?	2.043±0.415	0.172	2.000	0.061	3.275	0.314	20.308%
Do you think the impact of industrial chain integrity on the underwear textile industry?	3.957±1.062	1.129	4.000	0.155	0.878	-1.049	26.844%
What do you think is the impact of international trade on the underwear textile industry?	2.553±0.583	0.340	3.000	0.085	-0.123	-0.904	22.821%
Do you think the development of cross-border e-commerce for the underwear textile industry?	3.170±0.637	0.405	3.000	0.093	-0.504	-0.154	20.079%
What do you think is the impact of the epidemic on topline?	1.660±0.479	0.229	2.000	0.070	-1.585	-0.696	28.861%

parison can be carried out to select the optimal result. For the low-end underwear market, manufacturers often need to win by volume, make small profits and sell more, and have poor bargaining power. However, on this basis, due to the improvement of the consumption awareness and level of the new generation of consumer groups and the pursuit of quality, brand and personality, the medium and high-end underwear market is less subject to cost-effective competition. This is because underwear manufacturers with high added value, especially those cooperating with international brands, still have a certain bargaining power, and it is easier for buyers and sellers to reach a consensus on the price in the underwear textile industry. Due to the characteristics of the product itself, it is difficult for the industry itself to monopolize, so there is room for negotiation between the buyer and the seller. From this judgment we can conclude that underwear textile has a free competitive market. In the underwear textile industry, if there is a complete industrial chain, it will have a beneficial impact on the development of enterprises. Underwear textile industry is very dependent on international trade. International trade occupies an important position in the underwear textile industry. As a labor-intensive industry, under the influence of globalization, the quotation of GVC is an inevitable future trend of the industry. In terms of the current situation of cross-border e-commerce, the textile industry plays an important role in cross-border sales and international e-commerce, and will become an important link of cross-border e-commerce. Combined with the development of cross-border e-commerce, technological product innovation and accelerating digital transformation will be a shortcut for the next industrial upgrading of the textile industry. For the underwear textile industry, the key factors that most affect the survival and development of enterprises are industry competition and external environment. To take the lead in the underwear textile industry, the most important thing is to have leading technology, complete processing chain and flexible marketing. If enterprises in underwear textile industry want to stand out in the fierce market competition, technological innovation, R & D ability and cost control ability are the most important. This result also confirms that production is the most important in the underwear textile industry. At present, most enterprises in underwear textile industry implement institutionalized management mode and have more formal modern enterprise rules and regulations. In the process of enterprise transformation, the biggest problem faced by underwear textile enterprises is the violent price fluctuation of raw materials. And the difficulties of recruitment have a great impact on production. Vicious market compe-

tion and declining market demand have an impact on the sales of enterprises, which reflects that the focus of enterprise transformation is still on production and market. The expansion of market and the improvement of production capacity are the focus of enterprise transformation.

4.3 Correlation Analysis

4.3.1 Working Hours and Perceptions of Developments during the Pandemic

From the Table 3 and Figure 1 shows that using the chi-square test (cross analysis) to study in your work hours for differences in the influence of the outbreak, a total of 1 item, can be seen from the Table 3, the influence of different working time samples for epidemic one presents significant sex ($p < 0.05$), means different working time, for the influence of the outbreak, a total of 1 item of samples of travel of the opposite sex. The impact of working time on the epidemic showed a significant level of 0.01 ($CHI = 13.240, P = 0.004 < 0.01$). By comparison of percentages, it can be seen that selection under 1 year promoted the proportion of development of 57.14%, which was significantly higher than the average level of 34.04%. The proportion of development promoted by 1-2 years choice was 50.00%, which was significantly higher than the average of 34.04%. The proportion of development promoted by 1-2 years choice was 50.00%, which was significantly higher than the average of 34.04%. The proportion of two to five years of choice hindering development was 100.00%, which was significantly higher than the average of 65.96%. The proportion of more than 5 years of choice hindering development was 93.75%, which was significantly higher than the average of 65.96%.

It can be concluded that all samples of working hours have significant differences in their impact on the epidemic situation.

Therefore, we took the impact of the epidemic as a dependent variable, market competition and average salary as independent variables, and working time as a mediating variable to analyze the mediating effect.

As can be seen from the Table 4, the mediating effect analysis involves 3 models, which are as follows:

Impact of epidemic = $0.590 + 0.207 * \text{market competition} + 0.081 * \text{average salary}$

Hours worked = $-2.310 + 0.809 * \text{market competition} + 0.520 * \text{average salary}$

Impact of the epidemic = $0.956 + 0.079 * \text{market competition} - 0.001 * \text{average salary} + 0.159 * \text{working hours}$

Therefore, we can conclude from Table 4 and Table 5 that market competition => working hours => epidemic

Table 3. Cross (chi-square) analysis results

Cross (chi-square) analysis results								
The title	name	How long did you work at topline? (%)				total	χ^2	p
		The following 1 year	1 to 2 years	2 to 5 years	More than 5 years			
What do you think is the impact of the epidemic on topline?	It promotes development	24(57.14)	6(50.00)	0(0.00)	2(6.25)	32(34.04)	13.24	0.004**
	Impeding development	18(42.86)	6(50.00)	4(100.00)	30(93.75)	62(65.96)		
total		42	12	4	32	90		

* p<0.05 ** p<0.01

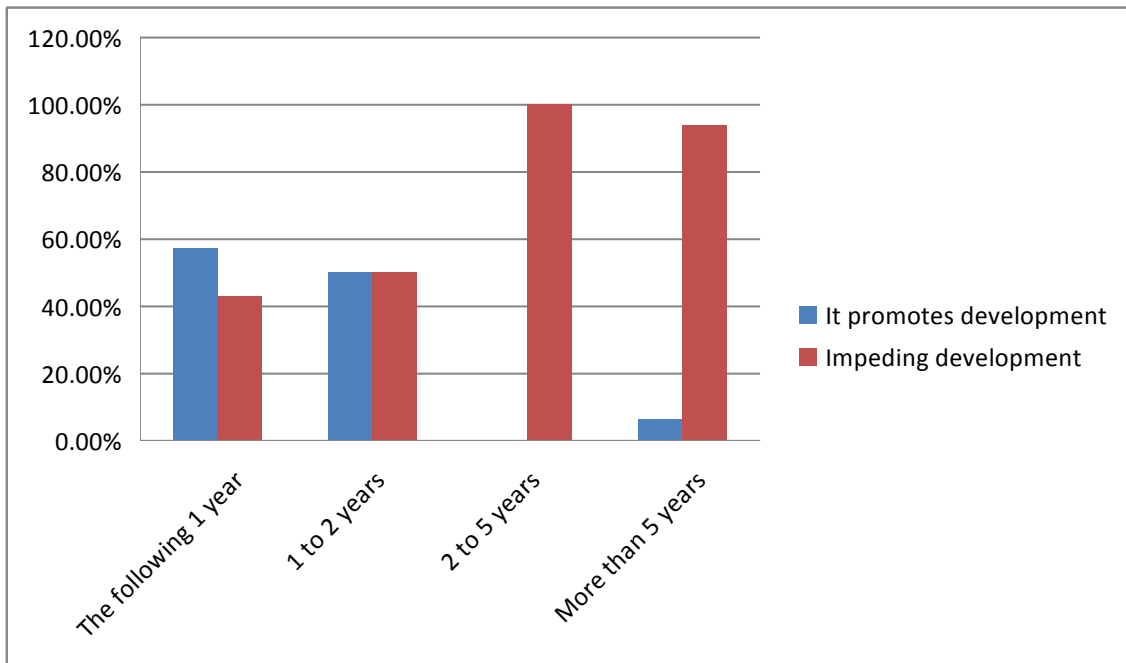


Figure 1. Analysis results

has a fully mediating effect, and average salary => working hours => epidemic has a fully mediating effect.

4.3.2 The Function Analysis of Enterprise Core Competence

Similarly, by taking bargaining power as the dependent variable and industry competition and external environmental impact as the independent variable, we select the cost control ability and technological innovation and R

& D ability in the core competitiveness of enterprises as the intermediary variables according to the questionnaire results to study the role of the core competitiveness of enterprises in the operation of enterprises.

As can be seen from the Table 6, the mediation effect analysis involves 4 models as follows:

Bargaining power = 0.62 + 0.214 * Industry competition + 0.087 * External environment influence (such as exchange rate, raw material price, etc.)

Table 4. Mediating effect analysis results

Mediating effect analysis results (n=90)												
	Impact of the epidemic				Working time				Impact of the epidemic			
	Nonstandardized regression coefficient	Standard error	p	standardized regression coefficient	Unstandardized Coefficients	standard error	p	Unstandardized Coefficients	standard error	standard error	p	Unstandardized Coefficients
constant	0.59	0.407	0.154	-	-2.310*	0.998	0.025	-	0.956*	0.401	0.022	-
market competition	0.207*	0.086	0.02	0.336	0.809**	0.211	0	0.465	0.079	0.093	0.4	0.128
The average pay	0.081	0.07	0.254	0.162	0.520**	0.172	0.004	0.367	-0.001	0.072	0.985	-0.003
Working time									0.159**	0.057	0.008	0.448
R ²	0.139				0.351				0.27			
Adjust the R ²	0.1				0.322				0.219			
The F value	F (2,44)=3.562, p=0.037				F (2,44)=11.914, p=0.000				F (3,43)=5.293, p=0.003			
* p<0.05 ** p<0.01												

Table 5. Summary of mediation test results

Summary of mediation test results										
item	C total effect	a	b	a*b Intermediate effect value	a*b (Boot SE)	a*b (z value)	a*b (p value)	a*b (95% BootCI)	c' direct effect	Inspection conclusion
Market competition => hours of work => impact of the epidemic	0.207*	0.809**	0.159**	0.128	0.012	10.774	0	0.062 ~ 0.379	0.079	complete mediation
Average pay => hours worked => impact of the outbreak	0.081	0.520**	0.159**	0.083	0.012	7.119	0	0.036 ~ 0.343	-0.001	complete mediation
* p<0.05 ** p<0.01										

Table 6. Mediating effect analysis result

Mediating effect analysis results (n=90)																
	Bargaining power				Cost control capability				Technological innovation and R & D capability				Bargaining power			
	Unstandardized Coefficients	standard error	p	standardized regression coefficient	Unstandardized Coefficients	standard error	p	standardized regression coefficient	Unstandardized Coefficients	standard error	p	standardized regression coefficient	Unstandardized Coefficients	standard error	p	standardized regression coefficient
constant	0.62	0.398	0.159	-	-2.318*	0.989	0.027	-	-2.298*	0.978	0.023	-	0.962**	0.403	0.028	-
Industry competition	0.214*	0.081	0.018	0.342	0.812**	0.207	0	0.466	0.813**	0.213	0	0.462	0.073	0.097	0.38	0.134
External environmental impact (exchange rate, raw material prices, etc.)	0.087	0.068	0.63	0.158	0.531**	0.167	0.003	0.379	0.534**	0.175	0.003	0.365	-0.002	0.068	0.982	-0.002
Cost control capability													0.158**	0.055	0.008	0.443
Technological innovation and R & D ability													0.159**	0.057	0.007	0.451
R ²	0.143				0.353				0.348				0.28			
Adjust the R ²	0.1				0.331				0.325				0.229			
F value	F (2,44)=3.631, p=0.032				F (2,44)=10.086, p=0.000				F (2,44)=10.119, p=0.001				F (4,42)=5.692, p=0.004			
* p<0.05 ** p<0.01																

Cost control ability = $-2.318 + 0.812 * \text{industry competition} + 0.531 * \text{Influence of external environment (such as exchange rate, raw material price, etc.)}$

Technological innovation and R & D capacity = $-2.298 + 0.813 * \text{industry competition} + 0.534 * \text{External environmental impact (such as exchange rate, raw material price, etc.)}$

Bargaining power = $0.962 + 0.073 * \text{industry competition} - 0.002 * \text{External environmental impact (such as exchange rate, raw material prices, etc.)} + 0.158 * \text{Cost control ability} + 0.159 * \text{Technological innovation and R \& D ability}$

Therefore, it can be seen from the Table 7 that indus-

try competition is too fierce => cost control ability => bargaining power, industry competition is too fierce => technological innovation and R & D ability => bargaining power, external environment influence (such as exchange rate, raw material price, etc.) => cost control ability => bargaining power, External environmental influence (such as exchange rate, raw material price, etc.) => technological innovation and R & D ability => Bargaining power has a complete mediating effect, which reflects that the core competitiveness of enterprises plays a significant role in the operation and competition of Topline enterprises in Cross-strait and Myanmar.

Table 7. Summary of mediation test results

Summary of mediation test results										
item	c total effect	a	b	a*b Intermediate effect value	a*b (Boot SE)	a*b (z value)	a*b (p value)	a*b (95% BootCI)	c' direct effect	Inspection conclusion
Industry competition is too fierce => cost control => bargaining power	0.214*	0.812**	0.158**	0.128	0.012	10.738	0	0.062 ~ 0.379	0.086	complete mediation
Industry competition is too fierce => technological innovation and R & D ability => bargaining power	0.214*	0.813**	0.159**	0.129	0.013	7.116	0	0.036 ~ 0.343	0.085	complete mediation
External environment influence (such as exchange rate, raw material price, etc.) => cost control ability => bargaining power	0.087	0.531**	0.158**	0.084	0.012	10.736	0	0.062 ~ 0.379	0.003	complete mediation
External environment influence (such as exchange rate, raw material price, etc.) => technological innovation and R & D ability => bargaining power	0.087	0.534**	0.159**	0.085	0.013	7.115	0	0.036 ~ 0.343	0.002	complete mediation

* p<0.05 ** p<0.01

5. Results and Discussion

This study believes that although southeast Asia is affected by the early economic environment, the textile industry started late, the industrial chain is incomplete, and raw materials only rely on imports. However, in recent years, due to the policy environment and preferential land attracted a large number of foreign investment, the garment and textile industry has developed rapidly and has become a pillar industry in some Southeast Asian countries. Value-added and low-tech labor-intensive industries

due to a large number of labor input, choose transfer to southeast Asia, in Myanmar and other southeast Asian countries to provide abundant labor and tax incentives for foreign investment has great attraction, textile industry production process to southeast Asia will bring their cost advantage to cope with competition in the textile industry in the developed countries.

This study believes that although the epidemic has hindered the development of underwear textile industry to a certain extent, the emergence of cross-border e-commerce can reduce the impact of the epidemic on sales. Cross

border e-commerce is an important link in operation and sales. Under the current international trade and epidemic conditions, cross-border e-commerce plays an important role in the underwear and textile industry. Combined with the development of cross-border e-commerce technology product innovation, accelerating digital transformation will be a shortcut for the next industrial upgrading of the textile industry.

In the process of enterprise transformation, the biggest problem faced by underwear textile enterprises is the violent fluctuation of raw material prices. The supply of basic raw materials upstream of the industrial chain mainly comes from China. Due to the huge market potential and abundant labor resources in Southeast Asia, a large number of underwear manufacturers set up factories here. At the same time, as the existing brands in the downstream market of the industrial chain do not fully occupy the market share, the subsequent entry of new small brands poses a great threat to the old brands. As a substitute for goods only, underwear is much less likely to appear in classification, but as a product supplier of underwear production enterprises, it is necessary to continuously update its own style, fabric and design to improve its attraction to customers and market share. Through the communication with customers and the improvement of single system, observe the market trend, shorten the production cycle and improve the competitiveness. At the same time, most small brands lack their own factories and need OEM companies with high production and technical level as production support manufacturers. These companies are a great challenge to the existing enterprises in the market.

The company solves the current situation of low added value, reflects the elements of the company's competitiveness through the value chain, and puts forward the horizontal and high-end embedded path of the company's GVC from the perspective of the value chain by using the theory of organization, so as to improve the sales ability and R & D level of the enterprise and improve the position of the enterprise in the industrial smile curve.

In the transformation and upgrading of underwear textile industry, what needs to be done most at present is to open up a new market and establish a brand with a large enough market, so as to obtain long-term benefits in the market. Then comes the improvement of production equipment, increasing production capacity and reducing operating costs. Then establish a stable and efficient logistics sales pipeline, and finally expand the transaction mode. From this, we can conclude that the biggest problem in the underwear textile industry is that the market competition is too fierce, the market tends to be saturated

and there is surplus productivity. There is an urgent need for new markets to give enterprises living space, so as to consider the cultivation of brands and the improvement of production efficiency. At present, the key factors affecting the survival and development of enterprises are industry competition and the impact of external environment. The most important factor for enterprises to take the lead in the underwear textile industry is to have leading technology, complete processing chain and flexible marketing. If enterprises in underwear textile industry want to stand out in the fierce market competition, technological innovation, R & D ability and cost control ability are the most important. This result also confirms that production is the most important in the underwear textile industry. How to produce more, faster and better is the future R & D direction of underwear textile industry.

Author Contributions

H-CW: conceptualization, methodology and arrangement. L-L and Y-SZ: data acquisition and curation writing-original draft preparation. R-DW and Y-Z: writing-original draft preparation. C-CC: writing-reviewing and editing. All authors contributed to the article and approved the submitted version.

Conflict of Interest

There is no conflict of interest.

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