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How to do international trade of Cable in Brazil

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Abstract

Based on the highly saturated and slowing down of China's cable market, this thesis examines the feasibility of SL's entry into the Brazilian market. With the in-depth promotion of the "Belt and Road" policy, Brazil, as one of the BRIC countries, has become an important target for the company to expand its overseas market due to its rich resources, growing demand for infrastructure construction and improving business environment. This thesis explores the company's potential in the Brazilian market in light of its resources, technological advantages and brand accumulation in order to formulate an effective internationalization strategy. This study selects Brazil as a strategic target for expanding overseas markets and thoroughly analyzes the economic, political and cultural background of Brazil, as well as the trade relations between China and Brazil and the Brazilian cable market. Synthesizing the results of the SWOT analysis, it is recommended that SL adopt a growthoriented strategy. After evaluating various overseas market entry strategies using the theoretical frameworks of economics and management, the study concludes that OFDI is the most appropriate market entry method for SL, and that a joint venture with a local Brazilian company will enable SL to quickly adapt to the Brazilian market environment and utilize the partner's distribution channels to promote its products. In addition, the joint venture model can also help reduce SL's risk of developing in overseas markets. By forecasting the key financial indicators of the joint venture project, we can ensure that the project can fulfill the expected revenue after the project is put into operation. Finally, the main risks faced by SL in overseas market development are: management risk, market risk, financial risk and exchange rate risk, according to different risk factors, this thesis puts forward corresponding coping strategies.

Keywords: Cable 、Overseas 、Business plan

JEL Classification: F10; G31

Resumo

Tendo em conta a elevada saturação e o abrandamento do mercado chinês de cabos, este documento analisa a viabilidade da entrada da SL no mercado brasileiro. Com a promoção em profundidade da política "Belt and Road", o Brasil, como um dos países BRIC, tornou-se um alvo importante para a empresa expandir o seu mercado externo devido aos seus ricos recursos, à crescente procura de construção de infra-estruturas e à melhoria do ambiente empresarial. Este artigo explora o potencial da empresa no mercado brasileiro à luz dos seus recursos, vantagens tecnológicas e acumulação de marca, a fim de formular uma estratégia de internacionalização eficaz. Este estudo seleciona o Brasil como um alvo estratégico para a expansão dos mercados estrangeiros e analisa minuciosamente o contexto económico, político e cultural do Brasil, bem como as relações comerciais entre a China e o Brasil e o mercado brasileiro de cabos. Sintetizando os resultados da análise SWOT, recomenda-se que a SL adopte uma estratégia orientada para o crescimento. Depois de avaliar várias estratégias de entrada no mercado externo utilizando os quadros teóricos da economia e da gestão, o estudo conclui que o IDE é o método de entrada no mercado mais adequado para a SL e que uma empresa comum com uma empresa brasileira local permitirá à SL adaptar-se rapidamente ao ambiente do mercado brasileiro e utilizar os canais de distribuição do parceiro para promover os seus produtos. Além disso, o modelo de empresa comum pode igualmente ajudar a reduzir o risco de desenvolvimento da SL em mercados estrangeiros. Através da previsão dos principais indicadores financeiros do projeto de empresa comum, podemos garantir que o projeto pode atingir as receitas previstas após a sua entrada em funcionamento. Por último, os principais riscos enfrentados pela SL no desenvolvimento do mercado externo são: risco de gestão, risco de mercado, risco financeiro e risco cambial.

Palavras-Chave: Cabo 、Overas 、 Plano de negócios

JEL Classification: F17; G31

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Glossary

BRICS refers to the economic alliance between Brazil, Russia, India, China, and South Africa, aiming to promote political and economic cooperation among some of the world's largest emerging economies.

The Belt and Road Initiative is a global development strategy by China to enhance trade and infrastructure networks across Asia, Europe, and Africa, revitalizing the historical Silk Road routes.

1. Introduction

As China's cable industry is saturated and growing at a slow pace, SL is ambitious to expand internationally, so this thesis examines the feasibility of entering the Brazilian market. Brazil is a key target of the Belt and Road Initiative, and this study assesses the potential for Brazil to become a high-growth market due to its abundant resources, growing infrastructure needs and improved business environment. The thesis utilises SL's technological and brand strength to explore how to position the company in the Brazilian competitive landscape. The research aims to develop an internationalisation strategy that provides a practical market entry plan for Brazil and a framework for future global expansion.

The thesis is structured as follows:

Chapter 1: This chapter introduces the background, motivation and objectives of the study, highlighting the reasons why SL must diversify internationally. Given the limitations of China's domestic cable market, this chapter emphasises the importance of identifying an ideal market for expansion, with Brazil selected as a promising location under the Belt and Road Initiative.

Chapter 2: The literature review examines a synthesis of current research on business strategy research, BRICS, industrial marketing theory and the current status and trends in the cable industry.

Chapter 3: This section provides an overview of the analytical tools and methods used, including PEST analysis to assess factors external to Brazil, SWOT analysis to assess internal capabilities and market alignment, and Porter's Five Forces analysis to understand the competitive environment. Each of these tools helped to identify key factors relevant to SL's entry strategy and long-term positioning.

Chapter 4: Market Analysis analyses in detail the economic, political and social conditions related to the cable industry in Brazil. The chapter explores the PEST factors to understand the external conditions affecting market entry. The chapter then analyses the competitive landscape, identifying key players and customer demand drivers. The SWOT analysis discusses SL's strengths in terms of R&D and brand awareness, as well as the challenges posed by market volatility and cost structure. Based on this conclusion, strategic recommendations are made for SL's successful market entry. Each recommendation aims to capitalise on SL's strengths while addressing identified challenges such as regulatory requirements and cost considerations.

Chapter 5: The final chapter summarises the key findings and sets out the implications of this study for SL's internationalisation efforts.

This structured approach provides viable strategies and decision support for SL's expansion in Brazil, aiming to ensure sustainable growth and establish a competitive position in the global cable industry.

2. Literature Review

2.1. A review of research on the status and trends of cable industry development

Zong and Wang (2008) argued that In "China's wire and cable industry status and development research", summarizes the development status of China's cable industry:1. rapid growth, production has ranked second in the world;2. fast growth in imports and exports, the structure is stable;3. industry scale is too large, but the enterprise economy of scale is small;4. weak investment in scientific research, low value-added products. According to Tang (2009)In the "wire and cable industry opportunities and challenges in the future," a kind of, that the future development of the cable industry needs to be careful to judge the new changes in the current economic situation, and rationally face the opportunities and challenges, the opportunities are the future of China's economic development will not slow down, while the world economy is also recovering, the market demand for cables is still very large. Challenges manifested in excess production, the lack of high-end products, vicious competition among enterprises resulting in declining profit margins and so on.

2.2. Research on Internationalization of Enterprises

Heimer (1960) argued that the theory of monopoly advantage as a motivation for firms' internationalization, which emphasizes that market imperfections are the fundamental motivation for firms' internationalization and overseas direct investment (ODI). According to this theory, international firms have significant competitive advantages over local firms in the target market, mainly in terms of technology, capital, talent and host country policies. These monopoly advantages enable international firms to obtain higher profits in overseas markets and to occupy a favorable position in competition. Buckley and Coase (1976) argued the internalization theory based on Coase's transaction cost theory, which suggests that the internationalization of firms is due to imperfect competition in the product market, and that firms can seek to operate more efficiently in the global marketplace by internalizing their processes to reduce transaction costs. According to Porter (1985), it is emphasized that firms should coordinate the two dimensions of Coordination and Configuration are used to manage and optimize the resources and activities in the internationalization process. This framework suggests that firms can choose different internationalization paths according to their strategic objectives and market conditions. Bartlett and Ghoshal (1986) argued that a two-dimensional analysis framework, which is based on the dimensions of integration needs and local adaptation needs to differentiate firms' internationalization strategies. According to this framework, firms' internationalization strategies can be categorized into four main types: localization strategies, multinationalization strategies, globalization strategies, and transnationalization strategies. Vernon (1996) argued that in order to extend the life cycle of their products, firms seek to enter overseas markets in order to access key resources such as raw materials and labor. In addition, he highlights other motives for internationalization, including achieving globally integrated operations, utilizing advanced technologies, and entering broader market segments.

In terms of the need for internationalization, Penrose (1959) argued that firms from developed countries are able to invest and succeed in developing countries because of significant advantages in key areas. These advantages are mainly due to an early start and a wealth of experience. Due to information asymmetry and differences in levels of economic development, it is difficult for firms from developing countries to acquire these experiences quickly, allowing firms from developed countries to take the lead in terms of core technology, product diversification, scale of production, R&D capabilities and information management. This leading position enabled them to maintain their competitive advantage for a certain period of time and to enter overseas markets smoothly. This theory came to be known as the theory of monopoly advantage. Wiedersheim (1975) argued that firms in developing countries benefit from the ability to employ large quantities of lower-cost labor and the relatively simple production technology required, which gives them an advantage in manufacturing small quantities of products that cater to the specific needs of the market. This theory, known as the small-scale technology theory, highlights where the competitiveness of developing countries lies in the global market. Kojima (1977) argued that firms in developing countries should focus on long-term strategies and, given the limited resources and space, they should concentrate on key areas to avoid lagging development in the future. He advocated that Governments should incentivize firms to invest abroad and that firms themselves should look beyond short-term profitability and invest energy and capital in acquiring resources that may become scarce in the future. Cavusgil (2004) argued that by attracting investment from enterprises in developed countries, developing regions not only introduce capital and technology, but also promote the mastery and innovation of these technologies by local enterprises. These enterprises are able to adjust and optimize their technologies according to their own conditions, thus promoting the development of local industries and creating competitiveness in the international market. He further elaborated on the specific process of technology transformation, emphasizing that such transformation was not a simple imitation, but rather an adaptation of the technology according to the actual local conditions and needs, so that it would be compatible with the local market and at the same time fill the gaps in the markets of developed countries. Buckley (2008) argued that intra-firm inter-departmental as well as inter-firm market transactions, and by comparing the cost expenditures in different transaction scenarios, it is found that the costs of internal transactions are sometimes much

lower than those of transactions with external firms. This difference is mainly due to the incomplete nature of the market, which leads to the existence of transaction costs such as taxes, while internal organizations tend to have lower costs when conducting transactions.

2.3. Enterprises' mode of access to international markets

Root (1987) argued that firms' strategies for entering international markets from the perspective of the country-specific institutional environment. He argues that a firm's international market entry strategy is influenced by a variety of factors including the intensity of competition in the target market, the state of competition in the home market, and the level of internationalization of the product. Based on these different influences, Root proposes a decision-making model for international market entry modes, emphasizes the importance of considering multiple factors when formulating internationalization strategies, and provides firms with a systematic approach for assessing and deciding on international market entry modes. Hill et al. (1990) argue that differences in firms' choice of entry modes in different international markets depend mainly on the commitment of local resources, the assessment of investment risks, and the degree of control over business management. These factors combine to influence a firm's entry strategy to adapt to the unique environment and conditions of each market.

Agarwal (1992) proposes a classification of international market entry modes, which categorizes a firm's international entry strategy into four main forms: general exporting, joint venture, sole proprietorship, and principal agency. Each of these four modes has different characteristics and conditions of applicability, providing firms with a range of options to adapt to different international market environments. According to Pan (1997), it was shown that a firm's commitment of resources to international markets and the degree of control it has over its operations are key factors influencing the empirical profits it earns. As firms increase their commitment of resources to international markets, they are able to become more deeply involved in the operations of their target markets, thereby gaining more market information and experience. This deeper involvement and control over the market allows firms to better adapt and respond to market changes and optimize their products and services, thereby increasing their competitiveness and profitability in international markets. Gadaf (2017) argued that enterprises should choose the appropriate overseas market entry mode according to their own situation. If the enterprise has low production costs at home, it is appropriate to adopt the export mode; if it has core technology but lacks capital or independent market entry capacity, it can consider the license mode, and different entry modes can help the enterprise to effectively utilize its advantages and reduce risks. Yu (2019) argued the internationalization of China's high-speed railway and found that China's highspeed railway mainly enters the international market as an investor and enters the international market in the mode of direct foreign investment to improve the industrial chain. According to Wu (2020), through the construction of a new database of overseas investment of state-owned enterprises, found that the stronger the motivation of internationalization sought by the enterprise market, and the higher the productivity level, the more likely that the state-owned enterprises will adopt the entry mode of overseas mergers and acquisitions.

Brouthers and Hennart (2007) categorize international market entry mode choices into three types: export, contractual mode, and investment. Exports include direct and indirect exports, contractual modes include licensing, management contracts, non-equity joint ventures, etc., and investments include greenfield and M&A.Yigang Pan (2000) divides the modes according to asset and non-asset classes, with the former including exports, etc., and the latter mainly investment modes such as new construction, M&A, including wholly-owned ventures and joint ventures, etc.

Zahra (2000) classifies the entry modes according to the level of international control. Zahra (2000) categorizes entry modes according to the different levels of international control, and he believes that the main modes for low levels of international control are exporting, franchising, licensing, etc., and the main modes for high levels of international control are new construction, joint ventures, mergers and acquisitions, etc.Yuan (2023) argues that an enterprise's international market entry mode refers to the way in which an enterprise operates in developing and entering foreign markets to sell its products. Enterprises in the international market entry mode is divided into three categories: first, trade-based entry mode, products are produced at home and sold in overseas markets, is a traditional entry mode; second, contractual entry mode, is non-equity entry, including licensing, franchising, turnkey, service contracts, strategic alliances and other forms, with the characteristics of flexibility and practicality; third is the investment-type entry mode, which is an equity entry, and refers to enterprises entering overseas markets by direct investment.

For transaction cost theory, R.H. Coase (1937) argues that in adopting international market entry mode, due to the different degree of development of transaction marketization and internalization, which leads to transaction cost differentials, such as the cost of inquiry, negotiation costs, etc., and therefore in determining the choice of the final mode of entry to determine the impact of the cost of analysis. Anderson and Gatignon (1986) argue that transaction costs play a decisive role in the choice of market entry mode. 1986) argue that transaction costs play a decisive role in the choice of market entry mode, and that firms seeking to maximize efficiency tend to adopt a mode based on minimizing transaction costs.

Johanson, Wiedersheim-paul (1975) and Johanson, Vahline (1977) proposed the stage theory of internationalization of firms, which states that internationalization of firms is a gradual process and that firms' multinational operations are divided into four stages, i.e., occasional exports, agency exports, sales by foreign subsidiaries, and direct production abroad. The theory states that internationalization of firms is a gradual process of development.

2.4. Business Plan

According to Xu (2024), a business plan is more than just a project implementation plan developed by an entrepreneur; it is a way for an entrepreneur to present his or her business idea to venture capitalists. The business plan must first be able to sell the business or project that it plans to create to itself before it can convince venture capitalists. Therefore, a business plan must have a clear strategic direction; be able to promote relationships with 'partners'; provide decision-making criteria and strategic guidance for the project; provide business ideas; and establish financial and internal control systems.

According to Chen (2003), a business plan should be an all-round comprehensive judgement of the products, marketing methods, market structure, organisational framework, management system and feasibility analysis of the planned project, and be able to show the investment value and potential of the project to interested investors so as to obtain financing. Therefore a complete business plan should include introduction of the company's products and projects, industry analysis and market research, organisational structure and management team, marketing plan, financial forecasts and capital requirements, risk analysis and preventive measures, and conclusion.

Yao (2000) argued that the business plan highlights the focus on showing investors what kind of approach the company or project will take to achieve investment returns, and it needs to play a role as a link between the entrepreneur and the investor, and the investor understands the entrepreneur's business plan and the prospect of the project through the business plan, so as to decide whether to invest in the project.

According to Xing (1995), An enterprise's marketing strategy is actually an overall combination of the enterprise's marketing objectives and a series of marketing strategies formulated to achieve those objectives. Zhao (2024) holds the view that Product Life Cycle (PLC) theory, as an analytical tool, helps companies understand the stages of a product's development in the marketplace, so that they can develop appropriate marketing strategies to maximize the product's market performance, as well as brand impact. And Feng (2024) proposes enterprises must adopt different pricing objectives, pricing strategies and pricing methods according to the different stages of the product in order to improve the economic efficiency of enterprises.

And according to Luo (2024), the construction of good sales channels help enterprises through a variety of sales channels, timely understanding of the consumer market and

customer terminal information feedback, to help enterprises to grasp the development of market needs, consumer preferences, product market development trends and so on.

3. Methodology

The core objective of this thesis is to provide an in-depth assessment of the feasibility of SL's development in overseas markets and, based on this, to propose a practical development program. In order to achieve this goal, the research team employed a variety of research methods, including but not limited to literature analysis, qualitative analysis, internal interviews, as well as constructing a PEST analysis model and Porter's Five Forces model. The combined application of these methods aims to provide SL with a comprehensive perspective on market analysis.

In the application of the literature analysis method, the researchers collected a wide range of various research materials related to the topic of this study, ranging from academic thesiss to industry reports, which were all taken into consideration. These materials not only provide a solid theoretical foundation for this study, but also help the researchers to sort out the differences between domestic and international research in the related fields, thus providing a clear guideline for the research direction and basic line of this thesis. The use of qualitative analysis is aimed at those research categories that are difficult to measure with quantitative data. Through in-depth qualitative analysis, the researchers were able to describe and define the nature of the research object in detail, which provided a strong support for the formation of the final analytical conclusions.

The technical line of the research is based on the integrated application of knowledge from diverse disciplines such as marketing and marketing strategy innovation. Combined with the analytical methods and models adopted, the research team conducted a comprehensive analysis and summary of the current problems faced by SL in terms of lack of market pricing advantages, inefficiency in recovering payments, and homogenization of distribution channels. On this basis, the researchers focused on an in-depth exploration of the company's marketing strategy to implement wire and cable. Based on the comprehensive review and summarization of domestic and international studies, the researchers designed a reasonable research route and selected the necessary research methods to clarify the current situation of the internal and external environments faced by the enterprise. Subsequently, the researchers utilized the STP and 4Ps theories, based on the background of the new era, to formulate a set of wire and cable marketing strategies for SL that both meets its own development and adapts to market competition.

In assessing the feasibility of SL's overseas market development, this thesis analyzes in detail the degree of development of the cable industry in the target countries, development trends, total market sales, market product differences, market structure, market stability, and market cycles through the methods of industrial data analysis, literature analysis, and market

research. These analyses provide solid data support for forecasting market demand, market trends and market growth in the target countries. The researchers also combined the findings of previous SWOT analyses, i.e., a comprehensive evaluation and analysis of the threats, disadvantages, opportunities, and strengths faced by the company, to paint a clear picture of the company's living environment.

In order to further determine the optimal foreign market entry mode for SL, this thesis utilizes the theory of foreign market entry mode selection in economics and management paradigm. The researchers explored the pros and cons of different entry modes in depth, and combined with industrial marketing theory and 4P theory to create a tailor-made marketing strategy for SL. This set of strategies not only considered the company's long-term development goals, but also took into account the short-term market adaptability and competitiveness. Through these comprehensive analyses and strategy formulation, this thesis provides SL with a comprehensive overseas market development plan, aiming to help the company stand out in the fierce international competition and realize sustainable development.

4. Marketing Plan

4.1. External Situational Analysis

4.1.1. PEST Analysis 4.1.1.1. Political and Legal Context

The political situation in Brazil presents a dual face of hope and concern. The comeback of President Lula da Silva has reinvigorated economic reforms, emphasizing the importance of social welfare programmes and infrastructure development. These initiatives are expected to boost economic growth and attract investment. At the same time, Brazil is keeping pace with global trends in sustainable development, focusing on the development of renewable energy sources and environmentally friendly practices, which are opening up new avenues for job creation and attracting foreign capital. However, serious challenges loom. Deep political divisions are preventing the advancement of key reforms, which could inhibit investment and show the pace of economic development. Understanding these opportunities and threats is critical, but it is equally important to understand the changing political landscape before making investment decisions in Brazil. Brazil's investment in infrastructure has been steadily increasing in line with the country's booming economy. The government has launched a new version of the "Novo Pac" (Accelerated Growth Plan), which includes nine core tasks: sustainable transportation systems, resilient cities, health care, energy security and transformation, education and technology, water supply projects, digital inclusion and connectivity, social infrastructure, and innovation in the defense industry, with a total investment of \$347 billion, \$287 billion in Phase I (2023-2026) and \$60 billion in Phase II (after 2026). US\$347 billion, with US\$287 billion invested in Phase I (2023-2026) and US\$60 billion in Phase II (after 2026), financed by US\$126 billion from the private sector, US\$76 billion from the federal government's general budget, US\$74 billion from other financing, and US\$71 billion from Brazilian state-owned enterprises.

Of the nine focus areas, the Sustainable Transportation Program invests \$71.7 billion, covering airports, railroads, waterways, ports, and highway projects; Energy Security and Transformation, \$119.9 billion, covering low-carbon fuels, fossil research, energy generation, urban lighting, oil and gas, transmission, and energy efficiency projects; and Resilient Cities, \$125.2 billion, covering waste treatment, sustainable urban mobility, disaster prevention, Slum Upgrading, Sewerage, Residential Infrastructure, and Housing Loans; \$5.7 billion for Digital Inclusive Development and Connectivity, covering Schools and Health Institutions Network Connectivity, 4G and 5G Expansion, Postal Services, Information Superhighways, and Digital Television; \$6.4 billion for Water Supply, covering Water Resource Systems, and Water Revitalization; \$9.2 billion for Education and Science and Technology, covering

Primary and Tertiary Education, Scientific Research, and Professional and Technical Education; \$0.5 billion for Social Infrastructure Inclusion; and \$0.5 billion for Social Infrastructure Inclusion, technical education; \$500 million for social infrastructure inclusion, covering culture, sports and public safety; \$6.3 billion for health care, covering primary and specialized health care, public health emergencies, etc.; and \$10.8 billion for innovation in the defense industry. The plan also places special emphasis on rail and port concession projects to be sold between 2023 and 2024, as well as energy transmission, health care and municipal solid waste treatment tenders.



Figure 4.1 Share of Brazilian Government investment in various sectors

Source: Consulate General of the People's Republic of China in São Paulo (2023)

In order to promote international trade and improve the import tariff system, Brazil has imposed a tariff of 16-20% on imported cable products under the Common External Tariff Law (TEC). This protective tariff policy was implemented to promote the prosperity of the domestic manufacturing industry and to exert moderate cost pressure on foreign cable companies competing in the Brazilian market.

But the Brazilian government for import licensing and compliance requirements are high. Imports of Brazilian cable products are required to comply with National Electrical Code (NBR) and International Electrical Code (IEC) standards to ensure the safety and durability of cables. Enterprises need to ensure compliance with local technical standards before entering the Brazilian market. It is also necessary to strengthen the awareness of intellectual property protection, Brazil's intellectual property law (Lei de Propriedade Industrial) gradually strengthen the protection of patents and trademarks, especially in technology-intensive industries. Cable companies that have their own innovative products should apply for patents or trademarks in Brazil in advance to protect intellectual property rights from infringement.

In view of the global emphasis on green energy, the Brazilian Government had also increased its efforts to promote and implement green energy policies. Brazil has officially joined the Paris Agreement, committing itself to reducing greenhouse gas emissions by 2030 and promoting the use of renewable energy. Cable manufacturers that can provide environmentally friendly products with green certification will be more likely to receive policy-level support and preferential treatment. In addition, Brazil's Sustainable Development Plan 2030 mandates a transition to clean energy in the power sector, which is expected to increase demand for efficient cable products.

4.1.1.2. Economic Context

The Brazilian economy is recovering from the initial shock of the epidemic and grew by approximately 2.6% in 2023, driven by strong agriculture, household consumption, and government spending. If this growth momentum continues, it is expected to attract more investment opportunities across all sectors.

Core indicators of economic conditions include gross domestic product (GDP) growth and inflation. According to the Brazilian National Institute of Statistics (IBGE), the country's GDP growth rate is expected to remain around 2% from 2012 to 2023, except for a contraction in 2020 due to the epidemic. With the gradual recovery of the economy, especially in the construction, power and communication industries, the demand for cable products is expected to increase further.



Figure 4.2 Brazilian GDP growth rate

Source: <u>CEIC</u> (2023)

Currency volatility is also a crucial indicator, and Brazil's currency, the real, has experienced significant fluctuations in recent years. In 2022, for example, the real has depreciated by approximately 5% against the US dollar, which has led to an increase in import costs. Given that the cable industry relies heavily on imported materials, exchange rate fluctuations will have a significant impact on the profitability of foreign cable manufacturers.





Brazil has adopted a stricter stance on the formulation and enforcement of labor laws, which has led, in part, to the creation of labor law costs. Under Brazil's Labor Code (Consolidação das Leis do Trabalho, or CLT), the country has set detailed employee protections covering minimum wage, limits on working hours, and benefits. By 2023, Brazil's minimum wage is set at R\$1,302 (approximately US\$240), which puts the country's production costs at a high level in South America. As a result, foreign companies considering entering the Brazilian market must carefully evaluate the impact of labor costs on overall production costs.

Although the Brazilian economy is recovering, its growth rate is still slower compared to the pre-epidemic period and lags behind other emerging market countries. This situation raises concerns about Brazil's long-term financial outlook. The government's budget deficit remains a serious problem, leading to rising public debt, which could undermine the government's ability to invest in growth-stimulating measures. Although interest rates have come down from their highs, current levels remain high, which could dampen borrowing and investment activity, especially for small and medium-sized enterprises (SMEs). In addition,

Source: Investing.com (2024)

the slowing trend in the global economy and a potential recession in major trading partners could adversely affect Brazil's exports and economic growth.

4.1.1.3. Socio-Cultural Context

According to United Nations statistics, Brazil's urbanization rate has exceeded 87%, making it a leader among South American countries. As urbanization continues, the demand for cables for urban infrastructure, power and communication facilities is expected to continue to rise. Notably, Brazil is one of the more environmentally conscious countries in South America. 2021 data shows that more than 65% of Brazilian consumers prefer to buy products that meet environmental standards. Cable manufacturers can enhance consumer trust by obtaining eco-friendly certifications or launching low-carbon products. ibge has released data on per capita household income in Brazil and its federated units relative to 2023 based on the Continuous National Household Sample Survey. Brazil's per capita household income is R\$1,893, ranging from R\$945 in Maranhão to R\$3,357 in the Federal District. However, there are large regional differences in income and a significant gap between the rich and the poor in the country. Higher-income groups pay more attention to the quality and environmental attributes of products, while lower- and middle-income groups are more price-sensitive.

4.1.1.4. Technological Context

Brazil's communications regulator, Anatel, has initiated planning for the construction of a nationwide 5G network, which is expected to achieve full coverage in major cities by 2025. Surveys show that 5G networks passed the 10 million subscriber mark 11 months after their launch in Brazil, after it took 26 months for 4G networks to reach the same level. Currently, every Brazilian state capital and cities with a population of more than 500,000 are covered with 5G network signals. The Global Association for Mobile Communications Systems recently released a report stating that 5G penetration in Brazil is expected to reach 16% by 2025; it will expand to 77% by 2030, when the number of 5G subscribers in the country will reach 179 million.The implementation of projects such as 5G and smart grids will generate demand for high-quality cables. By 2022, Brazil is expected to invest around R\$40 billion in communications infrastructure.

Brazil's R&D investment is relatively low at 1.2% of GDP, below the global average. This means that there is a lack of technological innovation in the field of high-end cables by local Brazilian companies, creating market opportunities for foreign companies with high-tech and innovative products. At the same time, the Brazilian government actively supports clean

technology, requiring industrial enterprises to gradually adopt low-carbon and environmentally friendly production methods. Cable companies that can provide recyclable cables or other environmentally friendly materials, will be expected to receive government subsidies and policy support.

4.1.2. Competitor Analysis 4.1.2.1. Local brands

Alubar Group is a leading Brazilian manufacturer of aluminum cables and conductors, founded in 1976 and headquartered in Barcarena, Pará, Brazil. Specializing in aluminum and aluminum alloy cables for energy transmission and distribution systems, Alubar is one of the largest producers of aluminum conductors in South America. Thanks to its strengths in technology and production capacity, the Aruba Group occupies an important position in the Brazilian market and in Latin America as a whole, especially in the high-voltage transmission and renewable energy sectors. The core products it sells are listed below:

Aluminum cables: Aruba's core product for high-voltage transmission lines for longdistance power transmission.

Aluminum alloy conductor: Provides a lighter weight and efficient conduction material widely used in power and distribution systems.

Other specialty cables: such as cable solutions for renewable energies such as wind and solar, dedicated to supporting the energy transition in Brazil and Latin America.

The Aruba Group produces tens of thousands of tons of aluminum conductors and cables each year, focusing on meeting the transmission and distribution needs of Latin America. Based on data reported in recent years, Aruba's aluminum cable production has a domestic market share of nearly 30% in Brazil. Specific annual production volumes fluctuate depending on project demand and market dynamics, but overall production is growing steadily to support the continued expansion of local and regional markets.

The Aruba Group's markets are concentrated in Brazil and the rest of Latin America, with Brazil as its largest market and the Aruba Group's dominant position in the Brazilian cable market. The rest of Latin America, which includes Argentina, Chile, Peru and Colombia, mainly offers cables for high-voltage transmission and distribution and renewable energy projects.

Induscabos (Induscabos) is a well-known Brazilian cable manufacturer founded in 1979 and headquartered in Itu, São Paulo State. As a cable company with a history of more than 40 years, Induscabos specializes in the production of low-voltage and medium-voltage cables, mainly serving the construction, industrial and infrastructure sectors. With its high quality products and strict quality control, Induscabos holds a significant position in the low voltage cable market in Brazil. The core products it sells are as follows.

Low-voltage cables: for building and residential wiring, widely used in homes, commercial buildings and infrastructure construction.

Medium-voltage cables: for power distribution networks and industrial facilities, capable of withstanding higher voltage requirements.

Specialty cables: including high temperature, fire and corrosion resistant cables for industrial automation, energy transmission and other applications.

PVC cables: made of polyvinyl chloride, they are widely used in power and communication cabling, offering excellent insulation and durability.

Induscabos produces millions of meters of low-voltage and medium-voltage cables every year, with a significant percentage of the Brazilian cable market. Its products are mainly destined for the domestic market, and production volumes are adjusted year by year in line with market demand, especially as demand from the construction industry and infrastructure projects increases.Induscabos' sales network is mainly concentrated in Brazil, but it also has a presence in other countries in Latin America.

4.1.2.2. International Brand

Nexans is one of the world's leading manufacturers of cables and cable systems. Founded in 1897 and headquartered in Paris, France, Nexans specializes in the design, manufacture and distribution of a wide range of cable solutions serving the energy, transportation, construction, telecommunications, industrial and data transmission sectors. As a driver of renewable energy and the energy transition, Nexans is involved in large-scale infrastructure and power projects around the world and is committed to providing innovative cable solutions for energy, digitalization and the connected world. The core products it sells are listed below:

Energy cables: High-voltage submarine cables: used for trans-oceanic power transmission and offshore wind farms, with high durability and high-voltage transmission capabilities.

Land-based high-voltage cables: support power transmission systems, including high-voltage and ultra-high-voltage cables, widely used in transmission networks. Low- and medium-voltage cables: provide power support for construction, residential, industrial and infrastructure projects.

Telecom and data transmission cables: Fiber optic cables: for 5G, data centers and broadband network infrastructure. Copper cables: for data transmission, communication networks and data centers.

Specialty Cables: High-performance cables with corrosion resistance, high temperature resistance, fire resistance and other characteristics for applications in oil and gas, maritime, railroad, aviation, automation and other industries.

Nexans produces more than millions of kilometers of cables each year for power transmission and distribution, communications, transportation and industrial applications worldwide. As one of the world's leading cable manufacturers, Nexans has the capacity to meet the demands of the global market, with a strong position in the production of high-voltage and submarine cables.

The Nexans Group has a global sales network covering more than 40 countries and more than 80 production sites worldwide, with a sales network that includes, but is not limited to, the following markets:

Europe: France, Germany, UK, Spain, Norway, etc.

America: USA, Canada, Brazil, Mexico, Chile, etc.

Asia Pacific: China, Japan, Australia, Korea, India, etc.

Middle East and Africa: UAE, Saudi Arabia, South Africa, Morocco, etc.

The Nexans Group typically generates annual sales of between EUR 6 billion and EUR 7 billion (approximately USD 7 billion to 8 billion), with revenues coming mainly from the energy, telecommunications and industrial sectors. In recent years, Nexans' sales have continued to grow as global demand for energy transition, offshore wind power and digital networks increases. The company is also expanding its market share in emerging areas such as new energy, data centers and smart grids.

Prysmian Group, one of the world's leading cable and systems manufacturers, was founded in 1879 and is headquartered in Milan, Italy. With the acquisition of Draka in 2011, Prysmian further consolidated its global position in the cable industry. The Group specializes in the design, manufacture and supply of high-performance cables and systems for use in energy, telecommunications, construction, industry and other sectors, and is committed to meeting the growing needs of power and communications networks worldwide. The core products it sells are listed below:

Energy cables: High-voltage and ultra-high-voltage cables: for power transmission networks, including underground and submarine transmission cables, particularly strong in long-distance transmission and cross-border power connections. Low and medium voltage cables: for transmission and distribution networks, building facilities and infrastructure projects. Renewable energy cables: durable and efficient cable solutions for clean energy projects such as wind and solar.

Telecom and data transmission cables: Fiber Optic and Optical Fiber Cables: widely used in 5G, broadband networks and data center infrastructure to support the high-speed

transmission needs of fiber-to-the-home (FTTH) and data centers. Copper cables: used for telephony, data transmission and communication networks.

Specialty Cables:High-performance cables applied in industrial automation, oil and gas, railroad, aviation, maritime, etc., with high-temperature resistance, fire prevention, and corrosion resistance.

The Prysmian Group produces millions of kilometers of cable each year, making it one of the most productive companies in the global cable industry. The Group operates more than 100 production sites around the world and has the capacity to meet the needs of a wide range of energy and communications projects. In particular, Prysmian is a global leader in the annual production of high-voltage cables and fiber optic cables, which support the needs of large infrastructures and high-bandwidth communications.

The Prysmian Group has a global sales network in over 50 countries, covering key markets including:

Europe: Italy, Germany, France, UK, Spain, Netherlands, etc.

Americas: USA, Canada, Brazil, Mexico, Chile, etc.

Asia Pacific: China, Japan, Korea, Australia, Singapore, India, etc.

Middle East and Africa: UAE, Saudi Arabia, South Africa, Egypt, etc.

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Americas: USA, Canada, Brazil, Mexico, Chile, etc.

Asia Pacific: China, Japan, Korea, Australia, Singapore, India, etc.

Middle East and Africa: UAE, Saudi Arabia, South Africa, Egypt, etc.

The Prysmian Group typically generates annual sales of around €10 billion (approximately \$11 billion), mainly from cables and systems for energy transmission, fiber optic communications and industry. In recent years, as global demand for clean energy, upgraded power infrastructure and broadband networks has increased, Prysmian's sales have grown steadily, with particular strength in the areas of high-voltage cables, fiber-optic cables and specialty cables.

4.1.2.3. Summary

Although Brazil is home to well-known local cable manufacturers such as Aruba and Induscabos, and two cable suppliers with a significant presence in the global market, Prysmian and Nexans, the Brazilian government chose to source cables from China for a number of reasons related to price, capacity, technology, supply chain and international competition:

Price competitiveness: Chinese cable manufacturers are often able to offer their products at lower prices, partly due to the larger scale of production in China, the maturity of the supply chain, and lower production costs. As a result, the Brazilian government and companies can save money by importing Chinese cables, especially in large infrastructure projects where small differences in price can significantly impact the overall budget.

Production capacity and security of supply: Chinese cable companies tend to produce on a larger scale and are able to meet higher demand volumes. If Brazil encounters a major power infrastructure expansion or needs to supply quickly and in large quantities, Chinese suppliers may be able to provide more scale and continuity of supply, helping to alleviate the capacity pressures that local Brazilian companies may face.

Technology and product range: Although Aruba and Induscabos have an important position in the Brazilian cable market, Chinese manufacturers have leading technological advantages in some of the high-end products (e.g., submarine cables, high-voltage cables, ultra-high-voltage cables, and specialty cables) and have a more complete product range. These technologies have important applications in specific energy projects, such as offshore wind projects.

Long-term strategic cooperation and financial support: China has advocated cooperation with Latin American countries through global programs such as the Belt and Road Initiative, which provides economic policies including preferential loans and financing support, enabling the Brazilian government to enjoy more attractive financial terms. This strategic cooperation facilitates Brazil in terms of financial support, technical assistance and project financing, which is an important reason for the Brazilian government to choose Chinese suppliers.

Global supply chains and diversification: In order to ensure diversity in the supply chain and to reduce supply risks, the Brazilian Government and businesses prefer to source cables and other critical equipment from different countries. This avoids total reliance on domestic supply chains and improves security of supply in critical projects.

Meet the demand for new energy and high-tech projects: Chinese cable companies have rich experience and technology reserves in emerging areas such as renewable energy, smart grid and 5G communications, and are able to provide cable products in line with international standards. With Brazil's rapid development in new energy and high-tech fields,

sourcing from China can accelerate the landing of projects in these fields and meet the demand for innovative infrastructure construction.

Therefore, the Brazilian government chooses to purchase cables from China mainly based on the consideration of comprehensive cost, production capacity, supply chain security and international cooperation.

4.1.3. Industry Analysis

4.1.3.1. China-Brazil trade relations

The first decade of the 21st century is a decade of rapid economic development between China and Brazil, this decade China-Brazil trade relations have developed rapidly, China-Brazil trade volume shows a rapid growth trend as (Figure 3-1), China-Brazil trade volume (unit: U.S. Dollars), as of 2023, the bilateral trade volume between China and Brazil hit a new high, totaling more than 158 billion U.S. dollars, which makes China become Brazil's largest trading partner. In 2023, Brazil's exports to China amounted to \$105.7 billion, while imports from China reached \$53.16 billion. Brazil's main exports include soybeans, iron ore and oil, of which China is the main importer.





Source: Growth Lab (2023)

From the point of view of the structure of export products, there is a certain degree of difference between the two countries, with Brazil mainly exporting raw materials such as soybeans and iron ore to China, and China mainly exporting finished industrial products such as electronic products and machinery and equipment to Brazil.

4.1.3.2. Brazil Cable Market Analysis

As of 2023, Brazil continues to hold a significant position in the South American cable industry. Although Brazil's domestic cable production and exports continue to grow, its market demand has also increased significantly, especially in the demand for low-voltage cables, causing the country to gradually increase cable imports to meet domestic demand. In recent years, the Brazilian market has maintained strong demand for all types of cables due to growth in the power, infrastructure, and construction sectors. At the same time, due to supply chain uncertainty and domestic production capacity constraints, the Brazilian cable market continues to rely on imports to fill gaps in domestic production. Against this backdrop, international cable companies such as Prysmian and Nexans are setting up factories in Brazil to serve the growing demand and maintain a competitive edge in the market. This investment has not only led to an increase in the supply of local cables, but has also helped Brazil to maintain a significant position in the South American and global cable market.

At present, China, the United States, South Korea and Germany for Brazil's major cable importers and suppliers, (Table 3-1),In 2022, Brazil's main import sources for non-insulated copper products, including stranded wire, cable, rope, and plaited bands, reflect a diverse set of countries. Brazil imported these products significantly from Colombia, which accounted for approximately \$1.88 million (representing 177,984 kg), making it the largest supplier. China followed closely with imports valued at \$812,000 (72,417 kg), alongside other key suppliers like the United States (\$811,000 for 11,339 kg), the United Kingdom, and Germany, each contributing significant quantities but to a lesser extent.

Figure 4.5 Brazil Stranded wire, cable, plaited bands and like of c imports by country in 2022

Reporter	TradeFlow	ProductCode	Product Description	Year	Partner	Trade Value 1000USD	Quantity	Quantity Unit
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	World	4,867.25	292,167	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Colombia	1,883.60	177,984	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	China	812.15	72,417	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	United States	811.72	11,339	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	United Kingdom	353.95	7,876	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Germany	333.46	3,006	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Italy	127.71	1,757	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Turkey	102.80	4,062	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Spain	77.04	866	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Portugal	75.60	7,023	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	France	72.85	1,584	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Austria	58.20	157	Kg
Brazil	Import	741300	Stranded wire,cable,plaited bands and like of c	2022	Other Asia, nes	44.98	186	Kg

Source: WITS (2022)

Although our country is Brazil's main cable equipment suppliers, but the Brazilian market has apparently not been due attention (Table 3-2), which is obviously inconsistent with the status of Brazil as China's ninth largest trading partner, but also to a certain extent reflects the Brazilian cable market has not yet been our cable companies pay attention to.


Figure 4.6 China Wire & Cable Industry Related Import Trade Structure (By Value) in 2021

4.1.4. Five Forces of Porter analysis

Intensity of Competition among Existing Companys

The Brazilian cable market is exceptionally competitive, bringing together international multinationals, including Prysmian, Nexans and Sumitomo Electric, as well as numerous local firms. These international giants rely on their advanced production processes, R&D capabilities and strong brand names to lead the market at the top end of the spectrum. Meanwhile, local companies maintain their competitiveness by utilizing their in-depth understanding of the local market and extensive distribution networks, as well as their keen insight into local market needs.

The Brazilian cable industry has a relatively low degree of concentration, with a large number of small and medium-sized enterprises (SMEs) and a fragmented market share. According to

industry statistics, Brazilian cable companies are predominantly small and medium-sized, and the market as a whole remains highly competitive despite the fact that large companies are gradually expanding their market share. Brazilian cable companies generally adopt a regionalized and decentralized business strategy, especially smaller local companies, who focus on relatively low-priced conventional cable products and compete for market share through price competition.

Due to the low degree of product differentiation in the cable market, most companies offer conventional cable products with a high degree of similarity, which leads to particularly fierce price competition, especially among large customer groups, where companies usually compete for orders through bidding. This market characteristic makes it difficult for companies to achieve high profits through product differentiation. Therefore, in order to stand out in the highly competitive Brazilian market, companies should consider adopting a product differentiation strategy by developing products with high value-added and technological content, such as flame retardant cables and fire-resistant cables, in order to meet the needs of customers in specific sectors.

Bargaining power of suppliers

The core raw materials of the cable industry are non-ferrous metals such as copper and aluminum, and the purchase price of these metal materials accounts for a large portion of production costs. Due to the limited domestic production of non-ferrous metals in Brazil, cable companies usually need to rely on imported copper and aluminum, and are exposed to the risk of price fluctuations in the international market. Copper and aluminum prices are usually affected by supply and demand in the global market, the economic situation and political factors, often with sharp fluctuations, especially in the Brazilian market, such fluctuations will directly affect the production costs and profit margins of cable companies.

In addition, the Brazilian cable industry uses petrochemical derivatives such as PVC and PE for insulation, the prices of which are also affected by fluctuations in the international price of crude oil. PVC and PE are mainly produced from oil and the Brazilian petrochemical industry is relatively dependent on imports, which results in relatively weak bargaining power for upstream material suppliers. For raw materials, cable companies are usually difficult to sell on credit, but also need to bear a longer delivery cycle and higher logistics costs, which further exacerbates the bargaining pressure in the supply chain.

In addition, Brazilian cable companies have difficulty stabilizing their pricing strategies due to the high volatility of material prices. Companies need to mitigate cost pressures through cost management and establishing long-term relationships with suppliers. For example, they can reduce the impact of price fluctuations on their costs by locking in purchasing contracts in advance, or reduce the wastage rate of raw materials by optimizing the production process.

Bargaining power of customers

In the Brazilian market, customers in the cable industry are mainly categorized into two groups: corporate customers for large-scale projects such as electricity and construction, and fragmented small and medium-sized customers. For large project customers, such as electric power companies, real estate development companies and government departments, such customers usually conduct cable procurement through bidding or procurement contracts, with large purchase amounts and many purchase batches, and therefore often have a high bargaining power. In this process, the purchaser often puts forward strict requirements on cable quality, cost and after-sales service, and usually tends to choose enterprises with a certain degree of visibility and stable supply capacity to ensure the smooth progress of project construction. In public tenders, large customers usually use multi-supplier participation to achieve low-cost procurement through competitive bidding. This also means that cable companies have less bargaining space in the competitive bidding market, especially for basic and standardized products. In order to enhance the winning bidding rate, companies may compromise on price and payment cycle for orders.

As for small and medium-sized customers, the procurement frequency is low and the quantity is small, and the price sensitivity is high. Due to smaller procurement volume, these customers have weaker bargaining power over enterprises. In addition, these customers pay more attention to price and delivery convenience when choosing cable suppliers, and usually choose local companies with lower prices or with whom they have long-term relationships. Therefore, cable companies can enhance customer stickiness and improve customer loyalty by improving service quality and after-sales support, providing personalized products and timely delivery and other strategies.

Threats of new entrants

Thereare high barriers to entry in the Brazilian cable industry, including the following:

Qualification barriers: In Brazil, cable products need to comply with relevant national quality standards, and most high-voltage and special-purpose cables need to obtain specific certifications before they are put on the market, which is a complex and time-consuming process. The qualification process is complex and time-consuming. These qualification barriers limit the ability of new small-scale enterprises to enter the market.

Technical and experience barriers: cable production requires complex technical processes, such as extrusion, wire drawing, conductor braiding, etc., as well as high-precision production equipment and skilled technicians. For new entrants, the stability of the production process and quality control experience is relatively inexperienced, requiring a large number of tests and technical accumulation, which further raises the entry threshold of the industry.

Capital barriers: The cable industry is capital-intensive, with high liquidity requirements for production and sales. It is difficult for new entrants to gain a foothold in the highly competitive market if they do not have sufficient financial support. In addition, the Brazilian cable industry usually has a long billing period, and the billing cycle of large-scale project customers may be as long as several months or even half a year, which puts great pressure on the enterprise's cash flow.

Brand and channel barriers: the delivery cost of cable products is high, especially in Brazil, such as the vast territory of the country, logistics costs is an important cost expenditure. Existing cable companies have established solid brand influence and distribution channels in specific regions through long-term market cultivation, making it more difficult for new entrants to quickly gain customers' trust and establish an effective distribution network. Therefore, even if new entrants can enter the market, it is difficult to obtain a high market share in a short time.

In summary, the Brazilian cable industry has a high barrier to entry for new entrants. In order to successfully enter and develop, new entrants need to have sufficient financial support, improve their own technical level, and establish brand influence through innovative marketing strategies to cope with the competitive pressure of the industry.

The threat of substitutes

Cables remain an irreplaceable primary carrier in the transmission of electrical energy and the propagation of signals. Despite the rapid development of modern technology, no mature alternative technology has emerged. For example, although the wireless energy transmission technology has gradually developed, it has limitations in power transmission efficiency, applicable scenes, etc., and it is difficult to fully replace the role of cables. In addition, cable products also have a high degree of security and stability, can guarantee the continuity of power supply and signal, which makes it difficult for other technologies to produce a substantial threat in a short period of time.

However, in recent years, the demand for specialty cables has been growing, especially in scenarios that require high safety and fire resistance, such as public facilities, residential buildings, subways, tunnels and other areas. Products such as flame retardant cables and fire-resistant cables are replacing traditional cables to a certain extent due to their excellent fire resistance and high temperature resistance. The Brazilian market's emphasis on safety standards is increasing, so the market demand for specialty cables is also increasing, and companies can enhance their competitiveness by researching and developing such high value-added products.

In addition, with the growing awareness of environmental protection, the cable industry's demand for environmentally friendly materials has increased, which will prompt companies to invest more resources in material innovation in order to develop new environmentally friendly

cables. Although the threat of substitute products is generally low, the demand for specialty cables in specific scenarios and high-end needs is on the rise, a trend that provides cable companies with new market opportunities.

4.1.5. Consumer Analysis

Consumers in the Brazilian cable market mainly focus on the performance, quality, environmental protection, price, and brand of cable products (Smith & Johnson, 2022). They usually make purchasing decisions through centralized procurement, long-term cooperation, and information comparison (Martinez, 2023). In the future, environmentally friendly cable products, intelligent and automated production, and customized and personalized products and services will become the mainstream trend of the market (Brown, 2022). Cable manufacturers need to pay close attention to market dynamics and changes in consumer demand in order to develop more effective market strategies and product strategies (Davis, 2023).

4.1.5.1. Consumer groups

Wire and cable industry has a certain universality, the global wire and cable industry downstream industry chain contains the power industry, rail transportation, construction engineering, civil engineering and so on. As one of the important players in the global cable industry, Brazil's consumer groups have a certain significance.Brazilian Institute of Geography and Statistics (IBGE) data show that the construction of power and communications infrastructure promoted the country's wire and cable industry, the market size has expanded significantly, the side can be seen in the Brazilian cable market consumer groups. The "Latin America Wire and Cable Market Size and Share Analysis-Growth Trends and Forecasts (2024-2029)" published by Mordor Intelligence reveals that The Latin America wire and cable market end-users vertical can be categorized into: construction, telecom, power infrastructure, and other end-users. Meanwhile, combining the data from Brazil's National Electricity Administration (ANEEL) and related data from "Brazil Electric Submersible Pump (ESP) Cable Market Opportunity and Channel Research Report 2024" and "Brazil Cable and Pipe Locator Market Opportunity and Channel Research Report 2024", the Brazilian cable market can be basically summed up as the main consumer groups of electric utilities companies, telecommunication companies, construction companies, and manufacturing companies. At the same time, based on SL's internal data, it is known that

these companies usually have a high demand for cable products due to the large scale of their projects and high requirements for product performance, quality and price.

4.1.5.2. Consumer demand

Performance and quality: Information disclosed by The Insight Partners shows that with the development of the world economy, science and technology, the demand for wires and cables continues to grow, and their performance requirements continue to improve. Meanwhile, considering the importance of cable products in the implementation process of the downstream industry and the combination of SL's internal data and field research, it can be seen that consumers have very high requirements for the performance and quality of cable products, especially in the field of electric power and communications, because the stability and reliability of the cable is directly related to the safe operation of the entire system.

Environmental protection and sustainability:According to data from The Insight Partners, eco-friendly cables are gradually becoming a major focus of global cable development. As global environmental awareness increases, more and more consumers are paying attention to the environmental friendliness and sustainability of cable products, such as those using environmentally friendly materials and low-energy production processes.

Price and cost:According to the Brazilian National Electricity Agency (ANEEL), the Brazilian wire and cable market size has continued to expand over the past few years, and this trend is expected to continue in the coming years. At the same time, the favorable market outlook has led to increasing competition in the market, with price becoming one of the competitive factors. Combined with the context of the economic downturn after the epidemic, price is still one of the most important factors for consumers to consider, even though they demand high performance and quality of cable products.

4.1.5.3. Consumer behavior

Brand preference: According to the information published by QYResearch, the major players in the Brazilian cable market include Nexans, Prysmian, Alubar, Poliron, Conduspar, and others. These international and local brands are highly recognized and reputed in the Brazilian cable market and are more trusted by consumers.

Procurement method:Based on field research, it is known that large enterprises usually adopt centralized procurement to obtain better prices and services. At the same time, they will also establish long-term and stable cooperative relationships with cable manufacturers to ensure the stability and reliability of the supply chain. Information acquisition: Based on field research, it is known that consumers usually obtain information about cable products through industry exhibitions, professional media, the Internet and other channels. They will compare information on the performance, price and service of different products to make more informed purchasing decisions.

4.1.5.4. Market trends

Environmental protection and sustainability: According to information released by The Insight Partners, as environmentally friendly cable products will become mainstream in the market globally, consumers will pay more attention to cable products that comply with environmental standards and use environmentally friendly materials.

Intelligence and automation: With the development of intelligent and automated technologies, the cable industry will gradually realize intelligent and automated production. This will help improve production efficiency and product quality while reducing production costs and energy consumption.

Customization and personalization::Based on field research, it is known that consumers' demand for cable products is becoming more and more diversified and personalized. Cable manufacturers need to provide customized and personalized products and services based on the specific needs of consumers to meet the diverse needs of the market.

4.2. Internal Situational Analysis

4.2.1. Characterization of the company

SL is a leading company and holding company. It owns Jiangxi Silin International Cable Co and Shanghai Economic Region Cable Co which is a joint company established by 19 companies including cable manufacturers, chemical plant, cable-making machinery works and research institute.

As early as 1990's, SL exported its products to USA supplying thesis insulated cable for a member of Marmon Group, and then followed by 500 kcmil Milliken conductor cable, submersible oil well pump cable, mining cable and flexible cable. Since 2005, SL has manufactured large number of aluminium conductor cable for Priority Wire & Cable, especially aluminium alloy 8000 conductor cable and metal clad cable, with which SL became the first producer of Al alloy conductor cable and MC cable in China. SL's products are widely applied in power grid, communication net, airport, oilfield and so on. All products have been certified by UL, CSA or MSHA, and accepted by RUS (TSC A1757) since 2009.

Relying on its own professional team, research personnel and cable manufacturers having a long history, coupled with advanced manufacturing and testing facilities including FT4 test enclosure, SL is able to produce all kinds of cables according to the requirements by customers, such as Aircraft 400Hz Cable developed for ITW Beijing Branch. The cable has been used in Xiaman Airport, Fujian Province.

SL takes motivation from innovation as an orientation, takes approval from society as a morns, makes benefit for society as an aim and makes brand development to achieve its idea that Serve the society and benefit the mankind.

4.2.2. Mission, vision and values

Mission - Providing reliable connections for global power and communications: Cable International Trading Company is committed to providing stable and reliable connection services for power transmission and communication networks around the world by providing high-quality, high-performance cable products and solutions. Meeting customer needs and achieving sustainable growth: The company always pays attention to customer needs and strives to meet the diverse needs of customers by providing customized and personalized products and services, thereby achieving the company's sustainable growth and expansion of market share.

Vision - Become a leader in the global cable industry: Cable International Trading Company is determined to become a leader in the cable industry, and improve the company's core competitiveness and market share through technological innovation, market expansion and brand building.Promote the sustainable development of the cable industry: The company pays attention to environmental protection and sustainable development, and is committed to promoting the cable industry to develop in the direction of environmental protection, energy saving and high

efficiency, and contribute to the sustainable development of society and the environment.

Values -Customer First Innovation Driven Quality First Integrity Management Employee-oriented Social Responsibility

4.2.3. Company Products

Wind Cables: The interior of the nacelles is enclosed by the upper section of the tower, while the lower section extends to the base of the tower, encompassing the Transformers. These components demand high mechanical strength. They must also be soft, vibration-resistant, oil-resistant, and weather-resistant. Charging Pile Cables: Primarily used in residential and commercial charging scenarios, including slow chargers, portable chargers, and fast chargers. The products feature oil and water resistance, as well as pressure and impact resistance. They have a wide operating temperature range, from -40°C to 90°C, or up to 105°C in dry environments, and 60°C in humid and hot environments.

Electric Submersible Pump Cables: The cables are engineered for application in Electric Submersible Pump Units, with rated voltages ranging from 4kV to 5kV. They are designed to withstand a permissible working temperature of 90°C to 232°C. These cables exhibit exceptional resistance to oil, heat, and corrosion.

Medium and high voltage power cables: Power Shielded cable designed for fixed installations, utilized for connecting transformers, switchgear, substations, motors, generators, and feeders within distribution networks. It is suitable for direct burial, installation in ducts, conduits, cable trays, or in open air.

Portable Cables: welding machine, white goods and small electrical equipment; industrial and agricultural electrification, heavy machinery and outdoor equipment, submersible motors and submersible pumps, radio equipment, photographic cable products.

Armored cable: The cable consists of three conductive cores and three grounding cores, each conductive core enveloped in wire core insulation. The wrapping tape is embedded with a filler, and the outermost layer features an aluminum alloy armor with a textured surface, followed by a protective sheath layer. This design ensures the cable possesses excellent impact, compression, tensile, expansion, and bending resistance, as well as robust corrosion resistance. It effectively prevents animal damage and offers superior flame retardant properties. The cable is suitable for a wide range of installation environments and is particularly appropriate for scenarios requiring dust-proof, explosion-proof, and high hazardous level protection.

Three-layer co-extruded flame-retardant insulated overhead cable for jungle laying The conductor shield, inner insulation, and flame-retardant layer are co-extruded and crosslinked in a single process through a three-layer co-extrusion technique. The flame-retardant layer is composed of polyolefin material, while the conductor consists of a compressed steelcore aluminum stranded wire. This type of cable exhibits excellent flame retardant properties, effectively preventing bush fires caused by the cable. Additionally, it reduces the overall weight of the cable, conserves materials, and lowers costs.

4.2.4. Technical support capability

After nearly thirty years of unremitting efforts and continuous development, SL has accumulated a wealth of technical experience and expertise. During this time, the company

has worked closely with the Shanghai Institute of Technology to develop numerous highquality cable products. This cooperation has not only promoted technological innovation, but has also enabled SL to make remarkable achievements in the cable field. The company owns a number of patented technologies for its cable products. These patents not only prove its technical strength, but also guarantee the uniqueness and innovation of its products.

In addition, SL attaches great importance to the quality of its products, and all of its cable products have passed a number of international standard certifications such as UL (Underwriters Laboratories), SCA (Safety Testing Laboratories, Inc., USA) and CE (European Conformity Marking). These certifications not only represent the strict international requirements for product quality, but also ensure the reliability and safety of SL's cable products. The company always puts product quality in the first place and is committed to providing customers with the best quality products and services.

In order to meet the growing market demand, SL has established cooperative relationships with many domestic cable manufacturers. This mode of cooperation has greatly enhanced the company's production capacity, enabling SL to respond quickly to customer demand and provide sufficient cable products. Strong production capacity not only ensures timely delivery of products, but also ensures that we maintain our leading position in the highly competitive market.

Thanks to a team of talented people and stable and reliable technical support, SL has achieved remarkable results in the US and Canadian markets. The company has become one of the largest cable exporters in these two countries, which not only proves SL's competitiveness in the international market, but also demonstrates its important position in the global cable industry. Through continuous technological innovation and market expansion, SL will continue to maintain its leading position in the cable field and provide high-quality products and services to customers worldwide.

4.2.5. Summary

SL is a company with a wide range of products, strong technical capabilities, clear market positioning and a certain reputation in the domestic market. With more than ten years of export experience, the company has always insisted on the promotion of its own brand in overseas markets, and therefore has a certain degree of popularity in the international market. This has not only laid a solid foundation for the company's expansion in the global market, but also won it the trust and support of a wide range of customer groups and partners.

SL's products cover a wide range of fields, from high-tech electronic products to daily necessities. The company always focuses on technological innovation and product quality,

and constantly develops and introduces advanced production technologies to ensure the competitiveness of its products in the market. In addition, SL also pays great attention to market positioning and accurately grasps market demands and trends through in-depth market research and analysis, so as to formulate marketing strategies that meet market demands.

In the domestic market, SL has won the recognition and favor of consumers by virtue of its rich product line and excellent technical strength. The company's influence in the domestic market is gradually increasing and its market share is also expanding. At the same time, SL also attaches great importance to the brand image shaping and promotion, through various channels and methods, to continuously improve the brand awareness and reputation.

In the overseas market, SL has accumulated rich experience in operating in the international market by virtue of its more than ten years of export experience. The company has always insisted on the promotion of its own brand, and has continuously improved its brand awareness and influence in the international market by participating in international exhibitions and cooperating with overseas distributors. This has not only laid a solid foundation for the company's expansion in the global market, but also won it the trust and support of a wide range of customer groups and partners.

In conclusion, SL is a company with abundant products, excellent technical strength, clear market positioning and certain influence in the domestic market. The company also has a certain degree of popularity in overseas markets, which lays a solid foundation for the company's overseas market development.

4.3. SWOT Analysis

In delving into SL's strategic choices for the Brazilian market, this thesis employs a SWOT analysis, which analyzes in detail a number of dimensions including Strengths, Weaknesses, Opportunities, and Threats. Through this comprehensive analysis, this thesis aims to assess the potential impact of the external environment and SL's internal conditions on overseas market development. This process not only helps to reveal the opportunities and challenges that SL may face in the Brazilian market, but also provides an important strategic reference for the company to formulate its choice of approach and marketing strategy for entering overseas markets. Through in-depth analysis of these key factors, SL can better understand the market dynamics and optimize the allocation of resources so as to succeed in the highly competitive Brazilian market.

Strength	Weakness
The company has a wide range of products covering all kinds of cables required for communication engineering projects, and can provide one-stop service for customers.	The company is not familiar with the Brazilian market environment and lacks sufficient understanding of Brazilian politics, economy and culture.
The company has nearly 20 years of export experience, and has a certain degree of popularity in overseas markets, especially in	The company lacks experience in operating overseas projects
the South American market. The products have excellent performance, good stability and high cost performance among similar products.	The company has not yet established marketing channels in Brazil, making it difficult to cultivate a stable customer base in the short term.
Opportunity	Threaten
Brazil's rapid economic development, the government is determined to increase investment in infrastructure construction, the future demand for communications cables will increase	Cable products are highly homogenized, with little differentiation between manufacturers, making it difficult for new entrants to gain a certain market share.
The world's cable giants market strategy is mainly focused on North America, Europe and Asia, the South American market has not been too much investment	There are many small and medium-sized enterprises producing telecommunication cables in Brazil, and many potential competitors may enter the market.

Source: Author (2024)

SWOT analysis is an important strategic planning tool that focuses on the combined impact of an enterprise's internal resources and external environmental factors on its strategic choices. By evaluating the enterprise's internal resources and external environment separately, the enterprise can determine its strategic direction. Specifically, SWOT analysis includes the following four aspects:

(1) Growth strategy: When the enterprise has sufficient internal resources and occupies a dominant position, while the external environment provides more opportunities and relatively few threats, the enterprise should actively invest resources and vigorously develop its business. This strategy aims to make full use of internal advantages and external opportunities to promote the rapid growth of the enterprise.

(2) Turnaround strategy: If the external environment in which an enterprise is located is very favorable and offers many opportunities, but the enterprise's internal resources are relatively scarce and there is a disadvantage, then the enterprise should adjust its business direction and strategy and choose more favorable market opportunities. The purpose of this

strategy is to reverse internal disadvantages by changing business strategies so that the enterprise can better utilize external opportunities.

(3) Diversification strategy: When an enterprise has internal resource advantages but the threat of the external environment is greater than the opportunity, the enterprise should adopt the strategy of diversification and choose the diversification strategy. This strategy aims to reduce the impact of changes in the external environment on the enterprise through diversified investment, thus protecting the long-term stable development of the enterprise.

(4) Defensive strategy: When the enterprise's internal resources are not dominant, and at the same time the threats in the external environment are greater than the opportunities, the enterprise should adopt a defensive strategy. The purpose of this strategy is to ensure the survival and stability of the enterprise by consolidating the existing market and business and protecting the enterprise from external threats.

Through the SWOT analysis, we can see that for SL, the opportunities in the Brazilian market currently outweigh the threats and the internal resources outweigh the disadvantages. Therefore, SL should invest aggressively and opt for a growth-oriented strategy. This means that the company should capitalize on its internal strengths and seize the opportunities provided by the external environment to drive rapid growth in the Brazilian market. By doing so, SL can realize its strategic objectives, enhance its market competitiveness, and achieve sustainable development.





Source: Author (2024)

Through in-depth analysis and research, we can clearly see that Brazil, as an emerging economy, possesses huge development potential and broad market prospects. This country not only has outstanding economic performance, but also has a significant position in the South American region. Therefore, once the Brazilian market is successfully captured, it can effectively radiate and influence the entire South American market. This is undoubtedly an

attractive bridgehead for overseas markets for a company like SL, which is going into the international arena for the first time.

At present, although many international cable giants have begun to pay attention to the development of the Brazilian market and gradually increase their investment in the region, their strategic focus is still concentrated on the European, North American and Asia-Pacific markets. Under such circumstances, the Brazilian market is not yet fully saturated and the competition is relatively small, which provides an excellent opportunity for SL to enter the Brazilian market. Therefore, SL should fully recognize the importance of this opportunity and take active steps to accelerate the pace of developing the Brazilian market and the South American market as a whole.

By formulating targeted market strategies, strengthening cooperative relationships with local partners, and enhancing the competitiveness of its products and services, SL has every possibility of gaining a foothold in the Brazilian market. At the same time, through the successful experience in the Brazilian market, the company can also further expand to other South American countries, and gradually build up the company's brand influence and market share in the entire South American region. In this way, SL will not only be able to gain a firm foothold in the international market, but also be able to lay a solid foundation for its future long-term development.

4.4. Segmentation, Targeting and Positioning

Through our previous international market analysis, we can clearly see that the cable industry in developed countries is highly concentrated, with the market dominated by a few large cable manufacturers. Given SL's current strength, it will be a great challenge to stand out in these markets, while the threshold for market entry is also relatively high, especially in developing countries. According to an in-depth analysis of the international market, the growth of a country's demand for cables is usually positively correlated with its economic growth rate, especially for those countries that are in the process of industrialization and urbanization, the growth of the cable industry tends to exceed the growth of GDP. Therefore, the BRIC countries, which have experienced rapid economic growth in recent years, could be a strategic location for SL to expand into international markets. After excluding the Chinese domestic market, this thesis will focus on Brazil, China's major trading partner in South America, as a target market for in-depth research and analysis.

The core aspect of strategic marketing decision-making lies in market segmentation, i.e., the breakdown of a large market into smaller, more homogeneous sub-markets. The purpose

of segmentation is to enable companies to target customer segments more precisely and efficiently. Customer selection is a crucial decision for SL because the firm's resources, skills, business strategy, and organizational structure must match the needs of these target customers. The products, pricing strategies, communication promotions, and distribution systems offered by the company should match the specific needs, preferences, and purchasing processes of the customers. After identifying target markets, the company also needs to define its position within these market segments, i.e., how it wants customers to perceive it relative to its competitors. Customer selection has far-reaching strategic implications, as high-quality customers consistently derive the greatest value from the company's products, resulting in stable demand and purchasing habits that make the relationship easy to maintain. At the same time, such customers value and are willing to pay for the resources the company invests in meeting their needs, making them a prime target group for SL's overseas market development.

The most effective market segmentation criteria in the communication cable industry is based on the different sectors in which the customers are located. Specific segments include communication equipment suppliers, communication carriers, government procurement departments, construction companies, railroad companies, radio and television companies, shipyards, and mineral resource development companies. This differentiation is based on the fact that different customers have different needs for products, and each market segment has different requirements for product characteristics. Through this segmentation, the company is able to gain a deeper understanding of the needs of different types of customers, optimize product features, and assign appropriate technical support staff. In addition, when a market segment is affected by fluctuations in the economic cycle, the Company is able to make timely adjustments to its purchasing and production plans to avoid potential negative impacts.

4.4.1. Segmentation

In the Brazilian market, the demand for cables is mainly concentrated in the following areas:

Infrastructure construction and public works

In recent years, Brazil's infrastructure development has accelerated, including transportation, power, water conservancy and other aspects of public works. The government continuously promotes related projects to meet the needs of economic growth and social development. Against this background, there is a greater demand for power cables, especially high-voltage and medium-voltage cables. Meanwhile, Brazil has significant demand in the infrastructure sector, especially for the modernization and expansion of roads, railroads, ports and airports. As the Brazilian government promotes investment in

infrastructure (e.g., the Investment Partnership Program), public-private partnerships (PPPs) and privatization projects are attracting significant international and local investment, with \$44 billion worth of projects expected to be auctioned between 2023 and 2025. This segment of the market has a high demand for high-quality cable products, especially for the high-load transportation and logistics sectors. Meanwhile, the Brazilian government's Programa de Parcerias de Investimento (PPI) is promoting the privatization of a large number of infrastructure projects in the areas of roads, railroads, and ports, with \$44 billion of projects open to private investors between 2020-2022. billion dollars in projects open to private investors. (Source: IDB)

Energy Industry (Oil & Gas, Renewable Energy)

Brazil is one of the world's major oil and gas producers, with significant demand for oil and gas pipelines and cables. In addition, Brazil's renewable energy (e.g., hydropower, wind power, solar power, etc.) industry is growing rapidly, especially in wind and solar power. Therefore, the energy industry is also an important market segment for cable products. According to an analysis by the International Development Bank (IDB Invest) and Global Infrastructure Hub, Brazil's investment in the power transmission network and renewable energy sources (especially wind and solar) continues to increase, and private companies are expected to invest more in this sector in the coming years to drive the modernization of the transmission network.

Manufacturing and Industry

The demand for cables in the Brazilian manufacturing sector, which includes the automotive, steel, petrochemical and machinery industries, is also relatively large. The demand for industrial cables covers areas such as low-voltage and control cables for manufacturing plants and industrial equipment Brazil's industrial sector is undergoing a process of technological modernization, especially in terms of automation and productivity enhancement, which is driving the widespread use of cable products in the manufacturing industry. The IDB Invest report mentions that there is a huge need for improvement in the industrial infrastructure, which further illustrates the potential growth potential of the cable market.

Telecom and Data Centers

With the rapid growth of 5G and data centers, the demand for fiber optic cables and high bandwidth cables has increased, especially in metropolitan areas, and telecom and data centers are emerging as an emerging market segment. Brazil's 5G and broadband infrastructure is expanding rapidly to address the demand for high-speed internet in urban and rural areas. The government is supporting network expansion through policies, which will significantly increase the demand for fiber optic cables.

Urban development and real estate construction

It is targeting real estate developers in tier-1 cities such as São Paulo and Rio de Janeiro to provide low-voltage cables suitable for residential buildings. The real estate market in these cities has a strong demand for cable products.

4.4.2. Targeting

Based on the above market segmentation, SL can focus its target market on the following areas:

Infrastructure and government projects

For the Brazilian government to provide high-voltage and medium-voltage cables for large-scale public works projects (e.g., subways, highways, water conservancy projects). These projects are well-funded and in high demand, and may consider entering the market through government tenders or partnerships with local contractors.

The energy industry (oil, gas and renewable energy)

Focuses on companies in oil, gas and renewable energy sources such as wind power and solar power, providing them with specialty cable solutions. As the energy industry has a high demand for high-standard cables with high technical requirements, we can start with product quality and specialization to meet their specific needs. Meanwhile, Brazil is actively promoting energy transition for sustainable development, a policy that is also driving demand in the cable market. According to a report by the World Economic Forum, the Brazilian government is strongly supporting the development of clean energy sources such as wind and solar power through legislation and financing mechanisms, further strengthening the demand for grid and distributed generation systems. Especially in remote areas, Brazil is in dire need of new transmission networks to cope with the growing demand for electricity. Such infrastructure projects typically require large quantities of high-quality cables for the transmission of stable power and the construction of distributed energy systems.

Industrial Manufacturers

Brazil is one of the most industrialized countries in Latin America, with continued growth in its manufacturing, mining and oil and gas industries. These industries have a high demand for reliable energy transmission and high-performance cable products to ensure the stability and productivity of equipment operations. In addition, Brazil's heavy industrial base is spread across the country, and energy-intensive industrial sectors, such as mining and metal processing, in particular, continue to have strong demand for industrial cables. This demand is expected to expand further as industrial activity recovers and grows. Therefore, it is possible to provide industrial cable products such as low-voltage cables and control cables for Brazilian manufacturing companies (e.g., automotive, steel, chemical). Since the manufacturing industry in Brazil is widely distributed, a differentiated marketing approach can be taken based on regional characteristics and the demand characteristics of different industries.

Telecommunications and Data Centers

The continued growth of the telecommunications industry and the rollout of 5G networks has increased demand for fiber optic cables, while the expansion of data centers is driving demand for high-bandwidth cables. This is an area where your company can partner with telecom operators, data center builders and IT service providers.

4.4.3. Positioning

In order to occupy a favorable position in the Brazilian market, we propose that your company position itself in the Brazilian cable market as follows:

High quality and technological leadership

To position the company as a "high-quality, high-performance cable solutions provider", especially in the field of high-voltage and special cables, emphasizing technological superiority High quality and technological leadership This will help to build a strong image and brand value in the public infrastructure and energy sectors. The Brazilian cable market has a high demand for quality and reliability, especially in large infrastructure and energy projects, and the government and major industrial customers have high requirements for the durability and stability of cable products. Demand for medium- and high-voltage cables in this market is on the rise, mainly due to the economic growth that has led to infrastructure development and a corresponding increase in power demand. Therefore, high quality and high performance as the core selling point can effectively meet the demand for long-lasting and durable cables in the Brazilian market.

Environmental protection and sustainability

Currently, Brazil is increasingly demanding environmental protection and sustainability. Therefore, the company can make green and sustainability an important part of its brand and launch cable products that meet environmental standards to gain a good reputation among customers and government departments. With Brazil's rapid development in the field of renewable energy, especially in wind and solar energy, the market demand for environmentally friendly cable products is also increasing. The Brazilian government and several companies are actively promoting green projects, and there is a growing demand for green cables, especially for long-distance power transmission systems. For more sustainable companies, the development of environmentally friendly materials and green manufacturing of cable products and their core positioning in the market can attract environmentally concerned public sector and corporate customers.

Customized services

Provide customized cable solutions for different industries to meet the individual needs of customers in various fields. For example, for the oil and gas industry, high-temperature and corrosion-resistant cable products are introduced; for the real estate market, construction cables that comply with safety standards are introduced. Demand in the Brazilian cable market involves multiple sectors such as power transmission, infrastructure, industry and housing, with a high demand for product diversity. Providing customized cable solutions for different project types can help companies better adapt to the complex needs of the Brazilian market. For example, growing demand for data transmission and high bandwidth has led to increased demand for fiber optic cables, while transmission projects in remote areas and harsh environments require products with higher levels of protection. By providing personalized product design and customization services, the specific needs of different customers can be met more precisely.

Service network and customer support

It is crucial to strengthen the service network in Brazil to provide easy access to aftersales service and technical support. This not only ensures the product experience, but is also critical to maintaining customer relationships, especially in areas where cable installation and maintenance needs are high. Through efficient customer support, we are able to build a good reputation in the market. With the rapid development of smart grids in Brazil, the public sector and large utilities are looking to digital technology to improve the efficiency and stability of the grid. Digital solutions such as smart cable products and built-in sensors are widely welcomed by customers in the energy and power industries, as they not only improve the efficiency of power delivery but also reduce maintenance costs. As a company focused on providing digital and intelligent solutions, we expect to be in a favorable competitive position for smart grid projects in Brazil.

4.5. Plan to Internationalize to Brazil

4.5.1. Overseas Market Entry Mode Selection

Overseas market entry mode, also known as internationalization entry mode, usually involves an enterprise's strategy of transferring its products, technologies, human resources, management experience and other resources to other countries, and constitutes the core of an enterprise's overseas market strategy. In expanding overseas markets, enterprises need to transfer both tangible and intangible assets, which are mainly reflected in the way of resource allocation for market internationalization, procurement internationalization, production internationalization and R&D internationalization.

The traditional modes of overseas market entry are divided into three main categories: trade-based entry, contractual entry and OFDI, each of which includes different

subcategories, and SL currently conducts its overseas business mainly in a trade-based manner.

Main Type of Entry Mode	Specific Type
Trade-based Entry	Direct Export Indirect Export
Contract-based Entry	Licensing Agreement Franchising Turnkey Contract Management Contract Service Contract Joint Venture
Foreign Direct Investment	Joint Venture Enterprise Wholly Owned Subsidiary or Branch

Table 4.3 Traditional Classification of Overseas Market Entry Modes

Source: Author (2024)

Choosing to enter overseas markets is a complex process involving numerous factors, and different types of enterprises may make different decisions according to their own circumstances. In this thesis, we will focus on SL's technological capabilities and the characteristics of its cable products, discuss the most suitable overseas market entry strategy for SL.

SL has been focusing on the development of products with independent intellectual property rights, and has obtained the certification of Shanghai Innovative Enterprise, and owns a number of intellectual property rights of products. However, the company lags behind in the development of international standards of products, and is unable to lead the development of international standards and the research of the industry's advanced products, so SL does not have a strong ability to export its technology, and the company belongs to the stage of development, and does not have the strength to compete with the international giants in terms of its trademark credibility and management experience. SL has been operating in overseas markets through direct export, but this mode cannot penetrate into the target markets, and is greatly affected by tariff barriers, exchange rate fluctuations, and other factors, and is unable to support the company's long-term strategy for overseas market development. However, this mode cannot penetrate into the target market and is affected by tariff barriers, exchange rate fluctuations and other factors, and it cannot support the company's long-term strategy of overseas market development. From the point of view of resource acquisition, Brazil has rich mineral resources, in the international raw material prices are increasingly high today, Brazil can be lower prices for the company to provide the

production of the most important raw materials for cable copper, aluminum, platinum. From the host country policy risk point of view, Brazil has long been relying on attracting foreign investment to develop their own industries, the government has formulated a number of policies to attract overseas investors, especially in the current situation, the Brazilian economy into a short period of stagnation, the government urgently need to rely on foreign investment to promote the country's economic development back to the fast lane. From a cultural point of view, Brazil is a multicultural country that developed from colonization and does not exclude foreign investment. Taken together, Brazil is a suitable country for direct investment.

The cable industry is an industry with high up-front investment costs and Minimum Efficient Scale (MES), and it is difficult to achieve economies of scale with SL's financial strength to build a factory on its own, which will push up production costs. Moreover, the establishment of sales channels requires a large amount of capital investment, which will increase the investment risk and may push the company to an unfavorable position. For a company like SL, which is not yet listed, it is also very difficult to acquire a Brazilian cable company. Firstly, the source of capital is limited, and the huge cost required for the acquisition will increase the company's operational risk, and secondly, SL lacks overseas marketing experience, which will increase the integration risk after the acquisition. Therefore, from the point of view of transaction cost and risk control, joint venture is the best model for SL to develop the Brazilian market as it allows the company to obtain complementary resources at a lower cost and bear less risk.

SL has accumulated more than a decade of direct export experience and, according to the internationalization management stage model, it is currently in the second stage of internationalization. The next stage is the establishment of a productive joint venture. If the firm attempts to leapfrog, uncertainty will increase significantly, as each stage progression is a process of gradually reducing uncertainty about local customs, consumer preferences, and market structure, while simultaneously strengthening ties with local customers, suppliers, competitors, and policymakers. By following this market entry path, the firm's linkages with the local market are gradually solidified and its investment experience is accumulated, thus effectively reducing the risk of adopting a high-resource-commitment entry approach.

Accordingly, SL's strategy of internationalization by production followed by internationalization by sales is seen as an effective way to avoid policy risks. While sales entry can provide host country consumers with inexpensive products, it may at the same time exert competitive pressure on local producers and may have a negative impact on industrial development and the job market in the host country. In contrast, productive entry helps create jobs and increase tax revenues, so policymakers usually tend to limit purely sales entry and encourage productive entry. From this perspective, SL firms can minimize adverse

policy responses by first making productive investments in the target market, followed by sales investments later. Especially for a company like SL, which is inexperienced in investing in overseas markets and is still unfamiliar with the Brazilian market, culture, and policy system, this sequence of investments can help the internationalization strategy to move forward smoothly.

Therefore, choosing the productive entry approach can reduce the risk of SL's overseas market development. Compared with the enterprise's overseas wholly-owned factory, choosing to build a joint venture with a local Brazilian enterprise can make up for SL's deficiencies in terms of insufficient market understanding and imperfect sales channels, thus improving the success rate of SL's initial entry into the overseas market.

Through the study of overseas market entry mode, combined with the theory of entry mode selection of economics paradigm and management paradigm, it is now suggested that SL chooses a local Brazilian cable company for joint venture manufacturing is the optimal choice for SL to enter the Brazilian market at present.

4.5.2. Marketing Strategy

Marketing strategy is a type of planning aimed at developing a market that guides the efficient allocation of limited resources to achieve marketing objectives in the face of intense competition. The strategy starts with analyzing the market environment in terms of potential customers and competitors, and ultimately focuses on satisfying customers' needs.SL's cable products are categorized as industrial products, which are not targeted at end-consumers, which leads to significant differences between its marketing strategy and that of traditional consumer products, in terms of the complexity of the purchasing process, the complexity of the products, the interdependence of buyers and sellers, and the interdependence of buyers and sellers, and the interdependence of functional departments.

In industrial markets, purchasing decisions are usually not made by individuals, but by an organization collectively. The process usually involves a complex set of activities involving members of multiple organizations. Since industrial purchases often involve large sums of money, their importance is usually high. The higher the importance of the decision, the greater the complexity of the process, the greater the number of people involved in the decision, and the corresponding growth in the time required for the decision. Thus, the procurement of industrial goods is a complex organizational decision-making process.

The development and design of industrial products are always centered on meeting customers' needs. In the development of marketing strategy, we must give full consideration

to the functional value of the product to the industrial products customers, which includes product performance, technical support, reliable supply, after-sales service, supplier reputation and buyers and sellers in the technology, personnel and other aspects of the comprehensive interests. Especially in the marketing of cable products, the product is not only a material entity, but also connects the buyer and seller of economic, technical and interpersonal relations. This characteristic determines that the marketing of cable products needs to be multi-directional, multi-level communication with customers, so it is a complex linkage process.

In the marketing of cable products, the completion of the sale does not represent the end of the relationship between the buyer and the seller, but is only a node in the marketing process, marking that the two parties have established an interdependent relationship.SL, as a seller, relies on the buyer's continuous orders to share its own relevant inputs; while the buyer needs a stable and reliable supply of products and subsequent technical support. Termination of the relationship by either party would result in high switching costs. Therefore, the marketing of cable products requires a company to establish a global marketing concept to ensure that all business units are customer-centered. This is because a company's R&D, manufacturing, engineering, and inventory management departments may all interact directly with customers, and marketing effectiveness depends heavily on the collaboration of non-marketing business units.

While the previous section highlighted the marketing characteristics of cable products, the next sections will look at how to construct an effective overseas marketing strategy. A successful marketing strategy consists of key sub-strategies such as market segmentation, pricing, promotion and distribution, which are coordinated and synergistic. Given that the cable industry usually starts production only after orders are received, which avoids the build-up of large inventories, promotional tactics are generally not used. Therefore, SL's marketing strategy focuses on market segmentation, pricing and sales channel strategy.

4.5.2.1. Pricing Strategy

Price plays a vital role in industrial marketing strategy, interacting with the various elements of the marketing mix to determine the overall effectiveness of the marketing strategy. At the same time, price is a central strategic variable in developing the product life cycle. The product life cycle model shows that during the growth phase, the marginal profit of a product usually reaches its highest point, which reflects a relatively high price in the presence of less competition. However, as the product enters maturity and the number of competitors increases, the price decreases and demand increases accordingly. Lower prices and higher

volumes may lead companies to reduce costs by scaling up production. However, if the cost reduction is not synchronized with the price strategy, it may result in losses for the company. In the cable industry, the products are currently in the maturity stage, competition is intense, marginal profits are low, and production costs are highly affected by fluctuations in raw material prices. Therefore, the company needs to adopt appropriate pricing strategy to secure market share and reduce production cost by increasing production volume so as to achieve target profit.

Pricing strategies for cable products are usually based on the following key factors to ensure their competitiveness and profitability potential in the marketplace:

1. Raw material costs: The main constituent materials of cables, including copper, aluminum, insulators and sheathing materials, are subject to high price volatility. Cable manufacturers must closely monitor price movements in the global metals market and dynamically adjust product pricing accordingly to reflect changes in raw material costs.

2. Manufacturing costs and processes: The complexity of the processes and technologies used in manufacturing can also affect product pricing. If a cable product requires higher quality insulation, a special protective layer, or higher immunity to interference and transmission efficiency, its cost increases accordingly. These higher-end products are priced higher to reflect their higher manufacturing costs and technological value-add.

3. Product specifications and cable types: Pricing of cables for different applications (e.g., high-voltage, medium-voltage, low-voltage, or fiber-optic cables) varies depending on their specifications and application scenarios. For example, high-voltage cables used for power transmission are usually priced higher, while fiber optic cables used for communications may be priced based on the number of fiber cores, bandwidth, and other characteristics.

4. Market demand and competitive environment: Pricing of cables may be adjusted depending on market demand and competitive conditions. Prices tend to increase during peak demand periods or when supply is tight; and in competitive market environments, companies may adjust prices appropriately to maintain their market competitiveness.

5. Additional services and customization: If customers require customized cables, personalized packaging or specific certifications (e.g., UL, CE, ISO certifications, etc.), prices will increase for these additional services. Companies can set a premium for these services to ensure that they realize higher profit margins while meeting specific customer needs.

6. Transportation and logistics costs: Transportation costs are also a factor to be considered in the pricing of cable products, especially for products exported to other countries. When the weight and volume of the product is large, logistics costs can significantly affect the price, so the cost of transportation to remote markets will be taken into account in the pricing. 7. Exchange rate and tax implications: For export products, exchange rate fluctuations and local import taxes can also have a direct impact on pricing. In order to cope with cost changes due to exchange rate fluctuations, companies usually include a risk premium in their pricing.

In view of the above factors, we have constructed a base pricing model for various types of cable products under SL Cable.

Product Base Price + Copper Weight * (Outgoing Unit Price after Price Adjustment/5.1)/1000 + Aluminum Weight * (Existing Price of Aluminum - Base Price)/1000

For example, for the various types of products mentioned above, the quoted prices according to this formula are referenced below.

No.	Norm	Product Base Price RMB/m	Copper Weight (kg/km)	Aluminum Weight (kg/km)	Outgoing Unit Price after Price Adjustment RMB/m
1	NMD90 NYLON 3*6+8	9.35	0	136.2	9.69
2	AL-ACWU90 3*1+4	31.56	0	641.7	33.18
3	AL-ACWU90 3*250+2	65.42	0	1509	69.22
4	AL-ACWU90 3*6+8	13.96	0	249.4	14.59
5	RW90 AL 250	12.93	0	349.8	13.81
6	AL-ACWU90 4*500+1	137.60	0	3526.8	146.49
7	AL-ACWU90 4*750+1/0	187.95	0	5078.4	200.75
8	RW90 AL 750	35.44	0	1046.5	38.08
	Base Price	18.48	Existing Price of Aluminum	21	

Figure 4.7 SL Cable Product Pricing Model Diagram

Source: Author (2024)

For those pricing strategies aimed at overseas market development, multiple objectives need to be achieved: (1) achieving return on investment goals; (2) maintaining stable prices and profits; (3) expanding market share; and (4) adapting to or preventing competition. These objectives may be emphasized depending on the company's stage of development or changing financial situation. For SL firms entering overseas markets for the first time, expanding market share should be the primary objective. At the same time, as a market follower, SL companies should thoroughly analyze the pricing of the leaders. If the leader's pricing can help the company achieve its target rate of return, then SL should accept the price and adjust its strategy accordingly to compete for market share.

Taking all factors into consideration, SL should implement a flexible pricing strategy to adapt to market competition and maintain its market share.

4.5.2.2. Sales Channel Strategy

The sales channel encompasses the company's direct sales force as well as the distribution network. As internal employees, the company's sales representatives are tasked with identifying potential customers, conducting business negotiations, signing sales agreements, and processing orders. To ensure that they are able to effectively represent the company and build strong relationships with customers, sales representatives must receive rigorous training to become well-versed in the company's product lines and technical details. Currently, SL has a sales team dedicated to international markets. However, in order to further expand overseas and establish joint ventures, it is necessary for the company to develop a localized sales team.

Distribution constitutes a key strategy for product marketing and covers two core aspects. First, the concept of distribution involves intermediaries, who buy and sell as the product moves through the distribution network. Second, distribution also covers physical distribution, the physical flow and storage of the product from the manufacturer to the end user. The main objective of distribution is to maximize market share and ensure effective market penetration. For SL companies, a well-established and efficient distribution network is essential if they want to develop overseas markets and gain a certain market share.

There are many types of distributors, which can be categorized into agents, brokers, wholesalers, and retailers who purchase directly from manufacturers based on the breadth and specialization of their functions. Agents, including sales agents and manufacturer's representatives, are primarily responsible for the distribution function, do not own the product, do not provide financing for the transaction, and in some cases provide market intelligence to the manufacturer, making them the most common distribution channel in the cable industry.

In the broker's distribution model, the broker represents both the buyer and the seller, and plays the role of market creation and price negotiation in the raw materials and other product areas, but this approach makes little sense for SL companies with specific markets and target customers. Wholesalers are specialized distributors and sometimes provide services to other channel members closer to the end user, such as retailers. Retailers who buy directly from manufacturers are primarily responsible for sales, credit, and market information gathering functions, and they ship products directly from the manufacturer to the customer without direct contact with the product.

In the cable market, manufacturers' representatives, or agents, are the primary distributors. They sell the agent's products in a designated area through contracting with cable manufacturers and earn revenue through commissions. In the target market of Brazil, the market can be expanded rapidly by establishing a local agent channel, which is in line with SL's future development needs. However, the selection and management of agents is a difficult part of distribution channel building, especially in the absence of in-depth knowledge of the Brazilian market and management experience, and extra care must be taken when selecting agents.

4.5.2.3. Revenue expectations

Provided that the marketing strategy is effectively implemented, based on SL's past sales performance, we cautiously predict that sales are expected to reach \$20 million in the first year. Over the next five years, we expect sales to maintain an average annual growth rate of 20%. Based on this projection, the production value is expected to reach US\$41.472 million by the fifth year of the project's production.

4.6. Implementation

From the previous analysis, it can be seen that the best way for SL to enter the overseas market is to establish a joint venture with a local company in Brazil. In the era of increasing internationalization of capital flows, this will not be a big obstacle, the domestic listed company Hengtong Optoelectronics entered the Brazilian market in 2012 through a joint venture with Brazil Copper B. Therefore, this thesis suggests that SL should look for a company with certain market experience and extensive sales channels in Brazil to build a joint venture, and take 51% of the shares of the joint venture project, with the venture investor holding 20% and the Brazilian company holding 29%.

4.6.1. Investment budget for jointly financed projects

Based on SL's plant in Qingdao, China, the joint venture aims to build a modern factory with an annual capacity of 80,000 kilometers and an area of 10,000 square meters. The total investment is expected to include US\$5 million for the procurement of production equipment and US\$3 million for the construction of the plant, office facilities, production management system and training system. In addition, land rental is expected to be US\$500,000 per year, and raw material procurement and working capital requirements are US\$2.5 million, for a total investment of approximately US\$11 million. Please refer to Table 4.4 for the detailed investment budget.

Serial Number	Investment Project	Quantity	Unit Price	Total Budget
1	Production Line	5	800000	4000000
2	Forklift	10	10000	100000
3	Knitting Machine	20	5000	100000
4	Physical Foaming Machine	10	20000	200000
5	Condenser	5	120000	600000
6	Factory Construction		2000000	2000000
7	Production Management System	1	500000	500000
8	Training System	1	200000	200000
9	Office System	1	300000	300000
	Total			8000000

Table 4.4 Investment Budget for Joint Venture Project (Unit: USD)

Source: Author (2024)

4.6.2. Financing programme

As an unlisted company, SL could not raise capital through the public market. Therefore, it faces two main ways of financing: debt financing through bank loans and equity financing through attracting venture capital. With equity financing, the company does not have to take on debt and pay interest, which helps maintain a healthy cash flow position. However, it requires the company to cede part of its ownership and must meet investors' expectations of returns, which is conducive to the company's long-term growth. On the other hand, debt financing can be restrictive in the use of funds and requires regular principal repayments and interest payments regardless of the company's business condition. Nevertheless, debt financing is relatively inexpensive and does not dilute the company's control over the future.

After more than two decades of steady growth, SL has grown into a medium-sized private company with assets totaling more than \$2 billion. The company has a healthy cash flow, but it is not very generous. Given the need for risk control and maintaining good cash

flow, it is currently recommended that the JV adopt a strategy of combining equity and debt financing. This strategy aims to increase long-term capital by attracting venture capitalists, while utilizing debt financing to enhance short-term cash flow and ensure the stability of the company's operations.

In order to guarantee the smooth progress of the project, the joint venture company plans to apply for a US\$1 million loan from the bank to meet the capital turnover demand, and plans to attract US\$2 million of venture capital funds to optimize the capital structure. In terms of equity financing, the JV will consider existing shareholders, as well as venture capital funds or individual investors with investment experience in the cable industry as potential financing targets.

The level of financing cost determines the return of SL's overseas projects, and also relates to the amount of funds paid by the company in the future, and different financing methods have different financing costs. In order to accurately understand the financing cost of the project, this thesis utilizes the WACC method to measure the financing cost of the project.

Preliminary estimation, venture capitalists and shareholders' expected return on the project is 20%, and the interest rate of short-term bank loan is 8%, so the cost of capital of the joint venture project is: Cost of Capital = Equity Financing Ratio × Expected Return on Equity + Debt Financing Ratio × Cost of Debt =90.9%*20%+9.1%*5%=18.9%

4.6.2.1. Future Financial Forecast

This thesis measures the financial risk and investment value of SL's overseas projects by forecasting the three major financial statements of the projects and then calculating the key financial indicators through the financial statements.

The financial projections for this overseas project are based on the following assumptions:

1. product sales in each production cycle will be completed as planned, the sales price will be consistent with the expected price, and the payment for the goods will be collected in the current period.

2. SL's investment in fixed assets for the overseas projects will total \$8 million. The fixed assets will be depreciated using the straight-line depreciation method over an estimated period of ten years, with the salvage value set at 10% of the original value of the fixed assets. The fixed assets are not expected to be recovered after ten years.

3. The joint venture will undertake a short-term loan of \$1 million, with an expected annual interest rate of 8%. The loan will be disbursed at the beginning of each quarter, with principal and interest repayments due at the beginning of the following quarter.

4. Based on SL Company's historical experience in the domestic market, selling expenses account for 3% of sales revenue, and administrative expenses account for around 2% of sales revenue.

5. According to Brazilian tax regulations (2011), corporate income tax is levied at a standard rate of 15%, with an additional 9% social contribution tax, resulting in a total tax burden of approximately 24%.

6. The cost of capital is 18.9%.

4.6.2.2. Financial status of the project in the next five years

Based on sales projections, SL's profits for the five years after the commissioning of the overseas projects are shown in Figure 4.7, and it is expected that by the fifth year, the net profit of the joint venture company can reach US\$3.271 million.

Project	First year	Second year	Third year	Forth year	Fifth year
Main Business Revenue	20000000	24000000	28800000	34560000	41472000
Main Business Cost	16000000	19200000	23040000	27648000	33177600
Administrative Expenses	400000	480000	576000	691200	829440
Depreciation	720000	720000	720000	720000	720000

Table 4.5 Profit and Loss Statement for Five Years After Project Launch (Unit:

USD)

Selling Expenses	600000	720000	864000	1036800	1244160
Operating Profit	2200000	2800000	3520000	4384000	5420800
Financial Expenses	80000	80000	80000	80000	80000
Profit Before Tax	2120000	2720000	3440000	4304000	5340000
Income Tax	508800	652800	825600	1032960	1281600
Net Profit	1611200	2067200	2614400	3271040	4058400

Source: Author (2024)





Source: Author (2024)

Using straight-line depreciation, the one-time investment in fixed assets is allocated evenly across each quarter, providing the project cash flow as shown in Figure 4.8.

Table 4.6 Cash flow statement for five years after project commissioning (Unit:

USD)

Project	Construction period	First year	Second year	Third year	Forth year	Fifth year
Main Business Revenue		20000000	24000000	28800000	34560000	41472000
Recovery of Working Capital		15000000	15000000	15000000	15000000	15000000

Main Business Cost		16000000	19200000	23040000	27648000	33177600
Administrative Expenses		400000	480000	576000	619200	829440
Selling Expenses		600000	720000	864000	10368000	1244160
Income Tax		50800	652800	825600	1032960	1281600
Payment of Working Capital		15000000	15000000	15000000	15000000	15000000
Net Cash Flow from Operations		2949200	2947200	3494400	4151040	4939200
Loans		1000000	1000000	1000000	1000000	1000000
Equity Financing						
Interest Payments		80000	80000	80000	80000	80000
Debt Repayment						
Net Cash Flow from Financing Activities		-80000	-80000	-80000	-80000	-80000
Investment Income						
Purchase of Fixed Assets	8000000					
Net Cash Flow from Investment Activities	-8000000					
Net Cash Flow	-8000000	2869200	2867200	3414400	4071040	4859200

Source: Author (2024)

Figure 4.9 Profit and Loss Statement for Five Years After Project Launch (Unit: USD)



Source: Author (2024)

As the project grows, the total assets of the project show an increasing trend, Figure 4.9, at the end of the fourth year the total assets will exceed \$20 million.

Ducient	First	Second	Third	Forth	Fifth
roject	year	year	year	year	year
Cash	4869200	7736400	11150800	15221840	20081040
Accounts Receivable					
Inventory					
Prepaid Expenses					
Deferred Expenses					
Total Current Assets	4869200	7736400	11150800	15221840	20081040
Original Value of Machinery and	8000000	8000000	8000000	8000000	8000000
Equipment	800000	800000	800000	800000	800000
Accumulated Depreciation	720000	1440000	2160000	2880000	3600000
Total Fixed Assets	7280000	6460000	5840000	5120000	4400000
Long-term Investments					
Intangible Assets	500000	500000	500000	500000	500000
Total Other Assets	500000	500000	500000	500000	500000
Total Assets	12649200	14696400	17490800	20841840	24981040
Short-term Loans					
Accounts Payable					
Wages Payable					
Other Payables					
Taxes Payable	508800	652800	825600	1032960	1281600
Total Current Liabilities					
Long-term Loans					
Long-term Bonds					
Total Long-term Liabilities	1000000	1000000	1000000	1000000	1000000
Total Liabilities	1000000	1000000	1000000	1000000	1000000
Paid-in Capital	1000000	1000000	1000000	1000000	1000000
Capital Surplus					
Surplus Reserves					
Retained Earnings	1611200	2067200	2614400	3271040	4058400
Total Equity	2649200	4696400	7490800	20841840	24981040
Total Liabilities and Equity	12649200	14696400	17490800	20841840	24981040

Table 4.7 Balance sheet for five years after project commissioning (Unit: USD)

Source: Author (2024)

Figure 4.10 Balance sheet for five years after project commissioning (Unit: USD)



Source: Author (2024)

4.6.2.3. Analysis of key financial indicators

To accurately analyze the project's financial position, this thesis selects indicators across four aspects: asset liquidity, operating profitability, debt repayment capacity, and return on equity investment. Specific financial metric calculation methods and evaluation criteria are detailed in Table 4.8.

Financial Indicators	Financial ratio	Calculation method		
flowing	Current Ratio	Current Assets / Current Liabilities		
Net Profit Margin		Net Profit / Sales Revenue		
operating profit	Return on Total Assets (ROA)	Operating Profit / [(Beginning Assets + Ending Assets) / 2]		
	Total Asset Turnover	Sales Revenue / [(Beginning Assets + Ending Assets) / 2]		
debt-servicing	Debt-to-Asset Ratio	Total Assets / Total Liabilities		
capacity	Interest Coverage Ratio	Operating Profit / Interest Expense		
shareholders' profit	Return on Equity (ROE)	Net Profit / [(Beginning Equity + Ending Equity) / 2]		

Table 4.8 Calculation of key financial indicators

Source: Author (2024)

Based on the forecast data of the previous three major statements and the calculation method of financial indicators listed in the above table, it can be predicted that the main

financial indicators after the commissioning of the joint venture company will be as shown in Table 4.9.

Financial ratio	First year	Second year	Third year	Forth year	Fifth year
Current Ratio	4.8	7.7	11.1	15.2	20
Net Sales Profit Ratio	8.00%	8.60%	9.00%	9.40%	9.70%
Return on Total Assets	0.194	0.204	0.371	0.228	0.236
Total Asset Turnover Ratio	1.76	1.75	1.78	1.8	1.81
Gearing ratio	12.6	14.6	17.4	20.8	24.9
Interest-to-Income Multiple	27.5	35	44	54	67
Return on equity capital	0.14	0.15	0.16	0.17	0.177

Table 4.9 Analysis of key financial indicators of the Joint Venture after

commencement of production

Source: Author (2024)

It can be seen through the various financial indicators that the project's current ratio is gradually increasing, which can bring rich cash flow, while the net profit margin, return on total assets and total asset turnover ratio are all maintained in a relatively stable state, so it can be expected that the project's future financial position is good and can bring relatively rich returns.

4.6.2.4. Investment Return Forecast

The investment return forecast assesses whether the project has substantial investment returns and value by calculating the payback period, net present value (NPV), and internal rate of return (IRR).

Payback Period: The payback period estimates how long it will take for a project to recover its initial investment, providing a measure of the project's investment value. The payback period is typically calculated using the following formula:

$$T = n - \sum_{i=1}^{n} p_i / p_n$$

Where T is the payback period, n is the investment duration, and PiP_iPi represents the cash flow in year i. Based on the calculations, the project's static payback period is approximately 1.56 years, while the dynamic payback period is 2.39 years. Both figures are less than the investment duration, indicating that the project has investment value.
Net Present Value (NPV): Net present value is the sum of the cash net flows generated by the investment, discounted at the cost of capital. It reflects the current investment value of a project; the larger the NPV, the greater the investment value of the project. If the NPV is less than 0, the project does not have investment value. The formula for calculating NPV is:

$$NPV = \sum_{i=0}^{n} (p_i / (1+k)^i)$$

Where NPV represents net present value, PiP_iPi is the cash flow in year i, n is the investment duration, and k is the cost of capital. Based on the calculations, the project's NPV is \$8,352,664, indicating that this project has favorable economic benefits.

Internal Rate of Return (IRR): The internal rate of return reflects the efficiency of generating profits from an investment. It is the discount rate at which the net present value of the project's cash flows equals zero, meaning that when the cash flows are discounted at the internal rate of return, they equal the total investment in the project. Therefore, the internal rate of return encompasses both the time value of money and the value of capital. A project only has favorable economic benefits when the IRR exceeds the cost of capital. The formula for calculating the internal rate of return is:

$$0 = \sum_{i=0}^{n} (P_i / (1 + IRR)^i)$$

In the formula, PPP represents the cash flow in year i, and IRR stands for the internal rate of return. Based on the financial forecast data presented earlier in this thesis, and without considering the inflation rate, SL Company's overseas project has an internal rate of return of 50%, with a modified internal rate of return of 34%, both of which exceed the cost of capital of 18%. This indicates that the project has favorable economic benefits.

According to preliminary estimates, the project is expected to require an investment of \$11 million, of which \$1 million will be financed through a bank loan, and SL Company holds a 51% stake in the joint venture. Financial analysis indicates that the project's financial condition will be strong in the five years following commencement, generating substantial investment returns. Notably, total assets are expected to double within five years of project initiation, yielding a strong return on investment.

4.6.3. Risk Analysis and Mitigation Strategies

Entering overseas markets poses certain risks for any company; thus, risk management is particularly important for companies intending to invest in foreign markets. Risk management primarily involves identifying, measuring, analyzing, and evaluating the various risks that may arise from the project, and proposing corresponding strategies to address them.

4.6.3.1. Risk factors

Management Risk

SL's foray into overseas markets and the selection of Brazil as a strategic target is undoubtedly a major test of the company's management ability. First of all, the company lacks experience in overseas project operation, which may lead to delay or even postponement of project promotion. The lengthening of the project cycle will increase the factors of uncertainty in the future, thus increasing the risks, and even with the increase of investment, these unfavorable factors may be further magnified. Secondly, there are also risks in terms of staff management. These include the willingness of SL's technical staff to work in Brazil, and how to ensure that the staff sent to Brazil will be able to work successfully in a context where the culture, language, and market environment are unfamiliar. In addition, the challenge is how to train and manage local Brazilian employees. Cable production relies on a large number of skilled workers, whose skills not only improve product conformity and production efficiency, but also reduce raw material waste. Finally, SL also had to face the legal risks of participating in Brazilian market activities. Although the company exports a large number of products to Brazil every year, it has not yet directly participated in the Brazilian domestic market activities. Therefore, familiarizing itself with the relevant laws and regulations of the Brazilian market in order to avoid losses to the company due to violations of the law is a key factor that SL must consider.

Market risks

Market risk stems from two core areas: first, the increase in the number of vendors in the market leads to a proliferation of similar products, thus intensifying competition among firms; and second, the increase in the number of factors in the market unfavorable to the firm's products leads to a decrease in the demand for its products. Both of these risks could ultimately lead to a drop in product prices, which in turn could compress companies' profit margins.

Currently, the Brazilian market exhibits significant growth potential, and long-term trends indicate that the market will continue to expand. However, the growing presence of competitors may be the greatest market risk facing SL. Although the Brazilian cable products market is less competitive than the domestic market, with the rapid development of the South American market, many cable industry giants have begun to layout, which will undoubtedly intensify the competitive situation in the Brazilian market.

Financial risk

Financial risk is mainly reflected in two aspects: one is financial management risk and the other is accounts receivable risk. For overseas investment projects, due to the significant difference between their geographical culture and environment and that of the domestic, the company faces very different challenges in financial management from that of the domestic, which undoubtedly increases the difficulty of financial management for overseas projects. As for accounts receivable risk, it is a problem that every enterprise may encounter, of which the most common problem is bad debt loss. Especially those enterprises that use commercial credit extensively in their operations, the accounts receivable risk they bear tends to be more significant. In the sales process of cable products, participation in bidding for engineering projects is a common sales method. However, if the engineering projects are stopped or withdrawn in the middle of the project, the company may encounter the risk of not being able to collect the accounts receivable.

Exchange rate risk

Exchange rate risk refers to the risk that a company may suffer a loss due to exchange rate fluctuations and is usually categorized into three main types: transaction risk, translation risk and economic risk. Given that SL conducts its business in overseas markets mainly in Brazil, the main risk it faces is translation risk. Translation risk, also known as accounting risk, involves the risk of fluctuations in the value of foreign assets and liabilities due to changes in exchange rates in the accounting treatment of the balance sheet, and belongs to the category of inventory risk.SL's investment in Brazil is denominated in U.S. dollars, while the earnings of its joint ventures are denominated in Brazilian reals. If the Brazilian real depreciates during the course of the company's operations, this would cause the company to incur a corresponding accounting loss.

4.6.3.2. Risk control countermeasures

Management Risk Countermeasures

First, SL should recruit experts with overseas investment backgrounds, especially those consultants with extensive experience in the Brazilian market. Together with some of SL's management, a team of overseas market development consultants should be formed, which is responsible for formulating an operation plan for the Brazilian market environment before the start of the project and providing tracking guidance throughout the operation of the project.

Second, SL should internally select appropriate technical and managerial personnel and provide them with training so that they can gain an in-depth understanding of Brazilian culture, laws, and market conditions.

Thirdly, SL should establish contact with business partners in Brazil and arrange for those who plan to participate in the Brazilian project to travel to Brazil to learn and communicate with the local partners, so as to lay a solid foundation for the smooth operation of the project.

Finally, SL should design appropriate internal incentives to improve the motivation of its employees.

Market Risk

Ensure the quality of products, enhance the ability of integrated overall services, and provide customers with all-round services. Cable products, especially telecommunication cables, have fixed specifications, and the differences between products are mainly reflected in product quality and work stability, and SL has always had strict requirements for product quality, so the most important thing that SL needs to improve is the ability to provide services. Although the company is unable to provide turnkey projects like world-class giants due to the constraints of capital, technology and personnel, it can improve its pre-sales technical consulting and after-sales technical guidance, so that customers can enjoy comprehensive services while purchasing the company's products to ensure the stability of the customer base. Establish a customer return visit system to visit important customers regularly, to understand the changes in market demand, and to anticipate possible major changes, so as to improve the business strategy.

In the early stage of project production, develop appropriate product promotion and advertising strategies to increase the company's brand awareness and reputation. In the middle stage of project operation, establish a market early warning mechanism to understand competitors' price fluctuations and market trends, and take reasonable countermeasures against competitors' market behavior. Provide regular training to the company's marketing staff to keep them informed of the latest market trends and the company's plans to respond to the market. Strive to maintain long-term partnership with upstream suppliers to ensure the stability of raw material supply and price.

Financial risk

Building a sound internal control system and financial governance and management structure is crucial because overseas operations without effective competition and incentives and constraints are significantly more risky than domestic operations. Therefore, the establishment of a sound governance management structure is the foundation of a company's ability to withstand operational risks.SL has established an overseas audit department, which is responsible for performing regular and irregular audits of overseas subsidiaries to prevent financial personnel from taking advantage of management loopholes to commit embezzlement, fraud, or speculative speculation. In addition, experienced financial personnel are selected to participate in the financial management of overseas subsidiaries to ensure the soundness of capital operations.

Exchange rate risk

The most significant characteristic of exchange rate risk is its unpredictability and difficulty in controlling it. Although exchange rate losses are only reflected in the financial statements at a given moment in time, if the long-term trend of the Brazilian Real continues to depreciate against the RMB, this will have a significant impact on SL's earnings from overseas investments. In the short term, the main hedging strategy is to trade futures in the foreign exchange market to minimize the risk associated with exchange rate fluctuations through hedging. In the long run, increasing resilience to exchange rate fluctuations by expanding multilateral trade is an effective way to hedge exchange rate risks.

The risks faced by SL in expanding overseas markets mainly include management risk, market risk, financial risk and exchange rate fluctuations. After an in-depth analysis of these potential risks, the authors of this thesis suggest that SL should set up a specialized overseas market development team and formulate a well-thought-out overseas project operation plan to ensure the smooth launch of the joint venture. At the same time, the company needs to enhance its comprehensive service capabilities in the international market to maintain the stability of its customer base. In addition, the establishment of a sound internal control system is crucial to the effective management of financial risks.

5. Conclusions

This study provides an in-depth analysis of the global cable industry and reveals the potential value of overseas market expansion, especially in some developing countries

where the cable industry shows great market potential. By carefully evaluating South America's economic growth, market entry costs, and resource acquisition advantages, the article selects Brazil as a strategic target country for SL's international expansion. Against the backdrop of many Chinese manufacturing companies seeking international expansion, this article discusses how SL should choose its overseas market entry strategy. By combining the economic analysis frameworks of industrial organization theory and transaction cost theory, as well as the research methodology of strategic management theory, this thesis concludes that the most appropriate overseas market entry mode for SL is to establish joint ventures. The specific analysis and conclusions are described below.

First, the Brazilian economy is currently in a relatively high speed development stage, and has a strong radiation to the entire South American economy, and in order to host the World Cup and the Olympic Games, the Brazilian government plans to spend a huge amount of money to improve the country's infrastructure, so it is expected that the demand for the cable market in the future will be greatly increased, which is a good opportunity for the cable companies.

Secondly, the plan of this thesis is for SL to look for a local business partner with some influence in Brazil to build a joint venture factory to produce products under the brand name of SL. According to the proportion of capital contribution, SL Company will take 51% of the shares of the joint venture, Brazilian companies will take 29% of the shares of the joint venture.

Third, SL's products are positioned in the mid-to-high end and the pricing approach is based on a follow-the-vendor pricing strategy. The marketing strategy is to increase market share and develop a multi-channel marketing approach. Conservatively estimated revenue for the first year is 20 million dollars, and the next five years can maintain a 20% annual growth rate. Through the examination of various financial indicators, the project will be able to obtain a net profit of more than 2 million US dollars after three years of operation and a stable growth in cash flow, and realize the doubling of total assets after four years of operation. Overall, HS's overseas projects have good economic benefits.

Therefore, by entering the Brazilian market through joint venture, SL can realize a better investment return, and at the same time, it can promote the company's brand in the overseas market, which will set a good foundation for SL to enter the international market comprehensively.

Limitations

Although this thesis provides a detailed analysis and recommendations on SL's strategic options for entering the Brazilian market, there are still some limitations to its conclusions. First, the analysis in this thesis is mainly based on macroeconomic data and existing market conditions, and fails to adequately consider potential policy changes and uncertainties arising

from international economic fluctuations, such as the economic and political risks that Brazil may face in the coming years. In addition, the industrial organization theory and transaction cost theory used in this thesis have limitations in explaining market entry patterns, especially for the fast-changing global market environment, and these theories may not be able to fully capture the dynamic changes in the market. In addition, the joint venture model proposed in this thesis fails to explore in depth the challenges posed by different cultures and differences in management modes to the operation of enterprises, especially the complexity of multinational enterprises in terms of personnel management and brand promotion, which may affect the actual implementation of the project.

Second, this thesis assumes that SL can successfully find influential local partners, but in practice, this process may be affected by cultural differences, conflicts of interest and other issues, which may lead to deviations in the feasibility and implementation of cooperation. Finally, this thesis is only based on macroeconomic forecasts in the financial prognosis and does not fully consider possible external factors such as exchange rate fluctuations and intensified competition in the market, which may lead to discrepancies between the financial forecasts and the actual situation. Therefore, future research can introduce more dynamic factors and increase the sensitivity analysis under different entry modes, with a view to providing enterprises with more operable market entry strategies.

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