



Strategic Optimization of Conveyor Belt Splicing Solutions: Enhancing Competitive Edge in the Asia-Pacific Market (Case Study: Inspirare Luxiner Group)

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ABSTRACT: The Asia-Pacific region, marked by rapid industrial growth and significant mining activities, offers both opportunities and challenges for companies in the conveyor belt splicing materials market. IL Group, known for its high-quality RARE System, has seen a decline in sales within this competitive environment. The centralization of manufacturing in Atlanta has led to long lead times and high logistics costs, reducing the company's competitiveness. Moreover, insufficient after-sales support and integration challenges with client systems have further decreased customer satisfaction and retention. This research aims to identify the primary factors behind the RARE System's decreased sales and to develop strategies for optimizing it to attract and retain clients. Additionally, it seeks to recommend business strategies to enhance IL Group's competitiveness in the Asia-Pacific market. Data collection involved interviews and surveys with clients and internal stakeholders. The data was analyzed using thematic analysis, root cause analysis, SWOT & TOWS analysis, and Porter's Five Forces framework. The study found that logistical challenges from centralized manufacturing, inadequate support, intense competition, and integration issues with client systems were key factors driving sales declines. To address these issues, the research recommends that IL Group establish regional manufacturing facilities to reduce costs and lead times. Improving customer support through regional centers and robust CRM systems is also essential. Investing in continuous R&D for product innovation will keep the product relevant and appealing. Implementing flexible pricing models and targeted marketing, along with forming strategic local partnerships, will further enhance competitiveness. By proposing these strategies, this research contributes to strategic business management. It offers practical solutions to enhance operational efficiency and market competitiveness. These strategies provide a structured approach to overcoming key challenges and achieving sustainable growth in the Asia-Pacific market.

KEYWORDS: asia-pacific market, business optimization, conveyor belt splicing, competitive strategy, customer support, manufacturing localization, rare system.

INTRODUCTION

Conveyor belts are fundamental in industries like mining, power, and manufacturing, representing significant investments and essential roles in enhancing efficiency and productivity. Especially in the mining industry, conveyor belts are vital for transporting minerals. To maintain their functionality and extended service life, proper installation, repair, and regular maintenance are necessary. The vulcanization process for splicing conveyor belts, essential to maintaining their durability and performance, involves two methods: hot and cold vulcanization. Hot vulcanization uses heat and pressure, while cold vulcanization uses adhesive bonding. These processes are critical for ensuring conveyor belts' strength and efficacy under heavy loads and challenging conditions. The Conveyor Belt Market report forecasts substantial growth in North America and Asia-Pacific, making these regions significant for manufacturers like Inspirare Luxiner Ltd., a prominent player in the industry. The demand for rubber repair adhesives used in these processes is also expected to grow significantly, driven by the needs of industries like mining and construction.

Inspirare Luxiner Ltd. (IL Group) is a Canadian multinational specializing in equipment for the tyre and rubber industries, particularly known for their conveyor belt vulcanizing presses. Renowned for their innovation, notably the patented pressure bag principle, IL Group serves a global customer base and maintains operations across several regions, including America, Europe, Africa, the Middle East, and Asia-Pacific. The IL Group aims to deliver superior products and foster a culture of trust, safety, and integrity. They prioritize employee and customer safety, boasting no major injuries or fatalities for over 60 years. The company is committed to upholding ethical standards and contributing to societal well-being. IL Group offers a range of products and services:



Conveyor Belt Vulcanizing Presses branded as “RARE Vulcanizer”, Splicing Tools and Materials under the “RARE System” brand, Conveyor Accessories, including pulleys and belt cleaners, Custom Rubber Molding services, Inspection and Monitoring Systems for conveyor belts, and Training and Support programs for maintenance personnel. Established in 2013, the subsidiary PT Inspirare Luxiner (PIL) in Indonesia supports the Asia-Pacific market, reflecting consistent sales growth.

Despite the clear market demand for repair adhesives, manufacturers, including PIL, face competitiveness challenges in the Asia-Pacific region. Issues like high production costs, supply chain disruptions, and competitive pricing pressures affect their market position. The COVID-19 pandemic exacerbated these challenges, causing disruptions and rising costs. Competitors such as Rema TipTop and Flexco offer similar products at lower prices, impacting PIL's sales of the RARE System. Additionally, logistics challenges from centralized production in Atlanta cause delays and cost issues, further straining customer satisfaction.

With this context, this research endeavors to address several pivotal questions and has set specific objectives. It will identify key factors influencing the decline in sales of the RARE System in the Asia-Pacific region. The research also aims to determine how the RARE System can be optimized to better meet the demands by analyzing the unique needs and preferences of customers in the Asia-Pacific region. Lastly, it investigates what strategies IL Group can adopt to enhance its competitiveness in this dynamic and challenging environment, with aims to propose strategic recommendations for IL Group to improve production efficiency, optimize pricing, and enhance overall market competitiveness.

LITERATURE REVIEW

A. Supply Chain Management

Supply chain management (SCM) involves the strategic coordination and management of networks of interconnected businesses providing products and services to end customers. Effective SCM aims to enhance customer value and achieve a sustainable competitive advantage. Christopher (2016) defines SCM as a process integrating supply and demand management within and across companies. This section explores the foundational principles of SCM, its importance, key components, and contemporary challenges while focusing on its relevance to IL Group's operational issues. SCM is crucial for ensuring operational efficiency, cost reduction, and enhanced customer satisfaction. Effective supply chain strategies help businesses streamline operations, minimize waste, and respond swiftly to market demands. Simchi-Levi et al. (2008) emphasize that a well-coordinated supply chain can significantly reduce operational costs and improve service delivery. For IL Group, whose RARE System is produced centrally in Atlanta, efficient SCM practices are essential for mitigating the logistical challenges associated with serving distant markets such as the Asia-Pacific region. Key components of SCM include procurement, production, distribution, and logistics. ‘Procurement’ involves sourcing raw materials and components, emphasizing the need for reliable suppliers and strategic partnerships (Monczka et al., 2015). ‘Production’ transforms these inputs into finished products through efficient manufacturing processes. Lean manufacturing practices, as advocated by Womack and Jones (2003), can enhance productivity and reduce lead times. ‘Distribution and logistics’ encompass the movement and storage of goods from production facilities to end customers. Effective distribution strategies ensure that products reach customers on time and in optimal condition (Christopher, 2016). Challenges such as globalization, increased complexity, demand variability, and risk management are prevalent in modern SCM. ‘Globalization’ expands supply chains across multiple geographies, increasing coordination complexity (Hofstede, 2001). ‘Demand variability’ is significant; the “bullwhip effect” shows how small demand fluctuations can lead to larger upstream order variations (Lee et al., 1997). ‘Risk management’ involves anticipating and mitigating disruptive risks, with resilience built through flexibility, redundancy, and advanced technology (Sheffi and Rice, 2005). Strategies for enhancing SCM include implementing integrated systems for better coordination, decentralizing production to reduce lead times, adopting lean manufacturing practices, and leveraging advanced technologies like AI for optimized supply chain operations (Choi et al., 2018).

B. Market Potential, Demand, and Share Company Profile

Understanding market potential, demand, and share is crucial for optimizing product strategies and enhancing competitive positioning. For IL Group's RARE System to succeed in the Asia-Pacific market, insights into these elements are essential. ‘Market potential’ refers to the estimated total sales volume of a product in a defined market under optimal conditions (Kotler & Keller, 2016). For industrial products like conveyor belt solutions, this involves analyzing growth trajectories and technological needs in relevant sectors. ‘Market demand analysis’ involves investigating the current and future needs for a product, influenced by customer preferences, market trends, and purchasing power (Kotler & Keller, 2016). Industrial demand is closely tied to economic indicators



and industry-specific trends (Kim, Hwang, and Cho, 2015). 'Market share analysis' represents the proportion of total sales captured by a company or product (Porter, 1980). Understanding market share helps strategize to increase penetration, requiring a balance of cost leadership and differentiation (Porter, 1985).

C. Customer and Market Analysis

Customer and market analysis involves examining customer needs, behaviors, and market dynamics to formulate strategies that enhance competitive advantage and customer satisfaction. Key aspects include 'customer perception' that influences purchasing decisions and loyalty, shaped by product quality, price, service delivery, and customer experience (Parasuraman, Zeithaml, & Berry, 1988). 'Competitive analysis' that assesses the strengths and weaknesses of competitors. Competitive benchmarking is vital for IL Group to identify performance gaps and improve its market standing (Eckerson, 2007). 'Market segmentation and targeting' that divides a broad market into sub-groups based on shared characteristics. Geographical segmentation can help IL Group address the unique needs of customers in the Asia-Pacific region (Kotler and Armstrong, 2015). 'Consumer behavior and buying decisions' that studies the decision-making processes of buyers. For IL Group, understanding the rigorous demands of industrial customers and maintaining strong relationships with decision-makers is crucial (Engel, Blackwell, and Miniard, 2006).

D. Business Strategy in the Asia-Pacific Region

Developing an effective business strategy in the Asia-Pacific region involves navigating cultural, economic, and regulatory diversity. Key components include 'market entry strategies' is options include exporting, contractual agreements, and direct investment. Establishing local facilities can mitigate logistical challenges (Dunning, 2000). 'Localization strategies' is adapting products and business practices to meet local market needs enhances customer acceptance and satisfaction (Douglas & Craig, 2011). 'Strategic alliances and partnerships' is collaborating with local companies can enhance market penetration and operational efficiency (Dyer and Singh, 1998). Innovation and competitive advantage' is leveraging emerging technologies can enhance product performance and operational efficiency (Porter, 1985). 'Addressing regulatory and environmental challenges' is understanding and complying with local regulations and adopting sustainable practices are essential (Ghemawat, 2001).

E. Root Cause Analysis

Root Cause Analysis (RCA) is a systematic process to identify the fundamental causes of problems. Key methodologies include the Five Whys, Fishbone Diagram, Failure Mode and Effects Analysis (FMEA), and Fault Tree Analysis (FTA). RCA's core principles are systematic approach, fact-based analysis, and focus on prevention (Ohno, 1988; Ishikawa, 1985; Stamatis, 2003; Vesely et al., 1981).

F. SWOT and TOWS Analysis

SWOT Analysis identifies Strengths, Weaknesses, Opportunities, and Threats. TOWS Analysis, an advanced adaptation, integrates these elements into a matrix to formulate strategic options. This structured approach helps organizations create actionable strategies to address internal and external factors (Wehrich, 1982).

G. Porter's Five Forces

Porter's Five Forces framework analyzes the competitive forces shaping an industry: competitive rivalry, bargaining power of suppliers, bargaining power of buyers, threat of new entrants, and threat of substitutes. These forces determine industry structure and profitability potential (Porter, 1979).

METHODOLOGY

H. Research Design

The research employs a qualitative design to explore and gain insights into the issues affecting RARE System's sales performance in the Asia-Pacific market. This system includes belt splicing techniques, repair materials, and installation tools critical for maintaining conveyor belts, especially in mining environments. IL Group's ecosystem relies on strategic partnerships with mining companies, distributors, and maintenance professionals.

The study identifies potential buyers in the Asia-Pacific and Indonesian markets, categorizing mining companies based on market influence, size, and reputation. In the Asia-Pacific market there are three categorizes, as 'major multinational corporations' about 10 companies with significant global presence (e.g., BHP, Rio Tinto), as 'regionally prominent companies' around 50 companies



influential in the Pacific region but not globally dominant and as ‘national level companies’ approximately 100 companies operating mainly within their home country. In the Indonesian market there are also three categorizes, as ‘national giants with international presence’ about 9 major Indonesian companies with international operations (e.g., Bukit Asam, Adaro Energy), as ‘large national companies’ around 20 significant players within Indonesia with limited or no international presence, and as ‘small to medium enterprises’ approximately 50 regional companies within Indonesia.

The research uses exploratory and descriptive approaches to understand the causes of decreased sales, examine the impact of manufacturing inefficiencies, assess customer perceptions, and identify business strategies to enhance competitiveness. Data is gathered from two categories of focus: major multinational corporations in the Asia-Pacific and national giants in Indonesia. This exploratory approach provides insights through in-depth interviews with a representative sample from each category. This qualitative method provides understanding of client needs, market dynamics, and competitive positioning, ensuring comprehensive, contextually relevant data.

I. Data Collection

Data will be collected using qualitative methods, focusing on in-depth interviews with key stakeholders and customers in the mining industry. Secondary data will supplement primary data to offer a broader context. Primary data will be collected through in-depth interviews with selected respondents using a purposive sampling strategy. Respondents include senior executives, operations managers, procurement managers, and technical experts from both large international mining corporations and significant local entities. A total of 11 respondents are selected: 3 from IL Group and 8 from client companies. In-depth interviews will cover aspects such as current maintenance practices, evaluation of RARE System products, comparisons with competitor products, and future trends in mining conveyor systems. A 7-point Likert scale will be used for standardizing responses on satisfaction, perceptions, and other factors. The research will also utilize secondary data from industry reports, market analysis documents, internal company records, and publicly available information on competitors and market trends. These sources will provide context for the primary data, enhancing SWOT and TOWS analysis as well as Porter’s Five Forces analysis.

J. Data Analysis Figure Captions

Data collected through in-depth interviews will be systematically analyzed using thematic analysis, root cause analysis, SWOT and TOWS analysis, and Porter’s Five Forces Framework. Thematic analysis involves familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and constructing a final narrative report. Root Cause Analysis (RCA) is identifying underlying causes through steps such as data collection, problem identification, cause identification, verification, root cause determination, and action plan development. SWOT and TOWS analysis is categorizing internal strengths and weaknesses, and external opportunities and threats; developing strategies for leveraging strengths, addressing weaknesses, exploiting opportunities, and mitigating threats. Porter’s Five Forces Framework is analyzing competitive dynamics by examining the bargaining power of buyers, bargaining power of suppliers, threat of new entrants, threat of substitutes, and industry rivalry.

RESULTS AND DISCUSSION

Interviews revealed several critical insights into the challenges and opportunities for IL Group

Table 1. Summary of In-Depth Interview Results

Category	Critical Insights
Production, Sales, and Marketing	Challenges include intense competition, logistical issues due to a single manufacturing facility, and varying regulatory standards across the Asia-Pacific region.
Sales Performance	Declining sales are attributed to competitive pressures and operational inefficiencies. Factors contributing to decreased sales include better local support by competitors, integration challenges, high logistics costs, and inadequate after-sales support infrastructure.
Pricing and Support	IL Group employs a value-based pricing strategy emphasizing innovation and quality. However, high logistics costs reduce competitiveness. Investment in regional service centers is necessary for enhancing customer support.

Production and Supply Chain	Production inefficiencies and reliance on a single facility lead to delays and higher logistics costs, affecting pricing and competitiveness.
Client Feedback	Client feedback is gathered through direct communication and emails. A more systematic feedback collection process via a robust CRM system is needed.
Current Challenges and Needs	Clients prioritize minimizing downtime, ensuring durability and reliability, and addressing frequent splicing failures. Operational downtime impacts productivity and financial performance.
Decision Factors	Critical factors for clients include durability, cost efficiency, supplier reputation, lead time, and customer support.
Perceptions of RARE System	Clients generally have positive experiences with RARE System products, acknowledging their reliability but noting logistical challenges.
Strengths and Weaknesses	The RARE System is praised for its durability, reliability, ease of use, and comprehensive customer support. However, areas needing improvement include lead times, supply chain efficiency, and pricing.
Desired Improvements	Clients seek improvements in lead time, compatibility, and supply chain management. There is also a focus on competitive pricing and enhanced support.

A. Point Likert Scale Results and Analysis

The Likert scale ratings provided insights into client perceptions and priorities.

Table 2. The 7-Point Likert Scale

Scale	Represents
1	Extremely Unsatisfied / Not Important at All / Very Poor
2	Unsatisfied / Not Important / Poor
3	Somewhat Unsatisfied / Somewhat Not Important / Below Average
4	Neither Satisfied nor Unsatisfied / Neutral Importance / Average
5	Somewhat Satisfied / Somewhat Important / Above Average
6	Satisfied / Important / Good
7	Extremely Satisfied / Very Important / Excellent

The descriptive analysis as in table below provides a summary of the key features of the data, and classifications highlight the overall trends and central tendencies.

Table 3. The 7-Point Likert Results

Classification	Question	Factor	Mean	Standard Deviation
Current Challenges and Needs	On a scale of 1 to 7, how important are the following factors when choosing splicing materials and tool kits for your conveyor belts? (Cost, Durability, Ease of Use, Customer Support, Compatibility, Innovation, Supplier Reputation and Lead Time).	Cost	6.00	0.76
		Durability	6.63	0.74
		Ease of Use	4.88	0.83
		Customer Support	6.25	0.71
		Compatibility	5.75	0.89
		Innovation	4.63	0.52
		Supplier Reputation	5.88	0.35
		Lead Time	5.63	0.74

Perceptions of RARE System	On a scale of 1 to 7, how would you rate the performance, reliability, price and lead time of RARE System products?	Performance	6.25	0.50
		Reliability	6.25	0.50
		Price	5.00	0.82
		Lead Time	4.50	0.58
Satisfaction and Expectations	On a scale of 1 to 7, how would you rate your satisfaction with available splicing solutions product in the market?	Market's Product	5.13	0.35
	On a scale of 1 to 7, how would you rate your satisfaction with RARE System?	RARE System	6.00	0.82
Competitive Landscape and Comparison	On a scale of 1 to 7, how would you rate IL Group compared to its competitors in terms of quality, reliability, and pricing?	Quality, Reliability, and Pricing	5.50	0.76
	On a scale of 1 to 7, how likely are you to use IL Group's products in the future, should they meet your specified needs?	Future	6.00	0.53

The classification of current challenges and needs show clients rated cost (6.00), durability (6.63), and customer support (6.25) highly, indicating their critical importance. Lower ratings on ease of use (4.88), innovation (4.63), and lead time (5.63) suggest areas for improvement. Consistent perceptions in supplier reputation (0.35) and performance (0.50) contrast with varied experiences in compatibility (0.89) and price (0.82). The perception of RARE System is indicated that the performance and reliability are highly rated (6.25 each), while price (5.00) and lead time (4.50) have moderate ratings, indicating opportunities for value enhancement and delivery improvements. The overall satisfaction and expectations with market products is moderate (5.13), while satisfaction with RARE System is high (6.00). Ensuring continued reliability while addressing sporadic issues can maintain this high satisfaction level. The competitive landscape and comparison classified that quality, reliability, and pricing are rated well (5.50), and the likelihood of future use is promising (6.00).

The analysis of factors relative to future use incorporates the weighted significance of each factor in relation to overall satisfaction. Both cost and durability are highly significant, 30.00 and 39.78 for RARE compared to 30.00 and 33.15 for competitors, indicating IL Group's competitive position here is strong. While from factors ease of use and compatibility both are moderate importance and variability in responses suggest targeted improvements can enhance client satisfaction. High customer support scores 37.50 for IL and 31.25 for competitors confirm the edge that can be further capitalized on. The innovation factor is also moderate but essential to keep pace with technological advancements. While the supplier retention and lead time factors are of high importance with strong current standings 35.28 for RARE and 25.34 compared to competitors but a focus on further improvements in lead time is needed.

Table 4. The Weighted Satisfaction Results

Factor	Importance Mean (A)	Satisfaction with RARE (1)	Satisfaction with Competitors (2)	Weighted Satisfaction RARE (1*A)	Weighted Satisfaction Competitors (2*A)
Cost	6.00	5.00	5.00	30.00	30.00
Durability	6.63	6.00	5.00	39.78	33.15
Ease of Use	4.88	4.50	4.50	21.96	21.96
Customer Support	6.25	6.00	5.00	37.50	31.25
Compatibility	5.75	5.50	5.25	31.62	30.19
Innovation	4.63	4.75	4.50	22.01	20.84
Supplier Reputation	5.88	6.00	5.50	35.28	32.34
Lead Time	5.63	4.50	4.00	25.34	22.52

B. Thematic Analysis

Thematic analysis was employed to identify recurring themes from the interviews. The major themes that emerged were logistical challenges, customer support deficiencies, competitive pressures, and product attributes. Production and logistics were a significant concern for both existing and prospective clients. In average clients rated of 6 for the importance of timely delivery and stock availability. The impact of production inefficiencies and reliance on a single manufacturing facility in Atlanta led to longer lead times, intermittent product availability and higher transportation costs, which severely affected customer satisfaction and the competitiveness of IL Group's offerings. Clients frequently mentioned that quicker delivery from local suppliers was a decisive factor in their purchasing decisions. Internal IL Group records indicate an average lead time increase of 15% over the past year, with customer complaints about delayed deliveries rising by 40%. These inefficiencies undermine customer trust and satisfaction. This challenge emphasizes the need for localized manufacturing or stronger supply chain management within the Asia-Pacific region to meet client expectations effectively. The lack of adequate after-sales support was another prominent theme. Clients noted that the absence of regional service centers resulted in slower response times and inconsistent support, negatively impacting their satisfaction. Prospective clients underscored that robust customer support is a crucial factor in their purchasing decisions. The importance of customer support was rated highly in an average rating of 6-7, underlining the critical role that after-sales service plays in customer satisfaction. Ratings on the importance of cost efficiency were relatively high with an average rating of 5-6, indicating that clients prioritize cost management. Further clients indicated that competitors offered superior local support and more competitive pricing. These local competitors' presence allowed for quicker response times and lower costs, making it challenging for IL Group to compete effectively in the Asia-Pacific market. Higher pricing emerged as a crucial barrier, particularly in a price-sensitive market. Internal sales data from IL Group reveal that RARE System products are priced approximately 10-15% higher than competitors, resulting in a loss of price-sensitive clients to more affordable alternatives. The recurring sentiment was that the company's centralized production model was a significant disadvantage. While durability and reliability were acknowledged as strengths of the RARE System, clients identified areas of improvement such as better compatibility with existing systems, pricing, and lead times. Despite the high quality of the products, operational inefficiencies detracted from their perceived value. Moreover, clients' satisfaction with the RARE System varied, indicating the need for continuous product improvements to meet evolving customer demands.

C. Root Cause Analysis Point Likert Scale Results and Analysis

Root cause analysis identified several key factors contributing to IL Group's challenges; 1) Centralized Manufacturing: Longer lead times, higher logistics costs, and logistical complexity result from reliance on a single facility; 2) Inadequate After-Sales Support: Limited regional service centers result in slow response times, poor customer satisfaction, and retention; 3) High Competition: Local competitors offer quicker responses and lower costs; 4) Integration Issues: Compatibility challenges with existing client setups reduce operational efficiency; 5) Production Inefficiencies: Delays and higher costs from a single facility amplify these challenges.

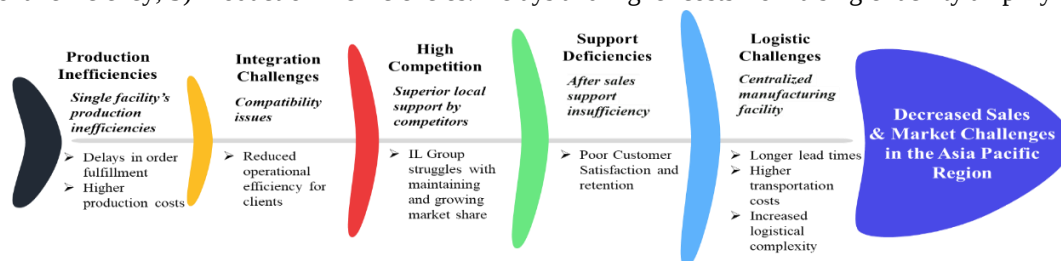


Figure 1. IL Group Issues in the Asia Pacific Market

Centralized manufacturing facility in Atlanta: one of the primary root causes identified is the reliance on a single manufacturing facility located in Atlanta. This centralized production model has several negative implications, including longer lead times, higher transportation costs, and increased logistical complexity. By shipping all products from one location, IL Group incurs substantial transportation expenses, which in turn negatively impact pricing competitiveness. Additionally, longer lead times result in slower delivery times to clients in the Asia-Pacific region, diminishing customer satisfaction and potentially driving clients to opt for local suppliers who can offer quicker delivery at a lower cost.



Inadequate after-sales support: another significant root cause is the insufficiency of after-sales support infrastructure in the Asia-Pacific region. Due to a limited number of regional service centers and the corresponding slow response times, clients often experience inconsistent and delayed support. This inadequacy in after-sales support leads to poor customer satisfaction and retention, affecting long-term loyalty and client relationships. High-quality customer support is crucial in the mining industry, where operational efficiency and equipment reliability are paramount. The inability to provide timely and effective support not only hampers customer satisfaction but also tarnishes IL Group's reputation.

High competition: IL Group faces intense competition from both local and global players in the Asia-Pacific market. Competitors provide superior local support and more competitive pricing, thus posing significant challenges for IL Group. One of the root causes of this competitive disadvantage is the lack of a strong local presence and the higher logistics costs associated with centralized production. Local competitors can offer quicker response times and lower costs, leveraging their geographical proximity to clients. As a result, IL Group struggles to maintain and grow its market share in the face of such robust competition.

Integration and compatibility issues: compatibility issues with existing client systems present another major challenge. Clients highlighted difficulties in integrating IL Group's products with their existing operational setups, which reduces their overall operational efficiency. This issue stems from potential limitations in product design and customization capabilities. For clients, seamless integration of new splicing materials and toolkits with their current systems is essential to maintain productivity and minimize downtime. Any hindrance in this integration process can lead to operational disruptions and increased dissatisfaction, obstructing the adoption of IL Group's products.

Production inefficiencies: production inefficiencies at the Atlanta facility were also identified as a root cause of several operational challenges. These inefficiencies lead to delays in order fulfillment and contribute to higher production costs. The dependence on a single manufacturing facility amplifies the impact of any production bottlenecks, further exacerbating delays and logistic costs. Consequently, these production inefficiencies undermine IL Group's market competitiveness by affecting pricing and the reliability of supply. Clients, particularly in the mining sector, prioritize timely and reliable delivery of materials to ensure continuous operations, and any deviation from this expectation can result in significant financial losses.

D. SWOT and TOWS Analysis

The SWOT analysis provides a comprehensive overview of IL Group's internal strengths and weaknesses and its external opportunities and threats in the Asia-Pacific market. The SWOT analysis reveals that while IL Group has strong product attributes and an established reputation, it faces challenges related to logistical inefficiencies and inadequate after-sales support. There are significant opportunities for growth in the Asia-Pacific market, but the competitive environment and varying regulatory standards pose considerable threats.

Table 5. SWOT Analysis Result

STRENGTHS (S)	WEAKNESSES (W)
1. High quality and reliability	1. Long lead times and high logistics costs
2. Strong technical support capability	2. Centralized production causing delays
3. Established brand reputation	3. Insufficient after-sales support
OPPORTUNITIES (O)	THREATS (T)
1. Market growth in Asia-Pacific	1. Intense local and global competition
2. Potential for local partnerships	2. Varying regional regulatory standards potentially increasing operational costs.
3. Rising demand for efficient splicing materials	3. Technological advancements by competitors

The results of TOWS matrix are for the SO strategies is to leverage quality and support to expand market share and form local partnerships. The ST strategies is to enhance local service and competitive pricing. The WO strategies is to establish regional manufacturing, streamline production, invest in CRM systems. The WT strategies is to diversify manufacturing, enhance supply chain management, develop local support teams.

Table 6. TOWS Matrix IL Group

O-T S-W	OPPORTUNITIES (O)	THREATS (T)
	O1. Market expansion in the Asia-Pacific region O2. Innovations in eco-friendly and smart solutions O3. Customization to meet specific client needs O4. Rising demand for efficient splicing materials	T1. Intense local and global competition T2. Varying regional regulatory standards potentially increasing operational costs. T3. Technological advancements by competitor
STRENGTHS (S)	S-O STRATEGIES	S-T STRATEGIES
S1. High quality and reliability S2. Strong technical support capability S.3 Established brand reputation	1. Leverage product quality and technical support to expand market share. 2. Form strategic partnerships. 3. Launch targeted marketing campaigns	1. Enhance local service to counter competition 2. Increase customer touchpoints 3. Competitive pricing models
WEAKNESSES (W)	W-O STRATEGIES	W-T STRATEGIES
W1. Long lead times and high logistics costs W2. Centralized production causing delays W3. Insufficient after-sales support	1. Establish regional manufacturing facilities 2. Streamline production processes 3. Invest in CRM Systems	1. Diversify manufacturing to mitigate risks 2. Enhance supply chain management 3. Develop local support teams

E. Porter's Five Forces Analysis

Porter's Five Forces analysis reveals that IL Group operates in a highly competitive and dynamic environment in the Asia-Pacific market. High buyer power, moderate supplier power, the potential threat of new entrants, and high industry rivalry are key forces influencing IL Group's strategic decisions. Adopting strategies to mitigate these pressures, such as localizing manufacturing, enhancing customer support, and continuous innovation, will be crucial for IL Group to cultivate a competitive edge and sustain growth in this challenging market landscape.

The moderate supplier power is mitigating risks by diversifying suppliers. High buyer power need for superior products, competitive pricing, and excellent service. Moderate threat of new entrants is significant capital investment and expertise required, though technological advancements reduce these barriers. Low to moderate threat of substitutes is high switching costs and specialized products reduce risk, but continuous innovation is essential.

F. Market Potential, Demand, and Share Analysis

The Asia-Pacific region presents substantial market potential for IL Group due to its significant reliance on mining and industrial activities. The region is witnessing considerable growth driven by infrastructural development, urbanization, and industrial expansion, which bolster the demand for conveyor belt splicing materials. Countries like Australia, Indonesia, and China are spearheading this growth, with robust mining activities that necessitate reliable and efficient splicing materials to maintain operational continuity. IL Group's RARE System, known for its high durability and quality, aligns well with the rigorous demands of these burgeoning markets. The company can capitalize on this potential by strategically positioning its products, emphasizing durability, cost-efficiency, and innovative design.

There is a growing demand in the Asia-Pacific market for splicing materials that offer superior durability and low maintenance. Mining companies in the region are increasingly seeking solutions that enhance productivity and minimize operational downtimes. The need for efficient, reliable, and long-lasting splicing materials is paramount, given the critical role of conveyor belts in mining



operations. Furthermore, technological advancements are driving demand for splicing materials that integrate seamlessly with automated systems and provide predictive maintenance capabilities. Clients are looking for products that not only ensure the longevity of their equipment but also support their move towards digital and automated mining operations. IL Group's RARE System, with its innovative features and robust performance, is well positioned to meet these emerging demands.

While IL Group holds a significant share in regions where it has established client relationships, it faces stiff competition from other established players such as Rema TipTop, Flexco, and Fenner Dunlop. These competitors have a strong local presence and offer competitive pricing, making it challenging for IL Group to expand its market share. To increase its market share, IL Group needs to address logistical challenges by establishing local manufacturing partnerships or facilities within the Asia-Pacific region. This will help reduce lead times and logistics costs, making its products more attractive to cost-sensitive clients. Additionally, by enhancing its after-sales support and investing in continuous product innovation, IL Group can differentiate itself from competitors and build stronger client loyalty.

The Asia-Pacific region offers several strategic opportunities for IL Group. The ongoing infrastructural developments and industrial projects are likely to drive sustained demand for high-quality splicing materials. IL Group can leverage strategic partnerships with local companies to enhance logistical efficiency and regulatory compliance. These partnerships can facilitate smoother market entry and operation, ensuring that IL Group can meet the growing demand effectively. Moreover, by investing in targeted marketing campaigns that emphasize the superior durability, reliability, and cost-efficiency of the RARE System, IL Group can attract new clients and reinforce its brand presence. The company can also explore opportunities to introduce advanced features such as smart technologies and predictive maintenance capabilities, further enhancing the value proposition of its products.

The future market potential for conveyor belt splicing materials in the Asia-Pacific region looks promising. The continuous expansion of mining activities and the ongoing infrastructural projects are set to drive demand for efficient and reliable splicing materials. IL Group is well-positioned to capitalize on these opportunities with its high-quality RARE System. However, to fully realize this potential, the company needs to strategically address its weaknesses, particularly in terms of logistics and after-sales support. By localizing production, enhancing customer service, and continuously innovating, IL Group can strengthen its market position and achieve sustainable growth. The company must also remain vigilant to changes in regional regulatory standards and technological advancements, ensuring it remains competitive and responsive to market trends.

G. Business Solution

Based on the detailed data and comprehensive analysis, several actionable business solutions emerge and designed to tackle logistical challenges, improve customer support, implement competitive pricing strategies, and leverage technological advancements to sustain long-term growth. Through localizing manufacturing, enhancing customer support, investing in innovation, implementing competitive pricing, targeted marketing, and forming strategic partnerships, IL Group can improve its market presence, customer satisfaction, and overall performance.

1) Local Manufacturing and Supply Chain Optimization

A critical step for IL Group is to establish regional manufacturing facilities or secure partnerships with local manufacturers within the Asia-Pacific region. The current reliance on a single manufacturing facility in Atlanta has been identified as a primary cause of long lead times and high logistical costs, negatively impacting the competitiveness of the RARE System. Localizing production will significantly reduce these lead times and logistics costs, allowing IL Group to offer more competitive pricing and faster delivery times, which are critical decision factors for clients. Local manufacturing facilities will also help IL Group navigate and comply with the varying regulatory standards across different countries in the region, providing a smoother market entry and operational process. Conducting a thorough feasibility study to identify optimal locations for new facilities or potential local partnerships is crucial. Once local partners are identified and facilities established, IL Group can quickly adapt to varying regional regulatory standards and improve its delivery timescales significantly, as evidenced by potential annual savings of \$300,000. This step would involve assessing market demand, logistical feasibility, and regulatory requirements to ensure successful implementation.

2) Enhanced Customer Support Infrastructure

Improving after-sales support is essential for increasing customer satisfaction and loyalty. Thematic analysis highlighted that insufficient regional service centers and slow response times are critical issues affecting client retention. To address this, IL Group should invest in developing regional customer support centers staffed with trained local teams capable of providing prompt and effective technical assistance, maintenance services, and spare parts availability. Bringing customer support closer to the clients will



ensure quicker resolution of issues, fostering stronger relationships and trust. Integrating a robust Customer Relationship Management (CRM) system will further streamline customer feedback collection and improve service responsiveness. This system will allow IL Group to systematically gather valuable insights from clients and act on this feedback promptly to continuously enhance product offerings and support services. Establishing processes for systematic feedback collection and action will enable IL Group to be more responsive to client needs and proactive in addressing potential issues. Monthly time savings of 16.7 hours from query handling efficiency improvements directly translate to increased client satisfaction and reduced churn rates.

3) *Continuous Product Innovation and Development*

Innovation is a cornerstone of maintaining a competitive edge in a market characterized by rapid technological advancements and evolving client needs. Investment in research and development (R&D) is crucial for IL Group to stay ahead of competitors and meet the demand for advanced, efficient splicing materials. The thematic analysis and SWOT identified integration challenges with existing client systems as an area for improvement. By focusing on developing products with enhanced compatibility and incorporating smart technologies for predictive maintenance, IL Group can offer added value to clients. Continuous product innovation will ensure that the RARE System remains aligned with the latest industry trends and client expectations. Advanced features such as real-time monitoring, predictive maintenance, and seamless integration with automated mining systems will make the RARE System more attractive to potential clients, helping IL Group to retain existing clients and attract new ones. By developing IoT-enabled splicing materials with predictive maintenance, IL Group can offer enhanced value to clients, reducing downtime and associated costs, as shown by an annual savings example calculation of \$15,000.

4) *Competitive Pricing Strategies*

The high bargaining power of buyers, as identified through Porter's Five Forces analysis, necessitates the implementation of more flexible and competitive pricing models to attract and retain cost-sensitive clients. Developing pricing strategies that offer volume discounts, loyalty programs, and value-based pricing that emphasizes the long-term cost savings due to the RARE System's durability and reliability can make the products financially attractive. A thorough analysis of internal cost structures and production processes is essential to identify areas for cost optimization, ensuring that competitive pricing does not compromise profitability. Communicating the superior return on investment (ROI) due to the extended lifecycle and reduced maintenance costs of the RARE System will highlight the financial benefits to clients, helping them see the value despite higher initial costs.

5) *Targeted Marketing and Client Education*

Increasing brand awareness and educating clients on the benefits of the RARE System are vital for differentiating IL Group's products in the competitive market. Launching targeted marketing campaigns that emphasize the product's superior durability, reliability, and operational efficiency will help attract new clients and reinforce relationships with existing ones. IL Group should enhance its presence at industry events, webinars, and through digital channels frequented by decision-makers in the mining sector. Developing educational content such as case studies, whitepapers, and client testimonials that showcase successful implementations and the tangible benefits of the RARE System will build credibility and trust. By investing in digital marketing strategies, including search engine optimization (SEO), content marketing, and social media campaigns, IL Group can effectively reach a broader audience and communicate its value proposition.

6) *Strategic Partnerships and Alliances*

Forming strategic partnerships with local companies in the Asia-Pacific region can enhance logistical efficiency and market penetration. These partnerships can provide deeper insights into local market dynamics, regulatory environments, and client needs, ensuring that IL Group's strategies are well-informed and effective. Collaborating with local suppliers can also help streamline supply chains, reduce costs, and improve delivery times. Strategic alliances with industry bodies and obtaining relevant certifications can further enhance IL Group's credibility and brand reputation, reinforcing its commitment to quality and reliability. These will enhance IL Group's operational efficiency and market penetration, positioning the company more favorably against local competitors.

CONCLUSIONS AND RECOMMENDATION

The primary factors leading to decreased sales of the RARE System in the Asia-Pacific region include logistical challenges, insufficient after-sales support, intense competition, integration issues, and production inefficiencies. The reliance on a centralized manufacturing facility in Atlanta results in long lead times and high logistics costs, making it difficult to compete with local suppliers



offering quicker and more cost-effective delivery. Additionally, limited regional service centers cause slow and inconsistent after-sales support, reducing customer satisfaction and retention. Integration challenges with existing client systems further detract from the product's operational efficiency and perceived value. Together, these factors, coupled with strong competition, contribute to the declining sales performance.

Optimizing the RARE System requires addressing the highlighted challenges through strategic interventions. Establishing regional manufacturing facilities or partnerships will significantly reduce lead times and logistics costs, improving delivery efficiency and competitiveness. Developing regional customer support centers and implementing a robust CRM system will enhance after-sales service, ensuring quicker and consistent technical assistance, thereby improving customer satisfaction and loyalty. Continuous investment in R&D to incorporate advanced features such as smart technologies for predictive maintenance and better compatibility with existing systems will meet the evolving market demands. Additionally, implementing flexible pricing models, including volume discounts and loyalty programs, and targeted marketing and client education campaigns will enhance the product's appeal and market presence.

IL Group can enhance its competitiveness by adopting several strategic actions. Localization through establishing regional manufacturing partnerships or facilities will address logistical challenges, reduce costs, and ensure timely delivery. Enhancing customer support infrastructure with regional service centers and a robust CRM system will improve response times and service consistency. Continuous innovation through R&D investments will maintain IL Group's competitive edge by offering advanced and reliable splicing materials. Implementing flexible and competitive pricing strategies will attract cost-sensitive clients and highlight the high ROI due to product durability and operational efficiency. Finally, forming strategic partnerships with local companies will improve logistical efficiency, market penetration, and compliance with regional standards, positioning IL Group favourably against competitors.

Based on the conclusions derived from the comprehensive analysis of IL Group's current challenges and opportunities in the Asia-Pacific market, the following recommendations are tailored to align with IL Group's strategic goals and market conditions, providing a robust framework for sustainable growth and development. To reduce lead times and logistics costs significantly, IL Group should establish regional manufacturing facilities or secure partnerships with local manufacturers. Conduct a feasibility study to identify key locations, negotiate partnerships with local manufacturers, and set up manufacturing facilities within the next 6-12 months by the Production and Supply Chain Manager. This step will enhance delivery efficiency, reduce costs, and ensure quicker compliance with regional regulatory standards. Develop regional customer support centers and implement a robust CRM system to improve after-sales support, ensuring timely and consistent service for better client satisfaction and retention. Identify strategic locations for service centers, hire and train local technical support staff, and implement a CRM system like Salesforce within the next 12-18 months by Customer Service Manager and Regional Support Teams. Allocate budget for R&D to develop IoT-enabled splicing materials with real-time monitoring capabilities and predictive maintenance features. Collaborate with research institutions and industry experts to ensure continuous innovation. This recommendation can be practical over the next 3-12 month by the R&D Department and collaborate with industry experts. Develop tiered pricing structures based on purchase volumes and introduce loyalty programs to attract cost-sensitive clients and increase market share while maintaining profitability by Finance and Sales Teams within the next 3-6 months. Develop and implement targeted marketing campaigns through digital channels, webinars, and industry events. Create educational content such as whitepapers, case studies, and webinars to enhance brand awareness and educate clients over the next 1-12 months by the Marketing Team. Identify and engage with potential local partners to enhance supply chain efficiency and compliance with regional regulations and form alliances with local suppliers and regulatory bodies to improve logistical efficiency and market penetration within the next 1-6 months by the Business Development Manager.

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