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**FACULTY OF BUSINESS MANAGEMENT
UNIVERSITI TEKNOLOGI MARA**

**BACHELOR OF BUSINESS ADMINISTRATION (HONS.) HUMAN
RESOURCE MANAGEMENT
(BA243)**

**HUMAN RESOURCE INTERNSHIP
(HRM 666)**

**SWOT ANALYSIS OF
LOTTE CHEMICAL TITAN (M) SDN. BHD**



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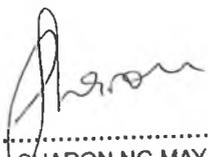
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Tajuk Laporan	SWOT ANALYSIS OF LOTTE CHEMICAL TITAN	Nama Syarikat	LOTTE CHEMICAL TITAN

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PART 1 : EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

My memorable and enlightening six-month industrial training began at Lotte Chemical Titan (M) Sdn Bhd, where I served as a Human Resources intern within one of Malaysia's largest integrated petrochemical companies. As a final-year Human Resource Management student, this internship provided me with comprehensive exposure to HR practices in a multinational manufacturing environment, including recruitment processes, talent management, employee relations, and HR analytics. Working closely with the HR team, I assisted in coordinating training programs, managing employee data using SAP SuccessFactors, and supporting various employee engagement initiatives across the company's facilities in Pasir Gudang and Tanjung Langsat, Johor.

The experience allowed me to observe how HR strategies align with business objectives in a challenging petrochemical industry, particularly during a period when the company faced market headwinds. Through my SWOT analysis, I identified opportunities for enhancing digital HR processes and employee development programs, while noting the challenges of maintaining workforce engagement during industry downturns. My recommendations focused on implementing more streamlined onboarding processes and leveraging data analytics for better workforce planning.

All in all, this internship has not only strengthened my theoretical understanding of HR principles but has also provided practical insights into managing human capital in a complex industrial setting, preparing me for a career in strategic human resource management

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ACKNOWLEDGMENT

I would like to express my heartfelt gratitude to Lotte Chemical Titan Sdn. Bhd. for providing me with this invaluable opportunity to gain hands-on experience in Human Resources. This internship has helped to develop my understanding of HR practices, from maintaining employee records to supporting various HR initiatives.

My sincere appreciation goes to my industrial supervisor, Ms. Sharon Ng, whose mentorship has helped me develop essential HR competencies, including communication skills, attention to detail, and the ability to handle confidential information with discretion. Her guidance has been crucial in helping me understand the delicate balance of people's management and administrative responsibilities.

I am grateful to my faculty advisor, Madam Nani Shuhada Binti Sehat, for her academic support and guidance in bridging theoretical knowledge with practical HR applications. Her insights have helped me better understand the strategic aspects of human resource management.

To my colleagues at Lotte Chemical Titan Sdn. Bhd., thank you for welcoming me into your team and sharing your expertise in recruitment, employee relations, and HR operations. Your willingness to include me in various HR initiatives has provided me with comprehensive exposure to the field.

Special appreciation goes to the HR department for trusting me with meaningful responsibilities and allowing me to contribute to various HR processes, from database management to support recruitment activities. This hands-on experience has been invaluable for my professional development.

This internship has been a cornerstone in launching my HR career, and I am grateful to everyone who has contributed to making it such a rewarding learning experience.

PART 2: STUDENT'S PROFILE

1.0 UPDATED RESUME

NUR HAZIRAH AHMAD



HUMAN RESOURCE INTERN

A dedicated and assiduous bachelor's student in Human Resource Management, exhibiting outstanding academic achievements and strong skill sets.

Education

Bachelor in Human Resource Management, UiTM

Expected Graduation : Jan 2025
Relevant Coursework : Research Methodology, Entrepreneurship, Strategic Management
CGPA: 3.49

Soft Skills

Time Management
Proficient in organization and adept in time management skills.

Problem-Solving
Demonstrates exceptional analytical skills and problem-solving abilities

Activities

<p>LOTTE _____ 2024 Chemical Titan <small>2024 Incorporation Day Event</small></p> <p>Managed VIP and award recipient seating arrangements, executed ceremonial award presentations alongside the company's president during the event.</p>	<p>LOTTE _____ 2024 Chemical Titan <small>Retirement and Loyal Service Award Appreciation Event</small></p> <p>Created and prepared engaging photo booth's props, designed and assembled interactive wishing board, and provide ceremonial support.</p>
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Honors & Awards

English Communication Skill Course

Fun Day 2019 (Augmented Reality)

Languages

- English *Fluent*
- Malay *Fluent*

PART 3: COMPANY'S PROFILE

2.0 BACKGROUND OF THE COMPANY



Figure 1: Lotte Chemical Titan's Updated Logo

Lotte Chemical Titan, formerly known as Titan Chemicals Corp. Sdn. Bhd. established IN 1991, it later grows as a cause one of the largest petrochemical company in Malaysia and Indonesia. The company's name was changed to Titan PP Polymers (M) Sdn Bhd before later being renamed Titan Petchem (M) Sdn. Bhd. in December 2004. In 2006, the company took the crucial step forward by forward by acquired PT LOTTE Chemical Titan Nusantara, Indonesia's the largest polyethylene plant in the country.

Followed by another major milestone, the acquisition of the business by Honam Petrochemical Corp in 2010, a significant success that led to the establishment of LOTTE Chemical Titan. It is a significant producer of intermediate petrochemical products like polyethylene and polypropylene, which supply sectors from packaging to automotive and construction. For LOTTE Chemical Titan, 'our continued growth' means a sustained innovation effort that will pay dividends for the economic prosperity of the region.

2.1 Corporate Headquarters



Figure 2: LCT Corporate Headquarter in KL

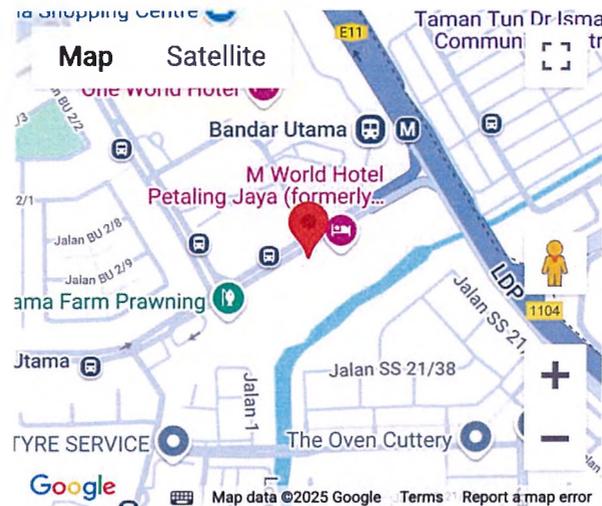


Figure 3: Corporate Office & KL Sales Office's Location

Lotte Chemical Titan in Malaysia represents a unique combination of strategic positioning and operational excellence. Their headquarter nestled within the busy commercial district of Kuala Lumpur, and acts not only as an office, but also as the nerve centre in charge of coordinating the company's vast petrochemical assets across the country. This strategic location is also notable as it positions them right at the centre of Malaysia's business district, allowing for smoother engagements with stakeholders, partners, and regulatory authorities.

2.2 Business Hours

The company's standard business hours of 8:30 AM to 5:30 PM, Monday through Friday, reflect the traditional Malaysian corporate culture while accommodating the dynamic nature of the petrochemical industry. As such the company's operating hours would be the Malaysian traditional corporate culture from 8:30 AM till 5:30 PM from Monday through Friday, whereas, the petrochemical industry is not as well structured, as such correctional hours would be provided when required wherein works must fill-up the gaps.

The headquarters is a hive of activity as executives, managers and staff members come together to work on everything from strategic planning to forward-looking operational oversight during these hours. With the nine-hour workday, there is sufficient time for internal operations as well as external engagements, leading to smooth coordination with international partners across varying time zone.

2.3 Location

What truly sets Lotte Chemical Titan apart is the strategic placement of their manufacturing facilities in Johor. The choice of Pasir Gudang and Tanjung Langsat as production hubs wasn't coincidental – these locations offer exceptional advantages in terms of logistics and infrastructure.



Figure 4, Pasir Gudang & JB Sales Office

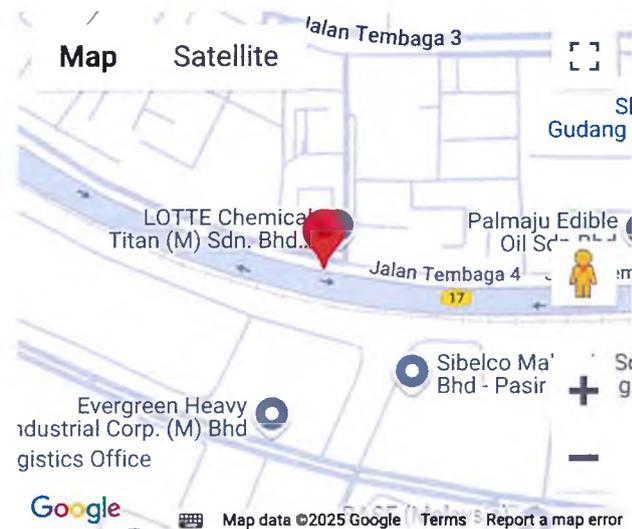


Figure 5, Pasir Gudang Plant & JB Sales Office's Location

Pasir Gudang, which is well known for its industrial development, offers state-of-the-art port facilities and established industrial ecosystems. It is located at PLO 32, Jalan Tembaga 4, Pasir Gudang Industrial Estate, 81700 Pasir Gudang, Johor. On the other hand, Tanjung Langsat has the latest industrial facilities and strategic location near the highways. The location is at PLO 8, Tanjung Langsat Industrial Estate, 81700 Pasir Gudang, Johor.

This strategy of operating in both regions allows the company to maximize its production and maintain high efficiency across its distribution channels throughout Southeast Asia. The manufacturing sites operate on a more extensive schedule than the corporate office, working

complex petrochemical processes 24/7 to produce more and more chemical products to fill the region's growing needs.



Figure 6, Tanjung Langsat Plant & PTC



Figure 7, Tanjung Langsat & PTC's Location

The plants play an industrial plant role of Lotte Chemical Titan that directly converts petrochemical raw materials from refinery to make high add-value products through complex manufacturing processes such as steam cracking, heat exchange and separation. This duality reflects the company's comprehensive effort to maintain its competitive edge in Malaysia's petrochemical sector via a balance between corporate strategy and industrial intensity. This structured organization from corporate governance to manufacturing excellence and strategic joint ventures proves that Lotte Chemical Titan not only integrated the different arms of its businesses, but also achieved extremely high standards of efficiency and productivity at every one of its sites.

3.0 VISSION, MISSION, BRAND VALUE AND STRATEGY

3.1 Vision

Top-Tier Petrochemical Company in Southeast Asia

3.2 Mission

We enrich people’s lives by providing superior products and services that our customers love and trust.

3.3 Brand Value



Figure 8: LCT's Brand Value

3.4 Strategy

- | | | |
|----------------------------------|---|---|
| Stable and Safe Plant Operations | : | <ul style="list-style-type: none">• Preventive Maintenance System• Operational Efficiency• Live in a Safe Environment |
| Business Sustainability | : | <ul style="list-style-type: none">○ Business Enhancement○ Innovative Product and Market Development○ Value-accretive Expansions |
| ESG | : | <ul style="list-style-type: none">• Environmental Management• Social Responsibility• Governance and Compliance |

4.0 ORGANISATIONAL STRUCTURE

ORGANIZATIONAL CHART

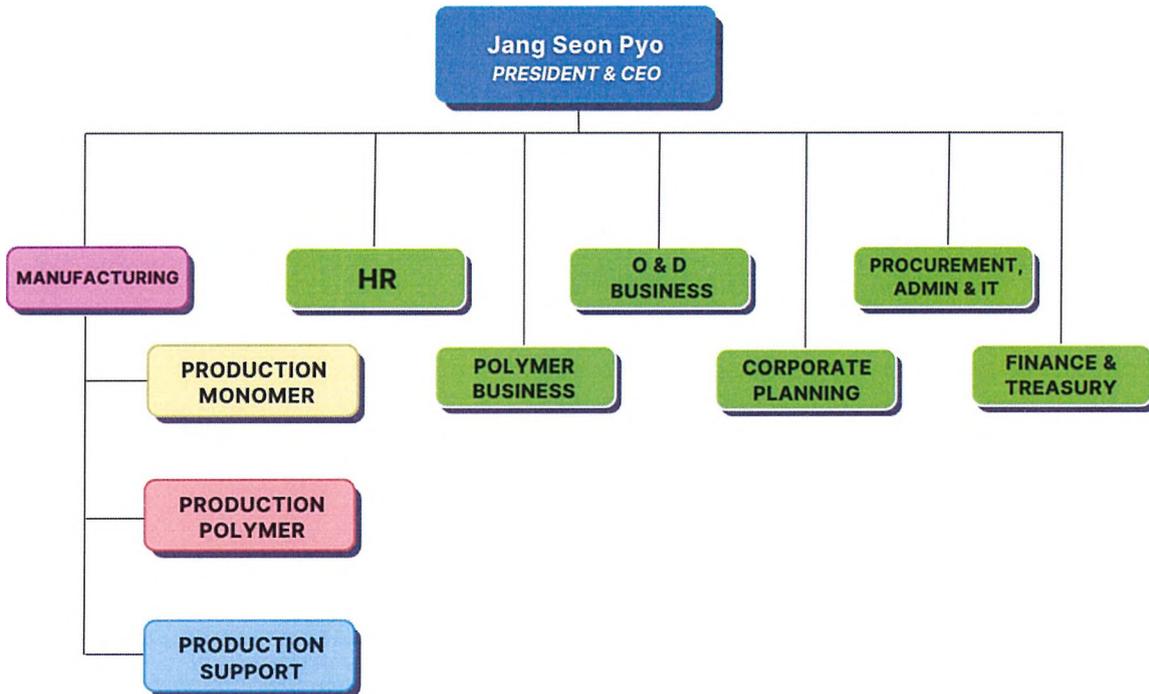


Figure 9: Shows Organization Structure For Lotte Chemical Titan

The only thing I could show is the tip of the iceberg because of the private and confidentiality policy of the company. Previously, the President and CEO of LOTTE Chemical Titan was Mr. Park Hyun Chul, however he was soon replaced by Mr. Jang Seon Pyo in the early of December 2024. The organisational structure of the company accommodates a workforce of over thousands of committed workers in its departments. It is a management system that helps to regulate the integrated manufacturing process and manages an extensive product portfolio. With team members at all levels of experience, from production specialists to senior executives, the team operates in unison to ensure the company remains top in the industry.

4.1 FACILITIES



Figure 10: Some Of The Facilities At LOTTE Chemical Titan

Lotte Chemical Titan has ten sophisticated integrated process facilities and an amazing production capacity. Their production output was just 100,000 tonnes per year in 1991, but the company has since grown exponentially allowing for a current total production capacity of over 3.5 million tonnes a year of various petrochemical products.

4.2 PORTFOLIO



Figure 11: Some Of The Facilities At LOTTE Chemical Titan

Their extensive product portfolio demonstrates the firm's technical skills and appreciation of the market. These manufacturing facilities consist of a number of different specialty facilities: two (2) olefins production crackers, two (2) polypropylene plants, a LLDPE/HDPE swing plant, an LDPE plant, an HDPE plant, an aromatics plant, a butadiene plant and a metathesis plant. Together, they contribute heavily to their extensive array of high-quality products, filling both domestic and international markets in 60 countries as a strong supply chain and catering

to diverse customer needs. This demonstrates their capability to manufacture an extensive product range, combined with their focus on efficient operations, innovation and sustainability. By consistently investing in cutting-edge technologies and strictly adhering to high environmental standards, they aim to provide products that meet international standards, strengthening their status as a leader in petrochemical industry.

PART 4: TRAINING'S REFLECTION

5.0 DURATION, WORKING DAYS AND WORK HOURS

5.1 Duration

During my industrial training at Lotte Chemical Titan, I started my internship from August 5, 2024, to January 24, 2025, whereby it is a 6 months duration of time. I was fortunate to secure this opportunity ahead of the usual placement period, allowing me to gain valuable industry experience earlier. This early start helped me learn a lot about the company's operations, work with experienced professionals, and develop practical skills relevant to the petrochemical sector.

5.2 Working Days and Work Hours

At Lotte Chemical Titan, I placed at HR department and the work hours for office workers start from 8.30 am until 5.30 pm. As I have no entitlement for overtime allowance, it is up to me whether if I would like to stay and work past the working hours voluntarily. Lotte Chemical Titan offices of all department open during office hours and working days, which is from Monday until Friday. However, the other shift employees is open for 6 days, varies from their rest days and off days.

6.0 DETAILS: DEPARTMENT, RESPONSIBILITIES AND PROPOSAL

6.1 Department

I was in the Human Resources (HR) department, under the Compensation and Benefits (C&B) team. Working in a major corporation in this placement gave me an extensive experience of how human capital and employee benefits systems work. The department serves a vital function of keeping a healthy level of job satisfaction among all employees which assists in keeping the organization running in an orderly manner. It was during that time I was able to learn about the intricacies of compensation structures, benefits administration, and how strategically important these factors are to creating motivated and productive workforces. Observing the company culture, office dynamics, and the role the HR department played in staff relations and productivity also proved to be illuminating, and taught me the conscientious process of balancing business operations with the needs of employees the kind of investigation that, I believe, is what ultimately establishes a high-functioning workplace.

6.2 ROLES AND RESPONSIBILITIES AS AN INTERNSHIP

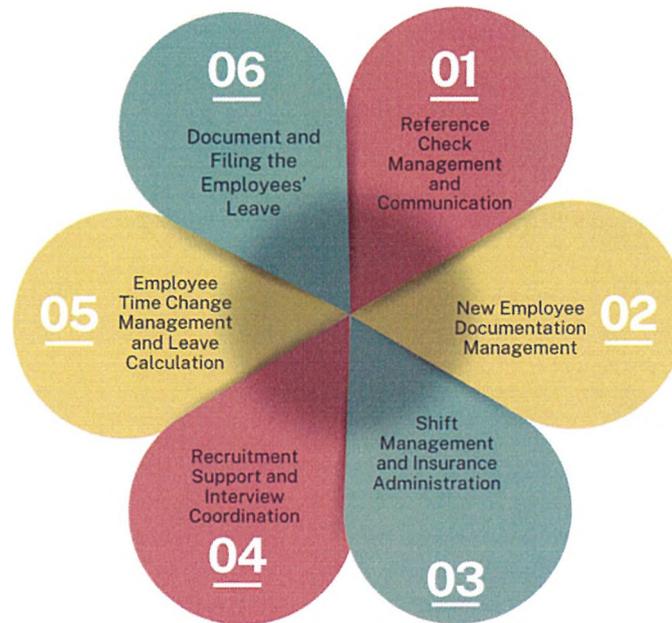


Figure 11: Responsibilities And Role When I Was In Internship

I had a set of day to day administrative and specific responsibilities which are included:

a. Reference Check Management and Communication

In this role, I am responsible for managing incoming requests from other companies looking to verify the employment history of past employees at Lotte Chemical Titan. As I work to ensure confidentiality protocols while processing incoming phone calls and emails, this role demands attention to detail. I was tasked with accurately verifying employment records and statuses using databases that showed employment history, as well as checking multiple files in order to confirm that any specific employment data matched up and cross-reference any employment history databases. Each verification request and the corresponding response is logged into the company's tracking system and, if necessary, this may entail collaboration with other HR team members in order to gather more information or clarify statements.

b. New Employee Documentation Management

I am responsible for processing and organizing all necessary documentation to onboard the new hires, including personal information, educational certificates, and corporate contracts. Such an aspect calls for vigilance over systematic filing systems of sensitive

employee details which can range from confidential papers like medical reports to qualification certificates and background checks. I collect and store all documentations appropriately, ensuring compliance with company documentation policies, and create and update employee files, consequently upholding document security standards to prevent misplaced sensitive information.

c. Shift Management and Insurance Administration

In my current position, a huge part of my job includes the complex process of reviewing and managing employee requests for shift changes by cross-referencing them with respective roster duty cards to confirm coverage and adherence to the terms of the law. Through the SAP system, I handle employee insurance enrolment, which includes also amending coverage whenever family members need to be added to or abolished from these policies. This includes overseeing the computation of insurance premiums and keeping accurate records of coverage recent price.

d. Recruitment Support and Interview Coordination

Assisting recruitment requires extensive coordination of all candidate documentation for interviewer sessions. Review application materials and required certifications for completeness, prepare interview packets for hiring managers, and maintain organized records of candidates information and interview schedules. This position will be responsible for insuring all pre-employment documentation is compliant with company policy, and assisting the HR team in interview logistics and communication follow-up.

e. Employee Time Management and Leave Calculation

For managing employee time and leave calculations, I calculate and validate employee overtime hours in accordance with company policy and process unrecorded leave requests by checking them against overtime credits. This includes making detailed calculation on the eligibility dates for retirement, the number of years of service an employee has to his/her credit, leave balances and overtime accumulation. Be it labor laws on working hours and leave entitlements, overtime and leave reports, or aligning closely with payroll to ensure accurate time based compensation, these are handled and maintained stringently.

f. Document and Filing on the Employees' Leave

I ensure proper documentation of all employee files and assist in processing leave applications. I process and document various types of leave, such as maternity and paternity leave, medical and hospitalization leave, and light duty leave, while ensuring that all supporting documents are systematically filed and tracked.

6.3 Internship Proposal

During my internship, one of the most outstanding prospects was when my supervisor assigned me a task to prepare a complete proposal for the company. It was an amazing opportunity for me as it offered me the chance to gain experience in high-level corporate documentation then strategic planning. It was a remarkable experience as I had the challenge and responsibility of creating such a historical document, which taught me a lot about corporate communication, company visions and values, as well as how to align proposals with company's goals.

Additionally, I got to work on a really cool project to draft proposals for employees with 30+ years of employment. This project was interesting as it gave me an insight into long-term employee recognition and retention strategies. Looking back on decades of commitment and service, not only does the company instil a sense of loyalty, it also promotes a culture of gratitude and respect for its employees. This experience shed light on the strategic relevance of acknowledging and rewarding employee commitment in ensuring a motivated and engaged workforce.

Through working on these projects I really learned how to juggle company needs and employee happiness, and honed skills that I can use in a real-world setting. This balance between high-level corporate work and human-centric projects gave me a well-rounded experience that enriched my internship as a whole.

7.0 GAINS: EXTRINSIC AND INTRINSIC BENEFITS

7.1 Extrinsic Benefits

The benefits I received during my 6 months internship were huge and sufficient. For starters, the company provided a monthly salary of RM900. It was a decent discount for my monthly allowance and sufficient to keep a roof over my head while interning. I also got JPA scholarship per semester that would be sufficient for my daily life and rent. I rented a room, distance 5km to 6km from the company that I did intern and the car fuel to drive daily to work, as I need to.

On top of that, I am also entitled with allowance of RM11 a day for meals, which is only applicable for usage at the company-owned canteen. I don't have to think of what to eat every day and spend couple of ringgit every day. One of the good things, that really improved the daily experience there, was the company canteen, which was serving such lovely and tasty food at unbelievably low prices. They sale a lot of canned drinks, bottled drinks and food, and the food from meat to vegetable and fishes.

Their menu was mostly a combination of Malay cuisine and Western cuisine. They also sell a range of snacks and ice-creams for cheap, part of the company's daily meal subsidy. For a shift worker, they can buy dinner menu as the canteen closed at 7.00 pm, in the evening they start selling fried banana, fried sweet potato, some traditional Malay cakes, fish cracker snack and many more. Overall, my internship was one of those experiences that was one of the most valuable from a monetary standpoint and a personal standpoint.

With support from the company and the JPA scholarship, I could focus on my work without worrying about finances. A daily meal allowance that had a big help, and a good company caff made sure it was a very nice and fun time. I gained important professional skills during this internship, but I also feel supported and appreciated.

7.2 Intrinsic Benefits

Aside from the monetary aspect of it, Lotte Chemical Titan always gave me one step ahead to be familiar with technical knowledge especially in HR systems software (SAP) which is one of the most common systems available in the industry. This greatly enhanced my professional experience, because I was working with real HR systems and processes. I had to take care of many things, including maintaining employee leave balances in the HRMS Employee Self-Service (ESS) system and calculating non-recorded employee leave. This gave first-hand insight into the need for accurate leave tracking and how these systems repaid that investment with administrative efficiency for the HR department.

Also, interacting with SAP and ESS systems gave me insight about how organizations are adapting technology for efficient HR function which helped in achieving better accuracy and productivity. I gained a good understanding on how to manipulate these complex packages and analyse data and write reports but these are all basic tools of a modern day HR role.

My active participation in various events organized by HR team members made me meet many employees across the different departments which I loved. The informal conversations also gave me a better sense of the company culture and allowed me to make professional connections that added breadth to my internship experience. Because it was fun to go to the farewell programs so that I can talk on members other department as well as connect with them.

The soft skills and personal growth alongside the internship was probably the most valuable thing I found. Working in this space, where we had to adapt quickly and work as a team, about who needed help. I now had a strict schedule, one that I had always been taught to follow, placing importance on good time management as well as staying on schedule while maintaining the quality of my work. My supervisor is not just a teacher, she is also negotiating with her flow of job, and company time, and explain to me the company policy, and enlighten me more on many aspect, and at the same help me more on improving my Microsoft Excel.

Actually working in that corporate environment really improved my communication and interpersonal skills, and left me dealing with employees at all organizations levels. As I tackled difficult work and participated in high visibility initiatives, my confidence grew. I also learned that to be successful in the corporate world, calculated risks and negotiation are two major aspects. Working in this professional environment taught me definitely punctuality and

professional etiquette in a workplace which I believe complemented well my transition into HR industry.

PART 5: SWOT ANALYSIS DIAGRAM

8.0 SWOT ANALYSIS OF LOTTE CHEMICAL TITAN

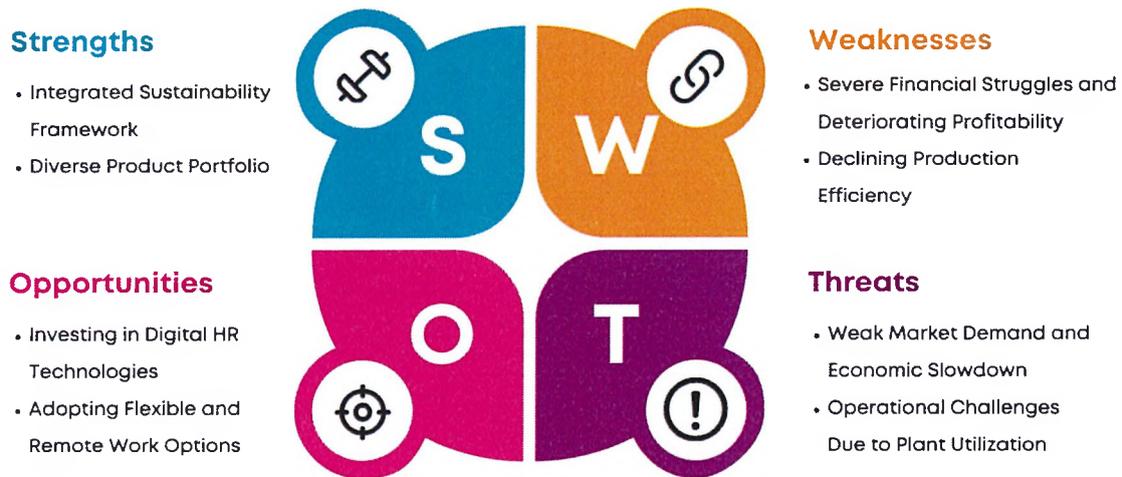


Figure 12: Shows the SWOT Analysis of Lotte Chemical Titan

In my internship with Lotte Chemical Titan, I've had a chance to see how the company is situated within the market and the focus on its strategy. Lotte Chemical Titan is a subsidiary of the multinational Lotte Group and one of Southeast Asia's largest petrochemical companies. Through integrating sustainability into its company practices, and reflecting the growing role it plays as a potential competitive differentiator. Moreover, its diversified product range has allowed it to service multiple industries offering versatility and not being overly reliant on any single market.

Yet, in spite of these advantages, Lotte Chemical Titan is now confronting major adversity. It has been struggling with grave financial troubles, its profitability has been on a steady decline. This has restricted its potential to invest in future growth initiatives and adjust to changing market conditions. Additionally, production inefficiencies have inflated operational costs, compounding its poor financial performance. The internal problems highlight the importance of reform in order to create long-term viability and competitiveness for the company.

On the other hand, there are numerous opportunities for Lotte Chemical Titan to overcome these challenges. Investing in digital HR technologies can help the company in this

regard by automating recruitment, performance management and employee engagement processes. Flexible work options could also bring high levels of employee satisfaction and high-quality workers, depending on the innovative nature of the working climate. Improving internal processes and building a more agile work culture that encourages collaboration can ultimately build a more invested team and improve productivity at all levels.

At the same time, on the external front, Lotte Chemical Titan has bared itself to potentially large risks stemming from poor market demand and the continued global economic slowdown. Such factors could stifle consumer spending and hurt demand for its products, which could further weigh on profitability. Furthermore, structural inefficiencies in production due to underutilized plant capacity and types of capacity metrics have challenged the company to effectively respond to market demands. To navigate these external pressures will require thoughtful strategic planning and a focus on enhancing operational efficiencies.

Lotte Chemical Titan is a sustainable and diversified company. Nonetheless, for the company to grow in the coming years, it should be able to solve its financial instability and internal operation inefficiencies coupled with pursuing opportunities in HR technology and flexible work arrangements for its employees. With these changes in strategic and operational direction, Lotte Chemical Titan can maintain a competitive advantage and a sustainable success tour through a competitive market landscape.

PART 6: DISCUSSION AND RECOMMENDATION

9.0 STRENGTHS

9.1 Integrated Sustainability Framework

According to LOTTE Chemical Titan's official website, they are actively implementing the strategy to the UN Sustainable Development Goals just to fulfil its responsibility as the global corporate citizen. It intends to create the sustainable model that can address all the social challenges and find new growth engines to create value beyond chemistry for the humanity.

Furthermore, their ongoing research and development initiatives have established the highest level of environmental compliance based on industry best practices, which are more stringent than acceptable standards for environmental pollutants since the company is an ISO14000:2015 certified organization since 2011. These milestones are a testament to the company's steadfast dedication towards fostering growth with sustainability and stakeholder value, as discussed in Global Business Report's (GBR) "Southeast Asia Chemicals 2023" report.

The company's growth trajectory narrates a story of industrial evolution and operational prowess. LOTTE Chemical Titan originally started with a small production capacity of 100,000 tonnes per year in 1991, but has since shown impressive technological sophistication and scale of operations. This expansion is one of the most significant growth stories in the regional petrochemical sector, as outlined in Our Path Forward to Profitability for SEA Petrochemical Companies (BCG, n.d.). Lotte Chemical Titan has 24 hours online monitoring, which is directly connected to Department of Environment. Periodic boundaries and monitoring of the plant looking for any abnormality. In all operations, natural gas is used as fuel to reduce the impact of air pollution. In fact, the current annual production capacity of 3,568,000 tonnes underlines the company's commitment to meeting growing market demands while maintaining sustainability control and strict quality standards, as detailed in the report.

The first recommendation focuses on using Lotte Chemical Titan's strong market position to build better relationships with stakeholders, including local communities, regulators and consumer. Consider this a strengthening of the company's business friendships. When you've been in business as long as Lotte Chemical Titan has, you earn a reputation that gets

you considered. For this is the essence of trust, strength and reputation. As per study from Trifonova et al. (2017) companies that have been in the business longer, such as Lotte Chemical Titan, often have clear advantages that map on targets and the effects of the business.

What does this mean in practice? The company can negotiate better deal, appealing to investments and loyalty to consume. It's almost like needing to market your favourite coffee shop – the more people you attract the more likely people will continue to be curious and come. It could also lock in long-term contracts with suppliers that will guarantee steady material supply at more attractive rates, for instance Lotte Chemical Titan. The firm can also make special arrangements with customers that require stable, high-quality products.

Recent analysis from BCG by Rajamani and Singh (2024) shows that these kinds of strategic relationships can lead to significant cost savings — sometimes 15-20% on raw materials. That's a big advantage in an industry that has a big chunk of material costs overall.

The second recommendation involves keeping Lotte Chemical Titan at the forefront of technology in the industry. This isn't just about new purchases of hardware — it's about spending wisely on how the company develops and utilizes technology. This is based on the research conducted by Trifonova et al. (2017) finds that firms which remain technologically sophisticated outperform those who do not by 20–25% on average.

What does this look like in real terms? First, Lotte Chemical Titan should partner with universities and research centres. Through such partnerships, this new form of R&D will provide new methods of producing goods and even new categories of goods entirely. It's like having an R&D team that extends outside of the company. These partnerships may target specific problems — for example, exploring the possibilities of using less energy in production or creating new product grades to meet emerging customer needs. It should be in partnership with a research institution or universities to foster innovation in sustainable technologies.

The third recommendation focuses on making production more efficient through better control systems. This isn't just about installing new equipment – it's about creating a smarter way of running the plants. Lotte Chemical Titan should invest in green technologies like renewable energy sources, carbon capture and circular manufacturing practices. Studies indicate leading companies using advanced control systems achieve an increase in production

efficiency of about 15-20%, reductions of 10-15% in energy costs, and product consistency improvement of 25-30% in variation.

Last but not least, on having a long-term vision on how to document processes. This is more than writing manuals; it's about writing down the best way of doing things so everybody knows how it's done everywhere in the company. Studies indicate that effective documentation can prevent errors by approximately 25%, enable training to be 30% more productive, and allow processes to operate 20% more efficiently.

This is why the documentation should be needs to be concise, actionable, and accessible to everyone who needs it. Transparent reporting and compliance with global sustainability standards will not only increase credibility but also add feedback mechanism to reorient the sustainability strategy of the company on continuous basis. According to Trifonova et al. (2017), when companies actually get this right they statistically find that 35 percent more employees stick around, and they experience 40 percent better overall performance and 25 percent more innovation.

These recommendations should be seen as components of a broader strategy that works together. This will help Lotte Chemical Titan continue to dominate the hierarchy that is proven transpires in Southeast Asia by carefully and gradually implementing them in an industry that has a solid positioning.

9.2 Diverse Product Portfolio

The diverse product portfolio is one of the company key strengths, allowing the company to cater to various industries including packaging, automotive, electronics and construction. It provide critical market resilience, particularly evident in today's volatile chemical industry landscape. Yet, while this variety introduces operational complexity and volatility, it also enables powerful market advantages. Based on research by Julfadiati (2021), market success heeps largely dependent on wide reach and variety of products while integrated chemical producers outperforms specialized producers by 23% during market downturns – a trend even more applicable to regional champions such as Lotte Chemical Titan.

In the petrochemical industry, the first recommendation is to rationalization of the product portfolio. Lotte Chemical Titan is known for the flexibility of its world-class production systems to switch between different grades of polymers and chemical products. They can think about getting out of low-margin or slow-growth areas and reinvesting resources to high-potential, high-margin products. This versatility applies to everything from sophisticated processes control systems and modular equipment design to production lines that can produce multiple different product specification ns. This enables the company to support their efforts where they can gain the most competitive edge, maximize R&D investments and improve operational efficiencies.

Next, Lotte Chemical Titan could explore strategic partnership and acquisitions. It can accelerate its portfolio diversity and strengthen its position in high-growth sector that complement with their interest. This is because the complexity of petrochemical operations demands a highly skilled workforce with deep expertise in multiple processes and expending their competitive edge. Operators at facilities like Lotte Chemical Titan must possess comprehensive knowledge spanning reaction kinetics, process safety, quality control, and troubleshooting across numerous product lines. Their expertise include knowing how multiple variables are related to product properties, so they can make crucial real-time decisions to keep production parameters optimal.

Moreover, another recommendation is to strengthen customer segmentation and tailored solutions. The management of inventory in petrochemical operations presents a tricky problem of how to keep enough raw material available but also not too much finished products stored. This means implementing advanced forecasting systems that take into consideration market demand, production schedules, and storage enablers at the same time. With such a variety in product portfolios such as Lotte Chemical Titan, the procurement of adequate inventory is a massive challenge as different products may also have different shelf-lives, storage requirements and demand patterns. Expanding these not only help the company but also aligns with global goals of sustainability.

Last but not least, enhance brand positioning and communication. Effective management of multiple product lines require cross-functional teams that can move effortlessly across different operational silos. Process engineers, quality specialists, production planners, and technical service personnel comprise these teams, who work together to improve production and meet customer requirements. The success of these teams depends on them clearly knowing how and when to communicate with each other, having aligned goals and deep understandings of the interconnectedness of the different functional areas. Using regular team meetings, problem solving, and project management sessions ensures that all dependencies are identified and planned for as they move together to deliver on key projects. It can allow the company to demonstrate its willingness to play in the global chemical arena.

10.0 WEAKNESSES

10.1 Severe Financial Struggles and Profitability Issues

Lotte Chemical Titan's financial struggles and profitability issues are evident, that may call for a more balanced approach of cost management and operational excellence. Petrochemical companies can enhance their profitability through advanced cost management systems and operational excellence programs, according to research. Operational improvements are usually combined with strategic cost management as part of successful turnaround strategies, tackling inefficiencies and optimizing resource allocation.

One of the key recommendations for Lotte Chemical Titan is the implementation of cost reduction and operational efficiency programs. By examining costs through the lens of process optimization, this top-down spending approach helps ensure that all spending is justified and aligned with the overarching goals of the business, creating a culture of discipline and accountability. Also, implementing a cost optimization program can establish a culture of identifying and removing waste and unnecessary activities throughout the organization (Gerpott & Berends, 2022), leading to significant reductions in wasted resources and efforts. This can achieve significant cost savings and reallocated to the core business process for growth and innovation.

Next recommendation is strategic restructuring and market focus on profitability, not only on revenue. By understanding and responding to market trends, Lotte Chemical Titan can set competitive prices that maximize revenue while maintaining market share. Through scrutiny and reflection of market trends, Lotte Chemical Titan can adjust obtained prices and optimize revenue while guaranteeing its own place in the market. This requires facilitating ongoing market assessment and modifications of pricing strategies to accommodate the fluctuations in demand, supply, and competition. Strategic divestment of underperforming assets should also be evaluated as a way to generate capital that can be used to invest in more profitable activities (Gerpott & Berends, 2022). These strategic manoeuvres allow the company to be financially flexible and able to invest in growth opportunities.

Moreover, the next recommendation is improving the working capital management and cash flow. Just-in-time or also known as embedded inventory systems to lower inventory optimization adjust the inventory systems that are ever seen good but not too full, Good Judgment And production systems better accords to demand. Real-time visibility on key

performance indicators through tighter credit terms and faster receivable collections help management take prompt corrective action and faster cash-flow. Cost-conscious operations with improved payment terms (Supplier) through vendor negotiation can better pave the path for staff to keep working towards improving the economics for the organisation (Selano, 2023) With this culture, the company can remain with a good competitive edge in a difficult market environment and financial flexibility.

To summarise, Lotte Chemical Titan's financial plight must be managed through better cost governance and strategic innovation management, improve capital allocation and increase operational efficiency. With these comprehensive measures, Lotte Chemical Titan will be positioned for long-term success and financial recovery in an increasingly challenging market environment.

10.2 Declining Production Efficiency

The operational challenges affecting production efficiency represent a critical area for improvement and often stem from a combination of technical and human factors. According to a report by MakerVerse (2024), integrating Industry 4.0 technologies such as IoT, real-time data analytics, and automation can significantly enhance production efficiency in manufacturing environments. That illustrates the possibility of significant wins by leveraging modern technology solutions.

One of the key recommendations for addressing these challenges is investing in predictive maintenance systems. Predictive maintenance is an approach that allows to anticipate equipment breakdowns thanks to advanced data analytics and machine learning algorithms. Enabling timely maintenance interventions leading to less downtime and enhanced equipment effectiveness. With predictive maintenance, Lotte Chemical Titan can identify and respond to potential issues before they lead to unplanned outages, improving reliability and uptime.

Next recommendation is developing comprehensive operator training programs is essential for ensuring that both technical and operational staff are well-equipped to manage advanced technologies and systems. Training programs must be thorough and encompass more than just the technical handling of the equipment, as performing the operational procedures and following safety protocols are just as vital. A comprehensive approach where you are able to run the systems and the staff are able to maintain the systems effectively ensures production efficiency in general. Fekrisari & Kantola (2024) explained challenges in adopting Industry 4.0 technologies can be overcome through all-encompassing training and skill development of employees.

Following up on that, deploying an ongoing performance measurement and improvement systems is another important recommendation for the business to ensure high levels of production efficiency. Such systems must combine the technical and operational knowledge necessary to recognize opportunities for improvement and ensure corrective aspects are put in place. Continuous monitoring enables real-time adjustments and long-term strategic planning, making sure that the company stays agile and tuned to changing conditions in the market. The incorporation of Industry 4.0 technologies may vastly improve the efficiency and sustainability manufacturing process (Naik & Bagale, 2024).

Such operational factors that lead to production inefficiency can be rectified through a combination of measures involving both technical elements as well as human factors. Lotte Chemical Titan can lead to an increased production efficiency through investments in predictive maintenance systems, analyzers advanced process control systems, operator training programs, and continuous performance monitoring and improvement systems. This will not only increase operational performance but also give itself a better chance of long-term success in a competitive market.

11.0 OPPORTUNITIES

11.1 Investing in Digital HR Technologies

To improve production efficiency, it's important to address the operational challenges that stem from both technical and human factors. A report by MakerVerse (2024) suggests that adopting Industry 4.0 technologies like the Internet of Things (IoT), real-time data analytics, and automation can greatly enhance efficiency in manufacturing. This shows that using modern technologies can bring significant improvements.

One major recommendation is to invest in predictive maintenance systems. These systems use data analytics and machine learning to predict when equipment might break down, allowing maintenance to be done before an issue occurs. This reduces downtime and improves the effectiveness of equipment, as it helps identify problems before they disrupt production.

Another key recommendation is to develop thorough training programs for operators. It's essential to make sure that both technical and operational staff are well-trained to use advanced technologies. The training should cover not just how to handle equipment but also operational procedures and safety protocols. Well-trained staff ensure that systems run smoothly, which in turn improves overall production efficiency. Fekrisari & Kantola (2024) emphasize that strong training programs can help overcome challenges in adopting Industry 4.0 technologies.

Finally, implementing ongoing performance measurement and improvement systems is important. These systems should track both technical and operational aspects of production, allowing the company to identify areas for improvement and make adjustments in real time. This kind of continuous monitoring and adaptation helps the company stay competitive and responsive to changes in the market. Incorporating Industry 4.0 technologies into this process can make the manufacturing process more efficient and sustainable (Naik & Bagale, 2024).

In conclusion, Lotte Chemical Titan can improve production efficiency by focusing on predictive maintenance, operator training, and performance monitoring. By investing in these areas, the company will not only boost its operations but also position itself for long-term success in a competitive market.

11.2 Adopting Flexible and Remote Work Options

There are abundant opportunities for growth and expansion in the arena of the massive and rapidly growing global demand for petrochemical products. As the global population grows and emerging markets develop, demand for petrochemical products is predicted to follow suit, creating a fertile ground for companies with a foot in this industry to gain.

The recommendations for one of them is to fully develop a comprehensive remote work policy that clearly defines eligibility criteria, performance expectations and communication protocols. In particular by implementing this policy, it should be geared to preserve productivity, while providing employees with the flexibility they increasingly seek in the workplace of today. The framework should go on to distinguish the steps needed for each role, understanding that certain positions in the organization may require more in-person work than others. Companies, therefore, are aptly situated to meet the satisfaction needs of their employees as they evolve.

In addition, strong training programs must be developed regarding remote work effectiveness. As Goyal et al. (2023) discuss in their article published in the Journal of Cleaner Production, the adoption of agile practices and the integration of advanced technologies, such as automation and data analytics, can significantly enhance a company's ability to respond to fluctuations in demand. This must encompass psychoprophylactic training for managers for leading virtual teams and performance management; and counselling for employees on optimising working from home and maximising digital tools. Through these example approaches the company culture & employee connection in a hybrid work could be sustained.

In essence, the growing demand for time now creates countless opportunities for companies willing to adapt and be innovative. With the ongoing evolution of the world and the growing need for petrochemical-derived products, those industries that incorporate these methodologies into their production process will be ready to face any challenges as well as capitalize on all available avenues to become the forerunner of the global petrochemical industry.

12.0 THREATS

12.1 Market Demand and Economic Slowdown/Challenges

As the global petrochemical market, which is swiftly changing and highly competitive with emerging markets, becomes more challenging, LOTTE Chemical Titan must confront new challenges with clear strategy in considerations of not only short-term but also long-term market implications. One of the biggest threat is the threat of economic slowdowns and the subsequent demand being pulled down in markets. As Wilson and Zhang (2023) noted in their excellent paper in the *Journal of Business Economics*, petrochemical firms that have developed comprehensive risk management systems performed better during downturns in the economy.

The spectre of overcapacity is looming within the industry, and is increasingly set to weigh on margins for the foreseeable future. In addition to tightening profitability, this surplus capacity has the potential to create massive disruptions in established trade flows, creating even more headwinds for a company such as LOTTE Chemical Titan.

China emerges as one of the most significant players best positioned to benefit from this shifting dynamic. Due to the embryonic, still-burgeoning state of the nation's petrochemical sector, it is expected to be a major exporter in some of these value chains, competing vigorously for market share around critical growth areas. The logistical convenience and potential for greater profit margins than local producers make these regions a target for Chinese exporters. As a result, these regional competitors will feature not only increasing pressures from an economically uncertain environment but also the encroaching presence of very competitive Chinese exporters in their core markets, such as LOTTE Chemical Titan.

A key element of these efforts should be building comprehensive systems of market monitoring. Through regular data collection and analysis of market trends, customer behaviours, and competitor activities, the business can derive critical insights that guide its decision-making and allow it to rapidly adapt to new developments.

It is important for a flexible production plan. In a fluctuating demand, evolving market changes, it is critical to be able to produce relevant demographics in fast time by raising production levels or mix and adjust them rapidly as needed. Agile manufacturing practices,

coupled with investments in automation and data analytics technologies, can improve operational efficiency and responsiveness, enabling LOTTE Chemical Titan to better align its output with market demands (Goyal et al., 2023, Journal of Cleaner Production).

Integrating diversification strategies across different markets helps mitigate exposure to risk and ensures long-term growth potential. LOTTE Chemical Titan can diversify away risk by breaking into new geographic territories and looking towards ancillary markets. This broadened approach contributes to reducing the negative effects of local recessions, while creating fresh opportunities for development and advancement.

All in All, with a holistic vision, the company can build its firm weather to economic adjustments, and become a respected leader in the global petrochemical landscape. Similarly, the research of Wilson and Zhang (2023) and other reputable academics in the field offer tremendous insight for LOTTE Chemical Titan and other companies that are faced with the challenges and opportunities of an evolving market landscape.

12.2 Operational Challenges Due to Plant Utilization

Lotte Chemical Titan is facing the challenge of plunging plant utilization rate from 67% to 57%. This reduced production efficiency is not only seen through the result in production but also indicates the increasing difficulties for the company to remain competitive when confronted with a volatile market. Petrochemical companies operating at utilization rates below 65% generally report a 15% to 20% increase in per-unit production cost, according to a recent analysis by S&P Global Ratings in Asia's Petrochemical 2024.

The rising costs are the consequence of having underutilized assets, which distribute fixed costs over fewer production units, resulting in higher per-unit costs. Such escalated production expenses greatly affect the organization's aggressive fortitude in the business sector since contenders with higher usage rates can give lower costs or have preferable productivity edges. This decrease in effectiveness impacts not only the near-term financials of the company but also itself in terms of meeting market demand efficiently. Not satisfying demand directly loses market share and shrinks relationships with key customers.

Issues with scheduling of scheduled statutory turnarounds are discussed by Sharma, R., & Sarkis, J. (2023), such turnarounds can include shutting down production for weeks, and losing millions of dollars of revenue. Their study on Asian petrochemical facilities showed that those corporations adopted predictive maintenance systems effectively reduced turnaround duration by 30% and have a better overall plant reliability. This is particularly applicable to Lotte Chemical Titan, whose protracted turnaround periods have compounded utilization issues. Implementing advanced planning methodologies and incorporating new technologies in Lotte Chemical Titan could be the key in terms of minimizing downtime, further improving maintenance efficiency, and hence plant utilization in return. Not only this would help in increasing their financial performance but also increase their zing to cater the market with excellence.

Apply Advanced Process Control (APC) systems and digital twin technology for plant optimization. According to Yao et al. (2022), the balance through Process Digital Twin and Its Application in Petrochemical Industry, Journal of Process Control found that after the first year between the implementation of digital twin technology, petrochemical companies can improve the rate of utilization by an average of 8-12%. Digital twin technology allows a virtual representation of physical asset, process, or system that can be used to get a complementary

view to the real-world counterparts in order to monitor, simulate, and optimize operations in real-time. With this technology, it would be easier to predict Maintenance requirements and optimize Operational parameters leading to higher efficiency and decreased expenditure. APC systems allowed Lotte Chemical Titan to achieve more stable and efficient process control, improving production quality, and reducing variability.

Second, implement an integrated predictive maintenance strategy based on IIoT sensors and machine learning (Sharma, R., & Sarkis, J, 2023). A sustainable digital metamorphosis of organizations: A new tooling and future research paths found that predictive maintenance initiatives played a major role in reducing unplanned downtime in petrochemical installations by an estimated 45% and enhancing overall equipment effectiveness by 25% in petrochemical firms. Predictive maintenance fetches data from IIoT sensors to forecast equipment failures even before they happen, followed by maintenance actions that will prevent unexpected breakdowns. The precision and efficiency of maintenance operations will thus be improved through predictive maintenance powered by algorithms that learn from the large amount of data. Such a program would help Lotte Chemical Titan to ensure high equipment reliability and machinery productivity, thereby increasing plant uptime and decreasing expenditures.

Lastly, make investments in modern plant operation and maintenance-specific workforce development and training programs. This means that plant utilization rates improved 23 percent over two years for companies implementing comprehensive employee training programs. Investing in training programs on newer technologies, best practices and safety protocols can help employees operate and maintain equipment better. A trained workforce is more prepared for complex operations, problem-solving, and better operational efficiency. By establishment such programs Lotte Chemical Titan would be able to minimize the loss on accounts of employees, while making the plant to utilize fully divided its capacity to a large extend.

PART 7: CONCLUSION

My industrial training experience at Lotte Chemical Titan provided me with practical experience and technical knowledge of the subject matter, particularly with HR-specific software systems such as SAP and Employee Self-Service (ESS) system. This immersion broadened my knowledge of corporate HR operations, compensation schemes, and long-term employee recognition and retention. Managing employees benefits to keep the workforce motivated and productive.

Additionally, through engaging in various activities and events, I was able to meet employees from across different departments, which provided me with an all-around view of the company's culture and functions. During this time I got to know some interns from other departments and I learnt a lot about how different cultures work and was also a great insight into the company's workings. This not only expanded my professional network, but also deepened my cultural awareness, which is essential in a contemporary business environment.

A defining moment during my internship was when, upon preparation of a detailed company proposal, my supervisor charged me to lead on it from start to finish. This was a great opportunity since it provided me with experience in advanced corporate documentation and strategy. I also worked on proposals for employees who had worked in the company for more than 30 years. The success of this project allowed me to learn a lot about promoting long-term employee recognition and retention, which are integral to building a healthy workforce--the concept of rewarding employee commitment would be key to preventing attrition is a very important business tactic.

Besides the monetary benefits, the internship gave me a ton of invaluable technical insight. My role also involved calculating unrecorded leave for employees and updating leave records via Employee Self-Service (ESS). Through this role, I learnt the importance of precise leave tracking and how these systems add value to the HR department by maintaining operational efficiency. Through these hands-on experiences, I gained a comprehensive insight into the complexities of administering employee benefits and facilitating seamless HR ir.

In the future, I see myself building upon this foundation by enhancing my abilities in human resources management and strategic planning. Five years from now, I hope to be in a leadership role in HR at an innovative company. As such, I'm looking to use my skill set to

motivate staff, support a vibrant work environment, and further the organization as a whole. This is the ideal candidate.

My internship at Lotte Chemical Titan has been a great learning experience that has taught me a lot about the foundations of HR which I will carry in my career path ahead. Technical skills, practical experience, and cultural touches formed a fitting internship experience that blossomed me a lot professionally and personally.

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PART 9: APPENDICES



