Feyziye Schools Foundation 1885

IŞIK UNIVERSITY

Department of Industrial Engineering

(INDE4920)

Industrial Training

Report

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Student ID: 19INDE1086

Date: 25/08/2024 – 20/09/2024

Course Code for the Internship: INDE2910 ☐ INDE3910 ☐ INDE3920 ☐ INDE4920 ☑

Company Name: Sanawbar Food Industries / Silsal

Company Address: Jordan - Amman - Sahab - Street No: T-5

Starting and Completion Dates: 25/08/2024 – 20/09/2024

Department(s) Worked In: quality control, production, sales, Designing

Supervisor's Name, Position, Phone Number, Email: MR: Mohammad AL-Jammaini, Production manager, +962-6-4160025, Silsaljdj@gmail.com

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1 WEEKLY WORK PLAN

Week 1

Department(s)	Tasks, Responsibilities, Accomplishments
Sales department	Tasks: 1) Executed strategies to drive sales growth. 2) Negotiated deals and provided price estimates. 3) Managed and tracked sales orders efficiently. 4) Worked with production to ensure timely order fulfillment. Responsibilities: 1) Consistently achieved or surpassed sales goals. 2) Kept sales and customer records accurate and up to date. 3) Compiled and evaluated sales reports. Accomplishments: 1) Boosted revenue and expanded market presence. 2) Built strong customer loyalty through excellent service. 3) Maintained precision in data management. 4) Quickly addressed and resolved customer issues.

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Week 2

Department(s)	Tasks, Responsibilities, Accomplishments
Administration Department	Tasks: 1) Supported the management of administrative functions 2) Assisted with office activities and policy implementation. Responsibilities: 1) Ensured efficient daily administrative operations. 2) Handled office records and documentation. Accomplishments: 1) Enhanced administrative efficiency. 2) Reduced costs through resource-saving measures. 3) Contributed to the successful organization of company events.

Week 3

Department(s)	Tasks, Responsibilities, Accomplishments
Production department	Tasks: 1) Helped to streamline workflow and supervise the production. 2) Contribute to ensuring compliance with standards. Responsibilities: 1) ensure that production activities and operations ran smoothly. 2) Oversaw and monitored the stock levels of production materials. Accomplishments: 1) increased production rates and operational efficiency. 2) Was instrumental in the introduction of quality control.

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Week 4

Department(s)	Tasks, Responsibilities, Accomplishments
Designing and drawing department	Tasks: 1) Contributed actively to the creation of sketches and designs. 2) Closely collaborated on a number of projects with the design team. Responsibilities: 1) Guaranteed precision and correctness in drafting and design. 2) Helped with design file organization and documentation. Accomplishments: 1) Made a substantial contribution to the accomplishment of design projects. 2) Maintained an organized design repository to improve the effectiveness of the workflow.

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2 INTRODUCTION

2.1 The Company and Corporate Partnership

Silsal, established in 2007, is a leading food manufacturing company based in Amman, Jordan, specializing in the production of high-quality water cups. Since its founding, Silsal has been dedicated to excellence in food-grade packaging, serving a diverse range of customers and industries. With a skilled team of 23 employees, the company is recognized for its commitment to superior product standards and exceptional service. As a key player in the food manufacturing sector, Silsal continues to contribute to Jordan's industrial landscape with innovative solutions and a focus on customer satisfaction.

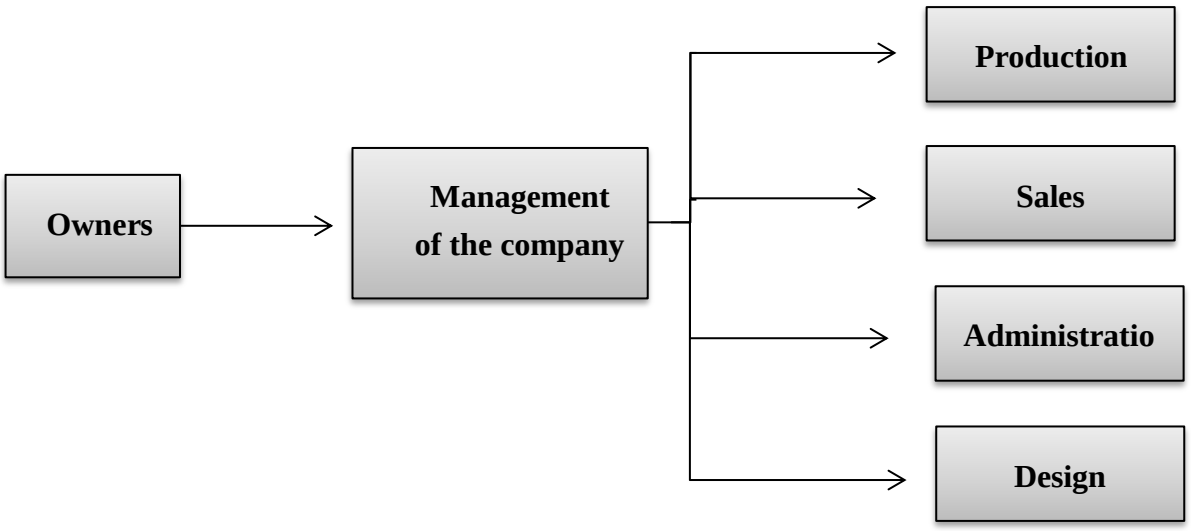
2.2 Industrial Sector and Customers

Silsal, based in Amman, Jordan, operates in the food manufacturing industry, specializing in high-quality water cups. The company plays a vital role in food packaging, emphasizing quality and compliance. Serving diverse sectors including hospitality and retail, Silsal provides reliable products that meet customer needs, maintaining strong relationships through consistent quality and adaptability to market trends.

2.3 Technology in Manufacturing and Services

Silsal employs advanced technology to produce high-quality water cups with precision and efficiency. The manufacturing process begins with cutting-edge molding machinery, ensuring uniformity, durability, and a flawless finish for each cup. Automated filling systems operate under strict hygienic conditions, delivering consistent quantities while minimizing waste. Innovative packaging machinery securely seals and wraps cups quickly, preventing contamination and meeting high production demands. Real-time monitoring systems enhance operational efficiency by identifying issues early, reducing downtime, and optimizing performance. Furthermore, customizable designs, including branded logos, cater to diverse client needs. This technological edge reinforces Silsal’s reputation for excellence and customer satisfaction.

2.4 Organization



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Department	Sales Department
Number of Employees	2
Number of IEs	0
Main function, responsibilities, duties of the department • Locating and engaging prospective clients. • Fostering and strengthening customer connections. • Delivering thorough product details and assistance. • Achieving and surpassing sales objectives.	
Functions and responsibilities currently performed by or would potentially be best performed by IEs • Evaluating production methods and workflows to enhance efficiency. • Detecting areas of inefficiency and workflow constraints in manufacturing. • Developing and applying improvements to boost productivity.	

Department	Administration
Number of Employees	5
Number of IEs	1
Main function, responsibilities, duties of the department • Planning and Management: Industrial Engineers focus on strategic planning, designing effective production systems, and overseeing project timelines to ensure operations run smoothly.	
Functions and responsibilities currently performed by or would potentially be best performed by IEs	

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- Factory Production Planning: Industrial Engineers oversee the organization and optimization of factory production, ensuring effective resource use and achievement of production goals.

Department	Production
Number of Employees	16
Number of IEs	2
Main function, responsibilities, duties of the department • Supervise machine operations to enhance production efficiency. • Oversee maintenance of machinery to ensure peak performance. • Perform inspections to uphold quality and safety standards. • Control inventory levels to prevent shortages and reduce costs.	
Functions and responsibilities currently performed by or would potentially be best performed by IEs • IE uphold quality and safety standards. • IE enhance machine performance.	

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3 OVERALL ANALYSIS

3.1 Input / Output Analysis

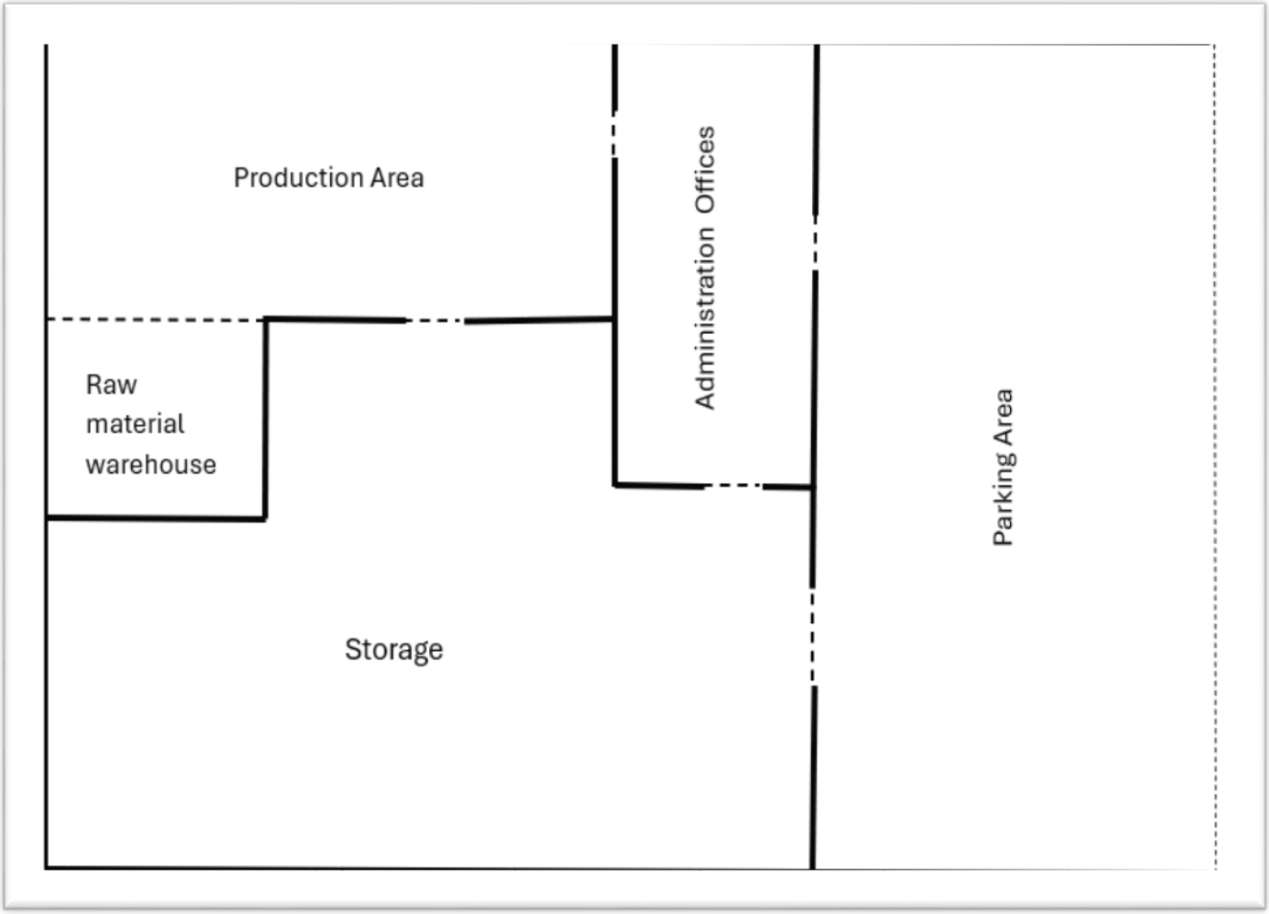
Silsal, established in 2007 in Amman, Jordan, is a leader in manufacturing high-quality water cups. With a team of 23 professionals, it serves clients across various sectors, including retail, hospitality, and food services.

- **inputs** include raw materials like plastic granules, energy, water, skilled labor, and advanced machinery.
- **outputs** are precisely crafted, customizable water cups, ready for distribution.

Silsal's design and production department ensures quality, while advanced technologies optimize efficiency. This commitment to innovation and quality helps Silsal maintain a strong reputation, building lasting relationships with clients and securing its position as a trusted industry partner.

3.2 Layout

The facility is efficiently designed with a raw materials storage area feeding into the production area, where materials are transformed into finished products. These are conveyed to the warehouse, then transported to the parking area for loading. Administration, auditing, and accounting office's oversee operations, with dotted lines indicating section access.



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3.3 Location

	Very Important	Influential	Unimportant
Distribution needs for the products	✸		
Availability or physical characteristics of raw materials	✸		
Physical characteristics of the products		✸	
Labor availability and quality	✸		
Transportation facilities	✸		
Proximity to suppliers		✸	
Flexibility	✸		
Competitive Positioning	✸		
Demand Management	✸		
Access	✸		
Visibility		✸	
Traffic	✸		
Parking	✸		
Expansion		✸	
Environmental factors		✸	
Laws, taxation, incentives, government politics etc.		✸	
Cost of land and buildings	✸		

Distribution needs for the products:

Effective product distribution is crucial for company success and profitability.

Availability or physical characteristics of raw materials:

Production capacity and cost-effectiveness are largely dependent on the quality and availability of raw materials.

Physical characteristics of the products:

Customer attractiveness and market competitiveness are impacted by the design and features of a product.

Labor Availability and Quality:

Workforce quality and availability are critical for productivity and financial performance.

Transportation Facilities:

Efficient transportation affects cost management, customer satisfaction, and financial health.

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Proximity to Suppliers:

For Silsal, proximity to suppliers is less critical due to industry specifics.

Flexibility:

Competitive advantage depends on the capacity to quickly adjust to shifting consumer preferences and market conditions.

Competitive Positioning:

Market standing influences pricing strategies, market share, and financial performance.

Demand Management:

For production efficiency and inventory control, accurate demand forecasting and management are essential.

Access:

Easy access to products and services enhances customer satisfaction and loyalty

Visibility:

Visibility is less significant for this company or industry.

Traffic:

Traffic conditions have minimal impact on operations and profitability.

Parking:

Parking conditions are largely irrelevant to operations and profitability.

Expansion:

The ability to expand is vital for long-term growth and financial success.

Environmental Factors:

Long-term viability, regulatory compliance, and reputation are all impacted by environmental effect.

Laws and Regulations:

Operational environments, profitability, and the general business climate are all impacted by government legislation.

Cost of Land and Buildings:

The financial viability of companies with extensive physical footprints is impacted by real estate expenditures.

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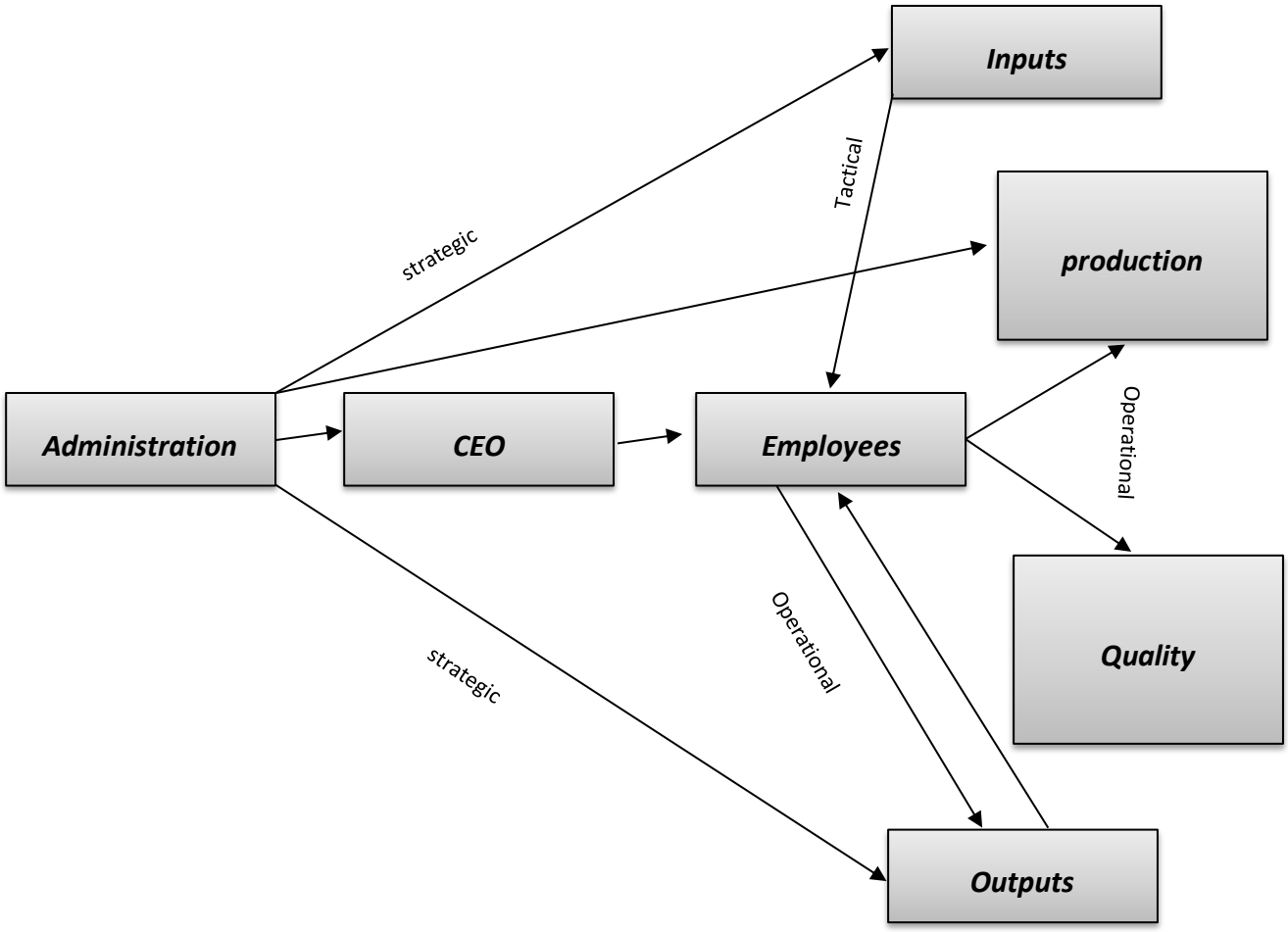
4 MANAGEMENT INFORMATION SYSTEM

Silsal's Management Information System (MIS) is essential for optimizing operations and driving success. It integrates data collection, processing, and reporting to enhance efficiency across the company. In production, the MIS tracks key metrics and real-time statuses, while sales teams use it for customer insights and targeted strategies. Quality control relies on the MIS for critical product data and corrective actions, and maintenance benefits from streamlined scheduling and repair management. The administration leverages the system for comprehensive oversight of performance, finances, and compliance. As the core of Silsal's operations, the MIS harmonizes diverse functions and exemplifies the fusion of technology and strategy, guiding the company towards continued growth and excellence.

4.1 Decision Making

The long-term direction of Silsal is determined by strategic decisions made by top leaders. Tactical decisions are made by middle management to match strategy with medium-term objectives. Lower-level managers and employees make operational decisions that manage day-to-day duties and guarantee efficient operations. All organizational levels are certain to experience smooth execution and cogent progress thanks to our tiered strategy.



4.2 Decision Support Systems

DSS	Decision type (Strategic/ Tactical/ Operational)	Usage frequency (Daily, weekly, monthly, yearly)	Developed by (Internally or third party)	Used by (Departments)	Number of users	Used for (Describe)
Sales Forecasting	Strategic	Monthly	Internally	Sales Department	2	future sales trends
Customer Relationship Management	Tactical	Daily	Third Party	Customer Service	3	analyze customer behavior
Operational Efficiency	Operational	Weekly	Internally	Industrial engineers	3	Inventory management

Production Decision System: Optimizes manufacturing schedules for improved output and timely order fulfillment.

Human Resources Decision System: Supports HR tasks such as recruitment, performance management, and workforce planning.

IT Decision System: Guides IT strategies, including system upgrades, cybersecurity, software selection, and technology investments**.**

Logistics Decision System: Enhances supply chain efficiency through route optimization, inventory management, and demand forecasting.

Product Marketing Decision System: Provides market insights for product development, positioning, and promotion, boosting overall marketing strategy.

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5 MANUFACTURING SYSTEM

5.1 Materials

At Silsal, high-grade plastic is the primary material for water cups, ensuring durability and safety. Rigorous quality checks and strong supplier relationships guarantee consistent materials and smooth production. This focus on material quality impacts the product's durability, safety, and environmental footprint while supporting uninterrupted manufacturing processes.

“Plastic Roll”

“Tin Foil”

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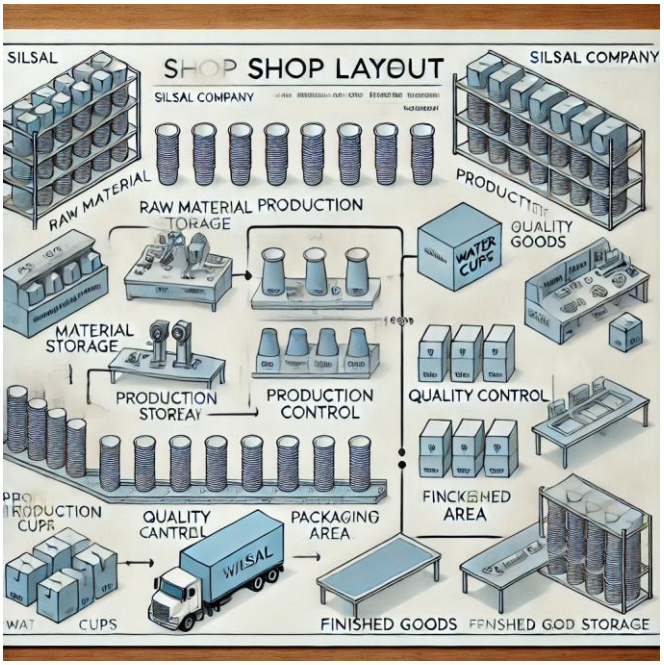
At Silsal, crafting water cups begins with selecting high-quality plastic for durability and safety. Advanced manufacturing techniques mold, trim, and seal the cups, ensuring consistency and strength. Rigorous quality control checks uphold hygiene standards, while finishing processes enhance appearance. The final product is carefully packaged, balancing functionality with quality. Silsal's meticulous approach ensures reliable, aesthetically pleasing water cups that reinforce their commitment to excellence.

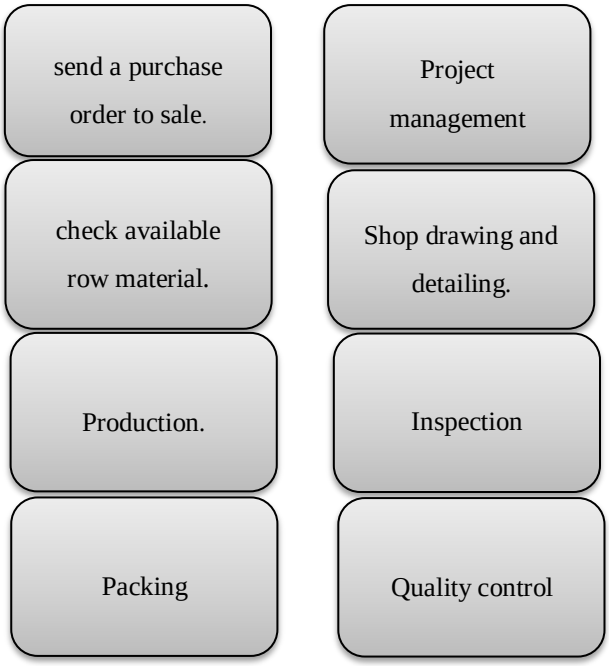
5.2 Manufacturing Mode

Silsal Company operates a production line that efficiently transfers finished water cups. The appeal of this system lies in its continuous processing of raw materials, allowing for consistent and high-volume production of water cups to meet demand.

Silsal Company's production mode is primarily a Continuous Process with elements of a Flow Shop. The continuous process involves the uninterrupted, high-volume production of water cups, where raw materials are consistently processed to meet demand. The production line is organized in a set sequence of operations—molding, filling, sealing, and packaging—similar to a Flow Shop, ensuring efficiency and standardized output. Silsal's approach is not aligned with Job Shops, Batch Shops, or Project Shops, as it focuses on mass production of uniform products, rather than custom or small-batch manufacturing.

5.3 Shop Layout





Product Layout, with workstations arranged in a linear sequence (molding, filling, sealing, packaging) for efficient, high-volume production of water cups. While elements of

Process Layout may exist in specific areas (quality control), the primary focus is on streamlined product flow, not fixed position or batch layouts.

Considering Silsal Company's focus on achieving manufacturing excellence, staying competitive, enhancing operational efficiency, and managing the supply chain effectively, it is likely that they would adopt a combination of strategic design approaches. This could involve emphasizing specific manufacturing processes, implementing a flexible facility layout to adapt to changing demands, designing operations that respond to real-time market needs, and optimizing material flow throughout the production area. These strategies are aimed at improving the overall manufacturing process, accommodating demand fluctuations, streamlining workflows, and ensuring efficient resource movement within the plant.

5.4 Material Handling

A forklift is crucial for efficient material handling, quickly moving heavy loads within a company. It enhances productivity, simplifies logistics, and aids in organizing warehouse layouts for smooth operations

A hand winch is a manual device used for lifting or pulling heavy objects. It operates through a hand crank, providing mechanical advantage to move loads easily

A hand winch (2).

Forklift (2).

5.5 Manufacturing Processes

Silsal Company uses a continuous production method, where raw materials move smoothly through each stage, transforming efficiently into the final product. Advanced machinery ensures precision and consistency. Plastic cutting machines shape the raw material into cups, minimizing waste. Automated filling machines accurately fill each cup with purified water, adhering to hygienic standards. Sealing machines then close the cups with tamper-proof lids, ensuring safety. Finally, packaging machines group the cups for shipment, optimizing efficiency. This streamlined process, supported by advanced machinery, enables Silsal to maintain high product quality, meet demand, and maximize operational efficiency.

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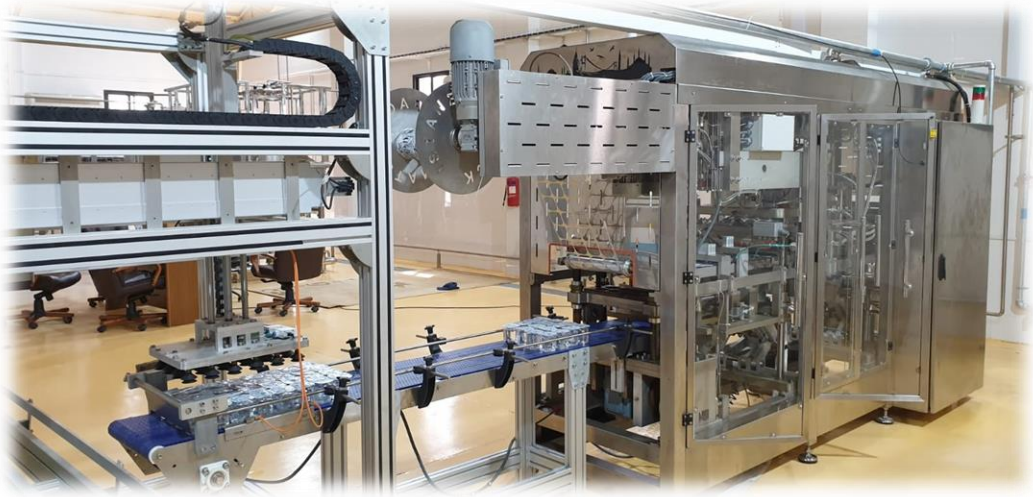
"Stages of manufacturing, cutting and finishing machine"



"Production line"

5.6 Manufacturing Costs

In manufacturing, the cost breakdown table outlines various components of production expenses. This includes direct costs for materials and labor, overhead, machinery investments, as well as packaging and shipping costs. Analyzing these costs helps identify areas for savings and process improvements, which are crucial for boosting profitability and enhancing market competitiveness.

Hourly Cost Factor:

Man-hour cost: 8 JD per hour

Labor required: 50 hours

Hourly Cost Factor = 8 JD/hour × 50 hours = 400 JD

Raw Material Cost:

Cost of raw materials: 750 JD

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Overhead Cost:

Overhead cost is 20% of the sum of the hourly cost factor and raw material cost.

Overhead Cost = 20% × (HCF + RMC)

Overhead Cost = 20% × (400 JD + 750 JD)

Overhead Cost = 20% × 1,150 JD

Overhead Cost = 230 JD

Transportation Cost:

Fixed cost: 1,200 JD per truck

Installation Cost:

Installation cost is 12% of the total cost

Total Initial Cost = HCF + RMC + OC + TC

Total Initial Cost = 400 JD + 750 JD + 230 JD + 1,200 JD

Total Initial Cost = 2,580 JD

Installation Cost = (12% × Total Initial Cost)

Installation Cost = 12% × 2,580 JD

Installation Cost = 309.60 JD

Total Manufacturing Cost:

Total Manufacturing Cost = HCF + RMC + OC + TC + IC

Total Manufacturing Cost = 400 JD + 750 JD + 230 JD + 1,200 JD + 309.60 JD

Total Manufacturing Cost = 2,889.60 JD

Production cost components	Time Frequency
Taxes	Yearly
Insurance	Yearly
Raw Materials	Monthly
Salaries	Monthly
Logistics Costs	Monthly
Rental Fees	Yearly
Production Costs (Electricity, Water)	Monthly
Temporary Costs	Monthly

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5.7 Productivity

At Silsal Company, the productivity dashboard features essential metrics related to the manufacturing process. This includes measurements of output volume, labor efficiency, and production effectiveness. By examining these indicators, Silsal can gain valuable insights into operational performance and the efficiency of its manufacturing processes. Improving these productivity metrics will enable Silsal to enhance overall performance, strengthen operational efficiency, and boost market competitiveness. This focus on productivity is key to achieving better performance and long-term success in the industry.

- Labor Productivity Calculation:

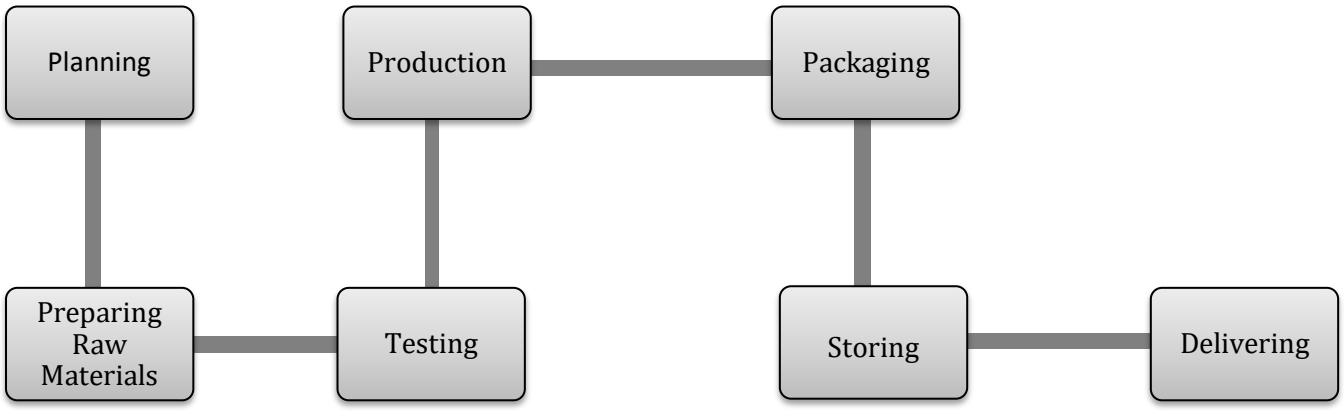
Labor Productivity = Value of Products Made / Total Labor Hours

- Material Productivity Calculation:

Material Productivity = Value of Products Made / Total Material Used

5.8 Production Planning and Control

Production Planning and Control is a crucial element for Silsal Company, a leading producer of water cups. By adopting a make-to-order strategy, Silsal aligns its production processes closely with customer demands. Effective planning, coordination, and the integration of advanced technologies optimize manufacturing procedures. This approach enhances production efficiency, ensures high-quality products, and supports a wide range of premium water cups. Silsal's dedication to delivering exceptional solutions to both individual and corporate clients in the water cup industry highlights its role as a benchmark in bridging innovative design with practical functionality.



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5.9 Inventory

Silsal Company's inventory management is a key element in maintaining smooth operations and ensuring customer satisfaction. With a wide array of water cup products, Silsal skillfully manages supply and demand through accurate forecasting, optimizing stock levels to avoid both excess and shortages. This strategy boosts efficiency and reduces costs.

Quality control is also central to their approach. All incoming materials are thoroughly inspected before use, ensuring that high standards are consistently met. This focus on both inventory and quality ensures smooth production processes and quick adaptation to market changes.

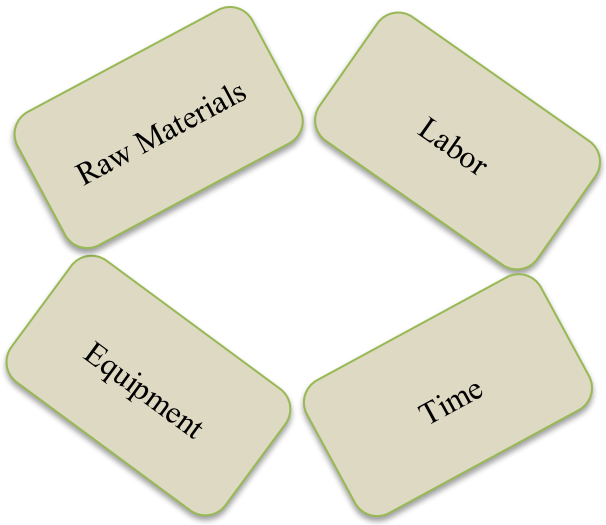
In summary, Silsal's inventory management goes beyond mere stock handling; it reflects their dedication to excellence. By effectively managing inventory, Silsal ensures operational stability, timely order fulfillment, and maintains their reputation as a reliable supplier of high-quality water cups.

5.10 Resource Allocation

Resource allocation is essential to Silsal Company's production planning and control. In the competitive water cup manufacturing sector, effectively managing limited resources is vital:

I. Raw Materials: Silsal carefully aligns raw material supply with production needs, ensuring a smooth and efficient workflow.
II. Labor: The company efficiently assigns skilled labor to boost manufacturing productivity and expertise.
III. Equipment: Silsal optimizes equipment to achieve the highest operational output.
IV. Time: Strategic time management is employed to maximize productivity and streamline processes.

This careful coordination is integral to the production planning and control process. By fostering collaboration across departments, Silsal ensures resources are effectively distributed according to the production plan, adjusting for availability, equipment capacity, and workforce capabilities. This approach reflects Silsal’s commitment to operational efficiency and high-quality standards.



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5.11 Workforce Requirements

Silsal Company's expertise in workforce planning is evident in its meticulous approach to aligning labor with production needs. By closely monitoring production capacity and customer demands, Silsal's managers adeptly adjust the workforce. This may involve hiring new staff or adjusting shifts to better match production requirements.

The interplay between production capacity and demand is a key focus, reflecting a complex strategy. Managers navigate this balance skillfully, ensuring that production meets demand without compromising efficiency.

In Silsal's production planning and control framework, effective resource allocation and workforce management are seamlessly integrated. This strategic coordination ensures smooth production operations, highlighting Silsal's commitment to excellence in manufacturing water cups and maintaining high standards.

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6 QUALITY PLANNING AND CONTROL

6.1 Quality of a Product

The quality of Silsal's water cups is defined through a blend of international standards and customer expectations. Adhering to industry norms, Silsal follows stringent guidelines for manufacturing food-grade water cups, ensuring safety, durability, and environmental sustainability.

Silsal implements rigorous internal quality control measures to ensure that all water cups meet or exceed these standards. These processes include comprehensive testing and inspection of materials, production procedures, and finished products to guarantee they are free from defects and align with the necessary performance criteria.

From the customer's perspective, the quality of Silsal's water cups is measured by their durability, safety, and overall usability. These expectations are communicated through detailed specifications, focusing on factors like material quality, heat resistance, and recyclability. a customer might require water cups made from high-grade polypropylene that can withstand certain temperatures and meet recyclability standards. Silsal then designs and manufactures the water cups with precise molding techniques and material selection to fulfill these requirements, ensuring customer satisfaction and compliance with industry regulations.

6.2 Quality Features

Silsal's water cups incorporate several key quality features that ensure they meet industry standards and customer satisfaction. These include:

- Material Safety: Made from high-quality, food-grade plastics that are BPA-free and comply with health regulations, ensuring safe use.
- Durability: Designed to withstand everyday use, these cups maintain their integrity under various conditions, reducing the risk of cracks or breakage.
- Hygiene: The production process emphasizes cleanliness and sanitation, ensuring that every cup is safe for consumption.
- Environmental Considerations: Silsal incorporates recyclable materials and eco-friendly production practices, minimizing the environmental impact of its products.
- Consistency: Each cup is manufactured with precision, ensuring uniformity in size, shape, and quality across batches.

These quality features reflect Silsal's commitment to delivering products that meet both industry standards and customer expectations.

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6.3 Quality Assurance

Quality certificates are formal documents issued by recognized certification bodies that confirm a product, or company meets specific industry standards or regulatory requirements. For Silsal Company, these certificates are essential for demonstrating the company's commitment to quality, safety, and compliance with both local and international standards and These quality certificates reinforce Silsal's dedication to quality and customer satisfaction, supporting their reputation and long-term business success.

1. Compliance: Quality certifications ensure that Silsal's water cups meet safety and hygiene regulations, such as food-grade standards, ensuring they are safe for consumers.
2. Trust: Certifications build trust with customers by proving that Silsal consistently delivers high-quality, reliable products.
3. Market Access: Certain markets, particularly international ones, require products to meet certified standards for entry. Certifications allow Silsal to access broader markets.

6.4 Quality Assurance Tools

Silsal employs a range of quality assurance tools to maintain high standards in water cup production, including:

- Statistical Process Control (SPC): Monitors production data in real-time to detect variations and ensure consistent product quality.
- Failure Mode and Effects Analysis (FMEA): Identifies potential defects and risks in the production process, enabling proactive measures to prevent quality issues.
- Checklists and Audits: Regular inspections and audits ensure that all processes adhere to established quality standards and protocols.
- Root Cause Analysis (RCA): Investigates any detected defects to determine their origin and implement corrective actions to prevent recurrence.
- Quality Control Charts: Visual tools that track performance metrics over time, allowing for continuous improvement and timely adjustments.

2nd ULTRAMETER

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6.5 Cost of Quality

At Silsal, maintaining high standards of quality comes with significant investment in various aspects of quality assurance. The annual cost of calibrating all tools and equipment is estimated to be around 3,650 JOD, ensuring that each instrument functions with precise accuracy. Furthermore, the company allocates approximately 7,250 JOD per year for continuous training programs for its quality control personnel. This investment ensures that the team remains up to date with the latest industry standards and practices, enhancing their ability to detect and prevent potential quality issues.

In addition to internal measures, Silsal also partners with third-party inspection agencies to conduct thorough, unbiased evaluations of its products. These external inspections come at an annual cost of around 15,250 JOD, further reinforcing the company's commitment to delivering top-tier water cups to its customers.

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7 INDUSTRIAL ENGINEERS AT WORK

7.1 Observation of Daily Activities

At Silsal Company, the role of industrial engineers (IEs) is critical in ensuring the seamless operation of our water cup manufacturing and sales processes. The daily observation of activities is a cornerstone of our approach to refining and optimizing our operations. In the realm of water cup production and sales, an IE at Silsal meticulously monitors every facet of the daily workflow, from the handling of raw materials and machinery maintenance to the smooth progression of products through each stage of the production and distribution process.

This vigilant oversight allows our IEs to identify potential inefficiencies and areas ripe for improvement. By pinpointing these opportunities, the IE drives Silsal towards greater operational efficiency and enhanced productivity. The art of careful observation becomes a pivotal element in our quest for continuous improvement, steering the company towards an environment where operational excellence and innovative practices are not just goals, but integral parts of our daily operations.

7.2 Interviews

1st Interviews with (Eng. Sofian Al-Jammaini).

a) **Can you tell me about your education life? What degrees from which schools do you hold? What are the years of these degrees?**

   I completed my educational journey in Canada, where I initially studied at a local institution. Following that, I pursued further studies at the University of Jordan in Amman, Jordan, where I earned my degree. My academic journey spanned five years, culminating in a degree from the University of Jordan, which laid the foundation for my professional career.

b) **Can you tell me about your career? In which positions, for which companies and for what periods of time did you work before? Which one of those provided you skills and background that helps you fulfill your responsibilities today at this position?**

   My career began at Silsal Company, where I have been deeply involved since my graduation from the University of Jordan. As the manager of Silsal, I bring over 15 years of experience to the role. During the challenging period of the Corona pandemic from 2019 to 2021, I worked with Iceberg Company in Amman, specializing in ice cream production. This experience enriched my skills and perspective before I returned to Silsal to continue my management role

c) **How do you like your current position? Can you use all of your skills and experience in this position?**

   I find great fulfillment in my current role at Silsal Company. It aligns seamlessly with my skills and experiences, allowing me to apply my extensive background in managing production processes. As a production manager, I oversee the entire production trajectory, ensuring operational efficiency and mentoring a dedicated team. This role not only leverages my past experiences but also offers ongoing opportunities for growth and learning. My enthusiasm is driven by the chance to contribute to Silsal's success and innovation.

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d) How do you like this company? What can you tell me about the corporate culture at this company? What business practices do you like or dislike? What do you think this company does well, compared to its competitors? What about the things that should be improved?

I have a deep appreciation for Silsal Company. The corporate culture is collaborative and innovative, fostering teamwork and open communication. I value our commitment to high-quality standards and international market expansion. Areas for improvement include integrating advanced technologies and streamlining internal processes to enhance operational efficiency and maintain our competitive edge.

e) Do you think that the IEs in Turkey and in particular in this sector of business are employed in jobs that are most suited for them? Do you think that the managers know enough about the profession of industrial engineering? How do you see the future of industrial engineers?

In Turkey, industrial engineers are generally well-placed, though managers often lack full awareness of their diverse capabilities. The future for IEs looks bright, driven by technological advancements and a focus on efficiency. IEs will remain crucial in optimizing processes and adapting to evolving business needs.

f) What would you recommend to a prospective IE in preparing for and shaping their career? What would be the most essential skills soon-to-be graduates should aim to acquire? What do the hiring executives look for in new graduates? What makes a candidate better than others in the interviews and hiring process?

For aspiring industrial engineers at Silsal Company:

1. Skill Variety: Focus on problem-solving, data analysis, project management, and communication.
2. Technical Proficiency: Gain expertise in production management and quality control tools.
3. Practical Experience: Pursue internships or co-ops to build real-world skills and network.
4. Continuous Learning: Keep up with industry trends and earn relevant certifications.
5. Soft Skills: Improve interpersonal and communication skills for effective teamwork.

At Silsal, executives value:

1. Adaptability: Quickly adjust to process changes.
2. Problem-Solving: Address complex production issues effectively.
3. Teamwork: Collaborate well in diverse teams.
4. Leadership: Show initiative and drive for improvements.
5. Communication: Strong verbal and written skills.

Standout candidates in interviews:

1. Show Enthusiasm: Express genuine interest in Silsal.
2. Highlight Achievements: Share relevant skills and accomplishments.
3. Demonstrate Soft Skills: Provide examples of teamwork and communication.
4. Ask Questions: Inquire about company culture and growth.

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g) How important do you think the functions performed by IEs in this company are for the success and improvement of it?

The functions performed by industrial engineers at Silsal are crucial for the company's success. They optimize production processes, improve efficiency, and ensure high-quality standards. By streamlining operations and enhancing resource utilization, IEs drive continuous improvement and contribute significantly to Silsal's competitive edge and overall performance.

h) Would you study industrial engineering again if you were getting a degree today? Why?

Yes, I would choose to study industrial engineering again. Its focus on optimizing processes, solving complex problems, and driving innovation aligns perfectly with my career goals. The discipline's ability to enhance efficiency and adaptability in various industries makes it a valuable and dynamic field, continuously offering opportunities for growth and impact.

i) What knowledge from your classes did you have a chance to use in your job?

The knowledge gained from my classes has been highly relevant in my job. I frequently use principles of engineering, data analysis, and project management to address challenges. The skills I acquired in optimization and quality control have been instrumental in refining production processes and maintaining top-quality standards at Silsal. My academic background has been essential for improving operational effectiveness and problem-solving.

j) What course(s) would you take if you could go back to university?

if I could revisit university, I'd prioritize courses like System Simulation. This course is invaluable for understanding how to model and analyze complex systems through simulation techniques. It provides insights into optimizing processes and predicting outcomes by replicating real-world scenarios in a virtual environment. Mastering system simulation would enhance my ability to evaluate different strategies, improve decision-making, and drive efficiency in industrial operations.

2nd Interviews with (Eng. Mohammad bani Gazi).

A) Can you tell me about your education life? What degrees from which schools do you hold? What are the years of these degrees?

I completed my education in Jordan, starting at a local institution before advancing to Al-Balqa Applied University in Salt. Over several years, I obtained a degree from Al-Balqa Applied University. This educational journey provided a solid foundation in my field and has been essential in shaping my professional career. The skills and knowledge I acquired during my studies have significantly contributed to my current role at Silsal Company, where I apply these learnings to drive our operations and success.

B) Can you tell me about your career? In which positions, for which companies and for what periods of time did you work before? Which one of those provided you skills and background that helps you fulfill your responsibilities today at this position?

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My career trajectory has been closely tied to Silsal Company, where I have been actively engaged since graduating from the University of Jordan. With over 21 years of professional experience, including a notable 6-year tenure at Pepsi Company, I have developed a deep understanding of the industry. During the challenging period of the Corona pandemicq, I broadened my expertise by working in a different sector at Iceberg Company, specializing in ice cream production. This experience offered me valuable insights and skills that I brought back to Silsal. In my role as manager, I leverage my extensive background to lead the company through evolving market conditions and drive continuous improvement. My diverse experiences have enriched my approach to management, enabling me to effectively navigate challenges and contribute to Silsal's ongoing success.

C) How do you like your current position? Can you use all of your skills and experience in this position?

I find my current position at Silsal both deeply rewarding and intellectually stimulating. As the manager, I am afforded the opportunity to fully leverage my 21 years of experience, enriched by my previous roles at Pepsi Company and Iceberg Company. This role enables me to deploy a wide array of skills, from advanced strategic planning and intricate process optimization to effective leadership and team mentorship. Each day presents complex challenges that test and expand my expertise in operational efficiency, quality management, and project execution. Beyond managing daily functions, I am tasked with spearheading initiatives that align with Silsal's strategic objectives. The dynamic nature of this position continuously engages me and fosters professional growth. This role not only harnesses my extensive background but also challenges me to evolve and contribute meaningfully to the company's success, making it an ideal fit for my career aspirations and skills.

D) How do you like this company? What can you tell me about the corporate culture at this company? What business practices do you like or dislike? What do you think this company does well, compared to its competitors? What about the things that should be improved?

I truly appreciate my time at Silsal, where the company culture encourages teamwork and creative thinking. Our commitment to quality and client satisfaction stands out as a major strength. Nonetheless, we could benefit from embracing emerging technologies and optimizing our internal procedures to better compete and enhance operational effectiveness.

E) Do you think that the IEs in Turkey and in particular in this sector of business are employed in jobs that are most suited for them? Do you think that the managers know enough about the profession of industrial engineering? How do you see the future of industrial engineers?

In Turkey, industrial engineers are generally well-positioned, though managers often have a limited grasp of their full skill set. As technology advances, IEs will become essential in enhancing efficiency and fostering innovation. The future looks promising, with IEs expected to play a key role in optimizing processes and adapting to new industry trends.

F) What would you recommend to a prospective IE in preparing for and shaping their career? What would be the most essential skills soon-to-be graduates should aim to acquire? What

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do the hiring executives look for in new graduates? What makes a candidate better than others in the interviews and hiring process?

1. For those looking to pursue a career in industrial engineering, it is essential to focus on several key areas to build a strong foundation. First, develop a diverse skill set that includes problem-solving, data analysis, and project management. These skills are crucial for addressing complex challenges and optimizing processes in any industrial setting. Proficiency in relevant software and tools, such as simulation and data analytics programs, is also important for effectively managing and improving operations.
2. Gaining practical experience through internships or co-op programs is invaluable. These opportunities provide hands-on experience and help build a professional network, which can be crucial for future career development. Additionally, staying informed about industry trends and pursuing continuous learning through certifications or advanced courses can help keep your skills relevant and competitive.
3. Hiring executives typically look for candidates who are adaptable, possess strong analytical abilities, and can work well in team settings. Demonstrating leadership potential and effective communication skills is also important. To stand out in interviews, candidates should show genuine enthusiasm for the field, highlight their relevant achievements, and align themselves with the company's values. Asking insightful questions about the company's culture and growth opportunities can further demonstrate a strong fit and commitment to the role.

G) How important do you think the functions performed by IEs in this company are for the success and improvement of it?

Industrial engineers at Silsal are crucial for optimizing processes, improving efficiency, and maintaining quality. Their role drives operational excellence and supports the company's growth and competitiveness.

H) Would you study industrial engineering again if you were getting a degree today? Why?

Absolutely, I would opt for industrial engineering if I were pursuing a degree today. The field's focus on process optimization, complex problem-solving, and innovation is highly relevant to modern industry needs. It provides a robust skill set that spans multiple sectors, from manufacturing to technology. Industrial engineering's capacity to enhance efficiency and drive continuous improvement makes it an attractive and impactful discipline. Its broad applicability and significant potential for making meaningful contributions in today's dynamic job market underscore its value.

I) What knowledge from your classes did you have a chance to use in your job?

The concepts from my classes, such as engineering principles, data analysis, and project management, have been vital. They've enhanced production processes, operational efficiency, and quality control in my job.

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J) What course(s) would you take if you could go back to university?

If I could return to university, I'd focus on courses in advanced data analytics, artificial intelligence, and sustainable practices. Additionally, I'd take classes on leadership and strategic management to further develop skills that align with emerging industry trends and business needs.

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8 PROJECT PROPOSAL

Upon reviewing Silsal Company's production operations, I have identified a significant issue related to inventory management. The current method of managing inventory is not optimized, leading to frequent stockouts and excess inventory. This problem impacts production schedules, increases costs, and reduces overall efficiency.

Current Situation Silsal Company currently relies on a manual inventory management system that does not provide real-time data on stock levels. This results in delays in restocking materials and an imbalance between supply and demand. Consequently, production lines experience interruptions due to material shortages, while excess inventory accumulates, tying up valuable resources.

- Proposed Solution:

To address these issues, Silsal Company should implement a Material Requirements Planning (**MRP**) system. **MRP** is a production planning, scheduling, and inventory control system designed to manage manufacturing processes efficiently. It helps ensure that materials and products are available for production and delivery while minimizing inventory levels.

Benefits:

1. Improved Inventory Management: **MRP** will provide real-time data on inventory levels, reducing stockouts and excess inventory.
2. Enhanced Production Efficiency: By aligning material availability with production schedules, **MRP** will minimize disruptions and optimize workflow.
3. Cost Reduction: With better inventory control, the company can reduce holding costs and avoid the financial impact of stock shortages or overstocking.
4. Increased Customer Satisfaction: Reliable production schedules and timely delivery will enhance customer satisfaction.

Implementation Steps:

1. Data Collection: Gather current data on inventory levels, production schedules, and demand forecasts.
2. System Selection: Choose appropriate **MRP** software that fits Silsal's needs.
3. System Integration: Integrate the **MRP** system with existing operations, ensuring it aligns with production and supply chain processes.
4. Training: Provide training for employees to effectively use the new **MRP** system and understand its benefits.
5. Monitoring and Adjustment: Continuously monitor the system’s performance and make adjustments as needed to optimize inventory management.

Challenges:

1. Resistance to Change: Employees may resist transitioning to a new system, requiring effective change management strategies.
2. Data Accuracy: Ensuring the accuracy of data input into the **MRP** system is crucial for its effectiveness. Implementing robust data entry procedures will be essential.

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9 CONCLUSION

9.1 Conclusion

In conclusion, my summer practice at Silsal provided valuable insights into the operations of a leading food manufacturing company. Throughout the practice, I engaged in various departments, from sales and administration to production and design.

This experience offered a comprehensive understanding of how each department contributes to the company's overall success. I observed the critical role of advanced technology in manufacturing, the importance of effective management information systems, and the impact of strategic decision-making on production efficiency.

Additionally, I gained hands-on experience in managing resources, enhancing productivity, and ensuring quality control, all of which are essential components in the industrial engineering field. This practice not only strengthened my technical skills but also emphasized the significance of teamwork, communication, and adaptability in a professional setting.

Overall, the experience was instrumental in shaping my approach to industrial engineering, providing a solid foundation for my future career, and reaffirming my passion for innovation and continuous improvement in the industry.

9.2 Işık University Graduates at Workplace

Unfortunately, there’s no one working in Silsal company because it is out of Turkey.

9.3 Short Evaluation

Answer the following questions on a scale from 1 (worst) to 5 (best).

	1	2	3	4	5
Would you recommend others to do their internship in this company?					✓
How would you rate your internship?					✓
Was your internship helpful?					✓

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10 APPENDIX

10.1 Dictionary

Production Line: The sequence of processes involved in manufacturing water cups, including stages from raw material handling to final packaging.

Inventory Management: The process of overseeing and controlling the storage, ordering, and use of raw materials and finished products to ensure optimal stock levels and minimize costs.

Quality Control: A system of measures and procedures implemented to ensure that products meet specified quality standards and regulations.

Material Requirements Planning (MRP): A production planning and inventory control system used to manage manufacturing processes and inventory levels by forecasting material needs based on production schedules.

Total Quality Management (TQM): A management approach focused on continuous improvement in product quality and organizational processes by involving all employees in quality initiatives.

Cycle Time: The total time required to complete one cycle of a production process, from the beginning of one stage to the end of the final stage.

Efficiency: The ability to achieve maximum productivity with minimum wasted effort or expense, crucial for optimizing production and reducing costs.

Resource Utilization: The effective use of available resources, such as labor, materials, and equipment, to maximize production output and minimize waste.

Continuous Improvement: An ongoing effort to enhance processes, products, and services by making incremental improvements over time.

Lean Manufacturing: A production practice that focuses on reducing waste, improving process efficiency, and maximizing value by streamlining operations and eliminating non-value-added activities.

Forecasting: The process of estimating future demand for products or materials based on historical data, market trends, and other relevant factors.

Data Analysis: The method of examining, interpreting, and extracting meaningful insights from data to inform decision-making and improve processes.

Stakeholder: Any individual or group with an interest in or affected by the company's operations, including employees, customers, suppliers, and investors.

Ergonomics: The study of designing work environments and tasks to fit the physical capabilities and limitations of employees, aimed at improving comfort and reducing strain.

Supply Chain Management: The management of the flow of goods and services from suppliers to customers, encompassing procurement, production, and distribution processes.

Workstation Layout: The arrangement of equipment, tools, and work areas within a production environment to optimize workflow and minimize unnecessary movement.

Training and Development: Programs and activities designed to enhance the skills, knowledge, and abilities of employees to improve their performance and career growth.

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10.2 References

Welcome to Silsal Company References

https://silsal.com

الصنوبر للصناعات الغذائيه - دليل الأردن العالمي للأعمال (directoryjordan.com)

دليل الأردن العالمي للأعمال (directoryjordan.com)

شركة اردنية - سلسال للتسويق - تجارة وصناعة المواد الغذائية (jordanindex.net)

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FEYZİYE MEKTEPLERİ VAKFI
IŞIK ÜNİVERSİTESİ

INTERNSHIP FORM

To whom it May concern,

Students of the **Industrial Engineering**. Department / Program are required to complete a compulsory internship in business firms and organizations before the end of their study period. We would like to thank you for your support to our student whose details are given below during her/his internship at your company for **20** days.

STUDENT INFORMATION

ID No:	99006428840		
Name Surname:	Feras Mohammad	Student No:	19INDE1086
Department /Program:	Industrial Engineering	Internship No:	INDE4920
E- Mail:	19INDE1086@isik.edu.tr	Cell Phone Number:	+905538678840
Address:	Isik university - Sile - Istanbul - Turkey		

INTERNSHIP COMPANY

Name:	Sanawbar Food Industries / Silsal				
Address:	Jordan - Amman - Sahab - Street No: T-5				
Production / Service Area:	The fourth circle in Sahab City for the production and distribution of water cups				
Phone:	+962-6-4160025		Fax:	nil	
E-Mail:	Silsaljdj@gmail.com		Web Address:	https://www.directoryjordan.com	
Internship Starting Date:	**25/8/2024**	**Ending Date:**	**20/9/2024**	**Working Days**	**20**
Internship Days Schedule	8 hour every day from Sunday to Thursday for 4 weeks, which is 20 days = 8*20= 160 h				
Internship Application Type:	[X] Compulsory Internship [ ] Voluntary Internship		[X] On-site Internship [ ] Online Internship		

COMPANY AUTHORIZED PERSON

Name Surname:	Mohammad AL-Jammaini		
Job and Title:	Company Manager	Signature / Stamp	SILSAL
E- Mail:	Mohammadjamma3ini@gmail.com		
Date:	24/6/2024		

STUDENT SIGNATURE	DEPARTMENT / PROGRAM APPROVAL	DEAN / DIRECTORATE APPROVAL	INTERNSHIP OFFICE
I hereby confirm that the information given on this form is true. I kindly request the documents required for the internship to be prepared. Feras mohammad 19INDE1086 Date:	Electronic approval is given. Date:	Electronic approval is given. Date:	Electronic approval is given. Date:

NOTE: **At least 15 days before** the start date of the Compulsory/Voluntary internship, 1 Internship application form, employer information form, photocopy of ID, 1 passport-sized photograph attached to the form, and the student's notification by e-mail to the advisor responsible for the internship, it is obligatory to send an e-mail to the Faculty / Vocational School Department Secretariat. It is important to fill out the forms in the computer environment. **Forms not received on time will not be processed**. An e-mail will be sent to the student by the Faculty/Vocational School Department Secretariat before the SSI Declarations start date of the internship.