

In-plant training report submitted in partial fulfilment of the degree
requirements of BSc. (Hons). Food Science and Nutrition

Maliban Biscuit Manufactories (PVT) Limited

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Wayamba University of Sri Lanka

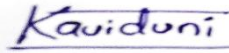
Department of Food Science & Technology
Faculty of Livestock, Fisheries & Nutrition
Makandura, Gonawila
July 2026

Declaration

I declare that the work reported in this in-plant training report is entirely based on the outcomes of my in-plant training at Maliban Biscuit manufactories (PVT) Ltd. from 09/03/2026 to 27/05/2026.

24/07/2026

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Synopsis

Maliban Biscuit Manufactories (Pvt) Ltd. is a leading food manufacturing company in Sri Lanka that specializes in the production of biscuits and confectionery products. As the flagship company of the Maliban Group, the company operates modern manufacturing facilities and offers a diverse portfolio of products that cater to a wide range of consumer preferences both locally and internationally.

Maliban Biscuit Manufactories (Pvt) Ltd. is known for its commitment to quality, food safety, and innovation. The company continuously invests in advanced technologies, research and development, and process improvements to ensure that its products meet international quality standards. Through its extensive distribution network and export operations, Maliban serves consumers across Sri Lanka and in more than 40 countries worldwide.

The company's portfolio includes a variety of biscuit and confectionery products manufactured under strict quality control and hygienic conditions. With a team of experienced professionals and a strong focus on operational excellence, Maliban Biscuit Manufactories (Pvt) Ltd. aims to deliver high-quality products that satisfy consumer needs while contributing to the growth and development of the food manufacturing industry.

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Chapter 1 – Introduction

1.1 Scope of Industrial Training

In-plant training is a course module that allows undergraduates to apply the gathered theoretical knowledge in a practical setting and to gain experience in how the food industries are operating. This allows the undergraduates to actively participate in tasks and duties performed in the chosen field of food industries. Exposure to real-world scenarios and procedures allows the development of human skills, tactical skills, and soft skills which are very important to be a successful professional in the coming years. And this gradual transition from academics to career will be full of new experiences and learning. This report intends to cover the basic objectives of the in-plant training, a brief history of the company, a brief description of the job scope of the trainee, tasks, projects conducted, a SWOT analysis, areas for improvements, and the competencies gained during the training period.

1.2 Objectives of In-Plant Training

The duration of the in-plant training was 10 weeks. During this period students are allowed to get insights into the operations of an organization, use and improve knowledge, improve personal and technical skills and get real-time experience allowing building career objectives and choices.

My objectives of the in-plant training were,

- To understand industrial biscuit manufacturing processes.
- To observe quality assurance and food safety practices.
- To develop skills in data collection, analysis, and problem-solving.
- To participate in continuous improvement and root cause analysis projects.
- To enhance professional, communication, and teamwork skills.
- To collaborate with industry professionals to gain experience.

Chapter 2 – Company Background and Description

2.1 Maliban Group



Figure 1 Maliban group logo

The Maliban Group is one of Sri Lanka's most respected and diversified business conglomerates with a history spanning over seven decades. The journey of the Group began in the early twentieth century when its founder, **Angulugaha Gamage Hinnyappuhamy (A.G. Hinni Appuhamy)**, migrated from the Southern Province to Colombo

in search of better opportunities. He initially established a tea kiosk on First Cross Street, Colombo, and later founded the **Maliban Hotel** in Pettah in 1935. Following the success of the hotel business, he expanded into bakery manufacturing, which laid the foundation for the Maliban Group.

Over the years, the Group has expanded into multiple sectors within the food industry, establishing itself as a leading conglomerate in Sri Lanka. Major business entities under the Maliban Group include:

- Maliban Biscuit Manufactories (Pvt) Ltd
- Maliban Milk Products (Pvt) Ltd
- Maliban Agri (Pvt) Ltd
- Little Lion Associates (Pvt) Ltd

The Group is committed to maintaining high standards of quality, innovation, and food safety while continuously improving operational excellence. Through investments in modern technology, research and development, and human resource development, the Maliban Group has established itself as a trusted household name both locally and internationally.

2.2 Maliban Biscuit Manufactories (Pvt) Ltd



Maliban Biscuit

Figure 2 Maliban Biscuit logo

Maliban Biscuit Manufactories (Pvt) Ltd. is the flagship company of the Maliban Group and the pioneer biscuit manufacturer in Sri Lanka. In August 1954, the company established the country's first mechanized biscuit manufacturing facility, marking a significant milestone in the Sri Lankan food manufacturing industry. Since then, Maliban has continuously expanded its operations while maintaining its commitment to quality and innovation.

Maliban Biscuit Manufactories (Pvt) Ltd. operates an extensive distribution network covering more than 100,000 retail outlets across Sri Lanka. The company also commenced export operations in 1964 and currently exports to more than 40 countries worldwide, supplying major international retail chains.

The company operates a state-of-the-art manufacturing facility at Ratmalana, producing biscuits under strict hygienic conditions in compliance with internationally recognized food safety standards. The founder's philosophy continues to guide its operations:

"No biscuit not worthy to feed your own children should leave the gates of Maliban to feed the world." – A.G. Hinni Appuhamy

Maliban has received numerous national and international awards for excellence in business performance, quality management, and exports, including multiple Global Performance Excellence Awards.

Today, the company continues to strengthen its position in the food manufacturing industry through innovation, technology adoption, and customer-focused manufacturing practices.

Vision: To lead in crafting innovative biscuits and confectionery of superior quality and taste that delight people across cultures.

Mission: To create biscuits and confectionery of exceptional quality through innovation with responsibility and care, delighting consumers globally while delivering sustainable value for people, partners, and the planet.

Values:

- Consumer Centricity
- Winning Together
- Integrity
- Growth Mindset
- Responsibility and Accountability.

2.3 Organizational Structure of Maliban Biscuit Manufactories

This organizational structure illustrates the major functional departments of Maliban Biscuit Manufactories (Pvt) Ltd. (MBM), highlighting how different departments collaborate to achieve the company's operational goals. The Production Department is further divided into key operational sections - Mixing, Creaming, Packaging, Assortment, and Export, which work together to ensure efficient manufacturing and delivery of high-quality products.

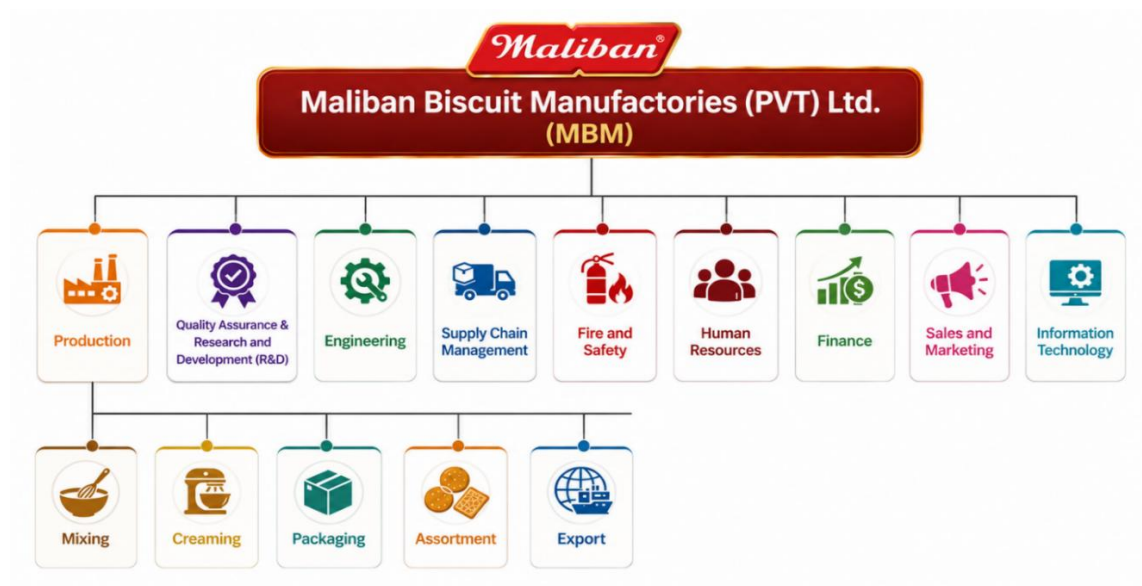


Figure 3 Organizational Structure of Maliban Biscuit Manufactories (Pvt) Ltd.

2.4 Operational Process Flow of Biscuit Manufacturing

The biscuit manufacturing process at Maliban Biscuit Manufactories (Pvt) Ltd. follows standardized procedures to ensure product quality, food safety, and process consistency.

2.4.1 Biscuit Manufacturing Process

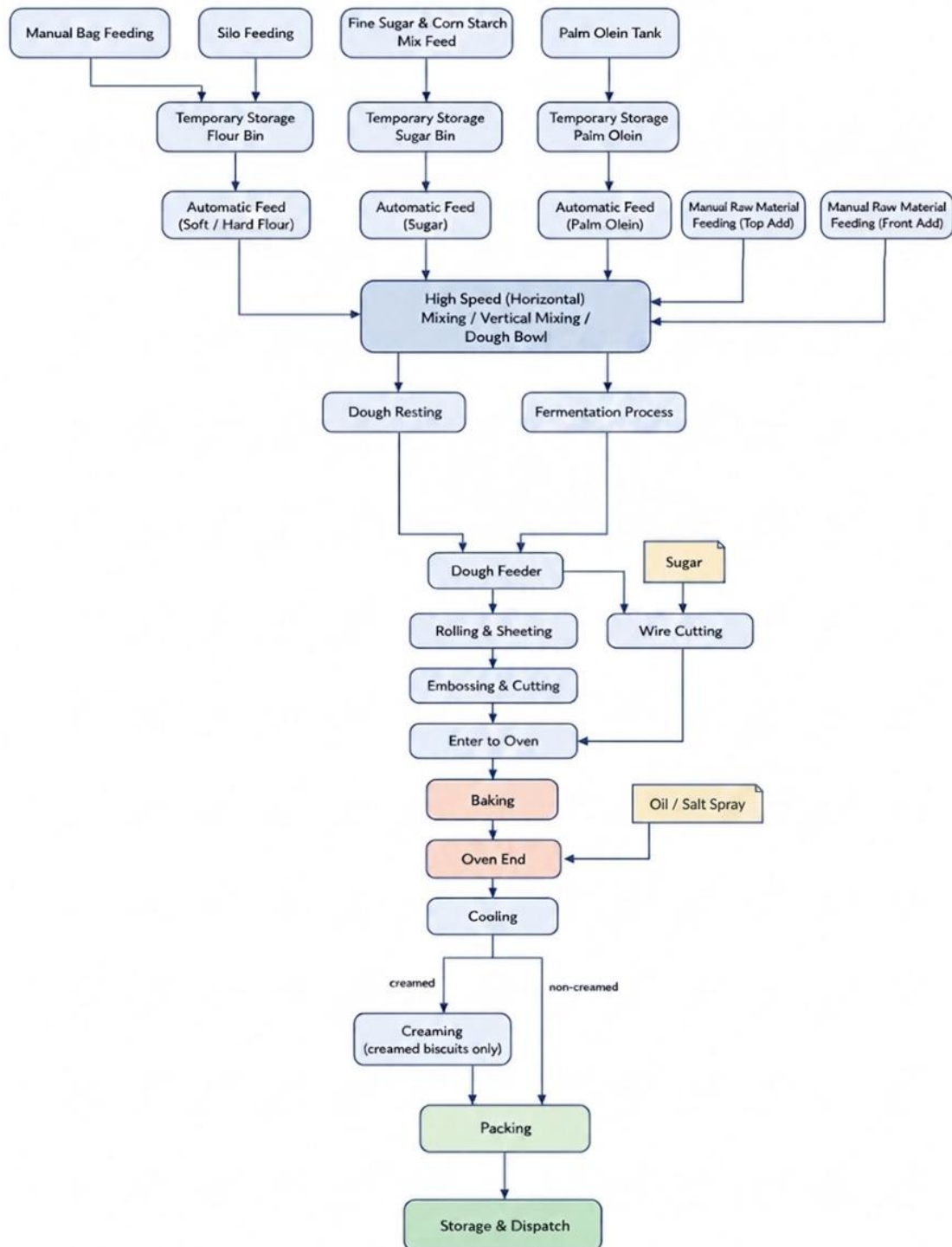


Figure 4 Biscuit Manufacturing Process Flowchart

Figure 4 illustrates the overall biscuit manufacturing process, beginning with raw material feeding and temporary storage, followed by automatic ingredient dosing and dough mixing. Depending on the product type, the dough undergoes resting or fermentation before being sheeted, cut, baked, cooled, and, where applicable, creamed. The biscuits are then passed through a metal detector, which serves as the Critical Control Point (CCP) to detect and reject any products contaminated with metal fragments. After successfully passing the metal detector, the biscuits are packed and transferred to the storage and dispatch section for distribution.

2.5 Product portfolio

Maliban's biscuit range consists of various product categories designed to meet different consumer tastes and preferences. These include:

Cracker Range



Figure 5 Cracker range

Cream Range



Figure 6 Cream range

Sweet Range



Figure 7 Sweet range

Savory Range



Figure 8 Savory range

Puff Range

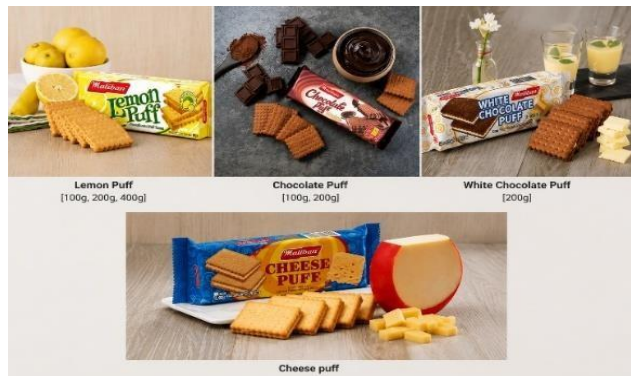


Figure 9 Puff range

Gift Assortment Range



Figure 10 Gift assortment range

Chapter 3 – Student Job Scope

3.1 Production Process Observation and Monitoring

During the training period, I was involved in observing various biscuit manufacturing operations, including mixing, cutting, baking, cooling, and packaging processes. I monitored production activities to gain an understanding of process flow, operational parameters, and production efficiency. Special attention was given to dough preparation, dough temperature variations, chilled water monitoring, and their effects on final product quality.

3.2 Quality Assurance and Food Safety Activities

I participated in quality assurance activities related to food safety and product quality. This included learning about quality management systems, food safety certifications, and quality control procedures. I observed raw material quality testing, product inspection practices, and traceability exercises conducted within the factory. Furthermore, I gained practical exposure to Good Manufacturing Practices (GMP), Good Housekeeping (GHK), and personal hygiene requirements in food manufacturing.

3.3 Auditing and Workplace Improvement Activities

I actively participated in 5S audits and workplace inspections conducted in different production areas. These activities involved identifying gaps related to workplace organization, cleanliness, and operational efficiency. Based on observations, improvement opportunities were documented and communicated to relevant personnel. I also contributed to the implementation and monitoring of 5S practices within the mixing section.

3.4 Data Collection and Analysis

A significant part of my training involved collecting, organizing, and analysing production-related data. This included monitoring chilled water temperatures, dough temperatures, labour productivity, stock variances, packaging losses, and wrapper damage occurrences. The collected data were analysed using spreadsheets and graphical tools to identify trends, deviations, and potential areas for improvement.

3.5 Problem Identification and Root Cause Analysis

I participated in projects focused on identifying the root causes of production inefficiencies and recurring quality issues. Activities included observing wrapper damage

in packaging operations, evaluating consumer complaint data, monitoring scrap generation, and investigating factors affecting key performance indicators (KPIs). Findings were documented, and corrective actions were discussed with relevant departments.

3.6 Documentation and Reporting

I assisted in preparing audit sheets, data recording formats, observation reports, and project-related documentation. Additionally, I maintained records of production observations, traceability exercises, GMP assessments, and quality improvement activities to support decision-making and continuous improvement initiatives.

3.7 Training and Professional Development

Throughout the internship, I attended various training programs and departmental visits, including Production, Quality Assurance, and Engineering departments. These experiences enhanced my technical knowledge of food manufacturing processes, quality management systems, equipment operations, food safety standards, and industrial best practices. The training also improved my analytical, communication, teamwork, and problem-solving skills in a professional manufacturing environment.

3.8 Training Programs Attended

During the internship period, several training programs were conducted to enhance understanding of the company's operations, quality management systems, production processes, and safety practices. These training sessions were carried out alongside practical exposure and project activities, providing a strong foundation for adapting to the industrial food manufacturing environment.

3.8.1 Company Induction Program

An induction program introduced the company's history, organizational structure, products, workplace policies, safety regulations, and work culture.

3.8.2 Production Department Orientation

Training provided an overview of the biscuit manufacturing process, production workflow, and the functions of each production section.

3.8.3 Quality Assurance and Research & Development Department

Training covered quality assurance activities, laboratory testing, quality control, food

safety requirements, and the role of the R&D Department.

3.8.4 Engineering Department

The training explained preventive maintenance, equipment operation, and the role of engineering in ensuring efficient production.

3.8.5 5S Workplace Organization

A practical session introduced the 5S methodology to improve workplace organization, cleanliness, and productivity.

3.8.6 Traceability System

Training explained raw material identification, batch coding, production records, and product traceability for food safety.

3.8.7 Production Stock Taking

Training covered stock verification procedures for raw materials, packaging materials, and finished products.

3.8.8 Key Performance Indicator (KPI) Monitoring

Exposure was provided to production KPIs such as productivity, efficiency, wastage, and downtime.

3.8.9 Weighing Scale Calibration

Training covered weighing scale calibration and its importance in maintaining measurement accuracy and product quality.

Chapter 4 – My Projects

4.1 Project 1 – Assessment of Frequent Violations in Basic GMP, GHK, and Personal Hygiene

4.1.1 Project Overview

Food safety and product quality in the biscuit manufacturing industry depend heavily on the effective implementation of Good Manufacturing Practices (GMP), Good Housekeeping (GHK), and Personal Hygiene standards. During my internship at Maliban Biscuit Manufactories (Pvt) Ltd., I conducted a project to assess frequent violations of these practices within the Mixing Section and develop a sustainable monitoring system to improve compliance.

4.1.2 Objectives

The primary objectives of this project were to:

- Identify recurring GMP, GHK, and personal hygiene violations.
- Evaluate workplace conditions using 5S principles.
- Develop an effective auditing and monitoring system.
- Improve employee awareness regarding food safety and workplace hygiene.
- Support continuous improvement initiatives within the Mixing Section.

4.1.3 Methodology

The project was carried out using a structured approach based on the 5S methodology. A detailed inspection checklist was developed using company standards and food safety requirements. Observations were conducted throughout the Mixing Section to identify areas of non-compliance and record frequent violations.

The collected information was analysed to determine common trends and prioritize improvement areas. Based on the findings, the Mixing Section was divided into designated audit zones, and customized audit check sheets were developed for supervisors and executives to facilitate regular monitoring.

4.1.4 Key Activities

- Conducted GMP, GHK, and personal hygiene inspections.
- Developed workplace audit checklists and evaluation criteria.
- Identified and documented recurring non-conformities.

- Implemented a zone-based auditing system.
- Prepared awareness presentations and training materials.
- Shared audit findings with employees and supervisors.
- Supported continuous monitoring and corrective action activities.

4.1.5 Results and Outcomes

The project resulted in the establishment of a structured auditing framework for the Mixing Section. The system enabled systematic monitoring of workplace practices and provided a practical tool for maintaining food safety standards.

The initiative improved employee awareness regarding hygiene requirements, strengthened compliance with GMP and housekeeping practices, and contributed to a cleaner and more organized production environment. The project also supported the company's continuous improvement efforts by promoting accountability and proactive monitoring.

4.1.6 Skills Developed

Through this project, I enhanced my skills in workplace auditing, food safety management, data collection, root-cause identification, process evaluation, employee communication, and continuous improvement practices within a large-scale food manufacturing environment. **(Results – Appendix B)**



Figure 11 GMP, GHK, Personal Hygiene Training for Workers

Chapter 5 – Swot analysis

Table 1 swot Analysis

Strengths	Weaknesses
• Strong brand reputation and market leadership in Sri Lanka	• High dependency on raw material price fluctuations
• Extensive distribution network covering over 100,000 retail outlets	• High energy and operational costs associated with large-scale manufacturing
• Export presence in more than 40 countries	• Production losses due to packaging defects and process inefficiencies
• Strong quality assurance and food safety management systems	• Manual practices in certain operational areas leading to human errors
• Diverse product portfolio catering to different consumer segments	• Challenges in maintaining consistent GMP and housekeeping standards across all production areas
Opportunities	Threats
• Expansion into new international markets	• Intense competition from local and international biscuit manufacturers
• Development of innovative and healthier product varieties	• Rising costs of raw materials, packaging materials, and utilities
• Adoption of advanced automation and digital manufacturing technologies	• Changes in food safety regulations and compliance requirements
• Growing consumer demand for convenient snack foods	• Supply chain disruptions affecting raw material availability
• Continuous improvement initiatives to reduce waste and increase productivity	• Economic instability and fluctuations in consumer purchasing power

5.1 Suggestions and Recommendations for Maliban Biscuit Manufactories (Pvt) Ltd.

Based on the observations and project activities conducted during the internship, several recommendations can be made to support continuous improvement within the organization. The company should further strengthen its packaging quality control systems to minimize wrapper damage and related production losses. Regular root cause analysis and monitoring programs should be continued to address recurring consumer complaints and operational inefficiencies.

The implementation of digital monitoring systems and real-time production data analysis can enhance decision-making and improve process control. Continued emphasis on GMP, GHK, personal hygiene, and 5S practices through regular audits and employee training programs will support food safety and workplace organization. Furthermore, investments in automation and preventive maintenance programs can improve productivity, reduce downtime, and minimize process variability.

The company should also continue exploring opportunities for product innovation and export market expansion while maintaining its commitment to quality, food safety, and customer satisfaction. These initiatives will contribute to sustainable growth, improved operational performance, and enhanced competitiveness in the global food manufacturing industry.

Chapter 6 – Key Learning Outcomes

The industrial training experience at Maliban Biscuit Manufactories (Pvt) Ltd. provided valuable exposure to large-scale food manufacturing operations while enhancing technical knowledge, analytical abilities, and professional competencies. The key knowledge and skills gained during the training period include:

- Practical understanding of industrial biscuit manufacturing processes, including raw material handling, mixing, forming, baking, and packaging operations.
- Knowledge and application awareness of Good Manufacturing Practices (GMP), Good Hygiene Practices (GHP), and food safety requirements in a manufacturing environment.
- Improved understanding of quality assurance procedures, process monitoring, and compliance with food quality standards.
- Hands-on exposure to production line operations, workflow management, and coordination between different manufacturing sections.
- Development of data collection, analysis, interpretation, and problem-solving skills through project-based activities.
- Enhancement of teamwork, communication skills, workplace discipline, and professional ethics through collaboration with industrial teams.
- Familiarization with industrial equipment, automated packaging systems, production technologies, and export-oriented manufacturing practices.
- This experience contributed significantly to bridging the gap between theoretical knowledge and practical industrial application, while preparing for future professional responsibilities in the food industry.

Chapter 7 – Challenges Encountered and Solutions Applied During

Industrial Training

During my industrial training at Maliban Biscuit Manufactories (Pvt) Ltd., several challenges were encountered while adapting to a large-scale food manufacturing environment. These experiences provided valuable opportunities to enhance technical knowledge, workplace adaptability, communication skills, and problem-solving abilities. The challenges faced and the actions taken to overcome them are summarized below.

Table 2 Challenges Encountered and Solutions Applied During Industrial Training

Challenge	Solution / Action Taken
Communicating with employees across different levels and backgrounds	Adjusted communication style to the individual, listened actively, and maintained professional relationships
Adjusting to a fast-paced continuous production environment	Observed practices, followed SOPs, and gradually built confidence through active participation
Understanding the complete manufacturing process and each stage's function	Studied process flow diagrams and discussed details with production and QA staff
Collecting data within production schedules and constraints	Coordinated with teams, planned collection around schedules, and verified records
Balancing departmental exposure, training, projects and reporting	Prioritized tasks, prepared daily plans, and organized time against deadlines
Handling confidential production, quality and project data	Followed company confidentiality policy and used data only for authorized purposes

Chapter 8 – Reference

1. SafetyCulture. (n.d.). *5S daily check sheet – Zone 1 for food processing plant*. SafetyCulture. Retrieved July 31, 2026, from <https://safetyculture.com/library/hospitality/5s-daily-check-sheet-zone-1-ju78xxgpd9s0gsbg>
2. Maliban Group. (n.d.). *Maliban Group*. Retrieved July 31, 2026, from <https://www.malibangroup.com/>

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Furthermore, I would like to thank the other managers and staff members for their support and for making my training a memorable one. Further, who helped me and gave insight into different business functions and operations.

Finally, I would like to express my gratitude to my family members and friends for all the direct and indirect support that was given to me.

Appendix

Appendix A - Check Sheet Sample

https://docs.google.com/document/d/1MhrCco5iuvb135kBbKeLfMws7W0Hdpq/edit?usp=drive_link&ouid=104344118390250563362&rtpof=true&sd=true

Appendix B – Results

<https://docs.google.com/spreadsheets/d/15cappiYST8P8sozsbgpELrY0JBfkNS4/edit&usp=sharing&ouid=107334852401695479504&rtpof=true&sd=true>