

FS REPORT	Name	Year and term for exchange
	Amanda Skålberg	Spring 2024
Country for the project	-	
Mauritius		
Degree programme		

# A Master's Thesis in Mauritius: An Extraordinary Field Study and Unforgettable Island Adventure

Industrial Engineering and Management

# Before departure

I applied for the KTH Field Studies travel grant with my classmate Henrik Oksanen because we wanted to further expand our international experience after rewarding exchange semesters. This grant allowed us to finalize our studies by writing our master's thesis abroad.

When applying for the KTH Field Studies travel grant, we looked for opportunities abroad through international placement portals linked by KTH, such as IAESTE and GlobalPlacement. This was around September, and it was hard to get answers in the beginning. However, after a few weeks, we got in contact with a company called Alumno Astralis, which facilitates student internships in Mauritius. We decided to go with them since they had experience finding opportunities for students studying industrial engineering and management, which is our field of study. The organization introduced us to a few potential companies in Mauritius, but we decided to go ahead with a carton manufacturing company that had interesting projects aligning with what we wanted to do for our master's thesis. Once accepted and agreed, we paid approximately 700 EUR to Alumno Astralis for their services, which also included assistance with accommodation and work visa arrangements.

The preparation process before departure was comprehensive and required careful planning. To secure the visa, we underwent several medical tests, including lung and blood tests, which incurred additional costs beyond the 700 EUR. Moreover, many paper statements, such as bank documents, were required. From our first contact with Alumno Astralis in September, everything related to the visa and accommodation was successfully completed by December.

I expected the field study in Mauritius to provide hands-on experience in my field of study, enhance my cultural competence, and broaden my professional experience. I anticipated that working in a different country would challenge me to adapt to new environments and problem-solving approaches, ultimately enriching my personal and professional development. Furthermore, I was looking forward to immersing myself in the local culture, learning from colleagues at the carton manufacturing company, and exploring the beautiful landscape of Mauritius during our stay.

## **Upon arrival**

Henrik and I arrived in Mauritius in February and began our research at the carton manufacturing company almost immediately. Our project was planned from February to the end of May, conducting our field studies for approximately three months. Upon arrival, we were introduced to other students who were also doing internships and thesis work through Alumno Astralis. These students were placed at both our company and other companies. Living near these students made our transition smooth and enjoyable, as they quickly introduced us to the neighborhood and helped us settle in. This informal yet organized reception by fellow students ensured that we felt welcomed and integrated into the local environment from the very beginning.

## **Financials**

Overall, living expenses in Mauritius were generally more affordable compared to Sweden. The local currency is the Mauritian Rupee. The cost of food and drinks at restaurants and bars was significantly lower than in Sweden. Rent was also relatively cheap. Henrik and I shared a house with another student, and we each paid 10,500 MRU per month, which is about 2,400 SEK.

However, groceries were more expensive due to the country's reliance on imports for many products. Despite this, combining CSN with the KTH Field Studies travel grant made it feasible to live comfortably during our stay. One significant expense to consider was transportation. A car was essential for getting around the island. While we were fortunate to have access to a company car and only needed to cover fuel costs, most other students had to rent cars for their entire stay, which added to their expenses.

Also, both Henrik and I had savings before going to ensure we could spend on leisure activities. The student group participated in many activities like boat trips, dolphin and whale swimming, scuba diving, and more, which you should definitely enjoy if you are going to a field study in Mauritius. These activities tend to be expensive and were the biggest part of my spending – but they were totally worth it and gave me unforgettable memories.

To save money during field studies in Mauritius, consider carpooling or using public transport if feasible. Also, local markets can often offer better prices compared to supermarkets for fresh fruit and vegetables.

### Accommodation

We arranged our accommodation through Alumno Astralis, who provided us with two options in Flic en Flac, both conveniently located near the beach where many other students also resided. Each option involved sharing with two other students, making it a total of three persons per house/apartment. However, each student had their own bedroom. As mentioned earlier, the rent was quite affordable.

Henrik and I shared a two-floor house with an Indian student who was also interning at the carton manufacturing company. The housing conditions were comfortable, with amenities such as air conditioning included in our rent (some students had to pay extra for it). However, being in a tropical country, daily encounters with cockroaches, ants, and lizards were unavoidable. You get used to it, and it becomes part of the experience! ©

I've realized that I didn't take any photos inside the house, so the pictures below only show the exterior. The standard inside the house was good: the furniture was old but well-maintained, and two of the three bedrooms had balconies. As shown in the pictures, the balconies were secured with bars, and the gate was also sturdy. However, Flic en Flac is a safe place to live, and I never felt unsafe.



Our house from the outside - located one block from Flic en Flac beach.



Flic en Flac beach.

# **Project**

Our project at the carton manufacturing company, Dakri Cartons Ltd., focused on implementing Lean Manufacturing practices within their operations. Guided by CEO Nazir Dakri, who had prior experience with student projects in industrial engineering and management, our objective was to

evaluate the feasibility of applying Lean principles to their manufacturing processes to increase effectiveness. This project laid the foundation for our master's thesis. We conducted an extensive analysis of their current, non-automated manufacturing processes, which were in the early stages of data collection.

The broader goal of our project was to address a research gap by studying Lean Manufacturing in the context of a Small Island Developing State (SIDS), specifically Mauritius. Typically reliant on tourism, SIDS face challenges in shifting towards industrialization to achieve economic diversification. Their production and manufacturing sectors are heavily influenced by unique social, economic, and environmental factors, compounded by limited resources. Therefore, effective resource utilization is crucial for advancing economic diversification.



Pictures of the factory and Henrik at the the factory office.

A typical day began early at 7:30 AM, when we departed from our accommodation in Flic en Flac by car. Despite the short distance to the company, heavy traffic—common in developing countries—often delayed our arrival until around 8:15-8:30 AM. We usually stayed until 5:00 PM.

CEO Nazir Dakri was instrumental in facilitating our work and ensuring we had the resources needed for success. One of our key outcomes was a value stream map, which helped the company gain a detailed understanding of their manufacturing processes and identify bottlenecks. We applied Lean principles to pinpoint these bottlenecks and recommended solutions for improvement. Our findings were well-received, and we presented them to key board members and executives at the company.



Henrik and I presenting the final results to key board members and executives at the company.

Looking ahead, the next interns at Dakri Cartons will continue exploring Lean Manufacturing through further research and practical applications, potentially expanding upon the foundation we established during our internship. Conducting our thesis also highlighted broader implications, revealing key challenges and opportunities in applying Lean Manufacturing within the context of a SIDS. Given the limited research in this area, similar projects could be undertaken in other SIDS or companies in Mauritius to determine if they face comparable challenges and opportunities. Sharing our findings locally and through academic channels will further contribute valuable insights to the broader industrial community of Mauritius and other SIDS.

# Country

My experience in Mauritius was shaped by its vibrant "island life" culture, characterized by a relaxed and positive atmosphere. The country's diversity is remarkable, with a blend of many cultures and religions. I did not encounter any specific culture shock; instead, the differences were intriguing and offered new perspectives, particularly when working in a developing country.

From daily interactions to exploring the local cuisine, every aspect of my stay was enriched by the cultural diversity. Embracing the laid-back "island life" and hospitality of the Mauritians further enhanced my appreciation for the country.



Typical food at restaurants in Mauritius.

One aspect that took some time to get used to was the traffic in Mauritius. The driving can be intense, with heavy traffic and narrow roads, making it feel hectic at first. Additionally, driving on the left side of the road added to the challenge.

Moreover, the nature in Mauritius is amazing. The island is famous for its beautiful beaches, clear blue waters, and green landscapes. Activities like snorkelling and diving in the crystal-clear waters, along with hiking in the lush mountains, were unforgettable and highlighted the island's unique charm.

### Leisure and social activities

During my spare time in Mauritius, I engaged in various activities with fellow students, both international and local I met through work and diving. The crystal-clear ocean kept me busy with beach days, snorkelling, scuba diving, boat trips, and unforgettable experiences like swimming with whales and dolphins. Additionally, I enjoyed hiking in the scenic mountains nearby.



Hiking at the mountain "Le Morne" and swimming in crystal-clear waters.



Manta rays, dolphins, and sperm whales during scuba diving and snorkelling.

As mentioned, through Alumno Astralis, Henrik and I naturally became part of a lively group of about 20 students. There was always something happening, like exploring local bars, watching the sunset, or spontaneous dinners. The small size and close-knit community of Flic en Flac made it easy to get to know everyone, creating a friendly and inclusive environment.



Here are some pictures of us with friends from Henrik's and my last night in Mauritius.

However, facilities like gyms were limited in the area, which encouraged us to explore outdoor activities more. Despite this, local festivals and traditions gave us a richer experience of Mauritian life.

# Sustainability

During our field studies in Mauritius, traveling sustainably was more challenging than in Sweden due to limited public transportation and the need for personal vehicles. However, we tried to carpool with other students whenever possible to reduce our carbon footprint.

In my daily life, I practiced sustainability by conserving water and electricity and being careful about how much I used. Also, I bought fresh produce from local markets to cut down on the environmental impact of imported goods.

Additionally, our project at Dakri Cartons was linked to the United Nations' Sustainable Development Goals (SDGs). Specifically, our work on Lean Manufacturing aimed to reduce waste and improve efficiency, supporting SDG 8 (decent work and economic growth). By enhancing workplace conditions and productivity, we worked towards the advancement of industrialization and, thus, economic growth in Mauritius.

Our project also supported SDG 9 (industry, innovation, and infrastructure) by using innovative manufacturing techniques suited to a Small Island Developing State (SIDS) like Mauritius. This included exploring digital solutions and adapting Lean practices to address the unique challenges of local manufacturing.

Lastly, our focus on reducing waste and optimizing resources supported SDG 12 (responsible production and consumption). By improving efficiency, we promoted sustainable practices at Dakri Cartons.

## Other recommendations and observations

During our field studies in Mauritius, we had a lot of fun and met many people. Here are some tips based on my experience:

*Explore the ocean:* Enjoy Mauritius' beautiful ocean by swimming, snorkelling, scuba diving, and taking boat trips to see marine life.

*Experience the local culture:* Get to know Mauritian culture by attending local events, tasting authentic food, and visiting markets to see island traditions.

*Connect with locals and other students*: Meet both locals and other international students. Flic en Flac is small, which makes it easier to really get to know the community.

Explore: Go beyond Flic en Flac by visiting the east and the north!

By enjoying the local culture and outdoor activities, you'll have a great time in Mauritius. Feel free to contact me if you're thinking about going to Mauritius and want more tips or have any questions! ©