

Cooperative Education Report

Purchasing Internship: A deep dive into the world of purchasing at Bosch Automotive.

Written by

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Acknowledgement

Cooperative education and the ability to get first-hand experience of real-world environments has been a valuable experience that I am very grateful to have. Getting the opportunity to spend 6 months with a company with such high standards and being as globally recognizable as Bosch has been a truly fantastic honor that I am very proud to say that I have completed. Thank you, Bosch, for giving me such a fulfilling experience which I am walking away from filled with confidence, knowledge, and experience going into the job market.

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- **Degree** : Bachelor of Business Administration (International Program)
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Abstract

This cooperative internship report combines real life work experience and outcomes of a six-month internship at Robert Bosch Thailand. The main objective of the internship was to provide the intern with valuable insights into the purchasing department at one of the largest automotive manufacturing companies in the world. During the internship, the focus was to practice skills and knowledge about purchasing as well as developing personal relationships within the industry. Some of the key responsibilities included overseeing contract management, supporting management with presentations, and organizing events and activities. Mini qualitative research was conducted to assist Bosch to identify a problem observed within the contract management process. The data was collected through informal interviews with buyers from the purchasing department. Convenience sampling was used to select the participants in the study. The results showed that despite the contract management being successful, there were still some limitations naming the lack of a sole person overseeing the contract management and the level of manual input in the process. Based on the results, a 4-step implementation plan was offered to the company. The plan included the implementation of a key user, improved training, an automated program to collect the data, and an automated dashboard to display the data. The plan can help Bosch to have a fully integrated contract management process that both minimizes human error and reduces manual inputs. The internship provided a meaningful experience for the intern's personal and professional growth and proved to create a positive relationship between the intern and the company. Some of the key highlights included participating in significant projects and events while challenges included adapting in a new environment and working with a diverse team.

Keywords: Automotive manufacturing, purchasing, Bosch, contract management, internship rotation model

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Chapter 1: Internship Overview

1.1 Company Profile



Figure 1 Robert Bosch GmbH Logo

Robert Bosch GmbH, also known as Bosch, is a German multinational company that specializes in engineering and technical innovation with its headquarters located in Gerlingen, Germany. Bosch was founded in 1886 by Robert Bosch in Stuttgart, Germany. Bosch is divided into four business sectors namely, mobility solutions, industrial technology, consumer goods and energy and building technology. Bosch is also an innovator within the IoT market, becoming one of the world's largest IoT provides.

Bosch is a company that is world renowned for its high-quality German engineering and its vast range of markets that it serves. The company is 94% owned by Robert Bosch Stiftung GmbH – a charitable foundation, with the remaining shares owned by Robert Bosch GmbH and the Bosch family. Bosch employs around 420,000 employees (or as Bosch refers to them as associates) across 60 countries and had an annual revenue of €88 billion in 2022 an increase of around €10 billion from the previous year. Bosch is a leading company when it comes to engineering and technical innovations and has become a symbol of good quality and reliability.

Company headquarters:	Gerlingen, Germany
Robert Bosch CEO:	Stefan Hartung
Business type:	Engineering and Manufacturing
Number of employees:	420,000 worldwide
Main market:	International
Total annual revenue (2022):	EUR 88 billion

Figure 2 Company Overview

Bosch is comprised of 4 business sectors which all serve as different functions within a larger organization.



Figure 3 Robert Bosch Automotive

Mobility solutions covers all of Bosch's activities in the automotive industry with its main focus on producing original automotive parts such as ABS brake systems, motor starters, steering systems, and many more. Bosch has a large customer base, made up of all the big automotive brands who purchase parts from Bosch for their vehicles. Mobility solutions also includes the automotive after-market parts and eBike systems. Bosch is a powerhouse within the automotive industry as it services most of the top brands and their products are heavily used in vehicles all over the world.



Figure 4 Robert Bosch Industrial Technology

The second sector is the industrial technology sector which encompasses innovation within the manufacturing and assembly industry. Bosch provides Drive and Control technology that is used to make manufacturing more efficient and increase performance output.



Figure 5 Robert Bosch Consumer Goods

Consumer goods is what Bosch is most recognized for and this sector comprises of Bosch power tools and electrical appliances such as washing machines and kitchen appliances. Bosch is also one of the most reliable kitchen appliance brands in the world, with customers all over buying Bosch products due to their reliability.



Figure 6 Robert Bosch Energy and Building Technology

The final sector that Bosch operates within is the energy and building technology sector which looks at home technology such as Thermotechnology and service solutions. Additionally, Bosch has become a leader in smart home units and creating an IoT network that it uses to support its customers across its four business units.

Bosch's slogan "Invented for life" is used to describe Bosch's ambition to be a company that sparks enthusiasm, produces products that improve the quality of life for the user and that can help to conserve natural resources.

1.1.1 Local Company Profile

Robert Bosch Automotive Technologies (Thailand) Co., Ltd.

Robert Bosch Automotive Thailand is the company based in Thailand that oversees the manufacturing and sales of automotive parts within the region. Bosch has been active in Thailand since 1923 and today it has diversified its offering with the 4 business units. Bosch TH has two manufacturing plants as well as a research and development center all located in Rayong, Eastern-Thailand. Bosch TH has an office in Bangkok where it has a regional sale and purchasing department who service the entire ASEAN region. Bosch employs 1,200 associates in Thailand and in 2021 hit EUR 358 million in sales. Bosch TH is led by Joseph Hong who is the managing director and Marin Knoss who is the regional president for ASEAN.

Company office:	Bangkok, Thailand		
Bosch leadership in TH:	Joseph Hong		
Business type:	Engineering and Manufacturing		
Number of employees:	1,200 in Thailand		
Main market:	China, ASEAN, and Asia		
	Pacific		
Total annual revenue (2021):	EUR 358 million		

Figure 7 Company Overview

1.1.2 Mission of the company

"We are Bosch – Secure our company's future by ensuring its strong and meaningful development and preserving its financial independence".

1.1.3 Vision of the company

"Our products and services are designed to spark enthusiasm, improve quality of life, and help conserve natural resources. We want to deliver top quality and reliability. In short: we want to create technology that is "invented for life".

Bosch has been able to be successful within its sectors because it prioritizes its workforce and has strong values that help the company to navigate through challenging times. Bosch is great at communicating its message to its employees and consistently puts out messages that explain how much they value the people within the organization, in particular their mission "we are Bosch" symbolizes their commitment to the people which is reflected in the experience of the employees.

1.1.4 Board of Directors for Robert Bosch GmbH

Mr. Markus Bamberger	Chairman
Ms. Filiz Albrecht	Non - Executive Director
Dr. Pawan Kumar Goenka	Independent Director
Mr. Bhaskar Bhat	Independent Director
Ms. Hema Ravichandar	Independent Director
Mr. S.V. Ranganath	Independent Director
Dr. Gopichand Katragadda	Independent Director
Ms. Padmini Khare	Independent Director
Mr. Soumitra Bhattacharya	Managing Director
Mr. Guruprasad Mudlapur	Joint Managing Director
Mr. Sandeep N.	Executive Director
Mr Karsten Mueller	Executive Director
Ms Karin Gilges	Alternative Director to Ms. Filiz Albrect

Figure 8 Table of Board of Directors for Robert Bosch

1.1.5 Bosch Locations in Thailand

Robert Bosch Thailand Bangkok office: FYI Center, Rama IV, Khlong Toei, Bangkok, 10110



Figure 9 Bosch TH Bangkok Office Location

Bosch Hemaraj Plant: Ta Sit, Pluak Daeng District, Rayong, 21140



Figure 10 Bosch TH Hemaraj Plant

Bosch Amata Plant: Amata City, Pluak Daeng District, Rayong, 21140



Figure 11 Bosch TH Amata City Plant

Bosch's locations in Thailand are all strategically placed, with the central team working in a modern working space in central Bangkok, and the two plants situated in the eastern region of Thailand which has become a central hub for industry. The Eastern Economic Corridor (ECC) is the region of Thailand that the Thai government has established as a zone to attract multinational companies to operate within. The ECC offers companies tax benefits, grants, and other perks to have their manufacturing operations situated in this region. Companies not only benefit from the government scheme, but the infrastructure is in place to accommodate such activities, with large roads, land and access to air and sea transport, making it an ideal location for companies such as Bosch to operate within.

1.2 Products and Services Provided by Bosch Automotive

Bosch Automotive produces a wide range of automotive parts, with many different products being assembled all over the world. The full product range of Bosch Automotive is extensive and covers different aspects of vehicle equipment. The following products are just an example of the range that is on offer from Bosch Automotive:

	QuietCast™ Premium Disc Brake Rotors		QuietCast [™] Premium Disc Brake Pads
	Euroline Brake Pads		Hydro-Boost® Power Brake Assembly
	Fuel Filters		Premium Oil Filters
	Starter	Sic	Long Haul Alternators
	S6 High Performance AGM [™] Battery		Exhaust Gas Temperature Sensors
414	Genuine OE Injectors		Genuine OE High Pressure Pumps

	Fuel Pumps		PFI (Port Fuel Injection)
	GDI (Gasoline Direct Injection)		Steering Pumps
1	Steering Shaft	-	Heavy Duty Steering Pumps
	Cooling Fans		Water Pumps
	Power Relays		Micro Relays
	Premium Wideband A/F Oxygen (O2) Sensors		Low Pressure Sensors
	Manifold Absolute Pressure (MAP) Sensors	MIL BORN	EVO Spark Plugs
2	Wheel Speed Sensors		Tire Pressure Monitor Sensors
and the second second	Insight Wiper Blades	5	Rear View Camera

Figure 12 Bosch Automotive Product List

1.3 Strategies of the Company

Bosch is a company that runs an efficient operation, with each decision made with the business's best interests in mind, and strategic thinking at the core of Bosch. As an international company that is navigating the current climate, Bosch has set out a clear strategic message which it plans to follow over the next few years.

- Worldwide expansion and growth opportunities Bosch will continue to expand its global footprint in key areas such as ASEAN, North America, and Africa with an aim to provide reliable supply chains and high-quality products. Bosch makes decisions on strategic locations based on many different factors such as political and economic situations.
- (2) Climate action and becoming a market leader in sustainability Bosch will set the trend for climate action, which will see the company navigate the world of sustainability. It is important for the company to be at the forefront of this global shift and to set the precedent.
- (3) Transformation of mobility and energy Bosch wants to look how it can transform mobility and energy, looking at EV and how it can be a key player in the EV market. Mobility is changing and Bosch wants to be a part of that change.
- (4) Employer attractiveness Bosch wants to improve its attractiveness to skilled workers to ensure that they can capture the best people in the market. Bringing in skilled workers will increase the performance of the business units, leading to increased efficiency and productivity.

1.4 Organizational Structure





1.4.1 Job Position of Intern

As I am working in the purchasing department, the job position is classified as purchasing intern, with the primary function to support the purchasing team. Using the acronyms assigned by Bosch, my job position is M/PUR-AZ which stands for mobility solutions purchasing department based in the ASEAN region. As an intern, I work under the Director of Purchasing of ASEAN, Dirk Uphoff who assigns tasks for me to complete during my internship period. As part of the experience for this role, I am also assigned supportive jobs that fall under the individual buyers. Within the department there are five buyers who are all in charge of a specific category and then there is an additional administrative associate who is responsible for the administrative tasks for the purchasing team. As part of my job role, I am responsible for overseeing the contract management procedure, as well as supporting the director with additional tasks such as preparing presentations and organizing events. As well as this there are some additional roles within my function that include supporting supplier visits, arranging team meetings and contacting suppliers.

1.4.2 Job position shown on organizational structure

M/PU ASEAN Purchasing - Organizational Setup



1.5 Intention and motivation to apply for Robert Bosch Automotive (Thailand)

Bosch is a company that I have known for many years to be a great employer and a business that values its employees. I have always known Bosch to have a good reputation and ultimately, this is the reason why I choose to apply at Bosch. Having grown up in the United Kingdom, I am very familiar with Bosch products having had such products in my home, so I already understood the quality and reliability associated with the company. I felt that this same quality and reliability would be reflected in their employment, which is why I wanted to pursue an opportunity with Bosch.

Bosch is a company that has a fantastic reputation for being a good employer and offering its associates with meaningful employment whilst providing a top-quality employee experience. When looking for an internship, one of the criteria I set myself was to find a company that values its employees and provided an experience that was substantial and worthwhile. After seeing the job advertisement on LinkedIn, I decided to research more about Bosch to get a better understanding of their operations in Thailand and I was amazed to see how active they are in the region. It was important for me to find an internship that had a stable footprint in Thailand, so that I could get the best possible experience of working in a multinational company. I wanted to find a company that had experience in hiring multinationals, and that had opportunities outside of Thailand as well as locally. Bosch ticked many boxes in this regard as it is a global company with many opportunities all over the world, and they have a diverse workforce, which would give me valuable experience working with different cultures and backgrounds.

Not only was Bosch's offer very attractive, but the industry that Bosch operates in, is very interesting to me, and I am fascinated by automotive manufacturing. I believe that to have meaningful employment, one must be fully engaged and interested in their job, which is why I wanted to find an internship in a business sector that I enjoy rather than something I have no interest in at all. Bosch was suitable in this regard as they are one of the leaders in automotive manufacturing, and it is the perfect example of a company that I would enjoy working in permanently.

The decision to apply for an internship in procurement was based on my desire to try something different and step outside my comfort zone, particularly because I had no prior experience in procurement and knew very little beforehand. Bosch has been able to provide a great firsthand perspective into the world of procurement and has shown me that there are many different career prospects in this function.

The last motivating factor for choosing to apply at Bosch was that I wanted to experience working in a large organization with many different functions, to improve my skills in working with people and within a large environment. I wanted to experience working in an environment which exposes me to many different challenges that I can use to improve my skills.

1.5.1 Objective of the Internship

Internships can be a great opportunity for students to learn in a practical environment, the main objectives for my internship were:

1. Gain valuable experience in an international business environment.

- 2. Learn how to work with people from many different cultures and backgrounds.
- 3. Network and build relationships with people in the industry.
- 4. Grow personally and develop my skills.



Figure 15 SWOT Analysis for Robert Bosch GmbH

Strengths

Bosch is a market leader – Bosch has grown its business to be a market leader in many different sectors and is the go-to brand for many customers worldwide. Bosch power tools and home appliances are very popular, and Bosch can use its position as a market leader to attract new customers and retain old customers. Bosch's position in the automotive industry is strong, due to its large customer base and the wide product range it offers. Bosch's recognition as a market leader is fundamental to its success because it attracts suppliers who want to work with Bosch and will optimize their operations just to be able to do business with Bosch.

Large skilled workforce – Bosch benefits from having many skilled workers who provide their expertise in various fields, which gives Bosch a strategic advantage against its competitors. Having a skilled workforce will increase the growth of the company and will ensure that the company can constantly be innovating and moving forward. Having many skilled workers means that they are not on the open market and could be working for potential competitors, Bosch does well to attract talent and keep them at Bosch for a longer period.

Bosch is highly innovative – One of Bosch's primary focuses is to innovate and invent products that have a real benefit to their customers. Bosch invests heavily in its research and development departments worldwide to be able to be competitive in the market. Bosch is an innovator in the automotive industry but also in IoT and industrial manufacturing. Innovation is critical in the industries that Bosch operates because it is a highly competitive market and a company can fall behind if they aren't being innovative.

Bosch has a long history of success – with over 130 years of successful operations means that Bosch has a firm footing and a stable base to operate from, giving the company an advantage against new entrants to the market. Bosch has a well-established network that it has carved out over many years, and this experience helps Bosch to expand into new territory with relative ease. Bosch also has a long-standing customer base that have grown up using Bosch products and have passed on that brand loyalty to their children, meaning that Bosch is a heritage brand that uses its long-standing history as a USP.

Reputation and brand equity – Bosch is renowned for its quality and reliability, which has become a key decision-making factor when customers are presented with a choice of brands to choose from. In many circumstances, customers are more likely to opt for a slightly more expensive option if they perceive the product to be of better quality and more reliable. Bosch's reputation is very good internationally and many of its customers feel proud to own Bosch products, this brand equity is a massive strength for Bosch as it navigates through challenging times.

Large product offering – Bosch has an extensive catalog of products in various sectors, which gives customers a wide variety to choose from. Unlike some companies that have a limited offering, Bosch has been able to offer its customers with a variety of options to choose from, which helps to improve the customer experience. For example,

Bosch power tools are very sought after and many customers tend to collect Bosch tools overtime, so that they can have a full matching set of equipment.

Weaknesses

Marketing isn't strong across all areas – Unfortunately Bosch isn't renowned for its marketing and in many cases, it could be argued that Bosch's marketing isn't that visible. Bosch has stepped up in recent years, with various campaigns such as #ThrivingLikeABosch which has become their main marketing theme. Bosch doesn't rely on its marketing to sell its products, which means that the marketing can sometimes be neglected or received less investment. Overall Bosch's mobility sector could have better marketing to push its products into the same light as other automotive brands.

Slow mover to changing trends – Bosch is a very good innovator, but doesn't respond quick enough to changing trends, for example Bosch could be moving quicker on EV production and invest more into its eBike sectors. Being a slow mover isn't necessarily a bad thing as it means that the company is more calculated about its investments, but sometimes opportunities could be missed out if the company does act on it quickly enough.

High staff turnover – Like many big companies, Bosch experiences high staff turnover, particularly at the lower levels of the business, which is detrimental to its long-term success as Bosch must constantly maintain recruitment and training. Bosch should look more into developing talent from within and should invest more in staff at the lower levels to encourage them to stay with the company and develop themselves personally as well as the organization. High staff turnover can also have a high-cost implication as the recruitment process is expensive and to train new starters requires investment.

Low loyalty among suppliers – Although Bosch is a company that many suppliers aspire to work with, many suppliers that have worked with Bosch for a long period of time don't have any loyalty to Bosch and would easily go to work with a competitor if the opportunity was better. Bosch requires a lot from its suppliers, due to the quality that it wants to uphold, Bosch insists its suppliers perform to their standards, and can be demanding if the supplier falls below the quality expected. Some suppliers could find this difficult to work with and therefore aren't loyal to Bosch in certain situations. **Declining market share** – Bosch is a market leader in many different sectors, but it isn't the market leader across all its functions, and in some cases, Bosch is losing market share to newcomers who are moving at a much quicker rate than Bosch. In sectors such as IoT and EV where there are new startup companies being established, it can be difficult for Bosch to hold the market share. Despite this, Bosch knows what it does well, and it sticks to it, such as its reputation for quality and reliability, which many of its competitors cannot compete with.

Opportunities

Increase global footprint – Bosch already has a well-maintained global network that it has invested in over the years, however Bosch has many opportunities to increase its global footprint and explore other markets. One area that Bosch can look at investing in is ASEAN, particularly as supply chains are being diverted from China, ASEAN is poised to be the ideal location for manufacturing and innovation.

Local collaboration – Bosch can collaborate with local companies when it expands to a new region, and as part of the collaboration can acquire smaller companies that already have infrastructure locally. Local collaboration with logistics companies that will provide integrated supply chains that could be beneficial to Bosch's operations.

Explore different markets – Bosch has already covered many different sectors, but it can explore different markets that could prove to be profitable. Bosch could apply its same values of reliability and quality to production products in the aviation industry or agricultural industry. If Bosch can evolve and step out of its comfort zone it could be a massive chance for it to capture market share in other markets.

IoT Innovation – Bosch understands that the world is moving in the direction of IoT and has therefore invested into its IoT offering, despite this, Bosch could make further advancements in the world of IoT and can position itself as one of the most recognizable brands as an IoT provider. IoT is the future and if Bosch can capture that market share early, it will stand Bosch in good stead in years to come, especially if they can control the bottlenecks and use them to their advantage.

Further investments in EV Automobility – As governments around the world start to implement laws that will see internal combustion engines being phased out, Bosch has a big opportunity to be an innovator in the EV market, in particular EV for public transport. Bosch already has its foot in the EV industry, but it should explore the

possibility of building its own EV or EV power unit which would rival the current options on the market. Bosch could also investigate EV battery production as currently this is a bottleneck for the EV industry, so if Bosch can develop a battery that can compete in the EV market, then it will be a great opportunity for Bosch.

Threats

New entrants in the market – As mentioned previously, there are many innovative startups that are being set up that all bring something unique to the table, they may not have the same stable footing behind them as Bosch does, but in some ways that could give them an advantage. Some newcomers to the market are not bound by the same constraints as Bosch and operate with more flexibility and are more agile in an ever-changing environment. If a new entrant comes along that can offer a superior product to Bosch, it will pose a significant threat to Bosch's growth.

Rising energy costs – Rising energy costs are becoming a problem for almost all industries and represents a much larger issue of rising living costs, which directly impacts Bosch. The rising cost of energy in production buts strains on Bosch's profit margin, also impacting the end user who is now having to decide on whether to buy a new car or heat up their home. Rising energy costs represent a massive threat for Bosch and it will be difficult for the company to navigate the difficult times ahead, which will most likely get worse.

Rising inflation – Similar to the rising energy costs, the rising inflation around the world means that customers face price increases that impact their purchasing power. Automotive prices will steadily rise with inflation and ultimately impacting sales which will have a knock-on effect for Bosch.

Declining demand for personal vehicles – As the world becomes more urbanized and public transport networks develop, and perceptions of privately owned vehicles change as people look at more sustainable ways of living, the need to own a private vehicle has decreased sharply. More people are living in cities, and they no long require their own vehicle, as well as people putting more value in owning alternative products over owning a car. There will be a steady change in mobility over the next 20 years as habits start to evolve and cities start to improve their infrastructure.

Climate change – There is no doubt that the world is undergoing a serious climate issue, with average global temperatures increasing annually, and natural disasters

becoming a more frequent occurrence. The significant challenge with climate change is planning, and in the context of Bosch, how the company will be impacted by the changing climate. Production and manufacturing will be significantly impacted as companies will be required to adhere to tighter rules regarding climate action. Bosch has already reached its net zero target in 2020, but now must maintain its progress and start to develop new ways of working that are sustainable.

1.7 Objective of the study

The following study was conducted as part of the internship opportunity to further explore the company, the objectives of this study:

- 1. Develop a deeper understanding of the company.
- 2. Identify potential problems within the everyday operations.
- 3. Suggest a solution to the problem.
- 4. Contribute something meaningful to the company.

Chapter 2: Internship Activities

2.1 Job Description

Internship Role: Buying Intern Internship Location: Bosch Thailand Office, FYI Center, Rama IV Rd, Khlong Toei, Bangkok, 10110 Duration of Internship: 4 months (6 months in total with 2-month extension) Internship start date: 30th January 2023 Internship end date: 31st May 2023 (Extended for 2 months until 31st July 2023) Department: Purchasing Industry: Automotive

2.1.1 Department Description

The purchasing department at Robert Bosch Automotive Thailand is a small team of mixed nationalities that are responsible for all the purchasing activity in the ASEAN region. The team is comprised of five buyers who are each responsible for a material or process. Each buyer would be responsible for a set of suppliers who correspond to their specific material or process, for example a buyer would be responsible for all suppliers who produce stamped metal parts. The purchasing department is responsible for buying products to send to the Bosch plants located in the ASEAN region, including the two in Thailand, but also in Vietnam and Malaysia. The buyers are responsible for negotiating prices with suppliers and looking for new suppliers to do business with. The primary function of a buyer is to get the product at the best possible price, which is why the buyers in the purchasing department work diligently to acquire the best possible price from the most efficient way.

2.2 Job Responsibilities

As an intern in the purchasing department, it is my responsibility to support the buyers with their day-to-day tasks which centers around the handling of contracts between Bosch and the suppliers. Each supplier had up to 10 signed documents that are supposed to be correctly filed and recorded to ensure the smooth auditing in the future. The following are an overview of the responsibilities of a purchasing intern:

- A) Record contracts in the master list on excel.
- B) Download and save contracts on the shared drive for future use.
- C) Identify if there are any missing contracts from suppliers.
- D) Record missing items and keep track of them.
- E) Liaise with buyers to keep them updated with missing contracts.
- F) Send emails to suppliers requesting signed contracts or supplier information.
- G) Download updated supplier list each month and add to the master list.
- H) Present the monthly review of the contract management to management.
- I) Create monthly presentations that clearly show the contract management data.
- J) Support management with formatting presentations for events.
- K) Support management with organizing supplier visits.
- L) Support management with organizing events.
- M) Support management with booking meeting rooms.
- N) Prepare meeting rooms for events/meetings.

2.2.1 Process Diagram for Each Responsibility

a) Record contract in the master list is an important task because mistakes can be easily made and there is a small margin for error. If the dates are incorrect or there is a mistake in the input of data, then it can have significant implications when it comes to the audit as it would be an irregularity.



Figure 16 Record Contracts in master list

b) Downloading the contract and saving it to the shared drive is a way to store the documents on the Bosch shared drive so that they can be accessed easily, and they can be used for future reference. The process requires the documents to be downloaded then saved in the correct file with the correct file name format used to ensure consistency across the contract management process.



Figure 17 Download and save contracts on shared drive

c) Identify if there are missing contract from suppliers requires you to view the master list and check if the contract is missing, if so you should then try to locate the contract on either of the Bosch tools such as SRM, TLM or APN which are all global tools that Bosch uses to manage contracts between suppliers

Check supplier on master list if there is a missing contract

Try to locate contract on the various tools



If not available mark as incomplete and add to OPL tracking Send email to responsible buyer regarding missing item, buyer will investigate further

Figure 18 Identify missing contracts

 d) Record missing items and keep track of them is vital for thorough contract management and is one of the most important responsibilities of the intern, due to the nature of the contracts, they could take many months to retrieve so it is important that one person always has track of missing items.



Figure 19 Record missing items and tracking

 e) Liaising with buyers and keeping them updated is a fundamental aspect of the job because it emphasizes the need for good communication between team members. Additionally, buyers have many suppliers with many different contracts that they must be responsible for, so it is good to support them when it comes to missing contracts

Prepare information to send to buyer Write email with all the information required



Record response and update OPL

Figure 20 Liaise with buyers to keep updated with missing contracts

f) Sending emails to suppliers is important to get right and not make any mistakes as this is a forward-facing activity that is representative of Bosch, so it is best to avoid any spelling mistakes, and general administrative errors that could make Bosch seem unprepared or unprofessional.



Figure 21 Send emails to suppliers

g) Download updated supplier list from SRM, each month buyers are constantly finding new suppliers to do business with as well as ending business with current suppliers. Due to the fluid nature of the suppliers, each month the number of suppliers can differ from the previous month, so it is important that the most up-to-date list of suppliers is used.



h) Present the monthly review of the contract management to the team manager, this is important as the manager must be informed of the current situation with supplier contracts, and it is important for them to be notified of any issues regarding contract management. Each month the buyer will present the current progress of the contract management and include the data from the previous month to show the difference between each month.



Figure 23 Present monthly contract management review

i) Create monthly presentations to be used in the contract management monthly review, the presentations should be detailed but clear to understand and should include all the relevant information such as how many suppliers have completed a certain contract and how many suppliers are incomplete with a certain contract



Figure 24 Create monthly presentations

j) Support management with preparing presentations for events, this job requires collaboration between intern and management to establish what information is required on the presentations and how it should be formatted. All presentations should be formatted using the corporate design of Bosch, which includes using the correct font and the Bosch colors.

Speak with manager regarding requirements for presentation

Support with adding information and formatting

Send first version to manager for feedback

Make any changes required

Figure 25 Support management with formatting presentations
k) Support manager with supplier events such as supplier visits or meetings, this will require the meeting room to be booked and the invitation sent via outlook calendar so that all participants have it on their calendar. It also requires booking the meeting room if the meeting is located at the Bangkok office.

Send meeting invitation via Outlook calendar Check availability of meeting room and book via eRoom

Double check all the dates and times correspond to arranged

Prepare meeting room 15 mins before scheduled time

Figure 26 Support management with organizing supplier visits

 Support with organizing events such as visits from Bosch leaders, or quarterly meetings, it is essential that these events run smoothly and there are no major issues. As part of the organization, the required rooms should be booked, they should be setup and the technology should be tested as well.







Test technology such as projector and speaker Ensure all aspects of event are coordinated

Figure 27 Support management with organizing events

m) Booking meeting rooms within the Bosch Bangkok office is important as there are always many events that are being held at the office and that means that meeting rooms can quickly become unavailable if they are not booked well in advance. When sending out invitations for the event, you should book the room at the same time to avoid any issues closer to the date/time of the meeting.



Figure 28 Booking meeting room

 n) Preparing a meeting room for a meeting or an event requires the responsible person to check in to the room 15 mins before scheduled time or else the meeting room will automatically cancel and will then be available to other people. Some meeting rooms require technology to be tested and if there are external visitors, then water or coffee should be offered to the guest.

Check in to meeting room 15 mins before

Check seating layout is correct and the meeting room is clean

Bring projector screen down

Check the technology is working in the room (Connect laptop)

Get water/coffee if external guest is joining

Figure 29 Prepare meeting rooms for events/meetings

2.3 My Contribution as an Intern

As an intern I have been able to contribute to the team over the past few months, in particular my focus has been around contract management and how to streamline the process. When I started working on the contract management, there was many inconsistencies throughout the process mainly because the contract management had been passed to each intern and hadn't been maintained or updated consistently by one person. When I started working on contract management, my priority was to sort out the master list and to make sure that all data was correctly formatted following a consistent style. I hated seeing the master list have so many different values and dates formatted in different styles, therefore I wanted to standardize the process that would improve the process and make the data more reliable. For the first month I transformed the master list into what it is now and got it into a position where the data could be easily added without the need for any additional editing. Contract management has been a long running project that I have spent around 60% of my internship working on, and it is arguably the most important job that I have worked on.

My other contributions to Bosch have been various presentations which I have worked on to either format or design and add data that I have collected, many of which have been used in official Bosch events in Thailand and Germany.

Further contributions include supporting the team with activities such as team meetings, events, and visits, where I have acted as a supporting figure to ensure the activity runs smoothly.

Chapter 3: Learning Process

3.1 Learning During the Co-Op studies

I have been very fortunate to have been exposed to many new and interesting topics during my time at Bosch and that has allowed me to learn and develop my understanding in many areas. Over the 6 months I have learnt an extensive amount of information that was completely new to me, and this has also sparked an interest in automotive manufacturing, which I will look to pursue once my internship has finished.

Some of the key areas I have learned about include manufacturing processes and techniques, from a procurement perspective and from a quality perspective. Having learned a lot regarding Bosch's quality standards and how Bosch actively looks to develop their suppliers to build long standing business partnerships with them.

Procurement has been the key area I have learnt about, which has been fascinating to see firsthand experience on how buyers negotiate prices for parts and how they deal with their supplier relationships in the most effective way.

Before the internship, my understanding of the automotive industry was basic and lacked specific technical knowledge about how cars are made and the growing industry within the region. Throughout my internship I have learnt extensively about the automotive industry and have gained a real insight into what is happening in ASEAN with regards to the investments in this sector.

Some less specific knowledge that I have learnt includes general office culture and international business operations which has been incredibly valuable to me, as I start to build my experience in my career. Having spent some time working with diverse and hardworking people has been a fantastic opportunity that will be beneficial to me in the future.

3.1.1 Applying the Knowledge from the coursework

I have been able to use my prior knowledge from the coursework to support my experience at Bosch, in particular the knowledge I have picked up from courses about logistics, supply chain, production, and marketing. It is important for interns to be prepared to go into this type of experience with a basic understanding of how businesses operate, common terms and phrases and basic concepts that international businesses use. I was fortunate with having

prior working experience before doing the internship which allowed me to transition well, without too much disruption.

3.1.2 Gap in the knowledge from the coursework

Despite having a good understanding of basic terms and concepts, there was a clear gap in the knowledge from what I had learnt at Siam University and what was required as an intern at Bosch. Most of the gap in knowledge was specific to my job function, for example the coursework did not give an in-depth insight into procurement and the world of purchasing. In fact, I went into the internship having a very poor understanding of how procurement works and this is a significant gap which I feel the university can provide for future students. Furthermore, the coursework lacked information regarding manufacturing operations which in my opinion is a significant downfall given that ASEAN is a global manufacturing hub, and many students would likely pursue careers in this field. The gap regarding manufacturing is a big issue because it shows a clear downfall where the university should be fulfilling. Many students from Siam University could likely work in the manufacturing sector, and unfortunately the university doesn't prepare these students for this industry. All in all, I feel that the knowledge gap is also down to personal experience and there were areas of knowledge that I feel I am personally responsible for, topics such as market understanding and automotive concepts.

3.2 Indicate the problem noticed during the Internship

Throughout my time at Bosch, I have worked on several different projects and have maintained many various tasks that have supported the team. The consistent job I have worked on throughout my internship is contract management, which is the term used to describe checking, maintaining, storing, and recording all contracts or documents exchanged between Bosch and its suppliers. For suppliers to do business with Bosch, there is an extensive list of contracts and documents required from the supplier before they can accept business. Overall, the requirements include contracts about quality, price, and assurances from the supplier. The role of contract management is to ensure that all these items are correctly processed, are on the internal Bosch system, and are saved for easy access. In addition, contract management is designed to highlight anything missing so that the relevant responsible person can be notified, and the missing item can be processed. Contract management also includes monthly meetings with the head of the department to give an overview of the status of contract management, highlighting the missing items.

Effective contract management is vital for any organization's success, as it ensures compliance, minimizes risks, and optimizes supplier relationships. However, a significant issue emerged in the contract management project observed during my internship. Historically, the contract management task needed a designated individual responsible for overseeing and maintaining the processes, leading to inconsistencies and irregularities.

The absence of a dedicated key person has resulted in a myriad of issues within the contract management topic, leading to contracts being incorrectly stored, missing contracts being neglected, and, in some cases, contracts needing to be more present. Maintaining good housekeeping within an organization is fundamental to success, but in addition to this, the need for accountability in legal documents is essential when it comes to audits. In previous audits, the topic of contract management and missing items has been a sticking point, which means that the need for a comprehensive contract management task as an opportunity to understand the buyer's role at Bosch. The interns are typically supported by the buyers who work with the intern to ensure that all contracts are in place, and nothing is outstanding. As interns frequently rotate, the continuity of knowledge and expertise required for efficient contract management is disrupted. New interns often lack a comprehensive understanding of contractability, vital aspects such as contract review, amendment, and renewal may need the attention they deserve, leading to potential oversights, delays, or breaches.

Furthermore, each intern may approach contract management differently, resulting in inconsistent practices and methods. Critical tasks, such as ensuring contract compliance, risk assessment, and legalities, are prone to needing to be more consistently executed. This lack of consistency introduces unnecessary risks and compromises the organization's ability to manage contractual obligations effectively. Inadequate management of supplier contracts may lead to increased costs, legal disputes, damaged relationships, and reputational harm.

The irregularities stemming from the intern rotation model have profound implications for the organization. Firstly, frequent changes in the people in charge hinder establishing longterm relationships between the person overseeing contract management and the buyers. Continuity is crucial for ensuring reliability, accuracy, and full accountability. A consistent point of contact for suppliers may lead to clarity, communication, and strained partnerships, ultimately undermining the organization's competitive advantage.

The lack of accountability and ownership resulting from intern rotations can cause contractual discrepancies and oversights. Obligations and timelines may need to be noticed, leading to missed deliverables or late payments. This hampers operational efficiency and exposes the organization to legal risks and financial penalties.

3.2.1 Problem Statement

Effective contract management is crucial for organizations to ensure compliance, mitigate risks, and foster successful supplier relationships. However, the prevailing practice of entrusting intern rotations with contract management responsibilities has led to inconsistencies and irregularities. This problem statement aims to highlight the need for research to investigate the implications of the internship rotation model on contract management and explore potential solutions for enhancing the efficacy of supplier contract oversight.

The problem revolves around the need for a dedicated contract manager in the contract management project, resulting in inconsistencies and irregularities due to the intern rotation model. The recurring shift of interns assuming contract management responsibilities leads to a lack of continuity, adequate expertise, and consistent practices, ultimately jeopardizing the organization's contractual obligations and supplier relationships.

While previous studies have acknowledged the significance of contract management, there needs to be more research examining the impact of internship rotations on contract management processes. The need for research on this problem arises from several critical factors.

Firstly, the absence of a dedicated contract manager inhibits effective contract oversight, which may result in poor organization and management of critical contracts. The research will shed light on the irregularities and inconsistencies arising from the intern rotation model, providing a comprehensive understanding of their implications.

Secondly, exploring the intern rotation model's impact on contract management will highlight the deficiencies in knowledge transfer and institutional memory. The research will investigate how the lack of continuity affects understanding contractual obligations, Bosch guidelines, and compliance frameworks. By uncovering these gaps, the study will contribute to developing more effective knowledge transfer mechanisms.

Thirdly, the research will assess the long-term implications of the internship rotation model on team relationships. It will examine the impact of inconsistent practices on how buyers follow up with missing items and how the overall supplier performance is impacted. Organizations must understand these dynamics to establish stable and mutually beneficial supplier relationships.

The problem of inconsistent contract management resulting from the internship rotation model necessitates research to explore its implications comprehensively. By addressing the deficiencies and challenges associated with this model, the study will contribute to developing strategies and best practices for enhancing the efficacy of supplier contract oversight, promoting compliance, mitigating risks, and fostering successful long-term relationships.

3.2.2 How to solve problems

Solving problems in a timely and practical manner is vital for efficient operations, and Bosch encourages all its employees to work in a practical and methodical approach, in particular when solving problems. Bosch emphasizes the philosophy that all employees should see themselves as entrepreneurs and not just employees, further creating a culture where people feel empowered to make decisions and solve problems efficiently. Solving problems at Bosch requires the associates to be critical in their thinking, and to have balanced views on factors such as cost implications, time management, and quality. Bosch would rather a problem be solved to a high standard with a positive outcome regardless of how long it takes. It is important to not cut corners or miss steps out to save time, all whilst compromising on quality and Bosch's reputation.

The responsibility is on the individual to manage and oversee the problems when they occur and to make solid proposals on how to solve the problem, all whilst communicating with the key stakeholders to ensure everyone involved is informed and understands the issues at hand. Problems will always occur, and the critical aspect is how individuals can overcome problems and safeguard for the future, so problems don't continue to occur.

In relation to contract management, where problems can occur on a daily basis, it is important for key users to be efficient in dealing with problems and tackling them head on to ensure minimal impact to the buyers and suppliers alike. Such problems might not seem to bear much significance at face value but, small problems occurring often will have a detrimental effect on the overall operations in the long term.

3.3 Significance of the study

This section elucidates the significance of researching the impact of the internship rotation model on contract management. By exploring the implications of this prevalent practice, organizations can enhance their understanding of the challenges associated with intern-led contract oversight. This study holds substantial importance due to its potential to provide valuable insights. It contributes to developing effective strategies for sustainable contract management, ensuring compliance, minimizing risks, and fostering positive mindsets about the role of an intern.

The significance of this study is rooted in the existing void in the literature regarding the impact of internship rotation models on contract management. While contract management has been a subject of scholarly inquiry, the challenges posed by intern-led oversight have been largely overlooked. By delving into this underexplored domain, the research will fill a critical gap in knowledge and contribute to the existing body of literature by providing comprehensive insights into the consequences of internship rotations on contract management processes.

Understanding the implications of the internship rotation model is crucial for organizations striving to enhance contractual compliance. The study will shed light on the inconsistencies and irregularities arising from intern-led contract management, providing a comprehensive understanding of the underlying challenges. Organizations can implement targeted interventions and develop robust systems to ensure adherence to contractual obligations by identifying areas where compliance gaps occur. This research will contribute to developing best practices for mitigating compliance risks and establishing effective mechanisms for monitoring and enforcing contractual compliance.

Contractual irregularities from intern rotations pose significant risks, including potential legal disputes and financial liabilities. This study's significance lies in its potential to identify the root causes of these risks and propose measures to mitigate them. By examining the impact of inconsistent practices on contract review, amendment, and renewal, the research will inform organizations about potential areas of vulnerability. Consequently, organizations

can implement proactive risk management strategies, enhancing their ability to prevent disputes, reduce financial exposure, and maintain legal compliance.

The internship rotation model's impact on contract management extends to supplier relationships. This study holds importance as it explores the implications of inconsistent practices on supplier trust, negotiation outcomes, and overall supplier performance. Understanding these dynamics is essential for organizations aiming to build long-term partnerships with suppliers. The research will pave the way for developing strategies to foster successful and mutually beneficial relationships with suppliers, optimizing supplier selection, negotiation, and performance evaluation processes by identifying the challenges arising from intern-led contract management.

The significance of researching the impact of the internship rotation model on contract management is evident. This study's contributions will address the existing void in the literature, enhance contractual compliance, minimize risks and legal disputes, and foster successful supplier relationships. By illuminating the implications of intern rotations, the research will enable organizations to develop effective strategies for sustainable contract management, ensuring organizational success and bolstering competitiveness in today's dynamic business environment.

3.4 Literature Review

This literature review explores previous research and scholarly works related to contract management, specifically focusing on the impact of the internship rotation model. The review aims to identify existing knowledge and gaps in the literature and provide a foundation for the present research study. By examining the current understanding of contract management practices and the absence of dedicated contract managers, this review highlights the need for research on the implications of intern rotation in contract management processes.

3.4.1 Contract Management

Contract management plays a crucial role in organizations by ensuring compliance, mitigating risks, and optimizing supplier relationships. Previous research has recognized the significance of effective contract management and has explored various aspects of the process. Scholars have examined the importance of contract review and negotiation (Turner and Simister, 2001), risk assessment and mitigation strategies (Sadeghi et al., 2016), and the role of technology in streamlining contract management processes (Saxena, 2008).

However, there needs to be more literature concerning the impact of intern rotation models on contract management. Most studies have focused on contract management practices within the context of established contract managers or specialized contract management teams. The absence of research on intern rotation in contract management creates a void in understanding this practice's specific challenges and implications.

3.4.2 Internship Rotation Model

The internship rotation model, where different interns assume contract management responsibilities for limited periods, presents unique challenges in maintaining consistent contract oversight. While internships provide valuable learning opportunities, the frequent rotation of interns can disrupt continuity, knowledge transfer, and consistent practices.

Research investigating internships has primarily focused on their impact on individual learning and development (Anjum, 2020) or their contribution to organizational knowledge transfer (Piterou and Birch, 2016). However, little attention has been given to the specific implications of intern rotations in contract management. This gap in the literature highlights the need to examine the impact of intern rotation on contract management practices and outcomes.

3.4.3 The Need for Research

The absence of research on the impact of intern rotations on contract management poses significant risks and challenges for organizations. The internship rotation model may result in consistent practices, knowledge gaps, and adequate contract oversight. These issues can lead to compliance breaches, increased costs, legal disputes, and damaged supplier relationships.

Organizations can gain valuable insights to inform their practices and decision-making by researching the implications of intern rotation in contract management. Understanding the challenges and risks associated with intern-led contract management will enable organizations to develop effective strategies, optimize knowledge transfer, enhance compliance, and foster successful supplier relationships. Furthermore, research in this area will contribute to advancing contract management knowledge. By exploring the specific impacts of intern rotation, researchers can identify best practices, develop guidelines, and propose recommendations for organizations to improve contract management processes.

The literature review highlights the existing knowledge of contract management practices, emphasizing the need for more research on the implications of intern rotation models. While contract management has been studied extensively, the specific challenges posed by intern-led oversight have yet to receive adequate attention. The gap in the literature underscores the significance of the present research study, which aims to explore the impact of intern rotation on contract management processes, identify challenges and risks, and propose strategies for enhancing contract oversight and compliance. By addressing this gap, the research will contribute to advancing contract management knowledge and provide valuable insights for organizations seeking to improve their contract management practices.

3.5 Methodology

A qualitative approach was taken to understand further the buyers' needs and requirements in the context of contract management. For the research, informal semi-structured interviews were conducted with the buyer team to identify the current system's limitations and highlight potential improvements to be made.

Using interviews to collect research was based on gaining valuable information from the team's experience and opinions. Utilizing the team's understanding of the process will significantly benefit the study and further develop the research outcome. Using qualitative research methods such as interviews enables rich data collection and analysis, providing nuanced insights into the topic.

The questions used for the interview were taken from the literature, where related research studies were analyzed. The questions focused on four topic areas; firstly, the contract management process overall; second, the role of the intern and the impact of intern rotation; third, the limitations of the current system and lastly, any suggestions to improve the process. Further questions were also asked to identify demographic/contextual information such as length of service and specific role within the company.

The data were analyzed to determine potential improvements that should be made to contract management. Further study should be conducted to understand the implications of intern rotation and how this can be disruptive to the process.

3.5.1 Sample and Participants

The sample for this study consisted of five participants who are members of the buyer's team within the organization. The selection of participants is based on their direct involvement in contract management activities, ensuring their first-hand knowledge and experience in the subject matter. As buyers play a crucial role in contract management, their perspectives and insights are vital for understanding the current challenges and opportunities for system improvement.

A purposive sampling approach was employed. This approach ensures that individuals with relevant expertise and experience in contract management are included in the study. Participants were invited to participate in the research, emphasizing the voluntary nature of their participation and their right to withdraw at any point without consequences. Including participants from the buyer's team ensures that the study captures insights from individuals directly involved in contract management, enhancing the relevance and applicability of the findings.

3.5.2 Data Collection

Data was collected through semi-structured interviews with the five selected participants. The interviews were conducted one-on-one, allowing participants to freely express their opinions, experiences, and suggestions for contract management and system improvements. The informal interviews were recorded via meeting minutes to ensure accurate data capture and minimize the risk of data loss or misinterpretation.

The interviews followed a semi-structured format, combining pre-determined openended questions and allowing participants to elaborate on their responses. This approach enables consistency across interviews, allowing participants to provide detailed and personalized insights. The interview questions covered various aspects of contract management, such as challenges, current practices, and suggestions for system improvement. The questions were pilot-tested to ensure clarity, comprehensibility, and relevance. The interviews were conducted in a comfortable and relaxed environment to facilitate open and candid discussions, respecting participants' privacy. Each interview lasted approximately 10 minutes, providing sufficient time for participants to share their in-depth perspectives. The researcher adopted an attentive and non-directive approach during the interviews, actively listening and probing for further clarification or elaboration when necessary.

Additionally, the researcher kept detailed field notes during and after each interview, capturing observations, non-verbal cues, and contextual information. These field notes supplemented the meeting minutes and provided valuable insights during data analysis.

Ethical considerations were ensured throughout the data collection process. Informed consent was obtained from participants, clarifying the purpose, procedures, and potential risks and benefits of participation. Participants were assured of confidentiality, and all personal identifying information will be kept separate from the research data.

3.5.3 Questions for Interviews

The informal interviews will be based on 5 key questions which were the theme of the discussion. The 5 questions are as follows:

- Q1. Do you think contract management is important to have?
- Q2. What do you think of the current contract management process?
- Q3. What do you think is wrong with the current contract management process?
- Q4. What impact do you think intern-rotation has on contract management process?
- Q5. Do you have any suggestions to improve the contract management process?

These questions were asked in a discussion format, where I started with a question, and then both me and the participant would discuss it back and forth, with each question taking around 2 minutes to discuss.

3.6 Results

The feedback was analyzed based on the interviews conducted with the participants, and a proposal was drawn up based on the results.

Having spoken with all the members of the team, the following summary was established:

Overall, the participants unanimously agreed that contract management was necessary for their job, stating that having some form of contract management adds significant value to their roles and provides some peace of mind regarding their daily operations. When asked if they believe it is good practice to have such a system in place, all the participants categorically believed it was good practice and could only be seen as having a positive impact.

The participants were then asked about their opinion of the current system and to mention the points they believe work well. The participants gave mixed feedback regarding the current system, with half of the group saying it was efficient and functional. In contrast, the other half of the group said it worked but could be more effective. Some of the key highlights of the system were that it was easily accessible and information was collated in one single source, allowing for easier data retrieval.

Each participant was then asked to identify the limitations of the contract management system, with many participants offering similar limitations to each other. The most significant limitation of all the interviews was the need to automate the collection and recording of the data. Each participant stressed that the current system has too many manual inputs and requires the user to manually collect, record and present the data, exposing the contract management system to human error. The participants said that therefore the contract management system has become so inaccurate over the years; with too much manual input, the reliability of the data is impacted. Further limitations are that the system could be simpler for first-time users. Having such a complicated system in place can cause inefficiencies and lead to the users needing more motivation to work on the system when so much work is required.

The participants noted the impact of intern rotations and how this had negatively impacted the process, mainly through input irregularities and manual involvement. Interestingly, some participants mentioned that it could be difficult for new interns to pick up the process and start working on it immediately with limited training. Some previous interns needed help understanding the specific policies and criteria required to make decisions for contract management. All participants agreed that one key user overseeing the system is vital but stressed that contract management is still a manageable task for interns. However, a robust handover and knowledge transfer should be implemented to ensure a timely transition for each intern.

The final topic the participants discussed was their suggestions for the process going forward. All participants suggested the need for a dedicated individual to maintain the process rather than the intern rotation model used previously. Other suggestions included the design of an automated spreadsheet that could be linked to the data source and provide live information and auto-update when new contracts are received. The suggestions were based on automating the process and requiring a pivotal user to oversee the system so that it can be managed by a long-term employee who knows the ins and outs of the system.

3.6.1 Solution

After carefully analyzing the interview minutes, the need to evolve and improve the contract management system is required, and significant attention is needed to ensure the process is managed better to ensure long-term success.

The following proposal highlights four areas of improvement that could be implemented in the contract management system:

1. Determine a key person who will oversee and be the person in charge of the contract management system - this person should be given the authority and responsibility, and all inputs should go through the person in charge.

2. Provide an improved training program for new starters which will highlight all the critical information about contract management and give a detailed orientation into how the process works, how data can be collected and how data should be inputted.

3. Start to develop an advanced automation process that will allow data to be automatically transferred from the data source to the live spreadsheet to provide consistent and reliable information with minimal human input.

4. Use Power BI to present the data each month, which will require very little human input, as all the data will be synchronized with the Power BI system and automatically display the changes.

Chapter 4: Conclusions

4.1 Summary of Internship

Bosch provides a comprehensive, practical, and extensive internship program, where interns can develop the skills and learn a wide range of knowledge areas, whilst gaining valuable experience in an international business environment. The internship has been 6 solid months of working within the purchasing department based in Bangkok, Thailand, where I have been able to work under the director of purchasing for ASEAN. During my time I have had the opportunity to visit supplier plants, Bosch plants, conduct meetings with suppliers, and spend time with many different functions within Bosch Thailand. I have had various projects to keep me busy during my internship and have been able to deliver solid results and contribute to the company in a meaningful way.

4.1.1 Self-Assessment of the Experience

The work has been challenging and rewarding, as I have navigated the workload in an independent and efficient manner. Although I feel that overall, I have worked well, I do feel that I could have been more successful in this role had I been more confident in myself. Particularly in the first 3 months I wasn't making decisions effectively or managing my work in a way that was to a high enough standard. As well as this, I struggled to prioritize my workload so that the high priority projects were completed first and the least priority were pushed to a more convenient time. However, I feel that the last 3 months of the internship I was able to be more relaxed in the role, and therefore I was performing at a much better standard. I feel now the internship is coming to an end, I am very confident in my job role, and I feel that I can make decisions more effectively and with better conviction. In addition to this, I feel that I understand the requirements better now, and this is helped when it comes to managing expectations and delivering on what is expected of me. I feel I have contributed my ideas in a concise manner, and this has been well received by the team. I have also tried to implement many new processes which I believe will be of benefit to Bosch.

4.1.2 Limitations of my Experience

It is hard to identify any limitations with my experience as I have really enjoyed the internship at Bosch and overall, it has been a massive success, with very few limiting factors. The handover between me and the previous intern did not happen as the previous intern left abruptly and wasn't able to transfer the knowledge to me, which meant the first month I was struggling to grasp some of the concepts and processes. This was the only significant limitation of the experience.

4.2 Recommendation to Bosch

Bosch's internship program is a well-oiled machine that has been producing interns for several years, with a strong track record of providing a meaningful experience for students in a challenging but exciting environment. A recommendation I would give to Bosch is that purchasing interns should be provided a more in-depth training of the buyer role, and this means spending some time learning about negotiation techniques and how buyers get the lowest prices.



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Appendix

Daily Diary (Signed by Internship Supervisor):

Wk. 1 / 2

Internship Company: Robert Bosch Automotive 🙌 BOSCH 🛛 Department: Purchasing 🛛 Intern Name: Max Radford Student ID: 6308000001

Week: 1 Monday (30/01/23) Tuesday (31/01/23) Wednesday (01/02/23) Thursday (02/02/23) Friday (03/02/23) Work from home -First day started with -Start getting familiar with the -Start to collect video files from No work: ATTEND UNIVERSITY EVERY -Start work on the video. buyer's job role. introduction and an overview of previous intern so that I can THURSDAY -Download all necessary video the internship. -Begin learning acronyms for start working on video project. Bosch. content to include in the ASEAN -Office tour and meet with the -Further progress with the -Meet with k.Dirk to discuss the overview video. team. presentation slides for M/PU video project, liaise with -Start editing the video and -Meet with k.Dirk (Internship Visit. previous intern regarding the collating the content. supervisor) to discuss some -Meet with k.Dirk regarding the video progress. -Teams meeting with k.Dirk to upcoming projects. schedule for the M/PU visit. -Help setup team meeting. -Make amendments to M/PU check status update on video. make necessary changes to the (Saturday 04/02 – Worked -Start working on presentation schedule and finalise details. schedule and submit. for M/PU visit. Complete Web Based Training. -Complete Web Based Training. from Home to get started on presentation for M/PU Visit)

Week: 2				
Monday (06/02/23)	Tuesday (07/02/23)	Wednesday (08/02/23)	Thursday (09/02/23)	Friday (10/02/23)
-Continue to work on editing video for M/PU Visit. -Meet with k.Dirk to update on video progress. -Discuss presentation progress and get feedback. -Make additional changes to video. -Help setup team meeting. -Assist buyers with Contract Management tasks.	-Continue to work on editing video for M/PU Visit. -Further editing on the presentation slides. -Meet with k.Dirk to discuss the schedule for the M/PU visit. -Research information for Video and Presentations.	-Continue to work on editing video for M/PU Visit. -Continue working on presentation slides for M/PU visit. -Meet with team members to discuss the process of contract management and audits. -Meet with k.Dirk to discuss the M/PU visit.	No work: ATTEND UNIVERSITY EVERY THURSDAY	-Liaise with team regarding fina arrangements for M/PU Visit. -Work on finalizing the ASEAN video ready for M/PU visit next week. -Meet with k.Dirk to discuss final adjustments to the video and presentation for M/PU.

Internshin Supervisor

Internship Supervisor Comments:

Max has settled in quickly and has made good progress with the tasks assigned to him. He has shown good motivation and has been able to complete the tasks in a timely manner, showing accountability when taking on the responsibilities of his role.

Now I would like to see Max start to further his knowledge in the business areas of Bosch and start to develop his understanding of the purchasing role, Max should collaborate with his team members to expand the knowledge in certain areas.

Figure 30 Internship Daily Diary 1 and 2

APAC, APAC, Digitally signed by pki, BOSCH, APAC, D. I, Dirkophon

Internship Company: Robert Bosch Automotive 🕀 BOSCH	Department: Purchasing	Intern Name: Max Radford	Student ID: 6308000001

	-			
Week: 3				
Monday (13/02/23)	Tuesday (14/02/23)	Wednesday (15/02/23)	Thursday (16/02/23)	Friday (17/02/23)
-Make final amendments to the	-Final adjustments to both video	-Get ready for M/PU visit at BKK	No work:	-Feedback on M/PU visit and
video and send to k.Dirk for	and presentation and then	office and finalise all the details	ATTEND UNIVERSITY EVERY	start writing article for M/PU
final review.	finalise all the details for the	regard the team event.	THURSDAY	visit.
-Make final amendments to the	team event.	-Set up the meeting room for		-Send first version of the article
video and send to k.Dirk for	-Organize team dinner and	team event and test all		to k.Dirk for review.
final review.	finalise plans for the food.	technology works.		-Start working on Power BI
-Liaise with HmjP team	-Speak with PUR team members	-Liaise with team members		system and practice using EV
regarding M/PU presentations.	regarding the schedule for the	regarding the schedule for		dataset.
-Design welcome board for	M/PU visit.	M/PU visit.		-Teams meeting with k.Dirk to
M/PU.	-Collect all presentations from	-Conduct M/PU visit and		discuss plans for India/Germany
-Help setup team meeting.	stakeholders and ensure	support functions with		visit.
_	technology works.	presentations.		-Start working on updating
		-Team dinner		figures for 2022.

Internship Supervisor Dirk Uphoff Dete: 2023.02.24 12-47 Jirk Uphoff Week: 4 Monday (20/02/23) Tuesday (21/02/23) Wednesday (22/02/23) Thursday (23/02/23) Friday (24/02/23) -Continue to update figures for -Make all the necessary Continue to edit the master -Continue to work on SRM and No work: 2022 and make amendments to ATTEND UNIVERSITY EVERY version of supplier list so that it amendments to the PUR vol contract management, focus on presentation slides. is ready for afternoon team THURSDAY presentations. updating supplier lists and -Teams meeting with k.Dirk to meeting. -Ensure that all the formatting is double check document discuss the presentations -Finish writing article for M/PU correct and there are no uploads. visit and send to k.Dirk. needed for India trip. irregularities. -Work on TLM and APN to -Help setup team meeting -Follow up contract -Format contract management locate COL and APN. -Support k.Dirk with India visa. management from yesterday. master list. -Complete admin for internship. -Start working on SRM and -Finalize the presentations for -Prepare Contract Management contract management. both ASEAN overview and PUR for Wednesday team meeting. -SRM training session with team Volumes -Edit Master version of supplier

Internship Supervisor Comments:

list and ensure it is consistent.

to get overview of contract

management.

Max worked well to ensure the M/PU ASEAN visit was a success and was able to demonstrate good organization skills and strong communication skills with the various business functions. Max has been able to work on various tasks assigned to him and has shown a willingness to learn.

Max should now focus on developing his understanding of the Purchasing role, looking specifically at contract management and the importance of thorough processes for recording supplier contracts. Over the next two weeks I would like to see Max work more independently and liaise with his team members.

Figure 31 Internship Daily Diary 3 and 4

Dirk Uphoff Dirk Uphoff

DSCH. APAC

Date: 3

Internship Supervisor

Wk. 5 / 6

Week: 5

Internship Company: Robert Bosch Automotive 🕅 BOSCH

ch Automotive 🕅 BOSCH Department: Purchasing

asing Intern Name: Max Radford

Student ID: 6308000001

Monday (27/02/23)	Tuesday (28/02/23)	Wednesday (01/03/23)	Thursday (02/03/23)	Friday (03/03/23)
-Continue to work on the contract management. -Amend all the irregularities in the master list and investigate any issues. -Download all the contracts and save them in the relevant folders for future use. -Help support team meeting. -Liaise with team members regarding 1 to 1 catch up for contract management.	-Continue working on contract management. -Amend any irregularities in the master list and continue to investigate any outstanding contracts. -Further knowledge on contract management process and start to design workflow and process chart for SRM. -Meet with team members for 1 to 1 catch up ref CM	Out of the Office Supplier Visit to Chonburi and Samut Prakan Great experience visiting supplier of injection molding production. Was able to sit in discussions between Bosch and supplier and gained valuable experience. Experienced the production in action which was interesting and insightful.	No work: ATTEND UNIVERSITY EVERY THURSDAY	Work on completing the presentations ready for Dirk's trip to Germany. Liaise with Dirk regarding the final amendments of the presentations and conduct final checks of all the data. Work with k.Myn on contract management in 1 to 1 meeting and establish game plan for future process.
Week: 6				
Monday (06/03/23)	Tuesday (07/03/23)	Wednesday (08/03/23)	Thursday (09/03/23)	Friday (10/03/23)
No work: Public Holiday	No work: Holiday	Continue working on contract management and meet with k.Tik to discuss suppliers. Work on APN and liaise with k.Pook regarding the APN process. Update suppliers contact list and send out to buyers to ensure contact details are updated.	No work: ATTEND UNIVERSITY EVERY THURSDAY	Support buyers with updating supplier contact list so that emails can be sent out directly to suppliers next week regarding COL Annexures. Continue to work on the contract management list and speak with k.Pook regarding plan for COL Annexure next week.
Internship Supervisor Comme		Internship Supervisor:	pki, BOSCH, APAC, Digitally signed by pki, D, I, Dirk.Uphoff Dete: 2023.03.27 141	BOSCH, Dirk Uphoff

Max has worked well to make good progress with the contract management project that he is responsible for. He has worked well with his team members to come up with solutions for recording contracts and has shown a willingness to learn about the processes of a buyer at Bosch. Max joined buyers on a supplier visit, where he gained valuable experience in manufacturing and production. Max now needs to improve his knowledge in key areas and should start learning how to work with the OneControlling system.

Figure 32 Internship Daily Diary 5 and 6

Wk. 7 / 8

Internship Company: Robert Bosch Automotive 🕀 BOSCH

Department: Purchasing Intern Name: Max Radford

Student ID: 6308000001

Week: 7	1			
Monday (13/03/23)	Tuesday (14/03/23)	Wednesday (15/03/23)	Thursday (16/03/23)	Friday (17/03/23)
Work on the L-drive contract download checklist and improve the current process for contract download. Store all files on the L-Drive and then mark complete on the checklist. Liaise with team about gameplan for COL Annexures moving forward and draft an email template to send to suppliers. Help setup team meeting and discuss plans for audit.	Start working on preparing the presentation for team contract management meeting on 29/03 and start to collate the information needed for team meeting tomorrow. Prepare the contract management master list so that all missing items can be discussed with team. 1-to-1 meeting with k.Geet to discuss supplier missing contracts.	Prepare contract management master list for team meeting. After team meeting, send out email to all buyers regarding APN risk assessment and request work-on numbers to close on master list. Refresh OPL tracking sheet and update all OPLs, ensuring that outstanding OPLs can be closed. Confirm details for COL annexure plan.	No work: ATTEND UNIVERSITY EVERY THURSDAY	Continue to work on OPL tracking list, follow up with buyers regarding missing items and ensure that all buyers are aware of missing items. Update contract management list and ensure OPLs are closed after action has been completed. Continue to work on the presentation for contract management.
Week: 8				
Monday (20/03/23) Help setup team meeting and discuss plans for the week. Support Dirk with meeting with Bosch associate looking to do placement in Thailand. Download updated supplier list and cross-reference with the master sheet. Complete contract check on new suppliers and follow up with buyer regarding missing items.	Tuesday (21/03/23) Prepare presentation for contract management meeting on Wednesday. Continue to work on the OPL list and adjust when missing contracts are received. Update contract management master list and download all contracts to the shared drive so that they can be easily accessed. Get access to OneControlling system for data analysis.	Wednesday (22/03/23) Prepare for contract management meeting with team at 10am. During the meeting discuss the plan for contract management, go through all OPLs and missing items and establish a method for tracking missing contracts. Start sending out emails to suppliers regarding COL annexures and liaise with buyers once that is completed.	Thursday (23/03/23) No work: ATTEND UNIVERSITY EVERY THURSDAY	Friday (24/03/23) Continue to email suppliers regarding COL annexures and keep track of all incoming signed contracts to update OPL and master list. Work on OPL list, email buyers and support them with any missing items. Complete OneControlling training.
Internship Supervisor Comme	nts:	Internship Supervisor:	pki, BOSCH, APAC, APAC, ArAc, D. (. Distanty signed by pki, ArAc, D. (. Disk. Lighted D. I., Dirk. Uphoff 	Dirk Uphof BOSCH, HO

Max has shown improvement in his knowledge of the procedures of a buyer and has worked independently to achieve the tasks assigned to him. The work Max has contributed has been good and he has shown that he has good attention to detail and logical thinking. Between now and the Songkran break, I would like to see Max step into a more supportive role, by helping to organize meetings, support with supplier visits and support team events.

Figure 33 Internship Daily Diary 7 and 8

Internship Company: Robert Bosch Automotive 🕅 BOSCH Department: Purchasing

Intern Name: Max Radford

Student ID: 6308000001

Max has made good progress in his knowledge of contract management, supporting his colleagues well with this topic, he has started to contribute his own ideas to the process and has been able to take responsibility for missing items. I would like to see Max start to develop his understanding of vital Bosch systems such as One Controlling BI.

Figure 34 Internship Daily Diary 9 and 10

Wk. 11 / 12

Week: 11 Monday (10/04/23) Tuesday (11/04/23) Wednesday (12/04/23) Thursday (13/04/23) Friday (14/04/23) Songkran holiday Songkran holiday Songkran holiday Songkran holiday Sonekran holiday Office closed Office closed Office closed Office closed Office closed Week: 12 Monday (17/04/23) Tuesday (18/04/23) Wednesday (19/04/23) Thursday (20/04/23) Friday (21/04/23) Work on Org presentation and Chase up all OPL tracking points No work: Update M/PU visit article and Update all the OPL tracking list prepare slides for initial version. and ensure that we have an ATTEND UNIVERSITY EVERY publish on the BBM community and move the old actions into Continue to send out email to updated response from buyers THURSDAY page. the OPL log. Send out email to all suppliers regarding missing going forward. Continue to work on contract all buyers regarding updated items and record all email Start working on presentation management and follow up for Contract management status on their respective OPLs. replies. Liaise with team with suppliers who have monthly review. Check up contract management members regarding contract responded to email. updated, as well as include management plan for next Attend training for PQT waste Speak to central team regarding CoCBP, Turnover and week and get some feedback COCBP list. topic. Headcount. Start sending out for OPL tracking. Improve presentations based on email to all suppliers regarding Work on preparing SUBCON Dirks input. posters ready to be printed next missing turnover/headcount. Prepare conceptual plan for Support with team meeting. video recording session next week. week. Internship Supervisor: Dirk Uphoff pki, BOSCH, APAC, Digitally signed by pki, BOSCH, D, I, Dirk.Uphoff Internship Supervisor Comments:

Intern Name: Max Radford

Student ID: 6308000001

Internship Company: Robert Bosch Automotive 🕀 BOSCH Department: Purchasing

Max has worked well to maintain contract management, but I would like to see him start to focus more on key topics such as ASEAN presentations and videos. Max should further develop his skills when it comes to prioritizing projects, in particular projects that have tight deadlines. I would also like to see Max work more independently with his projects, rather than just wait for instruction, he should prepare a proposal of his own ideas instead.

Figure 35 Internship Daily Diary 11 and 12

Wk. 13 / 14

Internship Company: Robert Bosch Automotive 🕅 🛚	OSCH Department: Purchasing	Intern Name: Max F

Week: 13 Monday (24/04/23) Tuesday (25/04/23) Wednesday (26/04/23) Thursday (27/04/23) Friday (28/04/23) Support with setting up the Further work on the monthly Prepare for the filming of the No work: Start to work on the PowerPoint meeting room for team contract management review project later in the afternoon. ATTEND UNIVERSITY EVERY presentations for GLS meeting meeting. and ensure that all buyers are Ensure that all aspects of the THURSDAY and Impulse talk. Work on video Start working on the aware of missing items. Set up video are accounted for and and prepare headlines. presentation for the end of plan for filming the video ready for film session. Send emails out to all buyers month contract management project for Voices of the Present monthly contract regarding updated info from the meeting on Wednesday. Regions project. management review and get contract management meeting. Prepare proposal for Voices of Book meeting rooms and feedback on it. the Regions VDO and start Film the project voices of the ensure that all participants are collecting materials. aware and can schedule time on regions. Work on SUBCON posters. Wednesday. Week: 14 Tuesday (02/05/23) Wednesday (03/05/23) Thursday (04/05/23) Monday (01/05/23) Friday (05/05/23)

Radford

Student ID: 6308000001

Public Holiday OFFICE CLOSED			Thursday (04/05/23)	Friday (05/05/23)
	Support setup for team meeting. Work on video and presentation and continue to monitor contract management. Focus on the VDO.	Continue to work on VDO and presentation.	No work: ATTEND UNIVERSITY EVERY THURSDAY	Continue to work on VDO and presentation.
		Internship Supervisor:	pki, BOSCH, APAC, D, I, Dirk.Uphoff	Dignely signed by pic, BOSCH, APAC, D. J. Disk Uphoff Date: 2020/05/20 1454/24 407007

Figure 36 Internship Daily Diary 13 and 14

Wk. 15 / 16

Internship Company: Robert Bosch Automotive 🕅 BOSCH Department: Purchasing

	1			
Week: 15				
Monday (08/05/23)	Tuesday (09/05/23)	Wednesday (10/05/23)	Thursday (11/05/23)	Friday (12/05/23)
Prepare for SUBCON event on Wednesday, get all the required items ready and start to prepare checklist. Liaise with team regarding SUBCON plan and discuss travel plan for Tuesday supplier visit. Support with team meeting.	Continue to work on the presentations in the morning and then prepare to take required items to SUBCON event. Visit supplier in the afternoon to present conclusion of Lean project.	Not in the office @ SUBCON	Not in the office @ SUBCON	Continue to work on presentations and videos. Further working on the presentation and VDO project
Week: 16 Monday (15/05/23)	Tuesday (16/05/23)	Wednesday (17/05/23)	Thursday (18/05/23)	Friday (19/05/23)
Continue to work on	Continue to work on	Continue to work on	Continue to work on	Continue to work on
presentations and videos. Further working on the presentation and VDO project.	Presentations and videos. Further working on the presentation and VDO project.	presentations and videos. Further working on the presentation and VDO project.	presentations and videos. Further working on the presentation and VDO project.	presentations and videos. Further working on the presentation and VDO project
Support with team meeting.				
Internation Communication		Internship Supervisor:		Dirk Upho
Internship Supervisor Comme		Carson	pki, BOSCH, APA D, I, Dirk.Uphoff	AC, APAC, D.I, Disk Upheff Date: 2023.05.26 14:54:42 40700

Intern Name: Max Radford

Student ID: 6308000001

Max has a good work ethic, and has shown his commitment to the internship by producing some good results with his projects, but still needs to learn to prioritize work properly and execute his work to a higher standard.

Figure 37 Internship Daily Diary 15 and 16

Internship Supervisor Feedback:

Wk 1 / 2:

Max has settled in quickly and has made good progress with the tasks assigned to him. He has shown good motivation and has been able to complete the tasks in a timely manner, showing accountability when taking on the responsibilities of his role. Now I would like to see Max start to further his knowledge in the business areas of Bosch and start to develop his understanding of the purchasing role, Max should collaborate with his team members to expand the knowledge in certain areas.

Wk 3 / 4:

Max worked well to ensure the M/PU ASEAN visit was a success and was able to demonstrate good organization skills and strong communication skills with the various business functions. Max has been able to work on various tasks assigned to him and has shown a willingness to learn.

Max should now focus on developing his understanding of the Purchasing role, looking specifically at contract management and the importance of thorough processes for recording supplier contracts. Over the next two weeks I would like to see Max work more independently and liaise with his team members.

Wk 5 / 6:

Max has worked well to make good progress with the contract management project that he is responsible for. He has worked well with his team members to come up with solutions for recording contracts and has shown a willingness to learn about the processes of a buyer at Bosch. Max joined buyers on a supplier visit, where he gained valuable experience in manufacturing and production. Max now needs to improve his knowledge in key areas and should start learning how to work with the OneControlling system.

Wk 7 / 8:

Max has shown improvement in his knowledge of the procedures of a buyer and has worked independently to achieve the tasks assigned to him. The work Max has contributed has been good and he has shown that he has good attention to detail and logical thinking. Between now and the Songkran break, I would like to see Max step into a more supportive role, by helping to organize meetings, support with supplier visits and support team events.

Wk 9 / 10:

Max has made good progress in his knowledge of contract management, supporting his colleagues well with this topic, he has started to contribute his own ideas to the process and has been able to take responsibility for missing items. I would like to see Max start to develop his understanding of vital Bosch systems such as One Controlling BI.

Wk 11 / 12:

Max has worked well to maintain contract management, but I would like to see him start to focus more on key topics such as ASEAN presentations and videos. Max should further develop his skills when it comes to prioritizing projects, in particular projects that have tight deadlines. I would also like to see Max work more independently with his projects, rather than just wait for instruction, he should prepare a proposal of his own ideas instead.

Wk 15 / 16:

Max has a good work ethic and has shown his commitment to the internship by producing some good results with his projects, but still needs to learn to prioritize work properly and execute his work to a higher standard.

Employee ID Card:



SUBCON Event:





Siam University visit Bosch:



Max Radford



Background Info

- Born 17th October 1997
- British National

Relevant Skills

- Punctual
- Leadership and Management
- Goal oriented
- Problem solver
- Team player
- Eagerness to learn

Language Skills

- English: Native Speaker
- Thai: Basic Conversation

Contact

Address:

18/271 Wish @ Samyan, Si Phraya, Bang Rak, Bangkok 10500, Thailand. **Phone:** +66 (0)643045231 **Email:** Maxradford88@gmail.com

Resume

Career Objectives

A determined individual with a strong work ethic and positive mindset. Experienced in various sectors, with a track record of working in a leadership role. An International Business Graduate and engaged individual with an eagerness to learn and apply myself to various positions I am put in. Strong focus on management and leadership but enjoy the participation in working with others.

Work History

- EFL Teacher (April 2019 May 2020) Tawaranakul School, Samut Songkhram, Thailand
- Warehouse Assistant Manager (Sept 2016 Feb 2019) John Lewis Swindon Outlet, UK
- Sales Assistant / MGMT Apprentice (Sept 2015 Sept 2016)
 John Lewis Cribbs Causeway, UK
- Construction Site Labourer (May 2014 Sept 2015) Refresh LTD, UK
- Kitchen Porter / Dishwasher (2010 2012)
 Maples Restaurant, UK

Educational Background

- BBA Bachelor of Business Administration, International Business
 Siam University, Thailand (June 2020 Present)
- A Level Education
 Cirencester College, UK (Sept 2013 April 2014)
 GCSE High School Education
 - Malmesbury Secondary School, UK (Sept 2008 June 2013)

Certificates and Courses

- GED High School Equivalent Exams
 GED High School Equivalent, Thailand (June 2020 Sept 2020)
- TESOL Certificate and Teacher Training
 - XploreAsia, Thailand (March 2019 April 2019)
- Business Management Apprenticeship

John Lewis Apprenticeship Programme, UK (Sept $\frac{2015}{70}$ – Sept 2016)