

A Work Project, presented as part of the requirements for the Award of a Master's degree in
Management from the Nova School of Business and Economics.

BUSINESS IN PRACTICE:

**A PERFORMANCE ANALYSIS OF EVON'S STRATEGIC TRANSITION TO
ELECTRIFICATION AND INTERPERSONAL DYNAMICS**

ANN-CATHRIN HUMMEL

Work project carried out under the supervision of:

João Loureiro Rodrigues

10/09/2024

Abstract

Business in Practice was a three-week program, challenging students to manage an automotive company amid the industry's shift toward sustainable technologies. The program centered on intensive collaboration within diverse, cross-functional teams. By integrating academic sessions, workshops, and role plays, the simulation enhanced the understanding of business operations and strategy execution, effectively preparing students for their professional careers. This dissertation will connect academic theories to simulation events, personal behaviors, and team dynamics, highlighting the advantages of hands-on learning.

Keywords

Sustainability, Automotive Strategy, Business Simulation, Electrification, Team Dynamics, Interdependencies across Business Functions

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

1. Introduction

The Business in Practice (BiP) program was an intense three-week experience where teams of seven students managed an automotive company, focusing on ESG, sustainability, and the transition to electric vehicles (EV). The aim was to replicate the challenges of running a global company, providing us with opportunities to apply theoretical knowledge and improve our practical skills through the development of a comprehensive business strategy. Through simulations, academic sessions, and workshops, we gained an extensive understanding of business operations. As the head of operations, I managed our company's operational activities, gained insight into all business functions, and significantly improved my team collaboration skills.

2. Company Analysis

In this section, a detailed analysis of Evon's performance will be conducted, focusing on the roles of strategy, operations, and finance, followed by key learnings and an integrated view across functions. The analysis will utilize relevant frameworks and data from the simulation and comparisons with real-life car manufacturers will be included to make the findings more realistic.

2.1. Company Overview

Evon is a global automotive company dedicated to making EVs accessible for everyone. Previously focused on combustion vehicles, Evon is now committed to sustainability and transitioning to an all-electric lineup to align with current industry trends. Accordingly, the company's purpose is to transform the automotive industry by creating innovative and accessible EVs, aiming to reduce the world's dependence on fossil fuels and promote a cleaner planet. The mission focuses on delivering features desired by customers across the US, Europe, and China at a competitive price point, within a wide selection of vehicle types. Along with its values of quality, innovation, and customer-centricity, Evon strives to deliver exceptional customer experiences.

2.2. Strategy

Strategy is about positioning an organization for sustainable competitive advantage, with the goal being to create value for shareholders and other stakeholders by providing customer value (Abraham 2012). A company's strategy is the plan of action to help a company achieve its goals and objectives (Wienclaw 2021). In this section, Evon's strategy will be discussed, including its planning, an analysis of the external and internal environments, followed by a business model breakdown and a summary of the strategy execution.

2.2.1. Strategic Planning

Strategic planning is the first phase of strategic management, followed by implementation and evaluation (Mohamed and Basar 2023). It involves a deliberate approach to strategy development, encompassing the analysis of the organization's objective, the definition of mission and values, and the examination of both internal and external environments (Hong and Jiminez 2024). Additionally, it acts as the core of strategic management, linking managerial and operational planning to develop strategies that secure a competitive edge (Simerson 2011).

The Strategic Diamond framework was fundamental in formulating Evon's strategy (*see figure 1*). Arenas focused on production in the USA, China, and Europe, targeting diverse customer segments with a wide product range. The company differentiated itself through high-quality, innovative vehicles and superior technology. Phased introduction of new EVs, with ongoing technology and HR investments, ensured a smooth transition to an all-electric lineup, while maintaining a strong customer base. The economic logic behind these actions emphasized competitive pricing and leveraging early innovations for sustainable advantage.

2.2.2. External Analysis

The goal of an external analysis is to comprehend the dynamics of the company's operating environment and anticipate future changes (Abraham 2012). The automotive industry is currently experiencing a shift from combustion vehicles to EVs, driven primarily by evolving market trends, diffusion of advanced technology and new competition (Gao et al.). Rising climate concerns, more “widely enforced regulations and stakeholder pressure are pushing the automotive industry into a new era of sustainability and leading organizations are focusing on net zero targets” (Capgemini 2024). A PESTEL analysis was done to gain a complete overview of Evon’s external environment (*see figure 2*). The environmental analysis underscored the need for low-emission vehicles due to climate change and the growing demand for sustainable production and recycling practices, aligning with the Paris Agreement. Resource scarcity, particularly of rare earth metals, impacts production, while strict environmental regulations and government policies, such as CO2 emission penalties and tariffs, are pushing the industry towards greener technologies.

2.2.3. Internal Analysis

An internal analysis of Evon's strategy highlights strengths like a diverse product portfolio catering to a wide range of customers and early Sodium-Ion battery investments, aligning with its sustainability goals and aspiration of being a leader in innovation (*see figure 3*). Challenges included high inventory, underutilized factory capacity, and initial EV transition costs due to higher R&D expenses. Furthermore, Evon’s various car types led to higher production costs and limited economies of scale.

2.2.4. Business Model and Strategy

Evon's strategy focuses on the triple bottom line (TBL), balancing economic viability with social and environmental responsibilities, aiming for sustainable development and long-term success (Alhaddi 2015) (*see figure 4*). This approach not only supports profit generation but also

establishes Evon as a leader in sustainable automotive innovations, influencing industry standards for reducing environmental impact and improving community well-being. According to Michael Porter's generic strategies, Evon pursued a differentiation strategy by targeting the broad market with innovative products (*see figure 5*). Evon distinguished itself through early innovation, high-quality vehicles, and excellent customer service, offering a wide range of vehicles to meet customer needs. This aligns with the VARS framework, where Evon emphasizes sustainability and accessibility in its value proposition, focusing on R&D and customer engagement. The revenue model spans a broad price range, catering to diverse consumers (*see figure 6*). The Business Model Canvas (BMC) further details the implementation of the strategy, including dealership partnerships and increasing investments in marketing activities (*see figure 7*).

2.2.5. Strategy Execution

“Without execution, even the most strategies are useless (Quaye et al. 2015). Successfully executing Evon's strategy required effective coordination. The company continuously allocated resources to HR, innovation, and sustainability to maintain a competitive edge, with HR continuously investing in digital expertise and sustainability skills. In addition to introducing new vehicles, Evon maintained customer satisfaction and demand by relaunching popular models a total of nine times, including only one combustion vehicle (PU225G), to minimize costs associated with developing solely new models. Existing combustion vehicles served as cash cows, generating substantial cash flow, which funded R&D. Cash cows are products in low growth areas with high market share and low investments, that the organization should ‘milk’ as long as possible to maximize profit (Piątek 2023). Following its initial strategy, Evon transitioned from combustion engines to hybrids and finally to EVs, achieving full electrification by Q17. This shift aligned with the Paris Declaration on Electro-Mobility and Climate Change, aiming for 20% electric road

transport vehicles by 2030 to limit global temperature rise (UNFCCC 2014). Facing tariffs on Chinese-manufactured EVs in the USA, Evon decided to produce similar models in both China and the USA to maintain market presence and avoid tariff costs.

2.2.6. Comparison to Tesla and Volkswagen

To compare Evon with real-life companies, Tesla and Volkswagen serve as strong comparisons (*see figure 8*). Tesla stands out for its innovation leadership, strong brand, and all-electric lineup, aligning with Evon's strategy to offer high-quality and innovative EVs through a strong emphasis on R&D. Evon and Tesla feature a range of price points, with Evon offering a greater number of models. Volkswagen is also a good comparison, as the company is transitioning to an all-electric lineup while catering to the existing demand for combustion vehicles. Volkswagen reaches a wider market than Tesla with its high variety of vehicles, using its strong brand to move toward sustainability, like EVON maintained its customer base while transitioning to a full electric lineup.

2.3. Operations

Operational effectiveness and strategy are crucial for achieving superior results, which is the aim of any business, but they both work in different ways (Porter 1996). Operations are essential to any manufacturing business as they convert resources from input to output through process design, control, and development, focusing on transforming inputs such as labor, capital, materials, and energy into products or services that deliver value (Wienclaw 2021). Operations management “serves as a continuous improvement process to enhance quality, productivity, and customer satisfaction” (Bayraktar et al. 2007). It ensures organizational growth by planning, coordinating, and controlling the resources needed for manufacturing. This section examines Evon’s operations management by analyzing the 4 V’s framework, as well as key performance indicators (KPIs) like factory utilization and days of inventory.

2.3.1. Characteristics of Operations – Volume, Variety, Variation and Visibility

Considering the perspective of an original equipment manufacturer (OEM), the four V's of operations management—volume, variety, variation, and visibility—are vital in shaping production strategies and meeting market demands (*see figure 9*). Evon's mission to offer a car for every consumer was reflected in its product portfolio, which averaged 7.84 models and reached up to 9 models simultaneously. The high number of models allowed vehicles with sufficient inventory to be taken out of production, adjusting the production of other models as needed (*see graph 1*). The portfolio featured both high-end, low-volume models, such as the Evon Lux and Evon Pickup E, as well as high-volume, low-cost models like the Evon Micro and City E. This variety allowed for meeting diverse customer needs with flexible production but resulted in high unit costs due to a lack of economies of scale. The advanced vehicles were produced in smaller quantities, whereas the more affordable models were manufactured in larger volumes and benefitted from economies of scale. High variation in demand added complexity to the manufacturing process, necessitating greater specialization and anticipation of market demands (Slack and Brandon-Jones 2019). Evon enhanced customer satisfaction through high visibility, by offering a more personalized approach.

2.3.2. Key Performance Objectives

Key performance objectives in operations management encompass specific goals aimed at enhancing a business's overall operational efficiency and effectiveness (Slack and Brandon-Jones 2019). To meet the rapidly changing demands of customers, OEMs must attain and sustain high productivity and quality, with fast response times, flexibility, and short lead times (Kang et al. 2016). To measure performance, the five key performance indicators (KPIs) commonly used to measure operational success are quality, cost, flexibility, dependability, and speed (Slack and Brandon-Jones 2019).

KPI	Importance	Evon's Performance	Details
Quality	High	★★★	Ensuring high-quality products is critical, as it directly impacts customer satisfaction, safety, and brand reputation. Evon offered high quality, accessible cars with innovative features.
Flexibility	High	★★☆	Flexibility allows companies to adapt to market demands, essential for competitiveness but difficult in capital-intensive industries. Evon initially struggled, producing despite low sales, but adapted in later rounds.
Dependability	High	★★★	Dependability is crucial for maintaining customer trust and brand prestige; vehicles must perform reliably and must be delivered on time. Evon focused on improving product reliability and meeting delivery deadlines to strengthen its market position.
Cost	Medium	★★☆	While cost control is essential to be profitable, Evon prioritized high quality, flexibility, and dependability. Producing a wide variety of cars resulted in higher production costs.
Speed	Low	★★☆	Development and production of technology and EV cars was time-consuming, with ongoing R&D. Evon invested early in new technologies but took several quarters to implement.

Figure 10: Operations key performance indicators

In today's world, organizations are under rising pressure to integrate sustainable practices into their operations (Dharmayanti et al. 2023). Accordingly, sustainability initiatives were highly important for Evon, especially as a car manufacturer where environmental impact and related CO2 emission fines are key concerns. Significant investments were made into Scope 1, 2, and 3 to address these issues across all operational levels, all of which qualified for green bonds. All possible investments were made to reduce Scope 1 emissions, which are direct emissions from company-controlled sources like factory operations (*see figure 11*). These efforts were aimed at enhancing corporate social responsibility (CSR) scores, fulfilling the demand for eco-friendly vehicles, and lowering material costs by improving efficiency (GHG Protocol 2015). Significantly, Evon earned the ISO14001/ EMAS certification, enhancing its public image and credibility, while also ensuring compliance with legal requirements. To decrease Scope 2 emissions, which are indirect emissions from purchased electricity and utilities, Evon implemented energy efficiency measures aimed at reducing utility costs and stabilizing energy prices. Addressing Scope 3 emissions, encompassing all indirect emissions along its value chain, Evon invested in offsetting

suppliers' CO2 footprint. Aligned with its investments, Evon's sustainability score showed consistent improvement throughout the simulation and is anticipated to rise further as the company continues to invest in initiatives that reduce its environmental footprint (*see graph 2*).

2.3.3. Days of Inventory

Effective management of operations is crucial to remain competitive by addressing challenges such as changing customer preferences, technological disruptions, and environmental responsibilities. The main challenge for EVON was to develop a system capable of flexibly adjusting production capacity, including factory utilization and inventory days. Days of inventory is “the average number of days for a business to convert its inventory into sales” (Vipond 2024). Throughout the simulation, Evon maintained higher inventory levels, with an average of 74.15 days, peaking at 158 days in Q11. Analyzing inventory as a percentage of revenues reveals peak inefficiency during Q9-Q12, where inventory exceeded revenue, indicating a substantial amount of capital tied up in unsold inventory (*see graph 3*). Generally, OEMs address business cycle challenges by tightening inventories, which involves weeding out low-selling models and adjusting prices (Nesic and Mosnja 2022). Accordingly, when inventory days were high, prices were lowered to sell off models before finally discontinuing their production. In the following years, Evon adopted lean manufacturing to maximize resource utilization by eliminating production inefficiencies, reducing inventories, and optimizing operations, all of which contributed to CSR through the triple bottom line (Shou et al. 2019).

2.3.4. Factory Utilization

Factory utilization is another KPI that measures efficiency by indicating “the ratio of actual output to the sustainable maximum level of output or capacity” (Corrado and Mattey 1997). High factory utilization signifies efficient use of resources, while low utilization can reveal inefficiencies or

overcapacity (Kang, Zhao, and Horst 2016). In the simulation, it depended on factors such as employee motivation, warehouse capacity, and the lifecycle stage of the vehicle. Evon's factory utilization averaged 85%, primarily due to frequent changes in factory allocation at the beginning and several periods where factories remained empty (*see graph 4*). Due to high inventory levels in Q11 and Q12, three and four factories were kept empty to avoid overproduction, sacrificing fixed costs associated with the empty factories. After lowering inventories, the strategy shifted from keeping factories empty to using marketing and pricing techniques to manage inventory levels. Excess inventory of one vehicle led to stopping its production, thereby leveraging economies of scale by increasing the production of another more in-demand vehicle. Throughout the six years, Evon invested in two new factories: one in Q5 in the US, anticipating an increase in models and another in Q15 in Europe to improve flexibility and produce models across multiple lines. Europe was the most convenient location for this factory due to the absence of tariffs. At the end of the simulation, Evon operated a total of twelve factories, all operating at 100% capacity.

2.3.5. Comparison to BMW

Looking at the 4-V model, BMW is a prime example of an automotive company that produces both high and low volume vehicles. On the luxury end, BMW features exclusive models like the BMW 8 Series, characterized by lower production frequencies and higher costs. For more affordable options, BMW offers the BMW 1 and 2 series, which benefit from lower unit costs due to higher production volumes. BMW and Evon both offer a varied lineup of vehicles, ranging from compact cars to luxury SUVs. Additionally, BMW ensures high visibility throughout its operations and manages considerable variation in demand (Ludwig 2023).

2.4. Finance

The financial manager is crucial in company management, tasked with making key investment decisions and overseeing fund usage to ensure timely and efficient financing for the company's operations and investments, while managing costs and requirements (Hermawan 2021). Evon's financial strategy aimed at growing market share by using green financing to invest in cutting-edge technologies that reduce CO2 emissions, while also maintaining profitability and enhancing shareholder value. This section analyzes Evon's financial performance, focusing on capital structure, cash flows, and working capital.

2.4.1. Financial Performance Analysis

Evon's revenue grew significantly with a CAGR of 12%, reaching 32.8 billion USD in year 6 (*see graph 5*). Despite this growth, profitability continued to be a challenge, with profit and EBIT margins declining until Q19 before constantly increasing until Q28 (*see graph 6*). Evon's gross margin remained relatively stable, averaging 37%. In addition to higher depreciation expenses, underutilized factories resulted in increased G&A costs, contributing to the drop in profitability during Q11 and Q20 (*see graph 7*). Additionally, return on net assets (RONA) is a key profitability metric measuring how efficiently a company generates profits from its net assets (Damodaran 1995). RONA showed a mostly negative trend for Evon, reaching its lowest point of 7.91% in Q19. Subsequently, RONA increased steadily, signaling enhanced operational efficiency. With increasing RONA and decreasing weighted average cost of capital (WACC), Evon's Economic Value-Added (EVA) score improved consistently after Q14 (*see graph 8*).

Looking at the balance sheet, Evon's total assets grew significantly from 29.1 billion USD in year 1 to 36.5 billion USD in year 6, primarily driven by increases in long-term assets and inventory (*see graph 9*). Despite the growth in assets, total liabilities, particularly long-term debt, increased by 64% throughout the simulation, indicating Evon's increased leverage. The company's cautious

timing of investments ensured growth without risking financial stability. The liquidity ratios show significant fluctuations, with the current, quick and cash ratio peaking in year 2, indicating a high level of liquid assets relative to liabilities. Although these ratios then declined, they gradually recovered toward year 6, indicating a stabilization of cash flow and liquid assets (*see graph 10*).

2.4.2. Working Capital

Effective management of working capital is crucial for a firm's performance and sustainability, impacting its overall financial health (Kiymaz, Haque, and Choudhury 2024). Evon adjusted payment terms to enhance cash flow and improve working capital management. Shortening the payment period for customers accelerated cash inflows, reducing accounts receivable. Simultaneously, by extending accounts payable, Evon gained more time to settle supplier invoices relieving cash flow.

The cash conversion cycle (CCC) measures the time span from paying for raw materials to receiving payments from customers for the finished products. (Nobanee and AlHajjar 2014). Initially, high inventory levels led to a longer holding period and a higher CCC. An optimized CCC boosts profitability, liquidity, and financial performance (Kiymaz, Haque, and Choudhury 2024). Evon's CCC showed a decreasing trend, indicating better inventory turnover and faster receivables collection (*see graph 11*). This trend reflects improved operational efficiency through effective inventory management and strategic payment adjustments.

2.4.3. Capital Structure

The capital structure of a company determines the debt-to-equity ratio, aiming to optimize financial leverage to maximize the company's value or minimize the WACC (CFA Institute 2021). The level of leverage a firm adopts depends on factors such as size, tangibility, profitability, and liquidity (Arilyn 2020). Given the capital-intensive nature of the automotive industry, substantial

investments were required. Throughout the simulation, Evon's Net Debt-to-Equity ratio averaged 0.67. In early quarters, Evon issued shares to fund investments due to a lower credit rating and the correlated high cost of debt. After improving its credit score and maintaining a lower Net Debt-to-Equity ratio, Evon secured loans to finance further investments.

Evon's Net Debt/EBITDA ratio averaged 5.93, with a peak at 7.53 in Q9, explaining the company's carefulness in issuing more debt. Eventually, debt refinancing with green bonds and improved profitability led to better leverage ratios and enhanced cash flows. Consequently, Evon's interest coverage ratio (ICR) improved significantly, reflecting more effective debt and interest expense management relative to EBIT. The Net Debt/EBITDA ratio inversely correlates with the ICR; higher Net Debt/EBITDA ratios lead to lower ICR values due to increased interest payments (*see graph 12*). By lowering its Net Debt/EBITDA ratio and increasing profitability, Evon enhanced its ICR, indicating improved financial stability.

The WACC is a valuable financial metric used in firm valuation and capital budgeting (Rehman and Raoof 2010). Generally, a lower WACC is crucial for reducing financing costs and enhancing a company's market value and appeal to investors (Brealey et al. 2011). Evon's WACC steadily declined due to several initiatives, such as reducing the cost of equity and enhancing creditworthiness, leading to lower interest rates (*see graph 13*). In Q22 and Q23, EVON utilized its additional debt capacity to buy back shares, further lowering the WACC. At the end of the simulation, Evon achieved the lowest WACC among all groups at 5.2%, earning the finance prize. The growing emphasis on sustainability has led automotive companies to use green bonds—fixed-income securities funding eco-friendly projects like pollution reduction and energy conservation (Xu, Li, and Yin 2023). Evon issued green bonds a total of nine times, first qualifying for them in Q10 to drive innovation in vehicle production and insert sustainability in strategic planning. In

Q16, Evon used green bonds to refinance existing loans, achieving a 21% reduction in interest payments from year 3 to year 4 (*see graph 14*). This was possible due to favorable interest rates and tax incentives, which eased cash flows and broadened funding options.

2.4.4. Cash Flows

Cash flows represent the movement of money into and out of the business, providing a measure of the firm's financial health and operational efficiency (Brealey et al. 2011). In the initial years of the simulation, Evon invested heavily in technology and sustainability to leverage these advancements in later years and follow its strategy of leading in innovation. Evon's free cash flow (FCFF) fluctuated due to changes in NOPAT, NWC, and CAPEX, with persistent profitability challenges, driven by higher production costs and significant investments. The analysis reveals two significant investment phases (*see graph 15*). The first phase involved investments in a new factory and enhancements to car models. FCFF remained positive until Q15 indicating successful operations and improved cash generation. However, investments in new cars and a factory from Q16 to Q21 shows a strong dip in FCFF, followed by a strong recovery onwards, underscoring EVON's commitment to long-term growth over short-term success.

2.4.5. Comparison to Tesla

Like Evon, many automotive companies depend on green bonds to help fund eco-friendly projects, such as BMW, Tesla, and Volkswagen. By issuing these bonds, these companies not only receive funding for their green projects but also show their commitment to sustainability (Garçia et al. 2023). This approach aligns with global ESG standards, making them attractive to stakeholders who prioritize sustainability. Looking at the financials, Evon surpasses many automotive companies in terms of profit margins. The closest comparison is Tesla with a net profit margin of 13%, compared to Evon's margin of 12.4% in Q28 (Yahoo Finance 2024).

2.5. Key Learnings

This simulation provided several key learnings. The initial lack of a coherent strategy, which became apparent early on, led to confusion and inefficiencies within the team. Our focus shifted away from Evon's vision to an overemphasis on the BiP rankings, driven by competition with other teams. This caused us to adopt a conservative investment strategy with a short-term focus, investing less at the beginning to maintain a good ranking. A more aggressive approach might have enabled more growth later in the simulation. We should have focused on our strategy and long-term vision rather than reacting to the rankings and simulation results.

Our strategy to diversify the product lineup proved beneficial in reducing our reliance on market fluctuations, but it also revealed significant inefficiencies. The wide product portfolio stressed the importance of aligning production with sales and stabilizing operations. High-volume production that was not matched by corresponding sales led to operational challenges, and frequent factory shifts added complexity. A key insight came from the mistake of over-investing in advanced technologies for a micro car aimed at the premium market, coupled with high production volumes. We overlooked that higher-priced vehicles typically have lower sales volumes, which do not need extensive production lines, causing a mismatch between production capacity and market demand. Despite these challenges, Evon's diverse model range successfully met evolving customer needs, helping to maintain the company's competitive edge.

2.6. Interconnectivity between Functions

Evon's performance analysis underscores the interconnectedness of all company departments, all guided by an overarching strategy, ensuring that each department's actions are aligned. The marketing department performs market analysis, identifies customer segments, adjusts pricing strategies, while closely collaborating with the innovation department to provide insights on

consumer preferences and ensure products meet market trends. The operations function is central because it creates and delivers the products and services, which is a company's core purpose (Slack and Brandon-Jones 2019). Therefore, every quarter we discussed operations first, before moving on to marketing and the other functions. Operations collaborates closely with HR to secure necessary resources and maintain employee motivation. Furthermore, it works with marketing to align production with market trends and inventory, and partners with the innovation team to decide production locations for new vehicles. Efficient and sustainable operations allow finance to fund investments with green bonds. Finance works with operations to manage resources, oversees marketing budgets, and maintains financial stability by managing the debt-to-equity ratio. Finance also works with HR to manage payroll budgets and supports innovation through project funding. In the simulation, communication was key, as each department had visibility only into its own data, highlighting the importance of cross-functional teamwork for achieving success.

3. Personal Reflection

3.1. Introduction

BiP emphasizes team dynamics and personal development by working intensely in diverse teams. During these three weeks, I journaled every night to self-reflect on my behaviors, thoughts, and communication patterns. This second part of the dissertation focuses on my personal reflection, highlighting two critical incidents that happened throughout the simulation.

The first critical incident reflects how miscommunication and my fear of conflict during the sales pitch preparation negatively impacted our team dynamics and my motivation. I chose to remain silent, not expressing my concerns at the time. Conversely, the team dynamics workshop showed the benefits of open communication as I voiced my concerns about the minimal input from others. As one of the more outspoken members, the second incident illustrates our team's generally

reserved behavior, leading to limited productive discussions. These incidents demonstrate how suppressing personal feelings can adversely affect team performance and show my personal development in becoming more confident in expressing my thoughts.

3.2. Critical Incident #1

3.2.1. Description

During the first sales workshop, I participated alongside two teammates, not presenting our sales pitch but responsible for answering questions. All three of us were more outspoken and confident than the rest of our team. After agreeing on a solid pitch, we started talking about the questions we might face during the sales pitch. This was especially important to me, as I like to be overly prepared and as it was my first sales pitch ever, I did not know what to expect. I raised a question that seemed highly likely to come up during the pitch, which sparked a debate about whether we should stick strictly to our simulation portfolio or focus more on the sales client, even if that meant deviating from our simulation strategy and portfolio. Since we had not yet fully decided on a strategy within the simulation, it made it difficult for us to agree on the correct approach. I voiced my concerns a few times during our discussions, but they were repeatedly overlooked as we were preparing the slide deck. Despite my concerns, my teammates, who had more sales experience, did not seem worried, which made me second-guess my own doubts. It was late, and everyone was tired, so I chose not to press the issue further to avoid conflict. Trusting in their confidence, I held back my questions, not wanting to cause tension or seem overly critical. However, their procrastination and casual approach further stressed my perfectionist tendencies.

After delivering the pitch, one of the questions we were asked was the very one I had raised in our preparation. A moment of hesitation among us showed that we were not ready to tackle it confidently, until finally, one of my teammates responded. When our other four teammates asked

how the workshop went, I expressed my dissatisfaction, feeling that it had not gone as well as it could have. Recognizing my tendency to internalize rather than discuss my feelings, I felt a mix of resentment toward my teammates for brushing off my concerns and annoyance at myself for not speaking up about my feelings. This situation really bugged me throughout the day, leading to a noticeable change in my demeanor, prompting a different teammate to approach me and inquire about what was wrong. As a typically super positive and talkative person, I was quieter and withdrawn in our discussions in the afternoon.

The next day, we received the information that to my surprise, we succeeded in retaining our client mainly due to a great pitch, which enhanced the trust and positive energy within our team. While we were all happy with this outcome, I remained somewhat dissatisfied due to the way we had communicated and our lack of cohesive strategy, which was underlined with our feedback of showing a lack of energy and enthusiasm.

3.2.2. Analysis

Reflecting on the team dynamics, communication breakdowns had a big impact on how our team performed. Effective teamwork centers on all members aligning around a shared vision, which ensures everyone is working towards the same goals and understands their role in achieving them (Bennett and Gadlin 2012). The absence of this alignment during our preparation left me feeling insecure and unprepared as we approached the pitch. Overall, our lack of a unified vision during the simulation carried over into the pitch. My anxiety about the pitch was heightened by my need for control and uncertainty about potential questions. Research supports the importance of thorough preparation in reducing anxiety and enhancing confidence in negotiations (Cheek 1982). My teammates' tendency to procrastinate added on to this, as they preferred to prepare the pitch right before the presentation, which I found unacceptable. However, given our diverse cultural

backgrounds, our approaches reflected our different perspectives of deadlines and time management.

Furthermore, avoiding conflict was a big issue in this situation. Open communication and proactive conflict resolution are key to preventing misunderstandings and building trust, enhancing a team's success with clients (De Dreu and Weingart 2003). It might seem like avoiding confrontation helps keep things peaceful in a team, but it often leads to unresolved problems, especially when unresolved conflicts accumulate and create tension, as was evident in our case (Kilmann and Thomas 1977). Healthy conflict often sparks respectful discussions and can lead to improved solutions. Conversely, destructive conflict happens when team members remain embedded in their differences, which harms productivity and hampers innovation (Toegel 2024). My hesitation to push further on an unresolved question, combined with my teammates brushing off my concerns, created underlying resentment and frustration on my side. Conflict avoidance is a people-pleasing behavior, and usually comes from a fear of negative outcomes, such as upsetting others or creating tension within the group (Shonk 2024).

Typically, less effective teams might engage in detrimental back-channel gossip (Lencioni 2003). My disappointment after the pitch quickly turned into negativity, which caused me to withdraw and become less engaged. When a teammate approached me about my unusual quietness, I expressed my frustration, which was counterproductive because it fostered negativity and tension within the team rather than addressing my feelings constructively.

3.2.3. Reflection

During our preparations, I found myself in a challenging situation. My natural tendency to be overly prepared, especially in uncertain situations like our upcoming sales pitch, conflicted with my concern about being perceived as difficult to work with. The pitch was a high-pressure scenario

where surprises were to be expected, emphasizing the need for thorough preparation. Furthermore, my need for perfection made me believe that our sales pitch had to be flawless to succeed, which is unrealistic, given the need for adaptability in dynamic settings like sales pitches.

Although I primarily identify as a red personality, I also exhibit yellow personality traits, being sociable and positive. This can sometimes contradict my directness and urgency, especially when dealing with other dominant personalities, as I tend to prioritize creating a positive atmosphere. I held back from voicing my concerns, fearing that I might create unnecessary tension or be seen as overly critical, particularly since the other two team members in the pitch were also more outspoken. Adding to my insecurity was my limited experience in operations, my specific role within the team. This lack of confidence, alongside my reluctance to challenge my teammates' different views, left unresolved issues that we carried into the pitch. My dissatisfaction turned into negativity, which caused me to become less motivated and engaged. This shift in attitude not only affected my performance during the pitch but impacted the overall team dynamic during our following discussions about our simulation decisions.

That night, I took some time to think about my feelings and how I could improve our teamwork. Considering I was one of the leading personalities of the group and I had a big impact on the team dynamics, I expected better behavior from myself after the pitch. I realized I should have waited for a better moment to discuss my concerns, like the next morning when everyone might have been more receptive and less tired. I noticed that not everyone shared my sense of urgency, likely due to our different cultural backgrounds, which contributed to my impatience. However, this did not necessarily mean they were less serious about the work. As we grew more comfortable with each other and understood our individual work habits over time, I prioritized expressing my concerns more openly and paying closer attention to my teammates' inputs to ensure we were all aligned.

Overall, this incident taught me the value of effective communication and the need to quickly address and move past minor setbacks.

3.3. Critical Incident #2

3.3.1. Description

During a mid-simulation team dynamics review with Professor Fernandes, he asked me about recent conflicts or arguments we had encountered. When I was unable to mention any significant conflicts right away, Professor Fernandes pointed out that our team's apparent harmony and lack of disagreements might indicate dysfunction. He suggested that this minimal conflict could signal a lack of deep engagement and trust in the team. I usually hide my concerns due to a fear of hurting others' feelings and to maintain the harmony in the team. However, remembering the impact of suppressing my feelings after our initial sales pitch, I wanted to fully engage in this workshop by addressing my disappointment about the lack of participation from some teammates. When I voiced my concerns, my team members were slightly offended, stating that they felt uncomfortable sharing their opinions and lacked the knowledge to contribute effectively. Although I also was not fully confident about the quality of my ideas within the simulation, I still participated actively, recognizing the core objective was to learn. I assumed others felt the same and interpreted their silence as a lack of interest.

Our team, represented by the 'Insights Discovery' model, featured a mix of 'fiery red,' 'sunshine yellow,' 'earth green,' and 'cool blue' personalities, highlighting varied communication styles (*see figure 12*). As one of the two 'fiery red' individuals, my personality naturally pushed me toward leadership and a need for control in decision-making, preferring to stay actively involved and informed about every department. In contrast to my louder personality, most team members were introverted and avoided confrontations, often staying silent during discussions leading to limited

engagement, which contributed to my frustration about the lack of contribution and interest. This dynamic made it relatively easy for us to reach consensus on decisions, as only two or three people were actively participating. However, it left me feeling unsupported and uncertain about my teammates' commitment, particularly as I often had to make decisions alone in the operations department. Given the central importance of operations and my lack of experience in this area, the responsibility felt overwhelming and heightened my insecurity.

3.3.2. Analysis

“Organization work teams are by definition comprised of members that work interdependently and count on one another to make task-, goal- and outcome-related progress” (O’Neill and McLarnon 2018). Accordingly, trust is crucial in cross-functional teams, as it allows members to depend on each other to make optimal decisions. However, a lack of trust can lead to poor communication, disempowerment, and a reduced quality of work (Erdem, Ozen, and Atsan 2003). Trust in organizations involves not only being vulnerable but also having "reasons to have positive expectations of the partner’s behavior" (Clark, Ellen, and Boles 2010). In our team, I did not fully trust my teammates to perform their best because I felt they lacked interest. This lack of trust showed in my discomfort in letting them make decisions without oversight and the general lack of openness within the group. Despite the necessity for trust, our team experienced what Lencioni identifies as "artificial harmony," where the absence of conflict masked deeper issues like trust deficits and a reluctance to be vulnerable. To preserve this artificial harmony, we avoided conflict, leading to suppressed opinions, which reduced our productive discussions (Lencioni 2002).

The concept of psychological safety, defined as "the perception of the consequences of taking interpersonal risks," is vital for team dynamics as it fosters a supportive and non-threatening environment where members are more inclined to share ideas (Lencioni 2002; Edmondson 1999).

In our team, the lack of psychological safety prevented open discussion and honest feedback, as my competitive 'fiery red' behavior may have unintentionally suppressed the expression of opinions in stressful situations. This highlights the need for balancing assertiveness with openness, ensuring that all team members feel secure in contributing their perspectives, which is essential for leveraging the team's diversity to improve productivity.

Miscommunication played another significant role in our challenges. Our initial avoidance of conflict meant we missed the benefits of task-related conflict, which research suggests can boost team performance by fostering diverse viewpoints and critical thinking (Jehn 1995). Well-managed diversity can lead to more innovative ideas and vigorous debate (Phillips and O'Reilly 1998). Generally, "groups performing nonroutine tasks benefit from the diverse ideas of group members" (Jehn 1995). Considering our team's diversity, we had an opportunity to leverage many different perspectives. However, our discussions often fell short of being productive due to a lack of contribution from all members. My failure to express my concerns about my teammates' engagement levels prior to our workshop prevented early resolution of these issues.

The team dynamics workshop marked a pivotal shift in our team's dynamics. Initially, others' lack of engagement, while frustrating, allowed me more control over decision-making. Before the workshop, our team was stuck in the 'forming' stage, hesitant to be open. Enhanced trust and openness post-session pushed us into Tuckman's 'norming' and 'performing' stages, through increased involvement in discussions and a fairer distribution of decision-making responsibilities (Stein n.d). The workshop enabled us to confront our issues, cultivating a stronger, more collaborative working relationship, showing that active participation from all team members is crucial, as it fosters more successful collaborations (Clark, Ellen, and Boles 2010).

3.3.3. Reflection

Reflecting on this team dynamics session, I was happy that I had the courage to speak up about my disappointment about the lack of contribution, even at the risk of sacrificing our artificial harmony. I learned from our sales pitch preparations and decided to commit to improving my teamwork and communication skills. I was initially surprised to learn that my teammates did not feel comfortable sharing their opinions, especially since I always tried to create a friendly environment. Upon examining my approach, typically characterized as collaborative by the Thomas-Kilmann Conflict Mode Instrument, I noticed I shift toward a more competitive style under stress, especially with less engaged team members. My focus on open communication changes significantly in stressful situations. Considering I am very competitive and wanted us to do well in the simulation, I can become impatient and overbearing in stressful situations. This sometimes leads me to dominate discussions, which can hinder team collaboration and intimidate shy team members. Furthermore, the lack of involvement from my teammates caused me to seek their feedback less frequently, giving the impression that I was not being collaborative.

In the following weeks, I focused on adapting my communication style to be more inclusive, actively encouraging quieter team members to share their thoughts, and making sure that everyone felt heard in our discussions. I realized that quieter behavior does not always indicate disinterest; it may, for example, also signify a more analytical mindset, typical of a 'blue personality' member. I gathered that effective leadership in a diverse team requires more than just inviting input, but also ensuring that everyone feels comfortable contributing. My assertive communication style, while intended to guide discussions, may have unintentionally silenced quieter team members. Over time, as I trusted my teammates more and recognized their valuable contributions, we all felt more comfortable sharing responsibilities, creating a cooperative atmosphere. Adapting to a less controlling role was challenging at first but necessary for my growth, as it allowed me to focus

more on my operations role. I realized that when trust is established and teammates consistently show reliability, collaboration becomes far more enjoyable and stress-free, enabling everyone to concentrate entirely on their tasks.

The team dynamics session was a key turning point for both personal and team development, as it highlighted the benefits of diverse perspectives and teamwork. It helped us confront unspoken issues, encouraged openness, and greatly improved our communication and performance. I realized the importance of adapting my communication style to connect with teammates of different personality types and to raise concerns straightaway. After the session, I noticed a change in myself—I began trusting my teammates more, sharing responsibilities, and letting go of the need to control every part of our operations.

3.4. Conclusion

Despite the many benefits teamwork brings, working in teams is not always an easy task (Khawam et al. 2017). Reflecting on these three weeks, I learned many valuable lessons that I am eager to apply in the working world and in future teams. Effective communication is essential, and I have noticed a significant improvement in my ability to articulate my thoughts and concerns as I grew more comfortable speaking up. I also learned to adjust my communication style to better match different personalities, which noticeably improved our team dynamics. Recognizing our interdependence within the team has underscored the significance of trust and reliance among members. This awareness has taught me that I do not need to manage every task but should focus more to perform my tasks to the best of my ability. Moving forward, I will continue to develop these skills to positively impact team success and create an environment encouraging open, constructive dialogue, while capitalizing on each member's strengths because “when everyone in the workplace works together to accomplish goals, everyone achieves more” (Aggarwal n.d.).

References

- Abraham, Stanley Charles. 2012. *Strategic Planning: A Practical Guide for Competitive Success*. Emerald Group Publishing.
- Aggarwal, Anil K. 2023. "A Study of Lencioni's Model of Dysfunctional Groups." *International Journal of E-Collaboration* 19 (1): 1–19. <https://doi.org/10.4018/ijec.321557>.
- Alhaddi, Hanan. 2015. "Triple Bottom Line and Sustainability: A Literature Review." *Business and Management Studies* 1 (2): 6. <https://doi.org/10.11114/bms.v1i2.752>.
- Arilyn, Erika Jimena. 2020. "The Effects of Profitability, Liquidity, Tangibility, Firm Size, and Asset Turnover on Capital Structure in Chemical Industry Listed on Indonesia Stock Exchange From 2014 to 2018." *Atlantis Pres*, January. <https://doi.org/10.2991/aebmr.k.200626.068>.
- Bayraktar, Erkan, M.C. Jothishankar, Ekrem Tatoglu, and Teresa Wu. 2007. "Evolution of Operations Management: Past, Present and Future." *Management Research News* 30 (11): 843–71. <https://doi.org/10.1108/01409170710832278>.
- Bennett, L. Michelle, and Howard Gadlin. 2012. "Collaboration and Team Science: From Theory to Practice." *Journal of Investigative Medicine* 60 (5): 768–75. <https://doi.org/10.2310/jim.0b013e318250871d>.
- Benton, Stephen, C Von Erosion Schurink, and S Desson. n.d. "An Overview of the Development, Validity, Reliability and Reliability of the English Version 3.0 on the Insights Discover Evaluator : WestminsterResearch." <https://westminsterresearch.westminster.ac.uk/item/923zx/an-overview-of-the-development-validity-reliability-and-reliability-of-the-english-version-3-0-on-the-insights-discover-evaluator>.

- Brealey, Richard A., Franklin Allen, and Stewart C. Myers. 2011. *Principles of Corporate Finance: Concise Edition*. Boston, Mass: McGraw Hill.
- “Capital Structure.” n.d. CFA Institute.
<https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/capital-structure>.
- Cheek, Ronaldo G. 1982. “Getting to Yes - Negotiation Agreement Without Giving in by Roger Fisher and William Ury.” *Boston College Third World Law Journal* 3 (1): 136.
<https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1439&context=twlj>.
- Clark, W. Randy, Pam Scholder Ellen, and James S. Boles. 2010. “An Examination of Trust Dimensions Across High and Low Dependence Situations.” *Journal of Business-to-Business Marketing* 17 (3): 215–48. <https://doi.org/10.1080/10517120903000439>.
- Corrado, Carol, and Joe Matthey. 1997. “Capacity Utilization.” *The Journal of Economic Perspectives* 11 (1): 151–67. <https://doi.org/10.1257/jep.11.1.151>.
- Damodaran, Aswath. 1995. *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. <http://babordplus.u-bordeaux.fr/notice.php?q=id:1808930>.
- De Dreu, Carsten K. W., and Laurie R. Weingart. 2003. “Task Versus Relationship Conflict, Team Performance, and Team Member Satisfaction: A Meta-analysis.” *Journal of Applied Psychology* 88 (4): 741–49. <https://doi.org/10.1037/0021-9010.88.4.741>.
- Dharmayanti, Nela, Tubagus Ismail, Imam Abu Hanifah, and Muhamad Taqi. 2023. “Exploring Sustainability Management Control System and Eco-innovation Matter Sustainable Financial Performance: The Role of Supply Chain Management and Digital Adaptability in Indonesian Context.” *Journal of Open Innovation Technology Market and Complexity* 9 (3): 100119. <https://doi.org/10.1016/j.joitmc.2023.100119>.

- Edmondson, Amy. 1999. "Psychological Safety and Learning Behavior in Work Teams." *Administrative Science Quarterly* 44 (2): 350–83. <https://doi.org/10.2307/2666999>.
- Erdem, Ferda, Janset Ozen, and Nuray Atsan. 2003. "The Relationship Between Trust and Team Performance." *Work Study* 52 (7): 337–40. <https://doi.org/10.1108/00438020310502633>.
- Gao, Paul, Hans-Werner Kaas, Detlev Mohr, and Dominik Wee. 2016. "Automotive revolution - perspective towards 2030." McKinsey & Company. January 1, 2016. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/disruptive-trends-that-will-transform-the-auto-industry/de-DE>.
- García, C. José, Begoña Herrero, José Luis Miralles-Quirós, and Maria Del Mar Mirallles-Quirós. 2023. "Exploring the Determinants of Corporate Green Bond Issuance and Its Environmental Implication: The Role of Corporate Board." *Technological Forecasting and Social Change* 189 (February): 122379. <https://doi.org/10.1016/j.techfore.2023.122379>.
- Hermawan, Eric. 2021. "Financial Managers as Policy Makers and Company Relations With Financial Markets." *Journal of Law Politic and Humanities* 2 (1): 13–22. <https://doi.org/10.38035/jlph.v2i1.57>.
- Hong, Minji, and Benedict S. Jimenez. 2024. "Strategy Formulation Process and Interorganizational Collaboration." *Public Performance & Management Review*, June, 1–35. <https://doi.org/10.1080/15309576.2024.2366238>.
- "Insights Discovery® | Official Flagship Product | Insights." n.d. <https://www.insights.com/products/insights-discovery/>.
- Jehn, Karen A. 1995. "A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict." *Administrative Science Quarterly* 40 (2): 256. <https://doi.org/10.2307/2393638>.

- Kang, Ningxuan, Cong Zhao, Jingshan Li, and John A. Horst. 2016. “A Hierarchical Structure of Key Performance Indicators for Operation Management and Continuous Improvement in Production Systems.” *International Journal of Production Research* 54 (21): 6333–50. <https://doi.org/10.1080/00207543.2015.1136082>.
- Khawam, Ashley M., Toni DiDona, and Brenda Hernandez. 2017. “Effectiveness of Teamwork in the Workplace.” *International Journal of Sciences: Basic and Applied Research* 32 (3): 267–86. <https://www.gssrr.org/index.php/JournalOfBasicAndApplied/article/download/7134/341>.
- Kilmann, Ralph H., and Kenneth W. Thomas. 1977. “Developing a Forced-Choice Measure of Conflict-Handling Behavior: The ‘Mode’ Instrument.” *Educational and Psychological Measurement* 37 (2): 309–25. <https://doi.org/10.1177/001316447703700204>.
- Kiyamaz, Halil, Samina Haque, and Ahmed Abir Choudhury. 2024. “Working Capital Management and Firm Performance: A Comparative Analysis of Developed and Emerging Economies.” *Borsa Istanbul Review* 24 (3): 634–42. <https://doi.org/10.1016/j.bir.2024.03.004>.
- Lencioni, Patrick M. 2002. *The Five Dysfunctions of a Team: A Leadership Fable*. <http://ci.nii.ac.jp/ncid/BA5846175X>.
- Lencioni, Patrick M. 2003. “The Trouble With Teamwork.” *Leader to Leader* 2003 (29): 35–40. <https://doi.org/10.1002/ltl.36>.
- Ludwig, Christopher. n.d. “Design and Manufacturing Integration, Digitalisation Key to Cost and Sustainability Gains for BMW’s Neue Klasse.” Automotive Manufacturing Solutions. <https://www.automotivemanufacturingsolutions.com/manufacturing->

engineering/design-and-manufacturing-integration-digitalisation-key-to-cost-and-sustainability-gains-for-bmws-neue-klasse/45091.article.

Mohamed, Roda, and Pinar Basar. 2023. "Impact of Strategic Management on Competitive Advantage." *Trends in Business and Economics* 37 (1): 46–56.

<https://doi.org/10.5152/tbe.2023.1000204>.

Moore, Michael R., and Michael A. Diamond. 2000. *Academic Leadership: Turning Vision into Reality*. Ernst & Young Foundation

Nesic, Ilija, and Matteo Mosnja. 2022. "Automotive Sector Analysis - One Piece at a Time." *Bloomberg Adria*, December.

Nobanee, Haitham, and Maryam Al Hajjar. 2014. "An Optimal Cash Conversion Cycle." *SSRN Electronic Journal*, March.

https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2966165_code1304313.pdf?abstractid=2128662.

O'Neill, Thomas A., and Matthew J.W. McLarnon. 2017. "Optimizing Team Conflict Dynamics for High Performance Teamwork." *Human Resource Management Review* 28 (4): 378–94. <https://doi.org/10.1016/j.hrmr.2017.06.002>.

Phillips, Katherine, and Charles O'Reilly. 1998. "Demography and Diversity in Organizations: A Review of 40 Years of Research." *Research in Organizational Behavior* 20: 77–140.

Piątek, Radosław Karol. 2023. "Analysis of Brand Portfolios of Automotive Concerns Using the BCG Matrix." *Journal of Modern Science* 54 (5): 83–96.

<https://doi.org/10.13166/jms/176174>.

Quaye, Isaac, Abraham Osei, Alfred Sarbah, and Eugene Abrokwa. 2015. "The Applicability of the Learning School Model of Strategy Formulation (Strategy Formulation as an

- Emergent Process).” *Open Journal of Business and Management* 03 (02): 135–54.
<https://doi.org/10.4236/ojbm.2015.32014>.
- Rehman, Ramiz, and Awais Raoof. 2010. "Weighted Average Cost of Capital (WACC) Traditional vs New Approach for Calculating the Value of Firm." *International Research Journal of Finance and Economics* 45: 7–9.
- Shonk, Katie. 2024. “Interpersonal Conflict Resolution: Beyond Conflict Avoidance.” PON - Program on Negotiation at Harvard Law School. June 4, 2024.
<https://www.pon.harvard.edu/daily/conflict-resolution/interpersonal-conflict-resolution-beyond-conflict-avoidance/#:~:text=%E2%80%9CConflict%20avoidance%20is%20a%20type,that%20was%20dismissive%20or%20hypercritical>.
- Shou, Yongyi, Jinan Shao, Kee-Hung Lai, Mingu Kang, and Youngwon Park. 2019. “The Impact of Sustainability and Operations Orientations on Sustainable Supply Management and the Triple Bottom Line.” *Journal of Cleaner Production* 240 (September): 118280.
<https://doi.org/10.1016/j.jclepro.2019.118280>.
- Simerson, Byron K. 2012. “Strategic Planning: A Practical Guide to Strategy Formulation and Execution.” *Choice Reviews Online* 49 (05): 49–2776. <https://doi.org/10.5860/choice.49-2776>.
- Slack, Nigel, and Alistair Brandon-Jones. 2019. *Operations Management*. 9th ed. Pearson.
- “Sustainability in Automotive: From Ambition to Action - Capgemini.” 2024. Capgemini. August 7, 2024. <https://www.capgemini.com/insights/research-library/sustainability-in-automotive/>.

- Stein, Judith. n.d. "Using the Stages of Team Development | MIT Human Resources." <https://hr.mit.edu/learning-topics/teams/articles/stages-development>.
- Toegel, Ginka. 2024. "How to Preempt Team Conflict." *Harvard Business Review*. March 27, 2024. <https://hbr.org/2016/06/how-to-preempt-team-conflict>.
- UNFCCC. 2014. "The Paris Declaration on Electro-Mobility and Climate Change and Call to Action." United Nations Framework Convention on Climate Change. Accessed September 2, 2024.
- Vipond, Tim. 2024. "Days Sales in Inventory (DSI)." Corporate Finance Institute. October 4, 2024. <https://corporatefinanceinstitute.com/resources/financial-modeling/days-sales-in-inventory/>.
- Wienclaw, Ruth A. 2021. "Operations Management." *Salem Press Encyclopedia*, April. <https://research.ebsco.com/linkprocessor/plink?id=c11df719-a1c1-3c15-a9c6-a483ceed11b7>.
- Xu, Xinkuo, Jingsi Li, and Danyang Yin. 2023. "How And Why Does Green Bond Have Lower Issuance Interest Rate? Evidence From China." *Emerging Markets Finance and Trade* 60 (1): 138–48. <https://doi.org/10.1080/1540496x.2023.2207702>.
- Yahoo Finance. 2024. "Tesla, Inc. (TSLA) Analyst Ratings, Estimates & Forecasts." Accessed September 3, 2024. <https://finance.yahoo.com/quote/TSLA>.

Appendix

1. Abbreviations	34
2. Year Overview	34

FIGURES

1. Strategic Diamond	35
2. Pestel Analysis	35
3. SWOT	36
4. Triple Bottom Line	36
5. Porter's Generic Strategies	37
6. VARS	37
7. Business Model Canvas	38
8. Positioning Map	38
9. 4 V Framework	39
10. Operations Key Performance Objectives	8
11. Sustainability Investments	39
12. Discovery Insights Model	40

GRAPHS

1. Comparison of Models Sold vs. Models in Production	40
2. Sustainability Rating	41
3. Inventory Management and Profitability	41
4. Factory Utilization	42
5. Revenue	42
6. Profitability Ratios	43
7. Costs as a % of Revenue	43
8. Economic Value Added (EVA)	44
9. Total Assets	44
10. Liquidity Ratios	45
11. Cash Conversion Cycle (CCC)	45
12. Debt Analysis	46
13. Interest Expenses	46
14. WACC	47
15. Financial Performance Analysis	47

Abbreviations

Acronym	Meaning
BiP	Business in Practice
CAPEX	Capital Expenditures
CCC	Cash Conversion Cycle
CSR	Corporate Social Responsibility
ESG	Environment, Social and Governance
EV	Electric Vehicles
FCFF	Free Cash Flow
HR	Human Resources
ICR	Interest Coverage Ratio
JIT	Just in Time
KPI	Key Performance Indicator
NOPAT	Net Operating Profit After Tax
NWC	Net Working Capital
OEM	Original Equipment Manufacturer
Q	Quarter
RONA	Return on Net Assets
R&D	Research & Development
TBL	Triple Bottom Line
TKI	Thomas-Kilmann Conflict Mode Instrument
WACC	Weighted Average Cost of Capital

Year Overview

Year 1	Q5-Q8	2025
Year 2	Q9-Q12	2026
Year 3	Q13-Q16	2027
Year 4	Q17-Q20	2028
Year 5	Q21-Q24	2029
Year 6	Q25-Q28	2030

FIGURES

Figure 1 - Strategic Diamond

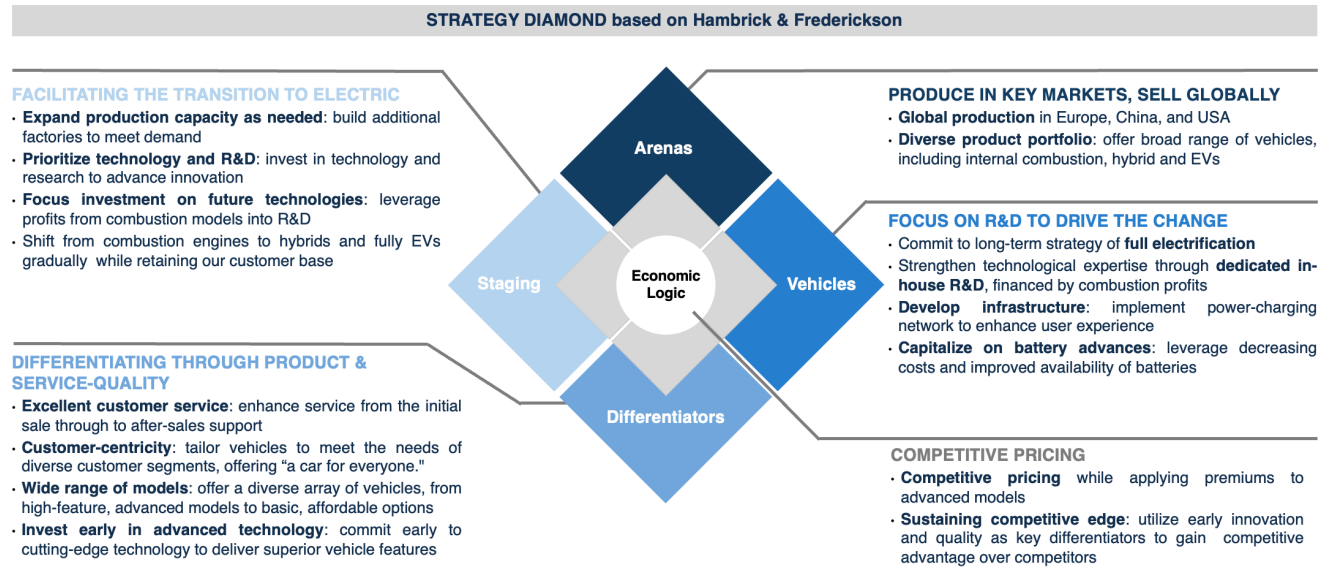


Figure 2 - PESTEL Analysis

Political	Economic	Social	Technological	Environmental	Legal
<ul style="list-style-type: none"> • Governmental policies: Changes in government policies, such as subsidies for EVs or incentives for green technology, can significantly impact the automotive industry • Trade policies and tariffs affect cost of importing and exporting vehicles and raw materials 	<ul style="list-style-type: none"> • Industry growth: EV industry is growing fast compared to combustion • Fuel prices impact combustion demand • Economic cycles: industry is susceptible to economic cycles, consumer spending decreases during economic downturns 	<ul style="list-style-type: none"> • Changing Consumer Preferences: Growing preference for sustainable and environmentally friendly products, including vehicles • Consumer Awareness: Environmental impact driving demand for EVs and gas prices affect consumer preference • Urbanization: Ride-hailing and car sharing are expected to increase 	<ul style="list-style-type: none"> • Economies of scale now easier to achieve with EVs • Advancements in battery technology • Expansion of charging networks • Rise of autonomous vehicles • Innovation and R&D advancements in autonomous driving, electric vehicles and connectivity • Digitalization: rise of artificial intelligence, internet of things influence vehicles features and customer preferences 	<ul style="list-style-type: none"> • Climate change: leading to necessity of low emission vehicles • Sustainability: Growing demand for sustainable practices in production including recycling process • Resource scarcity of certain rare earth metals impact production • Environmental regulations 	<ul style="list-style-type: none"> • Regulations and standards: compliance with international and national safety standards • Emission regulations: stricter regulations are pushing automakers to manufacture cleaner vehicles • Intellectual property: important in EV industry to sustain competitive advantage

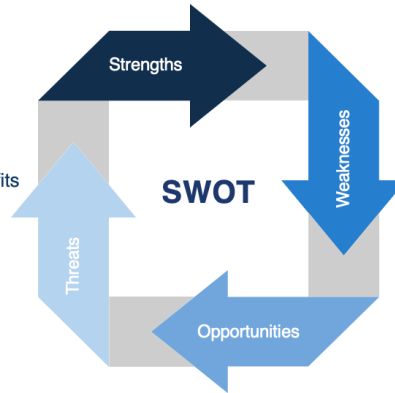
Figure 3 – SWOT Analysis

STRENGTHS

- Maintained **diverse portfolio** to cater to varying consumer needs
- **Focus on innovation**: continually developed innovative products
- Achieved high levels of employee satisfaction
- Established strong global presence
- **Strategic transition**: gradually reduced investments in combustion vehicles, using profits from popular models to fund R&D

THREATS

- Impact of **tariffs**
- **Increasing competition** due to lower entry barriers in EV market
- Combustion bans and emissions fees
- Shifting consumer behaviour



WEAKNESSES

- **High production costs** resulting from large vehicle lineup
- **Lack of clear customer focus**: targeted overly broad range of customer segments
- Dealt with **high days of inventory** to operational efficiency
- **Reactive pricing strategy**: frequent changes in pricing

OPPORTUNITIES

- Continue to **expand product portfolio**
- **Enhance sustainability** across all products and operations
- Capitalize on cost advantages provided by increased production scale

Figure 4 - Triple Bottom Line - (own illustration)

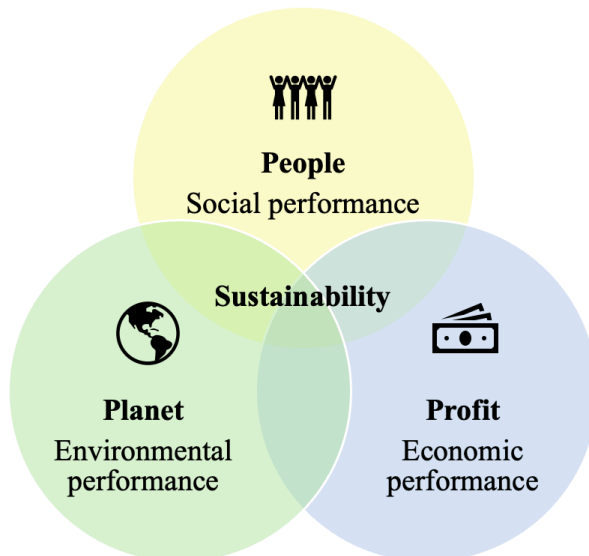


Figure 5 - Michael Porter's Generic Strategies (own illustration)

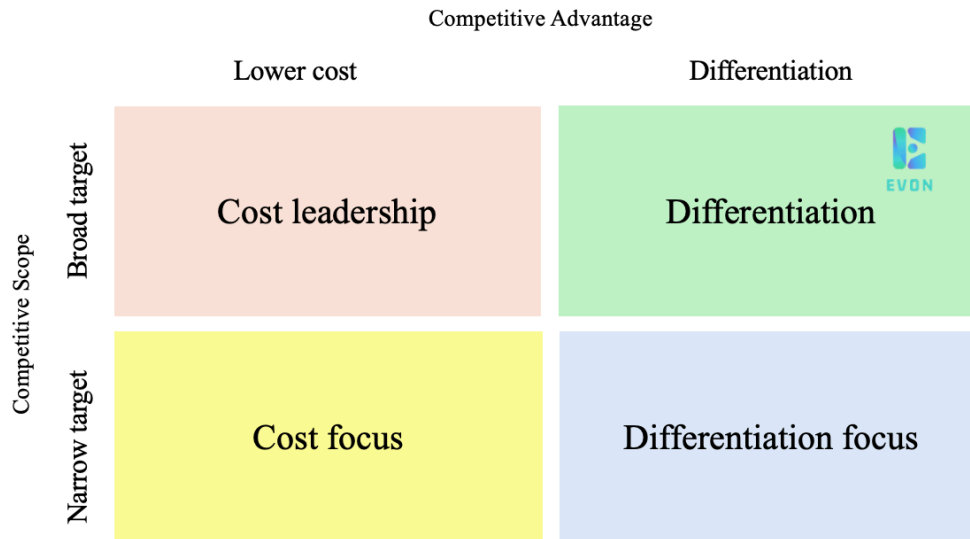


Figure 6 - VARS Framework

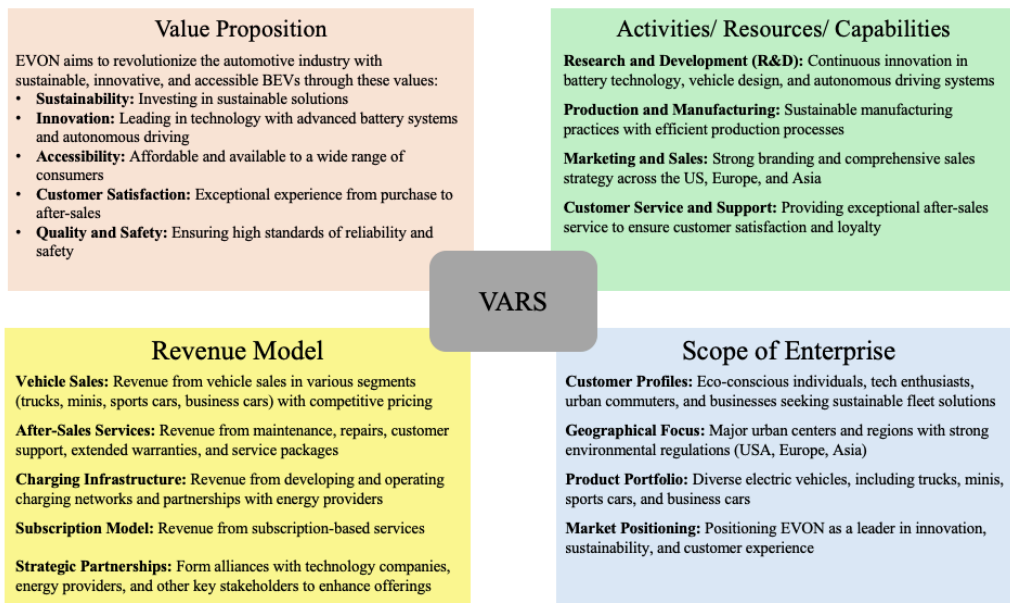


Figure 7 - Business Model Canvas

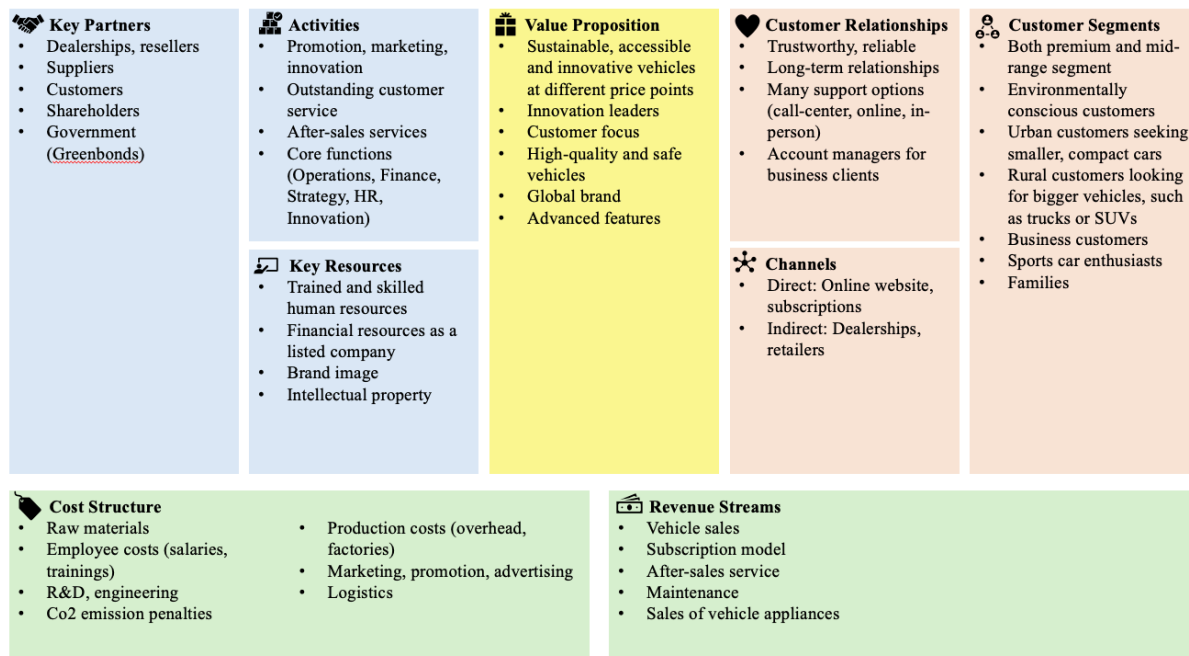


Figure 8 – Positioning Map

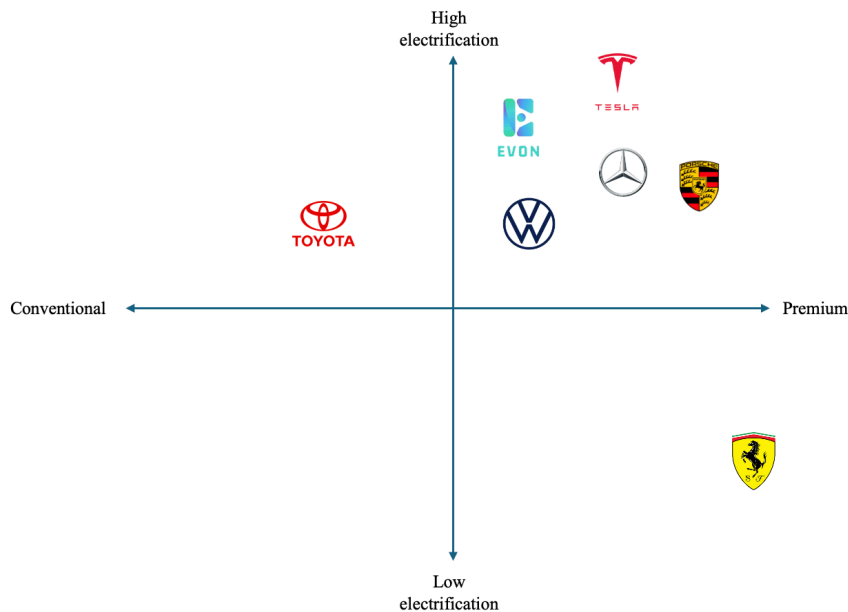


Figure 9 - 4 V Framework

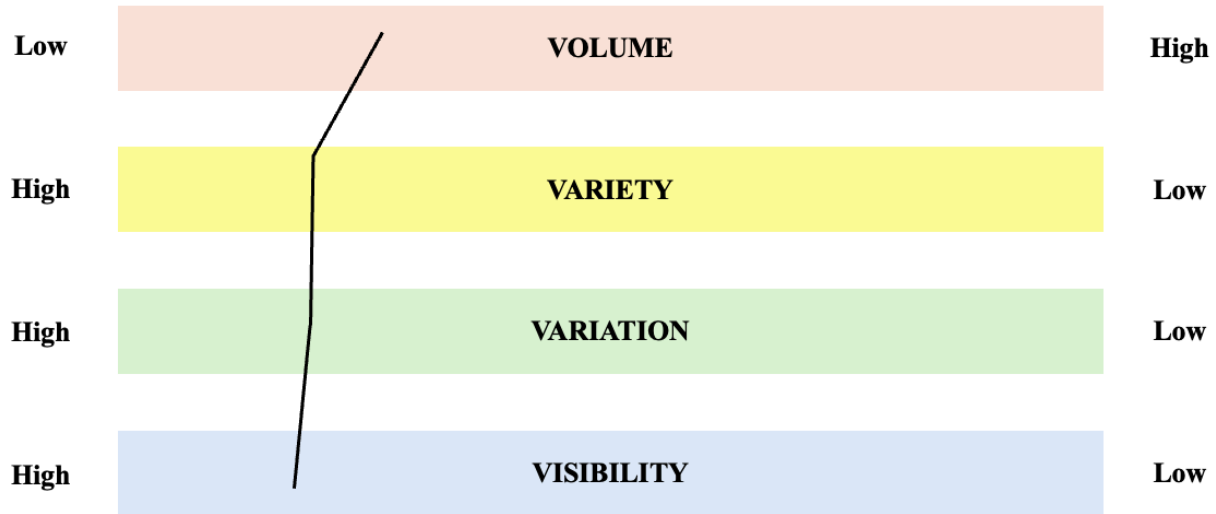


Figure 11 - Sustainability Investments










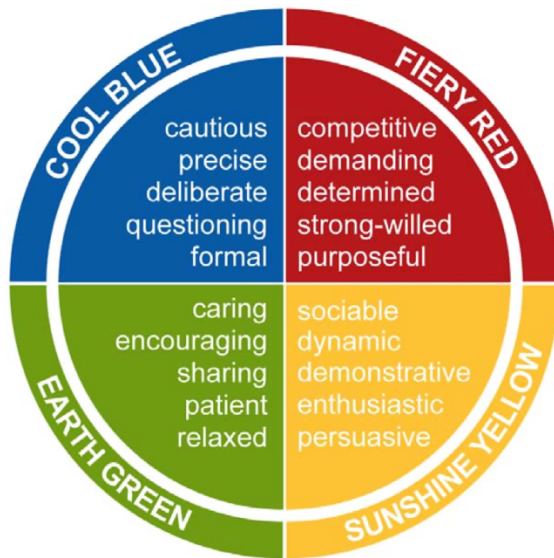
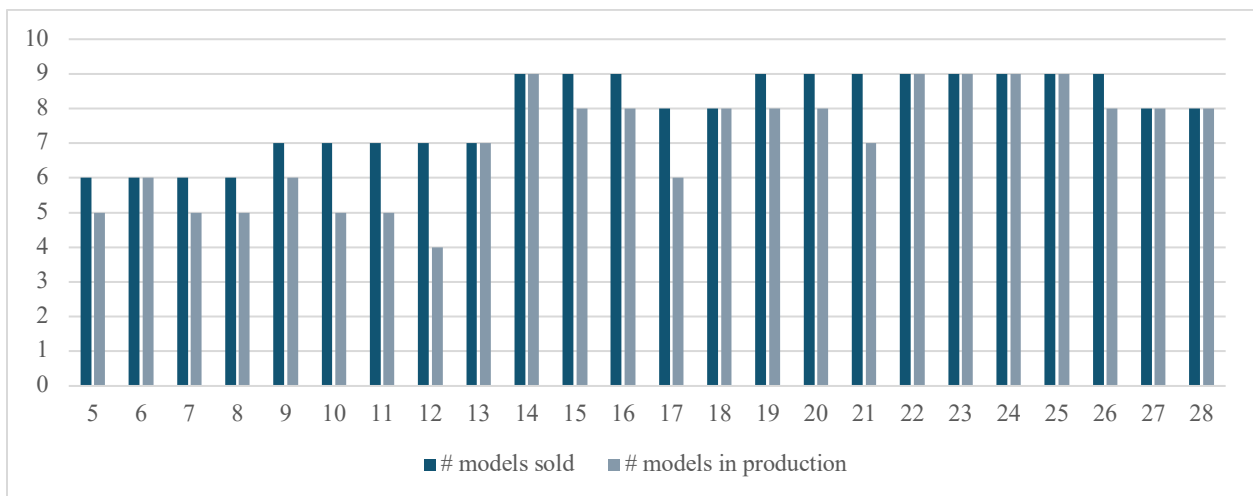
Scope	Initiative		Investment	Status	Date invested	Date implemented	Benefits
1	Water Consumption Reduction		\$200M	Implemented	Q8	Q10	<ul style="list-style-type: none"> • Boost demand (+) • Decrease material costs (-) • Improve CSR (+)
1	Waste Reduction		\$400M	Implemented	Q13	Q15	<ul style="list-style-type: none"> • Boost demand (+) • Decrease material costs (-) • Improve CSR (+)
1	ISO 14001/ EMAS Certificate		\$500M	Implemented	Q22	Q24	<ul style="list-style-type: none"> • Boost demand (++) • Increase CSR (++) • Enhance motivation (+)
2	Energy Efficiency Investment		\$150M	Implemented	Q12	Q14	<ul style="list-style-type: none"> • Boost demand (+) • Decrease material costs (-) • Improve CSR (+)
2	Install Solar Panels		\$250M	To be implemented	-	-	<ul style="list-style-type: none"> • Boost demand (+) • Decrease material costs (-) • Improve CSR (+)
2	Energy Management System		\$100M	To be implemented	-	-	<ul style="list-style-type: none"> • Boost demand (+) • Decrease material costs (-) • Improve CSR (+)
3	Offset Suppliers CO2		\$81.83M (quarterly)	Implemented	Q11	Q13	<ul style="list-style-type: none"> • Boost demand (+) • Increase material costs (+) • Improve CSR (+)
3	Sustainable Suppliers		\$20M	To be implemented	-	-	<ul style="list-style-type: none"> • Boost demand (+) • Increase material costs (+) • Improve CSR (+)
3	External Battery Recycling		\$200M	To be implemented	-	-	<ul style="list-style-type: none"> • Boost EV demand (+) • Decrease CO2 emissions (-) • Improve CSR

Figure 12 – Discovery Insights Model (Insights Discovery, n.d.)

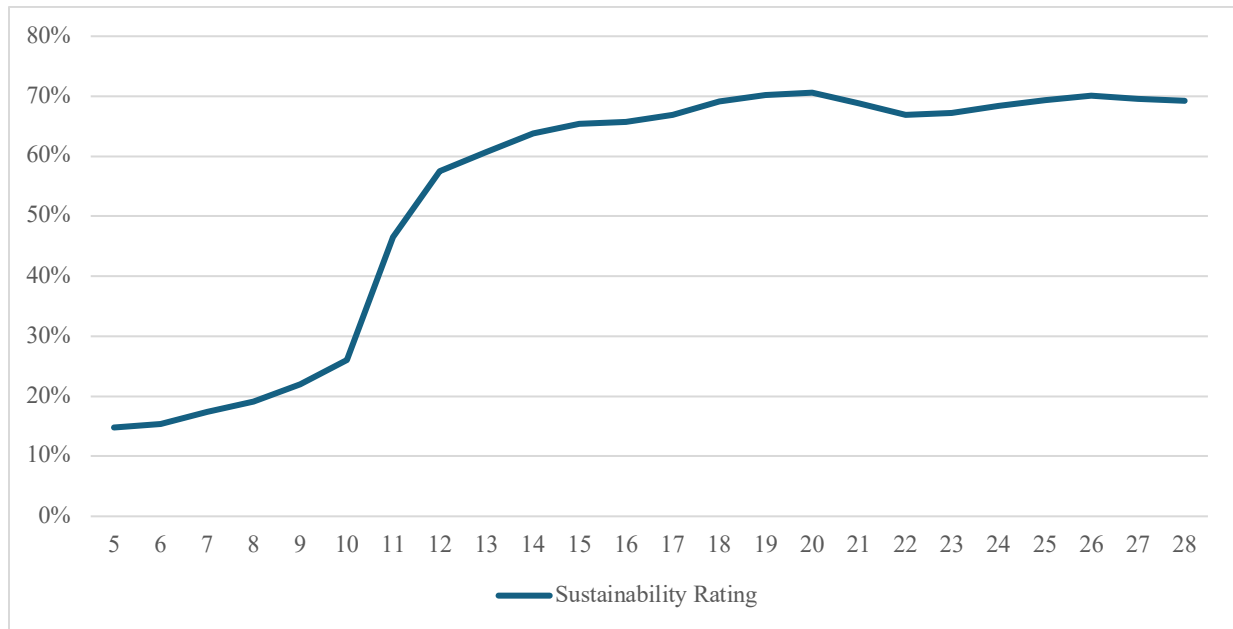


GRAPHS

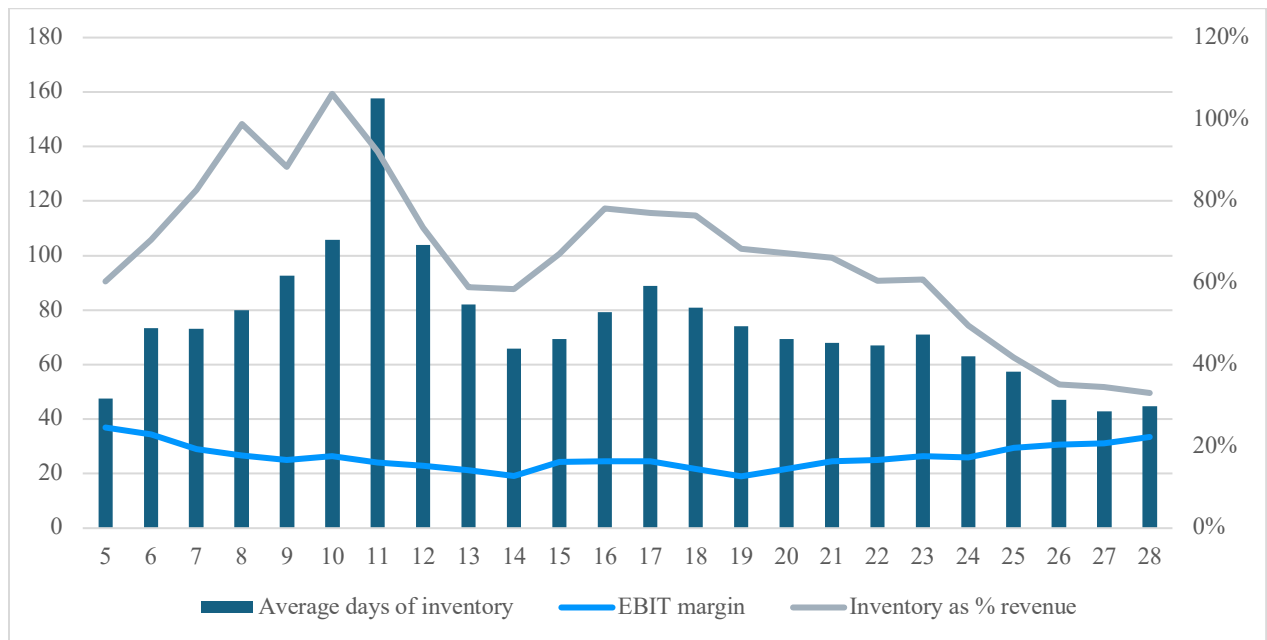
Graph 1 – Comparison of Models Sold vs. Models in Production



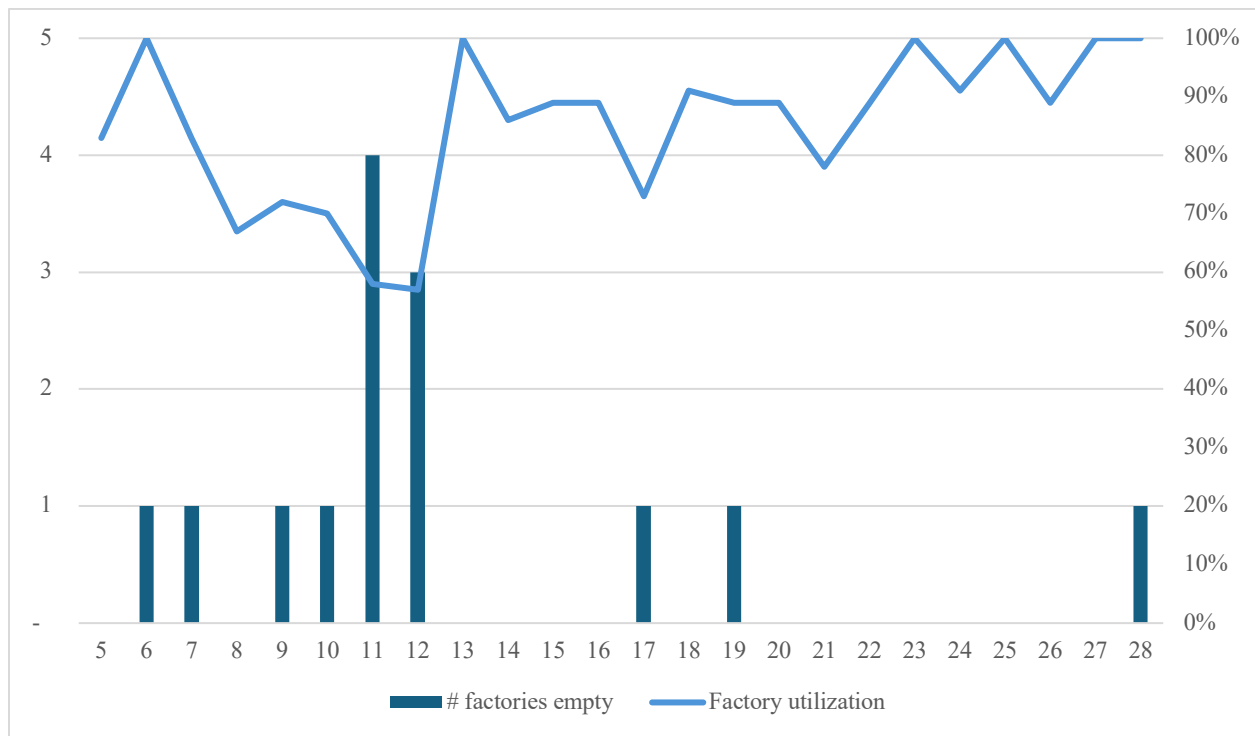
Graph 2 – Sustainability Rating



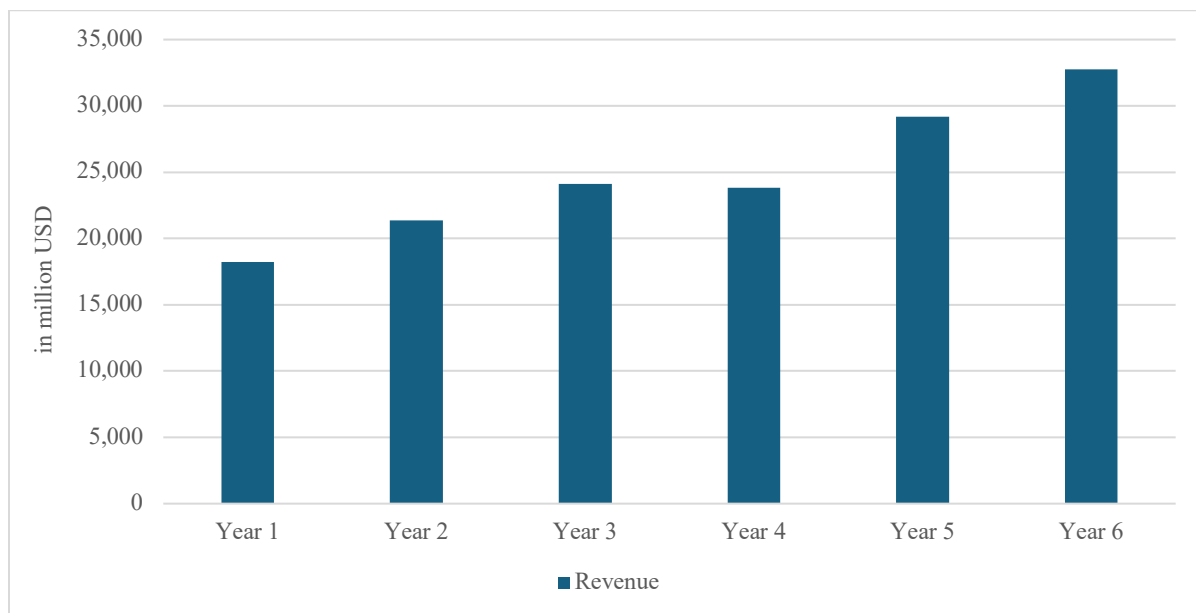
Graph 3 – Inventory Management and Profitability



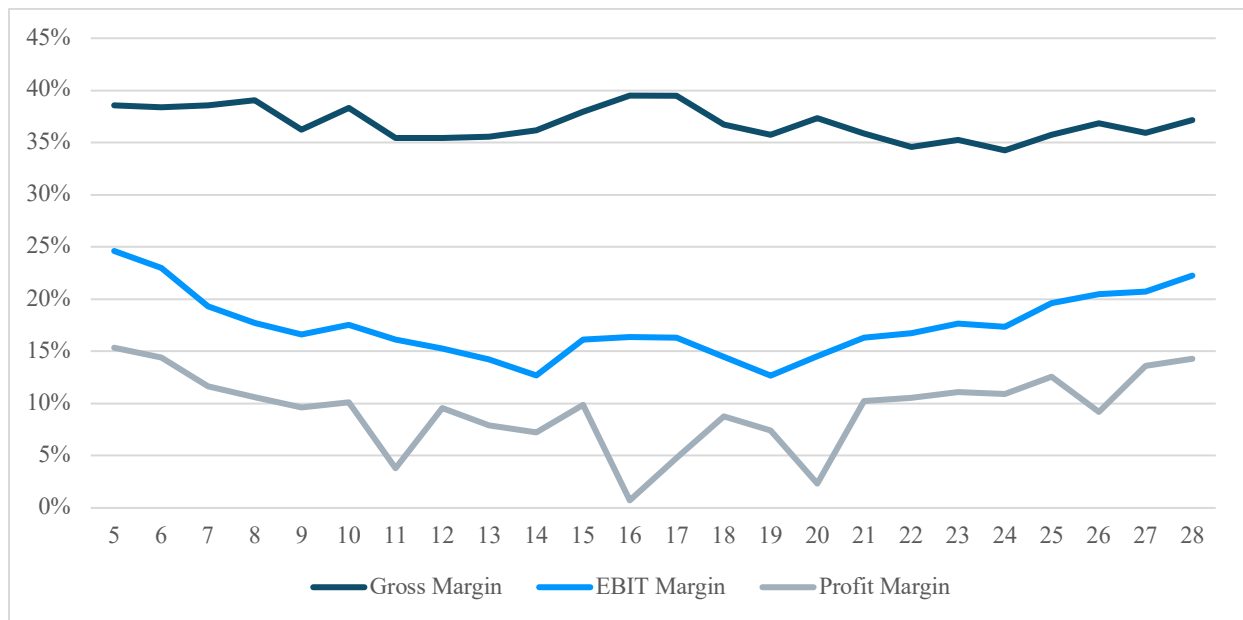
Graph 4 – Factory Utilization



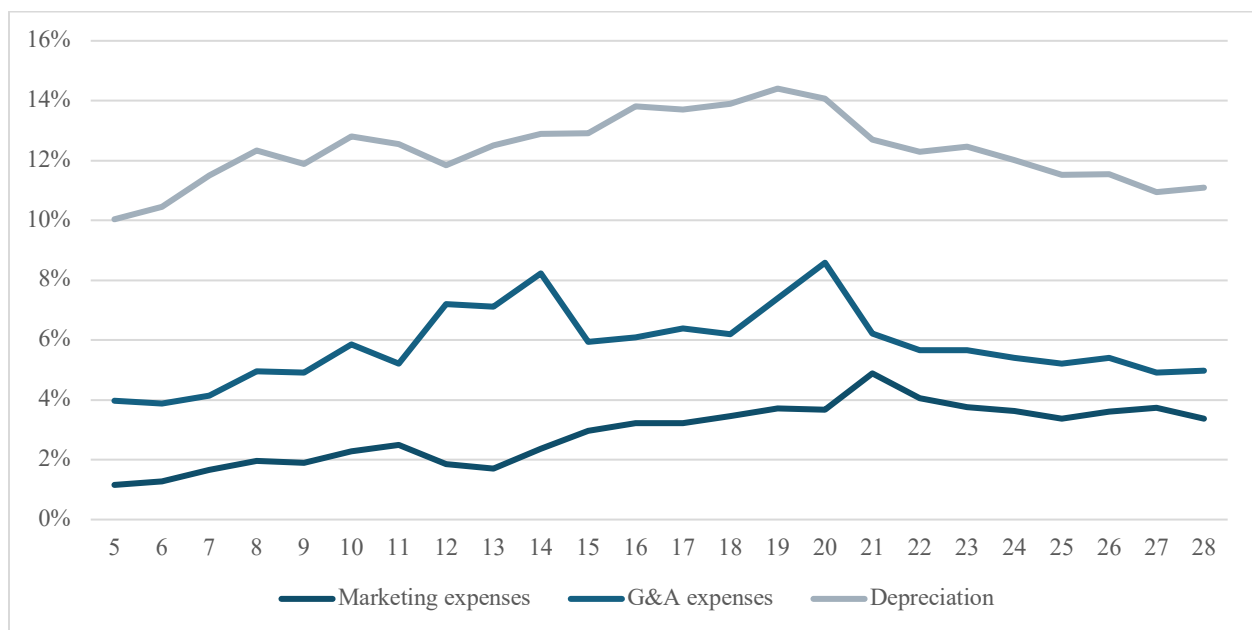
Graph 5 - Revenue



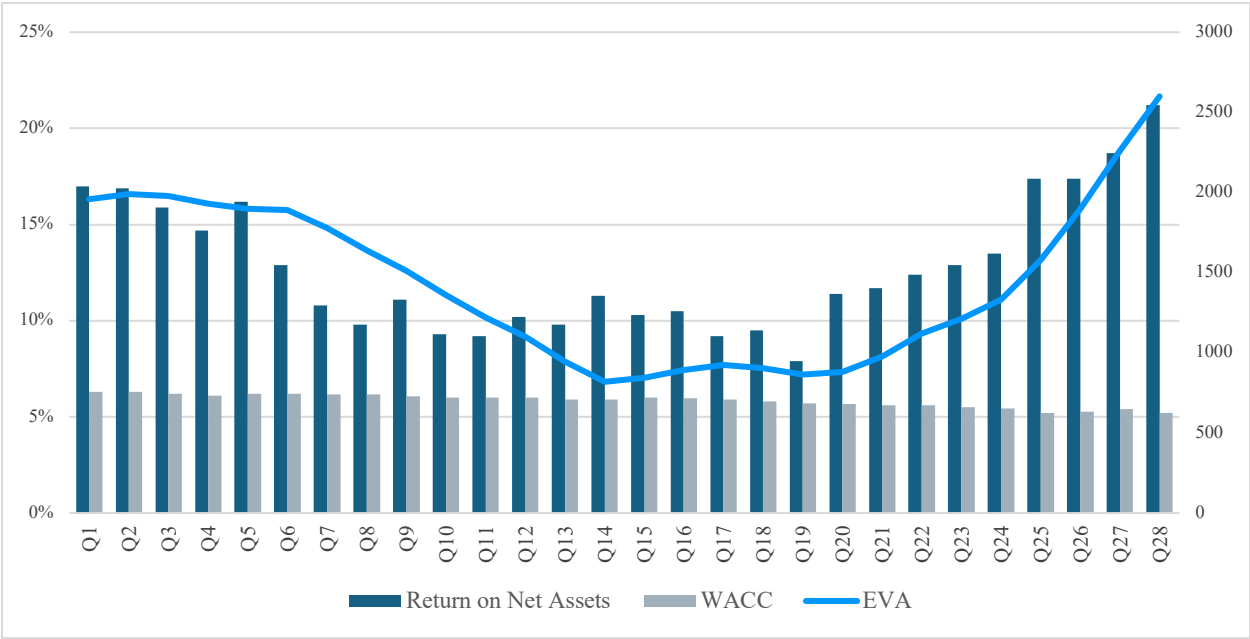
Graph 6 - Profitability Ratios



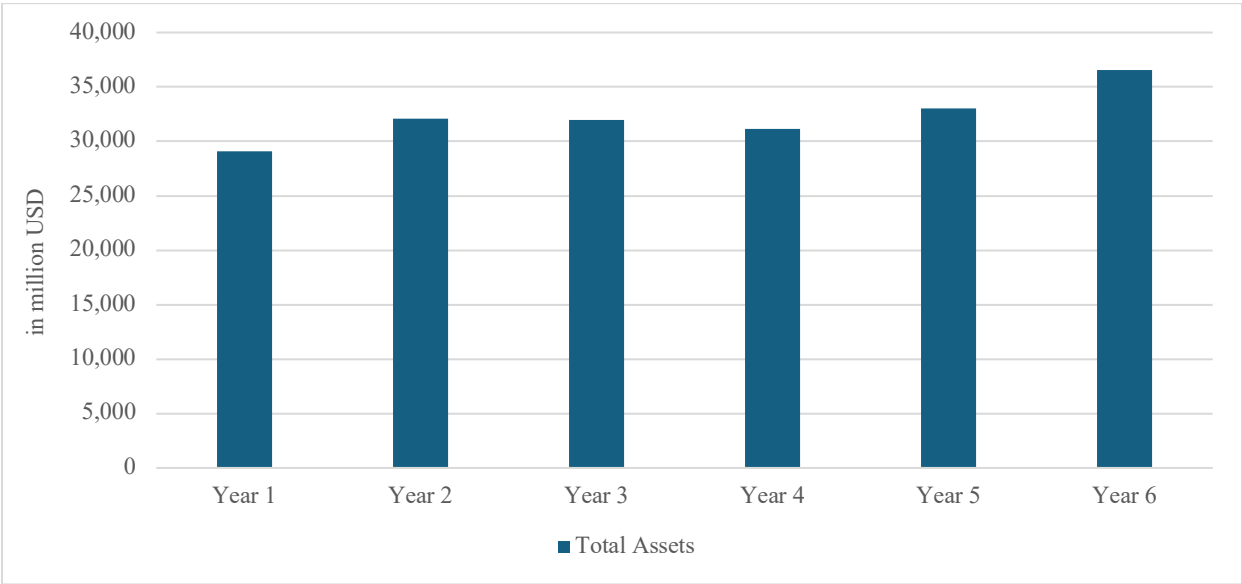
Graph 7 – Costs as a Percentage of Revenue



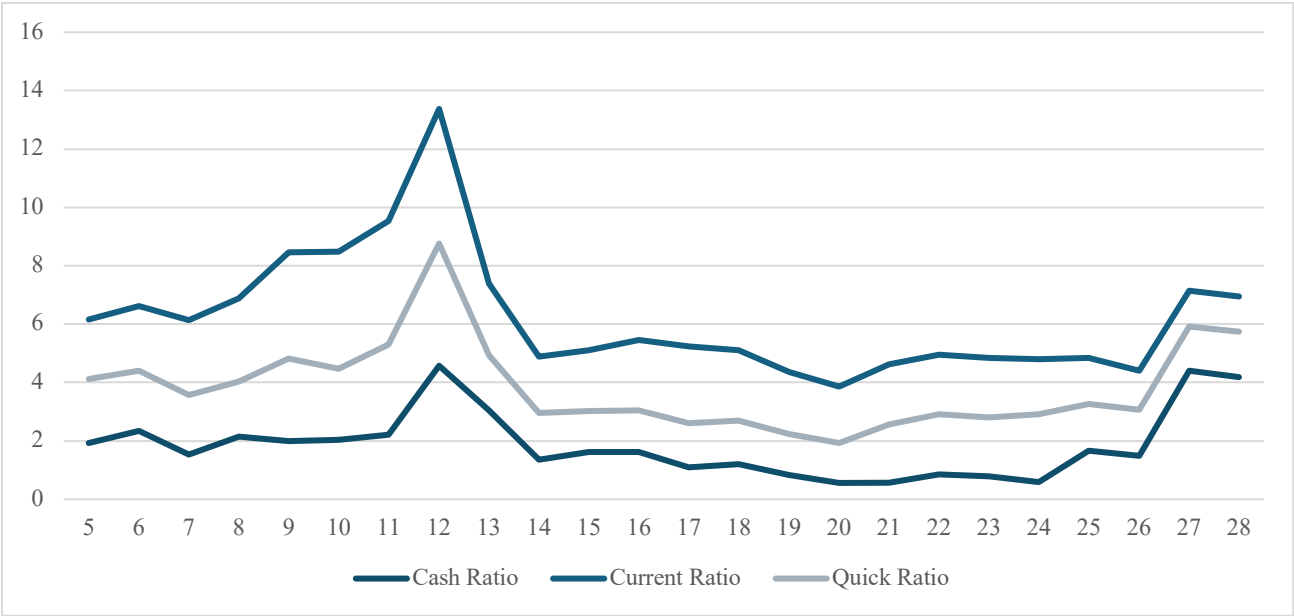
Graph 8 – Economic Value Added (EVA)



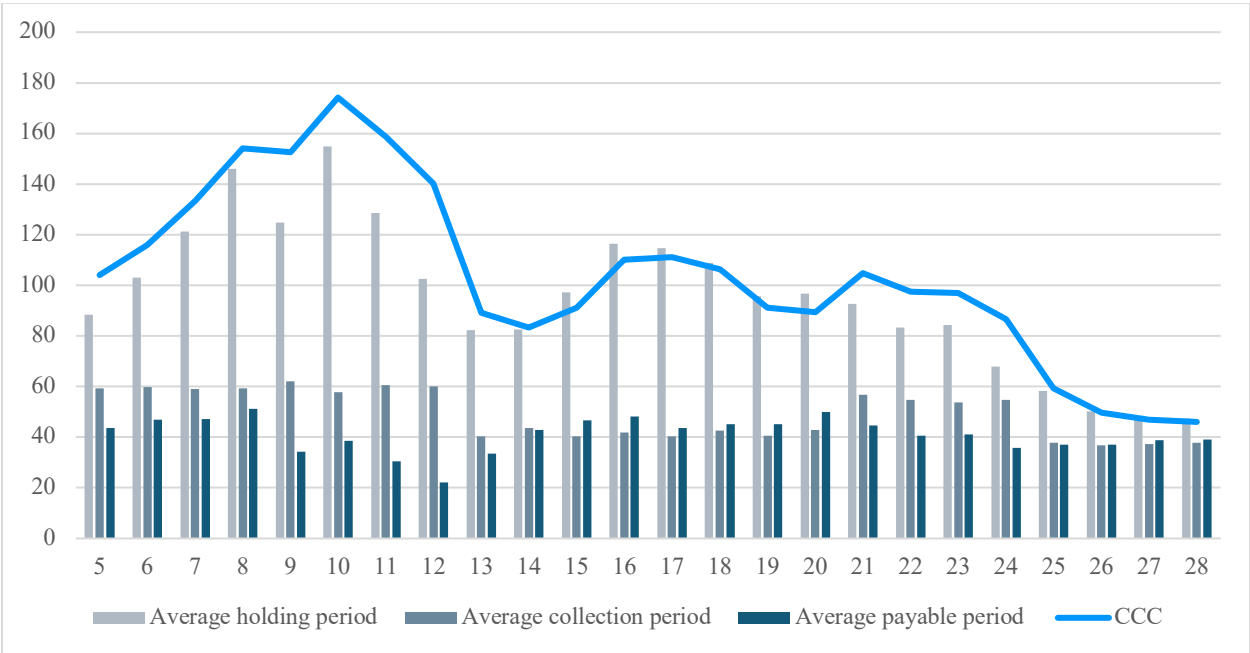
Graph 9 – Total Assets



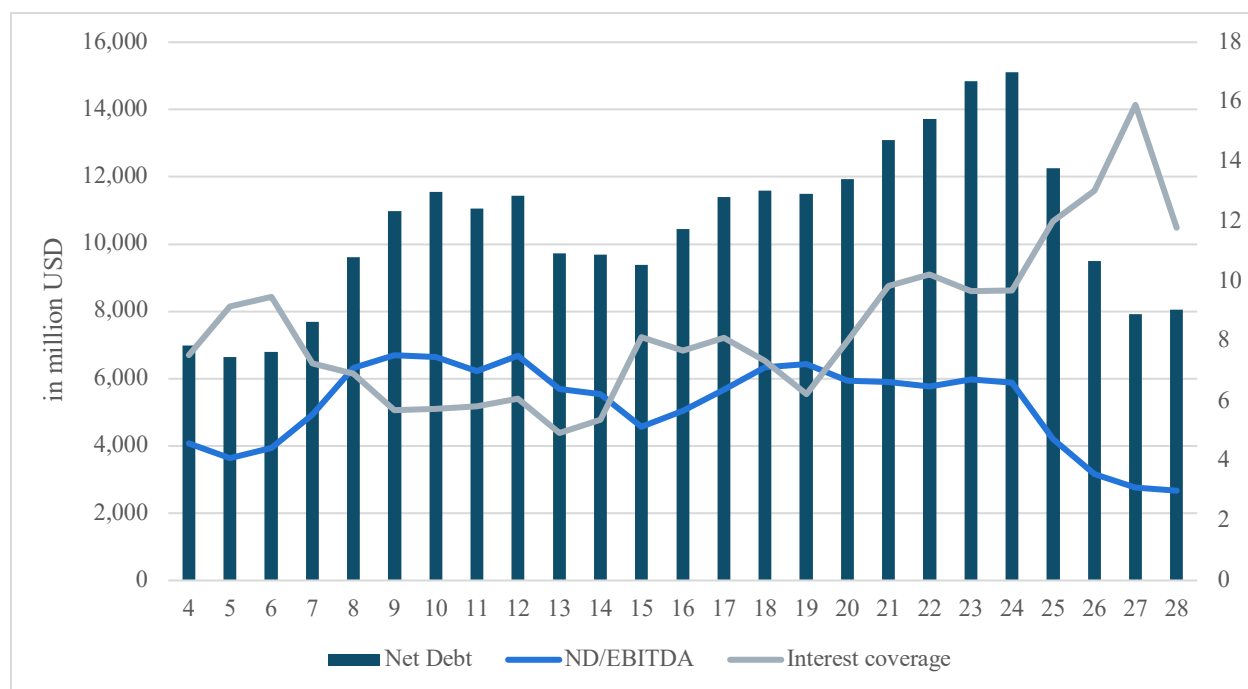
Graph 10 – Liquidity Ratios



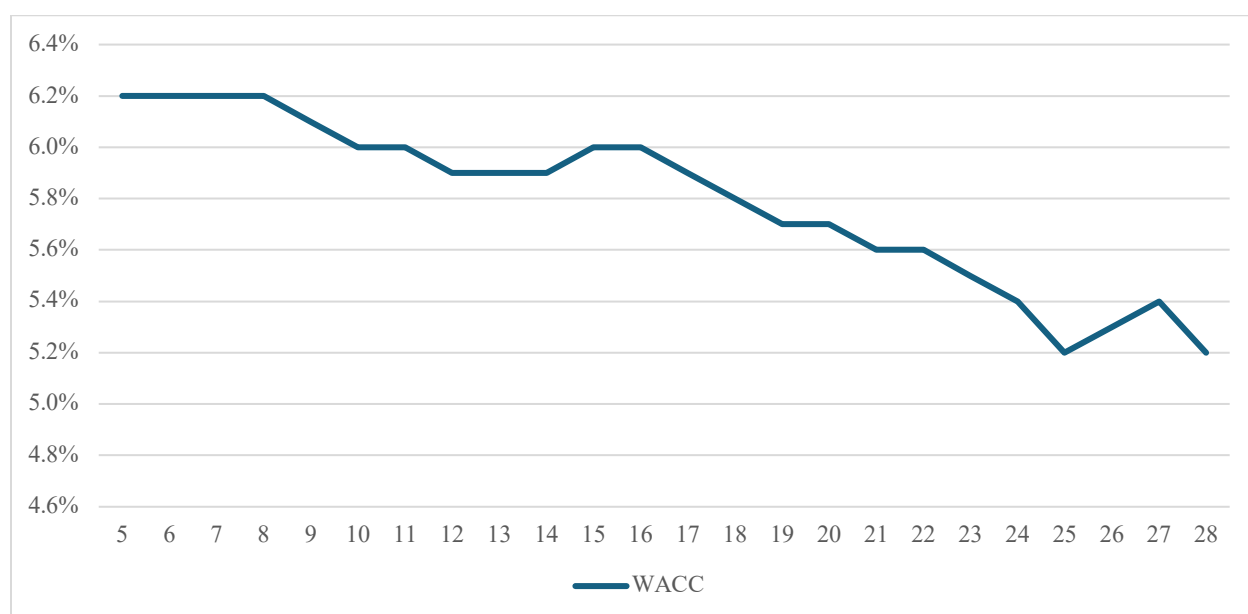
Graph 11 – Cash Conversion Cycle (CCC)



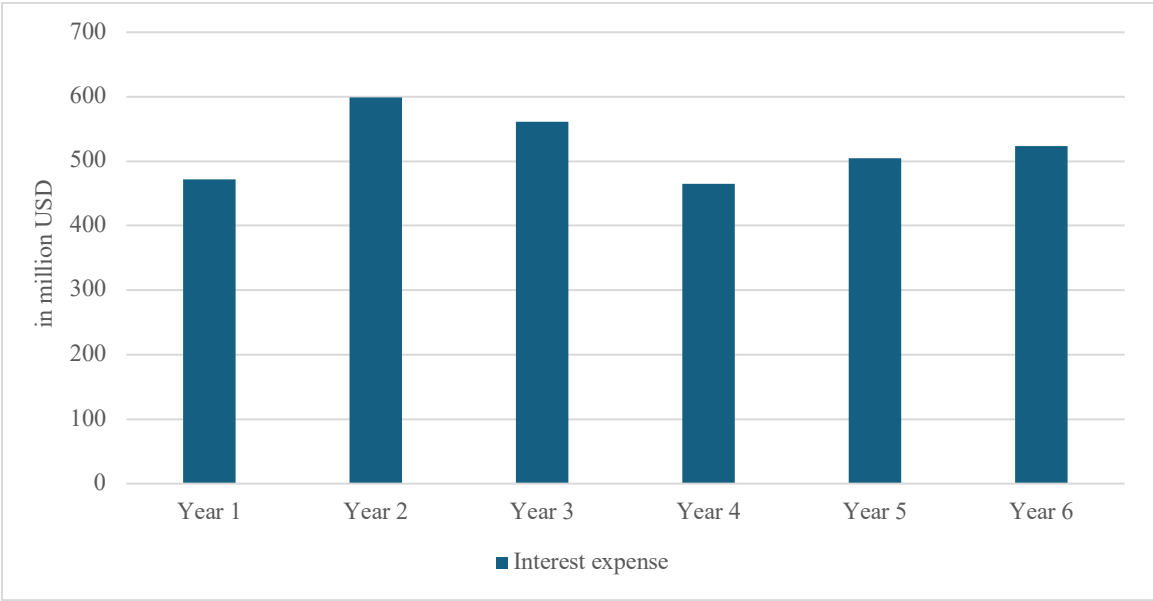
Graph 12 – Debt Analysis: Net Debt, Net Debt/EBITDA, and Interest Coverage Ratios



Graph 13 – Weighted Average Cost of Capital (WACC)



Graph 14 – Interest Expenses



Graph 15 - Financial Performance Analysis: FCFF, EBITDA, and EBITDA Margin

