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BUSINESS IN PRACTICE

"Strategic Management and Sustainable Innovation: The Transformation of Vector Motors in a Competitive Market Simulation"

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Abstract

This thesis explores the strategic and operational management of Vector Motors during a simulated business environment. The focus is on transitioning to a high-quality, differentiated automaker with a strong emphasis on sustainability and innovation. Key decisions include capital structure management, factory distribution, and the launch of electric vehicles, aligning with market dynamics and consumer behaviour. The project highlights the challenges of maintaining team motivation, managing financial performance, and fostering a supportive team environment. The results demonstrate the effectiveness of a strategy that balances financial stability, technological advancement, and sustainable practices in achieving long-term business success.

Keywords

Apply theory in practice, Business simulation, Develop a business strategy, Coordinate decisions across business functions, Managing a business, Reflective practice, Sustainability and ESG, Team dynamics.

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Company Analysis

1. Introduction

Vector Motors embarked on a mission to become a leader in the premium automotive sector by blending luxury with sustainability to meet and anticipate the needs of a rapidly evolving market. Our strategy centered on the belief that the future of the automotive industry lies in innovation and environmental stewardship. By focusing on high-quality electric vehicles and a diverse product range, we aimed to attract sophisticated, eco-conscious consumers who value cutting-edge technology and sustainability.

From the start, we knew that success required more than just innovative products; it demanded an integrated approach across all business areas, from operations to finance, to support our differentiation strategy. This led us to make bold choices, such as significant investments in electric vehicle technology and strategic production management to align with market demand. However, we also recognized the need for flexibility and agility in a dynamic industry. Our journey, marked by both achievements and lessons, underscored the importance of balancing innovation with responsiveness.

2. Strategy

The foundation of Vector Motors' strategy was built on a clear and focused brand positioning that differentiated us from competitors in the automotive industry. By embracing a premium positioning, we aimed to establish ourselves as a leader in high-quality, technologically advanced, and environmentally sustainable vehicles. This strategy was influenced by Michael Porter’s differentiation framework, which advocates creating unique products that offer superior value and justify premium pricing.

Our differentiation strategy was not just about the physical attributes of our vehicles but also about the overall brand experience. We focused on innovation and sustainability, aiming to deliver vehicles that incorporated the latest technological advancements while also contributing to environmental preservation. The strategy involved offering a diverse portfolio of vehicles, including luxury sedans, electric city cars, and high-performance sports cars, each designed to meet the specific needs of a sophisticated and environmentally conscious consumer base.

Enterprise Life Cycle and Economic Value Added: Understanding and managing both the corporate and product lifecycles were critical to our strategy. Adizes' Corporate Life Cycle theory was particularly influential in guiding our overall company management. This theory suggests that organizations go through predictable stages of development, each with its own set of challenges and opportunities. We relied heavily on this concept of Enterprise Life Cycle (ELC), and its stages: decline, renewal, growth, and maturity. In the context of Vector Motors, it was essential in guiding our decisions and coordinating all the departments about when to introduce new products, when to phase out older models, and how to manage the company's resources during different stages of the lifecycle.

Graph 1 illustrates Vector Motors' journey through different stages over the simulation period and its impact on economic value added (EVA). In the early quarters (Q5-Q12), the company entered a decline phase due to existing car models becoming obsolete and needing many investments, particularly for electric vehicle technology, which initially lowered EVA. As we moved into the renewal and growth phases (Q13-Q24), these investments began to yield results. The launch of new electric vehicles and the phasing out of older models boosted market share and profitability, driving a significant increase in EVA. By the maturity phase (Q25-Q28), Vector Motors had solidified its position as a leader in the premium automotive market, with a strong, sustainable product lineup and robust financial performance.

Innovation and Technological Leadership: Innovation has always been a cornerstone of Vector Motors' strategy, particularly in an industry as dynamic and competitive as automotive manufacturing. Inspired by the success of companies like Tesla, which leveraged its early adoption of electric vehicle technology to establish itself as a market leader, we recognized the need to innovate continuously. This rapidly evolving landscape can be address as Joseph Schumpeter's theory of creative destruction, which provided a guiding framework for our approach to innovation and technological investments. Schumpeter's theory states that economic progress is driven by the continuous cycle of innovation, where old technologies and business models are inevitably replaced by new ones. This concept, often described as the "gale of creative destruction," emphasizes that for a company to remain competitive and thrive, it must be willing to disrupt itself—embracing new technologies and phasing out outdated practices, even when they are still profitable.

We applied Schumpeter's theory by adopting a forward-thinking mindset, where we consistently sought to innovate and anticipate market shifts. This proactive approach was particularly evident in our decision to transition from conventional internal combustion engines to electric vehicles (EVs). While the initial investment in EV technology was significant and the move away from established, profitable gasoline-powered models was risky, we understood that clinging to outdated technology would only delay the inevitable and put the company at a disadvantage in the long run.

While Schumpeter's theory provided a broad strategic framework, Clayton Christensen's theory of disruptive innovation offered specific guidance on how to execute this strategy effectively. Christensen's theory is particularly relevant in understanding how small, initially less profitable markets can grow to disrupt and eventually overtake established industries. According to Christensen, disruptive innovations are not immediately superior to existing

products in every way. Instead, they often begin by serving niche markets that are underserved by incumbents, gradually improving until they challenge and surpass the dominant products.

We tried to apply Christensen's insights by focusing on electric vehicles as a disruptive force in the automotive industry. Initially, EVs occupied a niche segment, appealing primarily to environmentally conscious consumers and early adopters of new technology. However, we recognized that the potential for EVs to disrupt the entire automotive industry was significant. To capitalize on this potential, we made substantial investments, not just in terms of the vehicles themselves, but also in the supporting infrastructure, such as charging stations, battery recycling, and smart grid integration.

Balancing Profit, People, and Planet: We based our management approach on John Elkington's Triple Bottom Line (TBL) concept, which advocates for balancing financial performance with social and environmental responsibility. We integrated TBL principles across all areas of our operations, with a strong focus on sustainability and human resources (HR). Our commitment to environmental sustainability will be further explained in the operations paragraph. While our focus on the "social" aspect of TBL was demonstrated through our outstanding performance in HR. As shown in **Graph 2**, motivation levels among our management team increased consistently throughout the simulation, particularly from Q14 to Q28, culminating in exceptionally high levels. Our dedication to HR excellence was further validated when we were awarded the Best HR Department in the simulation, underscoring our emphasis on employee well-being, motivation, and development. By integrating TBL principles, we enhanced our operations and reinforced our reputation as a responsible, forward-thinking company, differentiating our brand, attracting eco-conscious consumers, and building a strong corporate reputation aligned with sustainability and social responsibility.

3. Finance

During our management of Vector Motors, we based our capital structure decisions primarily on the pecking order theory (Myers 2020), a financial management principle that stipulates a preference order for firms to finance new projects: first with cash generated from operations, then with debt, and as a last resort, with equity. This approach allowed us to strategically balance the use of different financing sources to support the company's growth and stability while maintaining a low weighted average cost of capital (WACC) over time. (See **Graph 3**)

Debt financing: In terms of debt financing, we prioritized maximizing the use of green bonds throughout our six years of management. Green bonds offered an advantageous interest rate of 3%, and they are a subsidized financing option tied to our significant investments in green capital expenditures (CapEx). These bonds were part of a strategic initiative to align with sustainability goals, providing cost-effective financing while supporting our environmental commitments. The credit limit on green bonds increased with each green investment, enabling continued development of electric vehicles (EVs). Despite our preference for green bonds, their limited availability meant that we also utilized traditional bank loans to meet our funding requirements.

During the first four years (**Graph 4**), the Debt Ratio increased from 36% to 48%, indicating our reliance on debt financing due to insufficient free cash flow (FCF). This period saw the Debt Ratio peak at 48% at the beginning of Year 3, as we prioritized debt, including green bonds and traditional bank loans, to finance substantial investments. At the same time, the Interest Coverage Ratio (ICR), which measures the company's ability to meet interest payments, ranged from 3x to 8x, reflecting the initial financial stress and high leverage. Starting in Year 5, as we generated enough FCF, we gradually started repaying outstanding debt leading to 31% debt ratio by the end of Year 6. Simultaneously, the ICR improved significantly,

reaching 30x by Q28, this was due to both the debt repayment which reduced quarterly interest expenses and to improved profitability.

While the trade-off theory suggests that debt level in a company should be a balance between costs of financial distress and tax shield benefits (Miller and Modigliani 1958), our approach was more focused on real life examples of the automotive industry. Our decision of repaying bank loans was made upon the fact that our excessive cash was not being used in any other way, and we wanted to stabilize the company by reducing interest payments pressure on cash flows. Our decision is also attributed to the cyclicality of the automotive industry, which experiences significant demand fluctuations based on economic conditions. Historical examples, such as General Motors (GM), financial distress during the 2008 financial crisis underscored the dangers of excessive leverage, ultimately requiring a government bailout and reorganization under bankruptcy. Similarly, our goal of maintaining low debt ratios provided our company with financial flexibility that allowed us to invest in innovation and development without the burden of excessive debt.

Equity Management: The only exception we made to the pecking order theory was upon taking control of the company in the first quarter of Year 1, when we decided to immediately issue shares. Our strategy was to time the market by issuing shares at a higher price early on, according to financial literature issuing shares with favourable conditions minimizes the dilution of ownership (Baker and Wurgler 2002). This intuition originated given our strategy to produce high-quality cars, and our need to make substantial investments. We anticipated that the time lag before these investments would yield returns would negatively impact the share price. Moreover, we aimed to compensate for the lack of internal cash flows and avoid relying heavily on debt, which could deteriorate our credit rating. As shown in **Graph 5**, the share price declined after the initial issuance and during the capital-intensive early years, recovering only after several quarters. This timing allowed us to raise capital efficiently and

minimize the dilution effect. By issuing shares when the price was relatively high, we effectively preserved more value for existing shareholders.

At the end of the fourth year, we initiated share buybacks using the excess cash generated by operations. We repurchased shares three times in total, with the primary goal of reducing the Weighted Average Cost of Capital (WACC) and enhancing the company's economic value added (EVA). According to Damodaran (2011), share buybacks can effectively lower a company's WACC by reducing the equity portion in the capital structure, particularly when the cost of equity is higher than the after-tax cost of debt. By doing so, the company not only decreases its overall cost of capital but also increases its leverage, which can enhance the returns on equity. With all investment opportunities completed, we considered repurchasing shares as the optimal use of cash. This strategy not only reduced the number of shares outstanding but also demonstrated our confidence in the company's prospects, which, in a real-world scenario, could boost investor sentiment.

Profitability: The journey of our company over the past six years reflects a dynamic evolution in our business strategy and operational efficiency.By examining our quarterly reports, we can observe significant trends in profitability, market share expansion, and cost efficiency.

We experienced consistent revenue growth over the six years (**Graph 6**). Starting from $4.578 million, our revenues grew steadily, peaking at $8.058 million in Q2 of Year 6. The consistent increase in revenues signifies successful market share expansion. Our strategic investments in new car models, marketing initiatives, and high-end features have paid off, as evidenced by the steady rise in sales. Our focus on innovation and customer satisfaction led to the introduction of new car models that catered to diverse market segments, that helped us capture a broader customer base and drive revenue growth. At the same time, Gross profits showed a positive

trend, increasing to $3.274 million by the end of the simulation. Despite fluctuations in cost of goods sold (COGS), we managed to improve our gross margin from 37% to 41% over the period. This improvement reflects the operational efforts in enhancing production efficiency and managing supply chain costs effectively and translated in EBIT doubling from $1.065 million to $2.112 million, with EBIT margin increasing from 22% to 28% reflecting our ability to control costs and drive operational efficiencies while expanding our market share. Marketing Expenses varied significantly, reflecting our adaptive marketing strategies to boost sales and market presence depending on our operation department's needs for inventory management. For instance, we saw an increase in marketing spend from Year 4 peaking at $304.590, when we wanted to boost sales of new cars we had just introduced to the market and so allowed for higher budgets for the marketing department. G&A expenses increased over the years, peaking at $521.782 during the third year, due to expanded operations with two new factories and investments in administrative capabilities to support our growth.

Net income displayed a mixed trend, with periods of decline and recovery. The low point occurred in Q2 of Year 2, where we faced a net loss of $240.043, mainly due to increased expenses caused by leaving factories empty and one important loss from mistakenly discontinuing a profitable car model. However, after having replaced our initial fleet with full electric high-quality cars, we bounced back, and thanks to a switched focus on keeping high prices, leveraging the quality of our cars, we achieved an annual net income of $5,23 billion in the last year of the simulation.

Liquidity Management: During the simulation, we strategically adjusted our working capital policies, focusing on payment terms with customers and suppliers to manage our cash flow needs and aligning them with our company stage in the life cycle. Effective working capital management is critical to maintaining liquidity and financial stability, as emphasized by Shin and Soenen (1998). According to Shin and Soenen, a shorter CCC generally improves a

firm's profitability and reduces its liquidity risk, as it indicates a more efficient process of turning resources into cash.

To achieve this, in the first four years, we aimed at maximizing revenues and minimizing material costs. We extended our credit terms to customers from 30 days to 40 days at the beginning of year 2, the effect is reflected in the increase of Days Sales Outstanding (DSO) from 61 days in Year 1 to 66 days in Year 2 (**Graph 7**). Simultaneously, we reduced payment terms with our suppliers from 30 days to 15 days, which is clearly reflected in the reduction in Days Payable Outstanding (DPO) from 26 days in Year 1 to 20 days in Year 2. These strategies enabled us to boost demand in our growing stage by providing customers more time to pay and to negotiate early payment discounts, reducing material costs. However, they also impacted cash inflows, negatively affecting our liquidity as highlighted by the prolonged cash conversion cycle (CCC), increasing from 100 days in Year 1 to 118 days in Year 2. The extension of our CCC indicated longer durations to convert inventory and receivables into cash.

Recognizing the need to improve liquidity, we transitioned our strategy in the last two years, aimed at boosting our cash inflows. We reduced our credit terms to customers from 30 days to 15 days, faster collections led to a substantial decrease in DSO from 61 days in Year 4 to 40 days in Year 5 and further down to 37 days in Year 6. We also extended payment terms with suppliers from 30 days to 40 days, as reflected in the increase of DPO from 21 days in Year 5 to 37 days in Year 6. Although suppliers raised prices due to the extended terms and demand declined due to the shorter payment terms, the impact on cash flow was positive (See **Graph 8**). In the end, our strategy resulted in a significant reduction of the CCC, from 97 days in Year 4 to 70 days in Year 5, and further down to 31 days in Year 6. The shorter CCC indicated that we achieved an efficient conversion of inventory and receivables into cash, which provided the financial flexibility needed to support share buybacks and debt repayments.

4. Operations

Factory management: the simulation, we expanded our factory footprint by building an additional factory in China in Year 3 to produce city and micro cars, which are high-volume vehicles intended to capture significant market share in urban areas. This decision was not only an operational consideration but also strategically aligned with our marketing strategy to target densely populated areas with affordable, compact electric vehicles.

Besides this new factory in China, there were no significant changes in our global factory distribution: we maintained four factories in Europe, four in China, and three factories in the USA. Our decision to refrain from further expanding factory capacities was influenced by our directors of operations' focus on managing inventory levels, particularly during the initial years when we struggled to balance production with demand. Since, our strategy was to replace the existing fleet with higher-quality cars and because premium cars yield higher profits through elevated pricing rather than increased sales volume, we believed that expanding factory capacity was not necessary. Specifically, we operated only three factories in the USA due to the trade war between China and the US, which imposed 100% tariffs on electric vehicles from both sides, making it hard to sell US vehicles into the Chinese market and vice-versa. Additionally, our US factories specialized in exclusive models like the premium pick-up (the DALLAS) and a luxury car (the MIAMI), which both had a low volume demand thus not justifying the need for additional factory capacity.

Days of inventory management and issues: Our general strategy had some pitfalls: if demand peaked, our production capacity would have been insufficient, leading to dangerously low inventory levels. To remedy this, we charged very high prices to improve our contribution margins and slow down sales, allowing us to build up healthy levels of inventory. We considered Days of Inventory (DOI) as the main indicator to evaluate our operational efficiency.

The minimum target per car model was 30 days, with a "maximum" of 100 days, beyond which factory utilization would drop, leading to inefficiencies and increased costs. This approach aligns with the Product Life Cycle (PLC) theory, which emphasizes the importance of adapting inventory management strategies according to the different stages of a product's lifecycle. By understanding that products progress through the introduction, growth, maturity, and decline phases, each with shifting demand patterns, we were able to tailor our inventory management practices to ensure alignment with these phases (Levitt 1965). For example, during the introduction and growth stages, we maintained sufficient inventory to meet rising demand, while in the maturity and decline stages, we controlled inventory levels more tightly to avoid overproduction and excess stock.

However, early in the simulation, we faced significant challenges in managing inventory levels. For instance, DOI peaked at 78 days in the second quarter of Year 1, indicating an overproduction relative to demand. We struggled to sell enough units because many models entered the decline phase in the product life cycle and also because of the imposition of the aforementioned trade tariffs. To address these issues, we implemented a series of solutions. Drawing on the principles of Optimal Production and Inventory Management, we first downsized production if a model was being produced in two factories, reducing it to one to minimize holding costs and avoid stockouts (Harris 1913). If a model was already being produced in only one factory, we increased marketing expenses and, as a last resort, reduced prices to accelerate demand. Nevertheless, while these remedies were effective for minor inventory issues, the problem's scale was larger than anticipated. As a result, we left four factories idle for a few quarters, two in the US and two in China, accepting the sunk costs of workers but maintaining overall efficiency and avoiding excess inventory.

For a long-term solution, we developed a hybrid city car to be produced in China, bypassing tariffs that affected fully electric vehicles. This strategy, along with producing two volume cars, kept our factories operational without overproducing inventory. In the US, the situation took longer to resolve, with two factories remaining closed until we introduced a new electric pick-up, the Dallas. Although it took time, this decision aligned with our goal to fully replace conventional engine cars. In our path to fleet electrification, high inventory levels became an issue again due to the introduction of many new models. The recently developed cars were in the introduction phase of the product life cycle, resulting in relatively low demand compared to production. This time, we decided to boost marketing initiatives, which allowed factory utilization rates to stabilize at 100%, despite initial drops as low as 70% (**Graph 9**).

Sustainable Investment Initiatives: When we planned our sustainability investments, we focused on both environmental impact and economic benefits translated into operational efficiency. We implemented many initiatives that qualified for access to Green Bonds capital, improving both our financial flexibility and reinforcing the concept of Corporate Social Responsibility (CSR). According to CSR theory, integrating social and environmental goals into business operations can lead to improved financial performance and a stronger reputation among stakeholders. Carroll and Shabana (2010) highlight that companies that proactively manage their CSR efforts, such as reducing emissions, investing in renewable energy, and promoting ethical supply chain practices, can gain competitive advantages by building trust with consumers, attracting better talent, and differentiating themselves from competitors.

In line with the Greenhouse Gas Protocol, it is essential to classify emissions into Scopes 1, 2, and 3 to better manage and reduce our carbon footprint (World Resources Institute and World Business Council for Sustainable Development 2004). This framework offers a structured approach to measuring and managing greenhouse gas emissions: Scope 1 covers direct emissions from owned or controlled sources, Scope 2 includes indirect emissions from the

generation of purchased electricity, steam, heating, and cooling consumed by the company, and Scope 3 encompasses all other indirect emissions that occur in a company's value chain. By prioritizing Scope 1 and 2 investments during the initial growth phase, such as water-saving techniques and renewable energy installations, and by implementing Scope 3 initiatives as the company became financially stable, we aligned our sustainability efforts with our operational and financial objectives, ultimately reducing our overall environmental impact.

Our initial efforts to reduce Scope 1 emissions included a $200 million investment in water-saving techniques, which minimized water diversion from natural sources and lowered energy consumption for water treatment, effectively reducing water and wastewater treatment costs. We also allocated $400 million towards waste minimization to cut operating costs and protect the environment. These cost-effective measures contributed to lower material costs and improved our CSR ratings. To further reduce Scope 1 emissions, we invested $500 million in obtaining ISO 14001/EMAS certifications. Although this investment did not directly generate economic benefits, it was crucial for enhancing Vector Motors' credibility with consumers and stakeholders.

For Scope 2, we invested $500 million in solar panel systems and an Energy Management System (EMS) to optimize energy production and consumption in our factories. These investments aimed to reduce greenhouse gas emissions, lower utility bills, and contribute to stable COGS and higher operational efficiency. Our approach was inspired by the principles of Lean Manufacturing, famously implemented by Toyota, which emphasizes maximizing efficiency and minimizing waste across all stages of production and operations. As described by Womack, Jones, and Roos (1990), lean manufacturing involves the continuous elimination of waste, whether it be time, materials, or energy—to create more value for customers while using fewer resources. By adopting these principles, we strategically focused on optimizing our operations, reducing excess energy use, and improving overall sustainability outcomes.

Upon reaching the maturity stage, with stabilized revenues and improved profits, we shifted our focus to Scope 3 investments, such as carbon offset schemes, sustainable supplier practices, and battery recycling. These efforts balanced our carbon footprint and fostered stronger relationships with suppliers on environmental sustainability and although they increased material costs, they greatly enhanced our reputation and demonstrated our commitment.

Financially, we concentrated funding on Scope 1 and 3 initiatives (**Graph 10**), which significantly impacted our CO_2 emissions. As seen in **Graph 11**, our Scope 1 and 2 emissions decreased substantially in the initial years, then stabilized and slightly increased as the company expanded, while Scope 3 reductions were the most substantial improvement they happened at a later stage. From a financial perspective, initially, COGS stayed around 63-65%, but sustainable practices later reduced COGS to 59% of revenues. G&A expenses rose due to upfront costs but eventually stabilized as the benefits materialized, resulting in long-term savings. Although returns were delayed, the benefits, such as lower COGS and enhanced operational efficiency, became clear over time.

5. Conclusion

Vector Motors successfully navigated the complexities of the premium automotive market by balancing ambitious innovation with practical execution. Our commitment to developing high-quality electric vehicles and managing resources effectively allowed us to capitalize on market opportunities while addressing the growing demand for sustainable products. Key to our success was the strategic alignment of our operations, finance, and product development efforts, which enabled us to enhance profitability and market share. By fostering a strong organizational culture and prioritizing both environmental and financial sustainability, we positioned Vector Motors as a resilient and forward-looking player in a highly competitive industry, ready to meet future challenges.

Personal Reflection on two critical incidents

1. Introduction

Participating in the Business in Practice simulation offered me an invaluable opportunity to experience the complexities of leadership and teamwork in a simulated real-world environment. Throughout the exercise, our team faced several challenges that tested our ability to communicate effectively and maintain motivation under pressure. One particularly critical incident involved a significant miscommunication that led to a substantial financial loss, highlighting the importance of clear communication and collective understanding in a team setting. Another challenge was managing team morale amidst fluctuating performance scores, which taught me about the delicate balance between external validation and intrinsic motivation. These incidents were pivotal moments in the simulation, revealing key areas for personal growth and providing me with a deeper understanding of effective leadership and team management. Reflecting on these experiences, I recognized not only the difficulties of leading a team but also the importance of fostering a positive and supportive team environment.

2. Critical Incident 1: Miscommunication and Its Impact on Team Dynamics

Description of the Incident: During the third quarter of Year 2 in the Business in Practice simulation, a significant miscommunication occurred that profoundly impacted our team. The operations director received a recommendation to drop the Business 135 car model due to the recent launch of a new business model. Our strategic plan was to halt production of the Business 135 but to continue selling the existing inventory to mitigate losses. Unfortunately, one of the directors misunderstood the recommendation, believing it aligned with our strategy, and prematurely accepted it. This error resulted in a huge loss of $1.3 billion, which worsened our already declining performance scores and further demoralized the team.

Immediate Impact: The financial setback was devastating. Our team's performance scores, which had already been dropping, took an additional hit, causing a significant drop in team motivation. This incident not only hurt our financial situation but also tested our ability to function cohesively under pressure. I felt a mix of disbelief and frustration, it was evident that the miscommunication had created senses of doubt about our collective capability to manage the business effectively.

While trying to redirect our focus to completing the remaining tasks, I noticed a shift in team dynamics. Two members started laughing and joking about the situation, probably thinking they were being discrete. However, their behaviour was noticeable and added to the embarrassment and stress of the team member who made the mistake. In the moment, I was thinking that this behaviour showed disrespect and lack of empathy that needed addressing. It was a reminder that effective communication within teams is crucial for ensuring that all members are aligned and can contribute to the collective goals (West, 2012). I felt a strong urge to defend the team member and a need to restore respect and cohesion within the team. However, I didn't act on these feelings, possibly because it seemed easier or more important to redirect the focus to the pressing decisions that needed to be made within the limited time remaining.

Response and Reflection: Luckily, the same afternoon, we attended the Leadership in Practice workshop, which included an exercise remarkably similar to our real-life incident. The exercise required us to discuss how we would act in a hypothetical scenario involving a significant mistake. In the beginning, I felt that the discussion was tense, with the team using indirect analogies to reference the morning's events. These analogies created a palpable tension in the room, making it hard for me to focus and communicate effectively. This indirectness of the conversation made it difficult to address the real issue, and the stress was evident in

everyone's body language and tone of voice. Recognizing the need for a direct approach to resolve the underlying tension, I decided to address the incident head-on.

I began by acknowledging the genuine nature of the mistake committed by my teammate, noting that it was a reasonable misunderstanding due to our assumption that only finance directors could discontinue a car model. I then turned to the issue of lateness, emphasizing that while the mistake was unintentional, her consistent lack of punctuality had been affecting our decision-making process. I wanted to make sure the team didn't feel the need to antagonize her but rather give her a chance to improve. I expressed my concerns delicately, emphasizing the importance of punctuality and preparedness in our collaborative efforts. Listening, maintaining appropriate dominance and priority within the team, having clear tasks, being confrontational, and challenging decisions are all essential to productive teamwork (West, 2012).

To my surprise, the team member who made the mistake responded positively. She sincerely apologized, recognizing the financial impact of her error, and committed to rectifying her tardiness. Her openness and willingness to take responsibility were admirable. What followed was a heartening display of team solidarity. Contrary to my expectations, the rest of the team offered comfort and support, emphasizing that mistakes are a normal part of the learning process. This incident underscored that healthy conflict fosters respectful debate and yields mutually agreed-upon solutions that are often far superior to those first offered (Toegel & Barsoux, 2016).

Outcome and Learning: Reflecting on this incident afterwards, as I write my thesis, I realize several key takeaways and areas for improvement. Firstly, this experience underscored the critical need for precise communication within the team. Misunderstandings can have severe consequences and ensuring that all team members fully understand strategic decisions is vital. In the future, I would implement more frequent and structured check-ins to clarify any

ambiguities and ensure everyone is on the same page. This could have helped us catch the misunderstanding earlier and prevented the costly error.

Furthermore, this incident highlighted how our team was navigating the different stages of development as proposed by Tuckman (1965). According to Tuckman's theory, teams typically progress through four stages: forming, storming, norming, and performing. The miscommunication incident thrust our team into the "storming" stage, characterized by conflicts and challenges as we grappled with the fallout from the error. This phase was marked by tension and a need to address underlying issues directly. However, by confronting the miscommunication and fostering open dialogue, we began transitioning into the "norming" stage, where team cohesion improved, and members started to collaborate more effectively. By understanding these stages and recognizing that conflict can be a necessary step towards growth, I learned the importance of guiding the team through challenges while maintaining a focus on our shared goals.

While addressing the incident directly helped restore team cohesion, I recognize that my approach could have been more balanced. Although I was delicate, I may have inadvertently put the team member on the defensive by addressing her lateness publicly. In future situations, I would handle such personal issues in a one-on-one setting to avoid singling out any individual and maintain team morale. By being more empathetic in my delivery, I could foster a more supportive environment where team members feel safe to admit mistakes and learn from them. This approach aligns with the concept that effective communication and mutual respect are essential to productive teamwork (West, 2012).

The incident highlighted the importance of fostering a supportive team environment where **mistakes are viewed as learning opportunities rather than failures**. The team's response to the mistake – offering support and understanding – significantly enhanced team morale and

individual confidence. This supportive atmosphere encouraged the team member to participate more actively in subsequent discussions, contributing valuable insights that might otherwise have been lost. Taking inspiration from this event and my team's response, in future professional settings, I will strive to create an environment where constructive conflict is encouraged, recognizing that it can lead to better solutions (Toegel & Barsoux, 2016).

Leading through a crisis requires a balance of empathy and assertiveness. By addressing both the mistake and the underlying issues, such as lateness, I was able to guide the team towards a more productive and collaborative dynamic. This experience reinforced the importance of being both empathetic and assertive as a leader, ensuring that issues are addressed constructively while maintaining team morale. At the same time, I realize that I could have addressed the jokes made by the team members to prevent any form of disrespect from taking root. If I had done so, I could have set a clearer standard for respectful behaviour, which is crucial for maintaining a healthy team dynamic. Effective leadership, as noted by Goleman (2000), requires not just decisiveness but also the ability to foster an environment where team members feel valued and respected. Fortunately, the situation didn't deteriorate, but having the courage to address such issues promptly is something I will need to focus on in the future.

Moreover, insights from the team clinics revealed that while my direct approach was effective in resolving the immediate issue, it may have been perceived as overly critical by some team members. This feedback was eye-opening, as it highlighted a potential blind spot in my leadership style. While I valued clarity and decisiveness, I realized that my approach could sometimes come across as harsh or insensitive, particularly during stressful situations.

In future interactions, I plan to implement regular check-ins with individual team members to understand their personal challenges and achievements better. As suggested by one of my teammates, these one-on-one conversations should allow me to adapt my feedback and support

to their specific needs, helping them to feel more engaged and motivated. The team clinics also made me realize the importance of continuous self-improvement and adaptability in leadership. During the incident, I thought I was handling everything correctly, but reflecting on it afterwards, I realized that development in areas such as emotional intelligence and conflict resolution can significantly enhance my ability to lead effectively under challenging circumstances.

Overall, this incident was a pivotal learning experience. It taught me valuable lessons about leadership, team dynamics, and the importance of addressing issues directly and empathetically. Reflecting on these insights, I am better prepared to handle similar challenges in future professional settings. I will focus on fostering a more communicative, supportive, and effective team dynamic by applying these lessons to create an inclusive environment where all team members feel valued and respected.

3. Critical Incident 2: Heavy Correlation Between Team Motivation and Performance Scores

Description of the Incident: Throughout the Business in Practice simulation, our team's motivation was heavily influenced by our overall performance scores. As the finance director, I took on the additional role of coordinating our efforts and ensuring that we stayed on track with our goals. My responsibilities included managing our capital structure decisions, working capital, and monitoring each car's revenues and profits each quarter. Despite not being officially appointed as a coordinator, no one else took on the role, so I decided to step in as I deemed it necessary to set the pace, schedule decisions, and manage our time effectively.

From the start, I noticed that our team's morale was directly tied to our performance scores. When our scores were high, the team was enthusiastic and proactive. However, during periods of lower performance, motivation plummeted. This ongoing issue became a significant

challenge, as it impacted our ability to stay focused and collaborate effectively. Since I took on the role of coordinator, I felt it became increasingly difficult to manage the team during these low periods. The fluctuating motivation levels added an extra layer of complexity to my responsibilities, making it hard to keep everyone aligned and engaged. This situation is reflective of the challenges outlined by Deci and Ryan (2000), who highlight the importance of intrinsic motivation and the potential volatility when a team relies heavily on external validation for motivation.

Immediate Impact: During periods of low performance, the drop in team motivation was palpable. As someone who had taken on the role of maintaining team coordination, I found this particularly discouraging. It was challenging to keep doing something that wasn't explicitly required of me, especially since the simulation did not have a direct impact on my grades. There were moments when I felt like "giving up" or just focusing on my specific tasks without the additional effort of coordinating and motivating the team.

At the beginning of Year 3, the team was hesitant to invest in the launch of new cars due to the significant capital required and the potential for further score drops. However, I knew that our long-term strategy depended on these investments. This hesitation from my teammates added to my stress, as I felt responsible for convincing them to stay the course despite the short-term setbacks.

Response and Reflection: To address the team’s reluctance, I pitched the case for investing in the launch of new cars. I explained the finance equation of value-added score and emphasized that our initial decrease in value was normal and that we would bounce back. I highlighted the importance of launching cars with new top-of-the-class attributes to capitalize on the innovation investments we had made. Despite the low motivation periods, I encouraged the team to stay focused, pitching the long-term benefits and the eventual bounce-back in value.

Much of my time during the simulation was spent writing on the whiteboard, detailing our schedule for the current year and future ones, and keeping everyone engaged and aligned on the big launch our company was planning. I consistently tried to bring attention back to our long-term goals and align our current situation with our plans. I trusted the directors with day-to-day decisions, refraining from micromanaging, and instead focused on fostering positive discussions about future scenarios and their implications. This approach aligns with the findings of Edmondson (1999), who emphasizes the importance of fostering psychological safety in teams to ensure effective communication and sustained motivation, even during challenging times.

Reflecting on this incident afterwards, I realize several key takeaways and areas for improvement. While my efforts in organizing and keeping the team focused on long-term goals were beneficial, they were not always enough to maintain high motivation during low periods.

I often relied on the same methods of encouragement and explanations, which, although somewhat effective, could have been supplemented with other strategies.

Outcome and Learning: This experience underscored the importance of maintaining intrinsic motivation within a team. Herzberg's Two-Factor Theory (1959) suggests that motivation is driven by two factors: hygiene factors (such as salary, job security, and working conditions) and motivators (such as recognition, achievement, and personal growth). Our team’s heavy reliance on external performance metrics, such as simulation scores, highlighted an overemphasis on hygiene factors. While these can prevent dissatisfaction, they do not necessarily foster genuine enthusiasm or sustained engagement. In our case, the fluctuations in performance scores acted as extrinsic motivators, which, when not paired with sufficient intrinsic motivators, led to a volatile work environment where morale was highly dependent on external validation.

To enhance intrinsic motivation, it is crucial to focus on factors that promote a sense of accomplishment, personal growth, and meaningful contribution. Moving forward, I plan to implement strategies that foster intrinsic motivation by setting clear, personal development goals for each team member. This approach aligns with Herzberg's idea that true motivation stems from job enrichment, where employees are encouraged to take on challenging tasks that enable them to use their skills fully and grow professionally. Additionally, offering regular feedback that emphasizes individual growth and creating a culture where learning and improvement are valued as much as, if not more than, performance scores could help mitigate the negative impact of fluctuating external metrics (Ryan and Deci 2000).

Insights from my peer assessment revealed that while my efforts to boost morale were appreciated, they were sometimes perceived as reactive rather than proactive. In future teams, I will focus on building a more resilient motivational foundation from the outset, ensuring that team members remain engaged and committed regardless of external performance indicators. Balancing the focus between outcomes and processes will be crucial in creating a stable and motivated team environment.

To better handle similar challenges in the future, I will focus on developing a more diverse set of strategies to maintain team motivation. This includes incorporating regular check-ins to discuss team morale, implementing recognition programs to celebrate small wins, and creating opportunities for team building outside of the immediate tasks. Additionally, I will work on balancing my assertiveness with empathy, ensuring that my efforts to keep the team on track are complemented by a genuine understanding of their individual and collective challenges.

Overall, this incident was a pivotal learning experience. It taught me the importance of intrinsic motivation, the need for consistent and proactive morale-boosting strategies, and the value of balancing long-term goals with day-to-day engagement. Reflecting on these insights, I am

better prepared to foster a motivated, resilient, and high-performing team in future professional settings. I will focus on fostering a more communicative, supportive, and effective team dynamic by applying these lessons to create an inclusive environment where all team members feel valued and respected.

4. Conclusions

Reflecting on these critical incidents has provided me with profound insights into leadership, communication, and team dynamics. The miscommunication incident underscored the necessity of precise and structured communication within a team to prevent misunderstandings that can lead to costly errors and reduced morale. It highlighted the importance of addressing mistakes directly yet empathetically, promoting a culture where errors are viewed as learning opportunities rather than failures. Similarly, the challenge of maintaining team motivation in the face of fluctuating performance scores reinforced the importance of fostering intrinsic motivation and building a resilient team culture that can withstand external pressures. Moving forward, I am committed to implementing these lessons by prioritizing open communication, empathy, and a balanced approach to motivation in my future roles.

These experiences were not just challenging but also immensely rewarding. They were an enjoyable part of my learning journey, allowing me to apply theoretical knowledge in a practical setting and grow as a leader. I now feel more equipped to handle complex team dynamics and am confident that the skills I have developed will serve me well in my future career. This simulation has been a valuable exercise in personal and professional development, and I am eager to apply these lessons to real-world situations, knowing that I can lead with both empathy and effectiveness.

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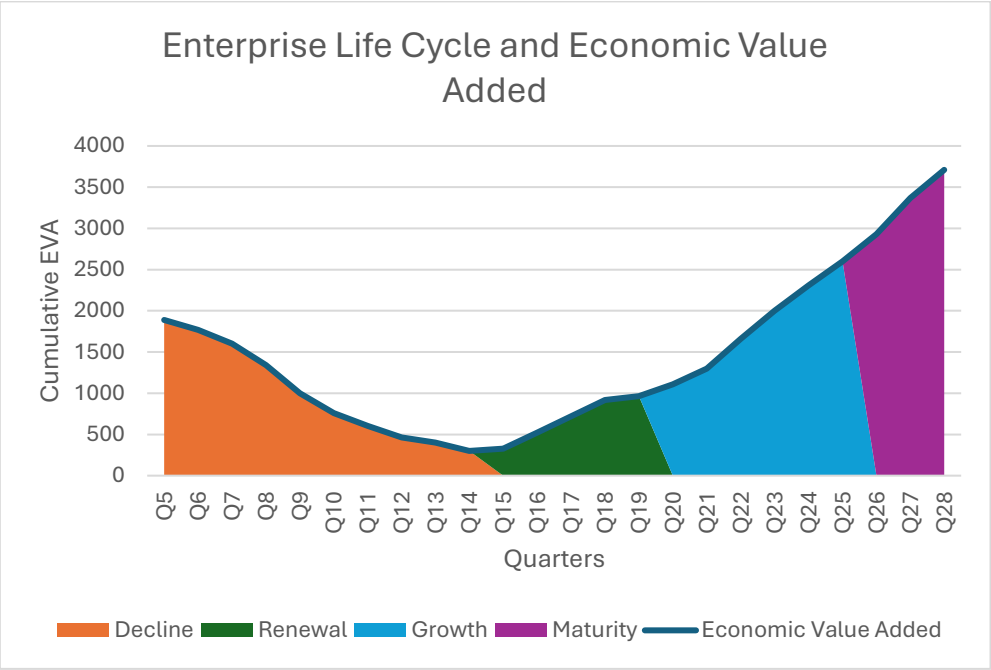
Appendix

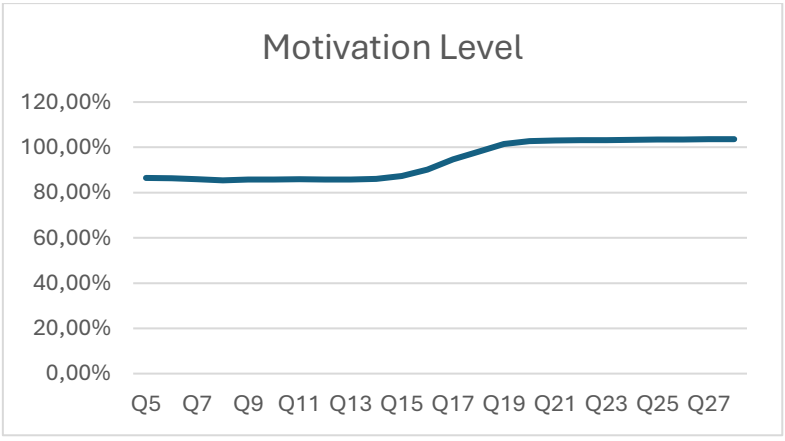
Graph 1. "Enterprise Life Cycle and Economic Value Added Over Time"

Description: This graph illustrates the progression of Vector Motors through the stages of the enterprise life cycle—decline, renewal, growth, and maturity—accompanied by the cumulative Economic Value Added (EVA) over 28 quarters.



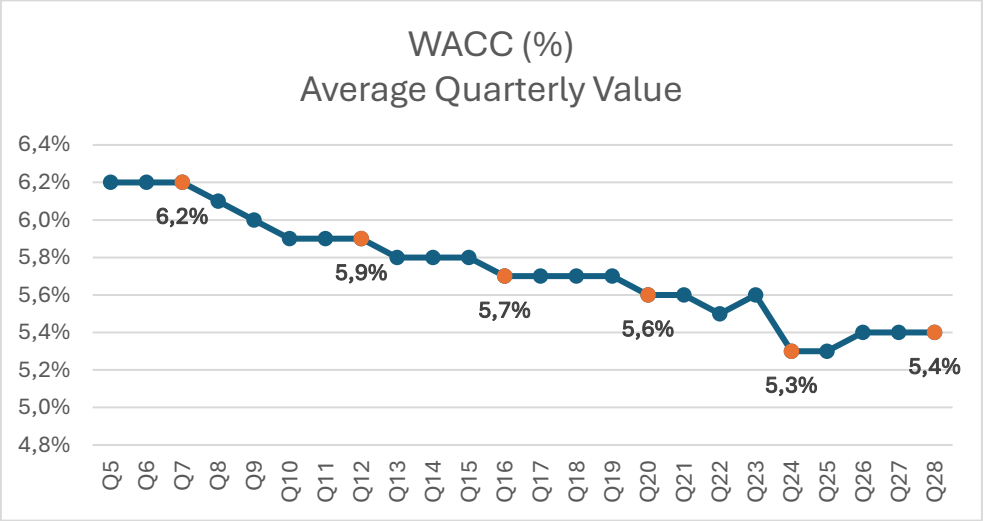
Graph 2. "Management Motivation Levels Over the Simulation Period"

Description: This graph illustrates the trends in management motivation levels throughout the simulation period, from Q5 to Q28.



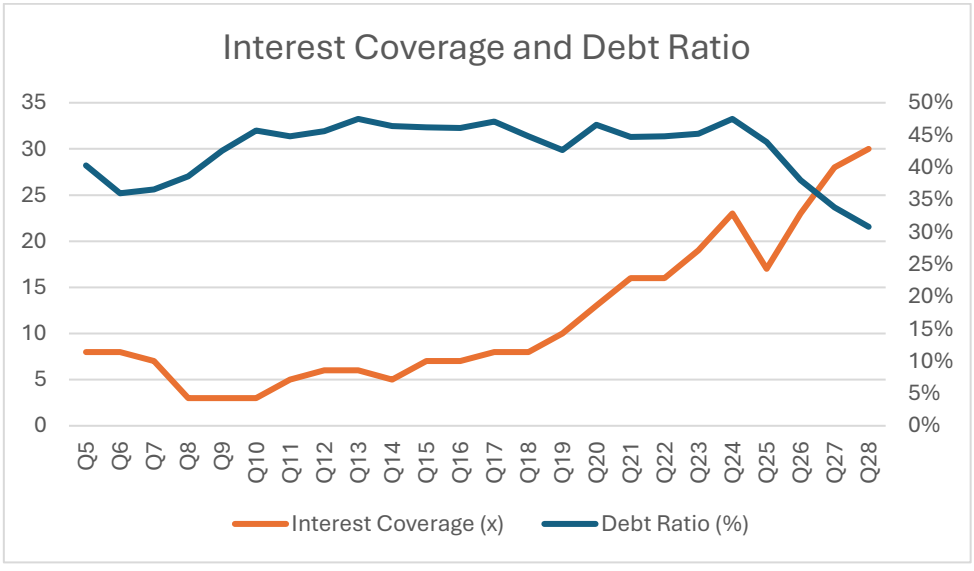
Graph 3. "Evolution of the Weighted Average Cost of Capital (WACC) Over Time"

Description: This graph illustrates the quarterly changes in WACC for Vector Motors over the course of the six-year simulation period.



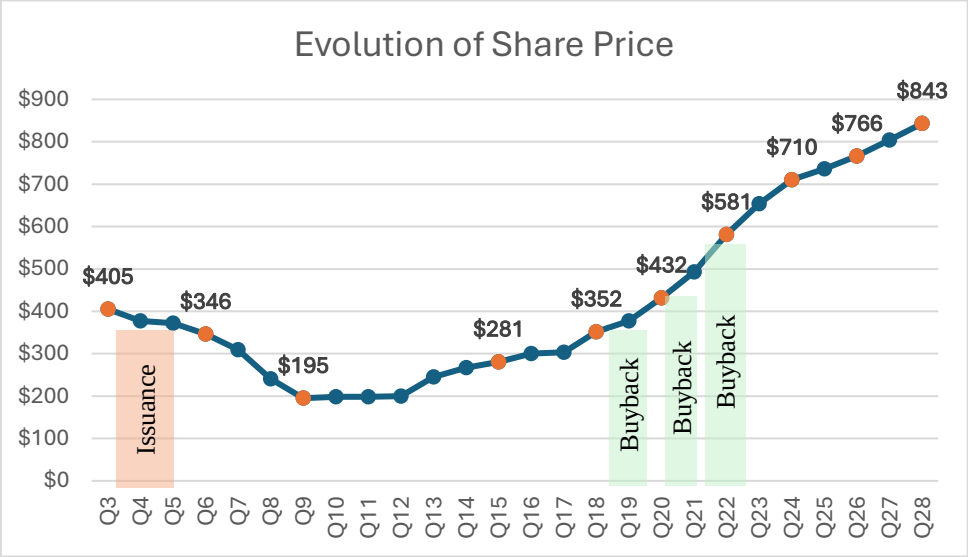
Graph 4. "Interest Coverage Ratio and Debt Ratio Trends"

Description: This graph shows the trends in the Interest Coverage Ratio and Debt Ratio, highlighting Vector Motors' financial health and debt management strategies.



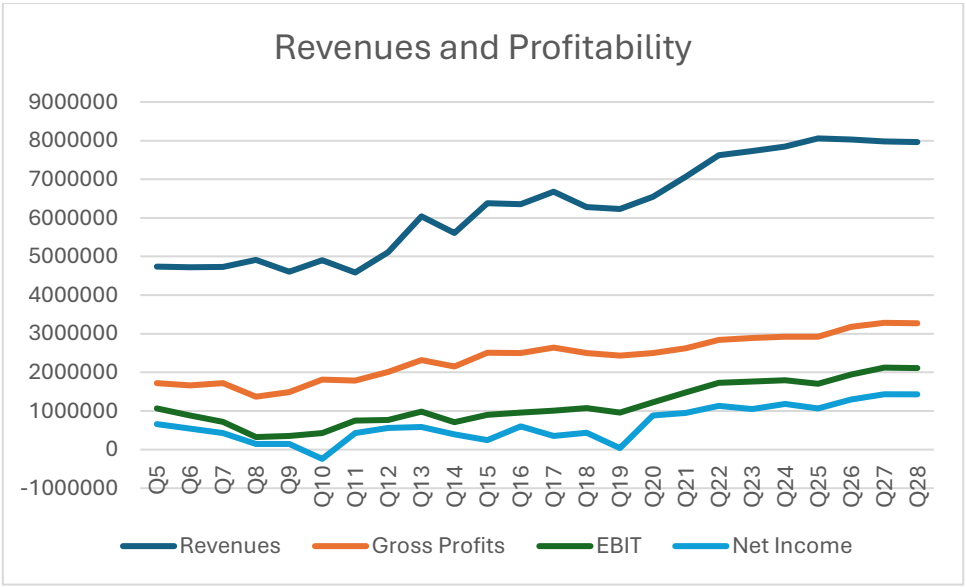
Graph 5. "Evolution of Share Price Over the Simulation Period"

Description: This graph tracks the fluctuations in Vector Motors' share price, reflecting the impact of strategic decisions and market conditions.



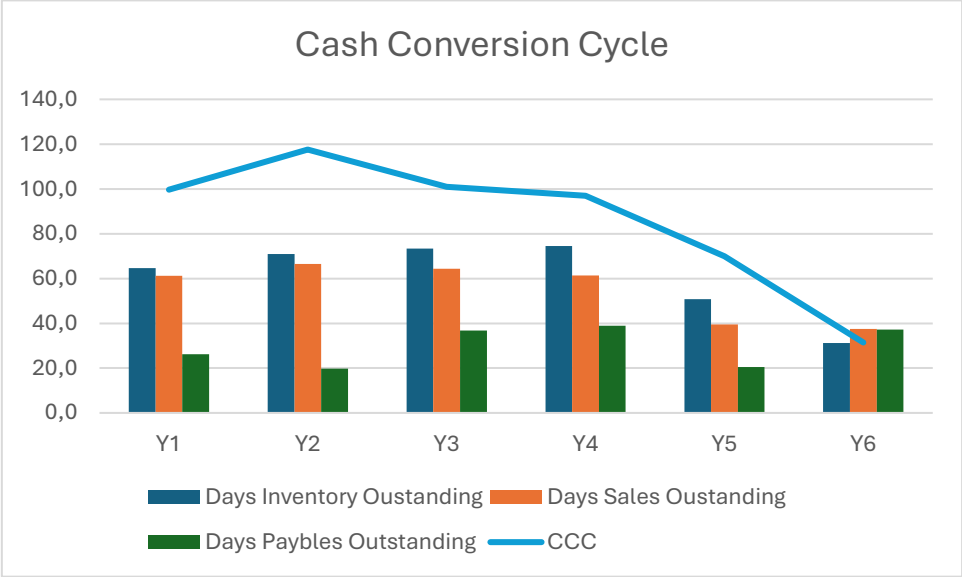
Graph 6. "Quarterly Revenues, Gross Profits, EBIT and Net Income"

Description: This graph compares the quarterly revenues and profitability indicators of Vector Motors, showing the company's financial performance trends.



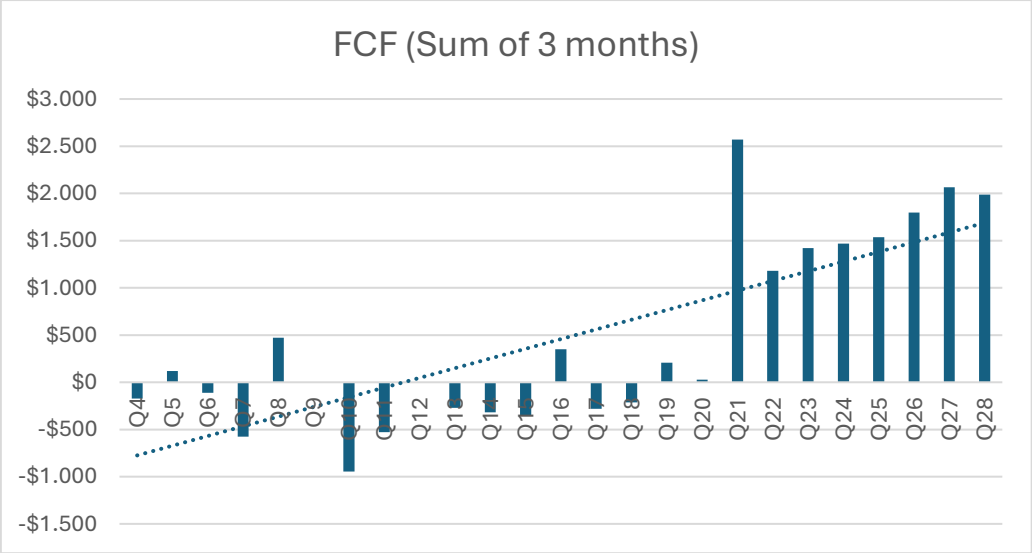
Graph 7. "Cash Conversion Cycle Over Time"

Description: This graph displays the evolution of the Cash Conversion Cycle (CCC), showing the efficiency of working capital management.



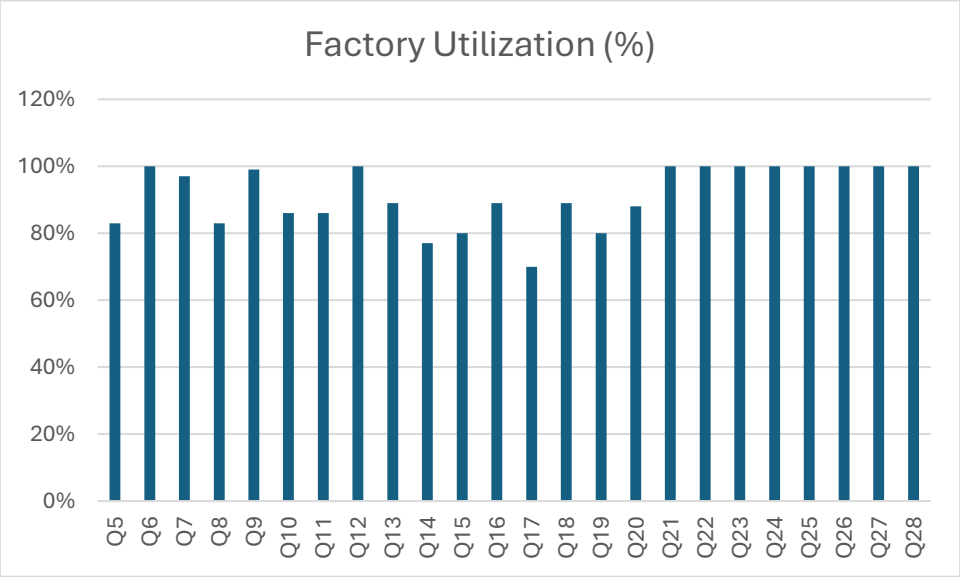
Graph 8. "Free Cash Flow (FCF) Analysis by Quarter"

Description: This graph presents the sum of free cash flows over three-month periods, illustrating the company's liquidity and operational efficiency.



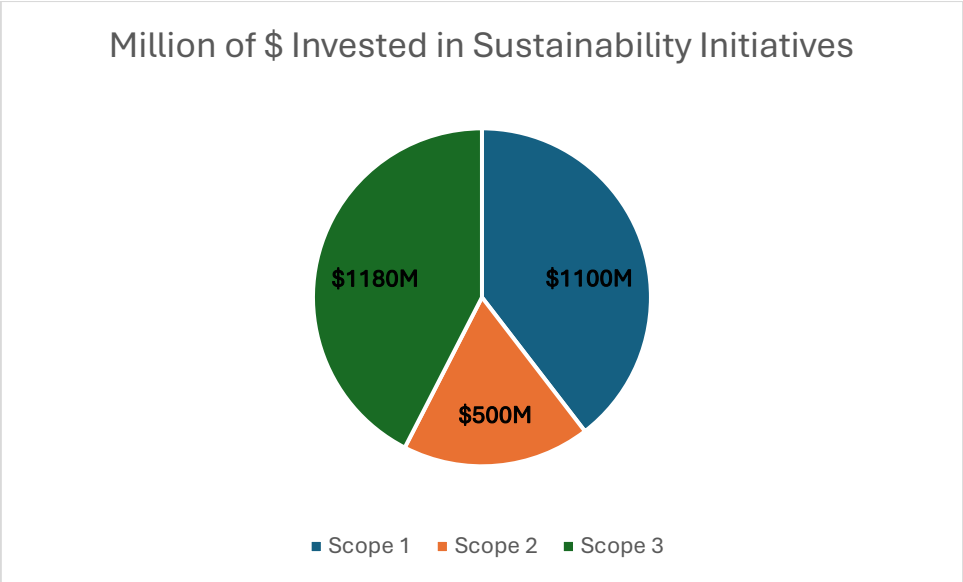
Graph 9. "Factory Utilization Rates over the Quarters"

Description: This graph depicts the factory utilization rates in Europe, China, and the USA, highlighting operational efficiency across different regions.



Graph 10. "Investment in Sustainability Initiatives"

Description: This graph details the allocation of funds toward sustainability initiatives, categorized by Scope 1, Scope 2, and Scope 3 investments.



Graph 11. "Tons of CO2 Emissions Related to Scopes 1, 2, and 3"

Description: This graph shows the CO2 emissions attributed to Scopes 1, 2, and 3, emphasizing the company's progress in reducing its carbon footprint.

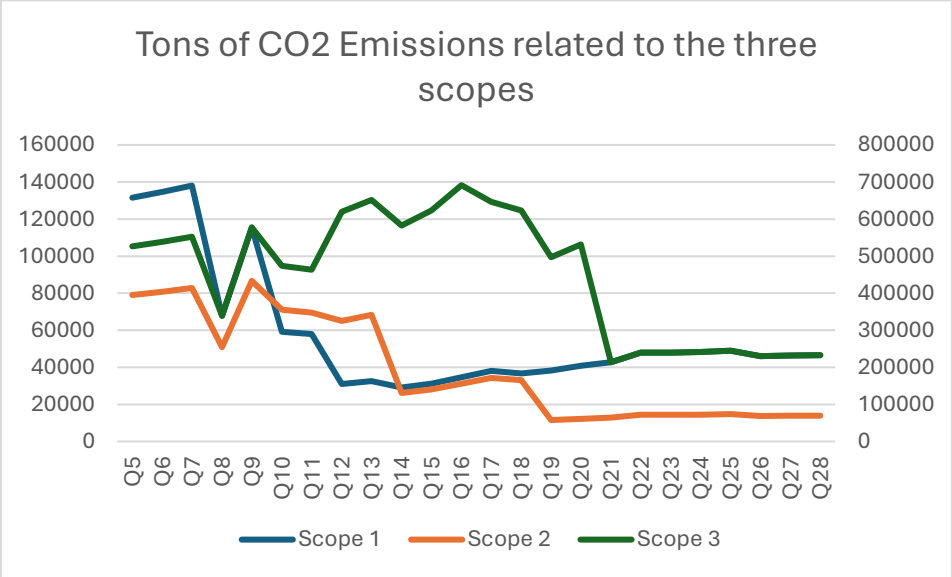


Table 1. "Annual Reports: Income Statement"

	Before Simulation Y0	Y1	Y2	Y3	Y4	Y5	Y6
Income Statement							
Revenues	$ 18.235.096	$ 19.102.247	$ 19.209.071	$ 24.386.453	$ 25.744.435	$ 30.276.928	$ 32.026.660
COGS	$ 11.312.976	$ 12.624.697	$ 12.109.110	$ 14.917.025	$ 15.678.669	$ 18.994.894	$ 19.361.828
% of Revenues	*62%*	*66%*	*63%*	*61%*	*61%*	*63%*	*60%*
Gross Profits	**$ 6.922.120**	**$ 6.477.550**	**$ 7.099.961**	**$ 9.469.428**	**$10.065.766**	**$11.282.034**	**$12.664.832**
Marketing Expenses	*$ 207.021*	*$ 426.072*	*$ 668.057*	*$ 918.847*	*$ 1.148.775*	*$ 950.363*	*$ 1.026.996*
G&A Expenses	$ 618.022	$ 772.236	$ 1.342.785	$ 1.747.814	$ 1.694.643	$ 1.555.446	$ 1.612.472
Bonus	*$ 190.409*	*$ (245.286)*	*$ (252.222)*	*$ -*	*$ -*	*$ -*	*$ -*
Subscription Sales					*$ 482.904*	*$ 1.288.369*	*$ 1.398.253*
Depreciation	$ 1.806.439	$ 2.038.921	$ 2.529.803	$ 3.250.184	$ 3.440.724	$ 3.303.281	$ 3.540.473
EBIT	**$ 4.481.047**	**$ 2.995.035**	**$ 2.307.094**	**$ 3.552.583**	**$ 3.781.624**	**$ 6.761.313**	**$ 7.883.144**
EBIT Margin	*25%*	*16%*	*12%*	*15%*	*15%*	*22%*	*25%*
Other Items	$ 247	$ 51	$ 470.121	$ 387.858	$ 1.315.182	$ 151.119	$ 84.677
Financial Income	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Expenses	$ 519.315	$ 460.727	$ 557.650	$ 566.899	$ 505.217	$ 435.937	$ 332.469
Profits Before Taxes	$ 3.961.485	$ 2.534.257	$ 1.279.323	$ 2.597.826	$ 1.961.225	$ 6.174.257	$ 7.465.998
Taxes	$ 1.188.445	$ 760.277	$ 383.797	$ 779.348	$ 733.239	$ 1.852.277	$ 2.239.799
Taxes Rate	*30%*	*30%*	*30%*	*30%*	*37%*	*30%*	*30%*
Net Income	**$ 2.773.040**	**$ 1.773.980**	**$ 895.526**	**$ 1.818.478**	**$ 1.227.986**	**$ 4.321.980**	**$ 5.226.199**

Table 2. "Annual Reports: Balance Sheet"

Balance Sheet	Y0	Y1	Y2	Y3	Y4	Y5	Y6
Assets							
Long term assets	**$ 15.632.477**	**$17.983.715**	**$21.033.831**	**$22.578.672**	**$19.673.590**	**$18.280.424**	**$16.852.100**
PPE	$ 10.932.477	$ 13.383.715	$ 16.533.831	$ 18.178.672	$ 15.373.590	$ 14.080.424	$ 12.752.100
Land & Buildings	$ 4.700.000	$ 4.600.000	$ 4.500.000	$ 4.400.000	$ 4.300.000	$ 4.200.000	$ 4.100.000
Current Assets	**$ 9.080.082**	**$ 9.512.098**	**$ 9.651.454**	**$10.464.247**	**$ 8.966.121**	**$ 6.884.438**	**$ 5.899.170**
Cash and Cash Equivalents	$ 3.564.996	$ 4.073.309	$ 3.799.657	$ 3.159.548	$ 1.433.305	$ 959.686	$ 959.686
Accounts Receivable	$ 3.035.286	$ 3.203.526	$ 3.496.878	$ 4.304.129	$ 4.330.272	$ 3.281.682	$ 3.284.742
Inventory	$ 2.479.800	$ 2.235.263	$ 2.354.919	$ 3.000.570	$ 3.202.544	$ 2.643.070	$ 1.654.742
Equipment on Lease	$ -	$ -	$ -	$ -	$ 2.595.744	$ 3.667.459	$ 4.531.241
Receivables from financial investments	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Receivables from financial services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Assets	**$ 24.712.559**	**$27.495.813**	**$30.685.285**	**$33.042.919**	**$31.235.455**	**$28.832.321**	**$27.282.511**
Liabilities							
LT debt	$ 10.547.902	$ 12.372.523	$ 15.270.067	$ 15.681.086	$ 14.007.565	$ 12.370.326	$ 7.428.630
ST debt	$ -	$ -	$ -	$ -	$ -	$ 625.154	$ 359.837
Accounts Payable	$ 1.009.442	$ 904.687	$ 658.338	$ 1.504.866	$ 1.674.673	$ 1.064.777	$ 1.973.196
Total Liabilities	**$ 11.557.344**	**$13.277.210**	**$15.928.405**	**$17.185.952**	**$15.682.238**	**$14.060.257**	**$ 9.761.663**
Equity							
Share capital	$ 10.350.000	$ 10.350.000	$ 10.350.000	$ 10.350.000	$ 10.000.000	$ 9.300.000	$ 9.300.000
Capital Reserve	$ 970.550	$ 970.550	$ 970.550	$ 970.550	$ (700)	$ (3.061.975)	$ (3.061.975)
Retained Earnings	$ 1.834.665	$ 2.899.053	$ 3.436.330	$ 4.527.416	$ 5.553.916	$ 8.147.105	$ 11.282.824
Shareholder Equity	**$ 13.155.215**	**$14.219.603**	**$14.756.880**	**$15.847.966**	**$15.553.216**	**$14.385.130**	**$17.520.849**
Total Liabilities and Equity	**$ 24.712.559**	**$27.496.813**	**$30.685.285**	**$33.033.918**	**$31.235.454**	**$28.445.387**	**$27.282.512**