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Analysis of ValueDrives Performance in the Era of Electrification and Personal Reflection

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Abstract

This paper reviews the strategic, operational, and financial performance of ValueDrive Motors, a company managed within NOVA SBE's BiP business simulation. The first section is a data driven business analysis. It analyzes the strategy aimed at producing high-quality electric vehicles at low cost alongside departmental performance of Operations and Finance, focusing on metrics they could impact in the simulation. The second section is a personal reflection, highlighting two critical incidents, a humbling lesson and a low-performing colleague, that contributed to the author's leadership and teamwork development. These reflections emphasize the importance of collective decision-making, trust-building, and adaptability in team dynamics.

Keywords (Business Analysis, Business Simulation, Business Game, Strategy, Operations, Finance, Team Dynamics, Leadership, E-Mobility, Automotive)

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1 Firm Analysis

1.1 Introduction to ValueDrive

In today's rapidly evolving automotive industry, businesses face numerous challenges and opportunities, particularly with the shift toward sustainability and electrification. (McKinsey 2022) The Business in Practice (BiP) simulation offers students a practical platform to engage with these real-world dynamics, requiring them to apply their academic knowledge in a practical, competitive setting. As one of 13 groups, Team ValueDrive managed a global car manufacturer over a six-year period, aiming to maintain and grow the company's market share while successfully navigating the transition from internal combustion engines to electric vehicles (EVs). The company's management team, consisting of representatives from operations, finance, marketing, innovation and Human Resources, worked collaboratively to steer ValueDrive through the simulation.

This review explores and analyzes ValueDrives **Strategy** as well as the performance of **Operations** and **Finance** departments. The section begins with analyzing the formulation and implementation of the strategy, including associated challenges and successes. After Strategy and long-term goals of ValueDrive have been clarified, the performance of Operations will be evaluated, focusing on the management of relevant KPIs like Days of Inventory and Factory Utilization. Subsequently, the Performance of the Finance Department will be analyzed based on financial decisions impacting Capital Structure and Working Capital. Due to space limitations, the departmental performance analysis of Finance and Operations is primarily focusing on metrics they could directly affect as well as alignment with previously examined strategy and sustainability goals. By reflecting on the successes and setbacks encountered during the simulation, this review provides insights into the challenges of steering a large corporation through significant industry transformation.

1.2 Review of Strategy

According to Alfred Chandler, Strategy is the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. (Chandler 1962) Strategic management encompasses two critical phases: strategy formulation and strategy implementation. (Mintzberg and Waters 1985) Strategy formulation involves analyzing the firm's current position, understanding internal and external factors and defining clear objectives. Strategy implementation focuses on executing actions to achieve these objectives. (Engert and Baumgartner 2016) This review evaluates the formulation and implementation of ValueDrive's strategy and its impact on the company's performance.

1.2.1 Strategy Formulation

1.2.1.1 External & Internal Analysis

PESTLE (G. Johnson, Scholes, and Whittington 2008)**: Politically,** Stricter emissions regulations and incentives for electric vehicles drive industry changes. At the same time, tariffs and trade agreements affect global supply chains and production locations. In regard to **Economics** the automotive market is expected to grow, driven by emerging markets (China in particular). Declining battery costs and increasing fuel efficiency impact vehicle pricing and profitability. **Socially,** Consumers are shifting to shared mobility and increasingly prefer EVs due to sustainability concerns. **Technologically,** Innovation regarding autonomous driving, connectivity and electrification are transforming the industry. **Legally,** Companies need to adapt to varying regional regulations on emissions and autonomous driving standards and address legal concerns related to data privacy and cybersecurity in connected vehicles. **Environmentally,** efficient use and recycling of materials, especially in battery production, gain importance during a growing emphasis on reducing carbon footprints and development of sustainable supply chains.

Analyzing the automotive industry using **Porter's 5 Forces** (Porter 1979) reveals a highly competitive landscape, with established companies competing fiercely for market share, especially in the race to lead in electric vehicles (EVs) and autonomous driving technology. The **threat of new entrants** is moderate to high. While significant capital and expertise are needed, new tech firms are disrupting traditional players with innovative solutions, increasing competition. **Supplier power** is moderate, particularly for essential components like EV batteries, where demand is high and suppliers are few. Automakers often counter this by securing long-term contracts and pursuing vertical integration to stabilize their supply chains. **Buyers** have considerable power due to the wide range of choices and ease of switching brands, pushing automakers to prioritize customer satisfaction, innovation, and competitive pricing. The **threat of substitutes** is moderate; alternatives like public transport and ride-sharing exist, but the convenience and necessity of personal vehicles, especially in non-urban areas, keep demand strong.

SWOT-Analysis (Kotler and Keller 2016, 49–50)**:** ValueDrive Motors has several **strengths,** including a strong global brand, a diverse product portfolio and efficient production across multiple factories. The company benefits from an effective management team and excellent employee relations, contributing to high target achievements. Additionally, it has a substantial investment budget for immediate investments and is focused on the evolving Chinese-EV Market, benefitting from access to cutting-edge technolgy developed in the area. **Weaknesses** include the Product Life Cycle of various models, as they are in the maturity stage, potentially facing decreased demand leading to inventory and utilization challenges. The company's sustainability policy is also in its infancy. **Opportunities** lie in leveraging technological advancements, new marketing strategies, and a motivated workforce to boost efficiency and sales. **Threats** include shifting customer preferences, uncertain regulations, geopolitical instability, and increasing competition, all of which could impact profit margin.

1.2.1.2 Strategic Intent

Based on the external and internal analysis, ValueDrive's Management Team formulated the strategy "Excellence without Excess." Recognizing that consumers are increasingly environmentally conscious and mindful of costs due to inflation, ValueDrive aimed to position itself as the new Volkswagen by producing high-quality electric vehicles at low cost. This could be described as Cost-Leadership within Middle Class EV-Segment, seeking a cost advantage through standardized production processes and minimal customization, similar to Tesla. Standardized models should be sold primarily online and include essential features like automatic climate control and Apple CarPlay, while omitting non-essential options, such as ambient lighting, custom hardware or an own entertainment system, to maintain affordability and simplicity.

1.2.2 Strategy Implementation and Analysis

To effectively execute the cost-leadership strategy and pass cost savings to customers, achieving economies of scale is essential. (David 2023, 134–35) We built an extra facility in each region during the simulation. Initially, Management planned for more aggressive expansion, but within a few quarters, it became clear that price reductions weren't attracting enough customers to justify the expansion efforts. Low price sensitivity among customers even led to increased unit costs due to overproduction. Consequently, management neglected the mass-production strategy. Unfortunately, factories that had already been built were unsellable and could not be written off. This forced us to continue producing the Micro and City Car models in two factories each in China. To establish a best-price value brand image, Management initially avoided offering a Luxury Car at first. However, after the factory expansion failed, it became necessary to enlarge the product portfolio to utilize existing factories without cannibalizing existing products. The introduction of the E-Luxury Car in Q19 was a success, providing attractive margins and avoiding production issues.

While **Operations'** production optimization was probably most important for ValueDrives strategy, implications across all functions had been considered. **HR** had to keep cost of labor low while avoiding dissatisfaction resulting in low productivity. (Singh and Jain 2013) They also opted for internal training to meet new skill requirements instead of more costly new hirings. **Innovation** needed to carefully consider where to allocate its tight investment budget for new technology development and chose to invest in a Power Charging Joint Venture instead of building an independent network, to reduce costs and stay within core activities. **Sales** had to focus on digital sales channels and adapt to cost-focused marketing, reflecting in their choice to build an E-Commerce Platform. **Finance** needed to ensure capital allocation aligns with long-term profitability goals, managing risks of overproduction and underutilized assets, resulting in the decision to avoid a subscription-based model, which would have delayed cash flows and pushed the business to non-core activities.

Reflecting at the evolution and success of ValueDrive Motors, but also comparing the Final Score to other competitors in the simulation, it can be concluded that even though Board of Directors managed the green transition while creating substantial value, the choice of strategy was not bad, but suboptimal. (Fig.1)

The strategy made sense given the internal and external analyses, but wasn't optimal due to the simulation's design. When formulating the strategy it is necessary to look at everything relevant. We overlooked the critical factor of management's control over cost-driving elements, which is crucial for successful execution.(Kaplan 2008, 147–71) We didn't have the ability to choose materials or redesign products to enable automated production processes. Mass production, the key to lowering unit costs, was also impossible, as expansion consistently led to overproduction, regardless of price reductions and marketing efforts. In summary we tried to pursue a Cost Leadership Strategy without having control over the key factors that drive costs.

1.3 Review of Operations

Operations management comprises those areas of management that are concerned with the productivity, quality, and cost in the operations function as well as strategic planning for the organization. (Wienclaw 2021)

1.3.1 Overview of ValueDrive's COOs Responsibilities

The operations manager at ValueDrive Motors oversees factories in Europe, China and USA, deciding which cars to produce in which regions and how many factories. Each car can only be produced in one area. DOI (Days of Inventory), Factory Utilization and Sustainability Investments were the main KPIs to consider for decision-making.

Days of Inventory (DOI): A DOI of ≤30 indicates underproduction and potential missed sales, while a DOI of 130 leads to halted production, impacting factory utilization and reducing ROI. Optimal DOI is just above 30 to minimize capital costs.

Factory Utilization: This is directly tied to DOI, with under or overproduction affecting the ROI and profitability.

Sustainability Investments: These decisions impact demand, material cost, CSR, employee motivation, and carbon footprint.

To be able to exercise his tasks, the Operations Manager needed to exchange important information with all other departments (Marketing, HR, Innovation and Finance), due to various interdependencies. Cooperation with Marketing is particularly important (Hausman, Montgomery, and Roth 2002, 252): The COO must be informed of which cars face high or low demand to optimize production decisions, ensuring the right models were produced in the right quantities and regions. Likewise, the Marketing director needed regular updates on production capacity to avoid allocating marketing budget to cars that are facing overdemand or raising prices on models that are overstocked. This collaboration ensured alignment between production capabilities and market demand, maximizing efficiency and profitability.

1.3.2 The 4 V's and Sustainability

Operations functions are crucial in managing challenges and adapting to global trends and disruptions. (Jonsson 2000) Properly managing the **4 Vs of operations management — Volume, Variety, Variation, and Visibility** — helps optimizing operations to meet customer needs, reduce expenses, boost quality, and improve overall efficiency. (Slack et al. 2022)

By using the four V's framework, ValueDrive's operations manager can effectively address the dual challenges of maximizing factory utilization and minimizing inventory, keeping the company agile during global trends and disruptions while sustaining profitability and operational efficiency. (Slack et al. 2022)

The **Volume of Output** in Operations refers to the quantity of products or services an organization produces, impacting costs, processes, and efficiency. Aligning production volume with company strategy, departmental objectives, **Variation in market demand** and current stock of inventory is crucial.

Initially, ValueDrive's operations department reacted to issues rather than forecasting demand accurately. A rule-based approach using an excel sheet to manage actions was implemented:

DOI ≤ 30: Increase production or decrease demand (advise CMO to adjust marketing/price).

30 < DOI < 61: No action needed.

DOI ≥ 61: Decrease production or increase demand (advise CMO to adjust budget/price).

This method worked initially, but later led to overproduction and high inventory (avg. DOI peaked at 104 in Q14). As operations didn't know about the demand and just saw low DOIs, they expanded production of various models with the intention to increase volume and decrease costs per unit by fixed cost degression. This additional supply was not covered by demand, resulting in soaring Inventory. From Q15 onwards, Operations integrated with Marketing to base production on recent sales data, adjusting for growth or decline phases. Subtracting the selling expectation from the production amount resulted in the production surplus. Aiming to

maintain inventory at 30-40 days, it was discussed with marketing, whether production should be de- or increased or prices/marketing adjusted to influence demand, based on what appears reasonable in the current situation. This improved planning by far and resulted in almost optimal DOI, except in China, where overproduction persisted due to mass production strategies. Despite minimizing price and maximizing marketing expenses, inventory issues remained after the production of the China Models were expanded in Q20 and Q21 respectively. (Fig. 2)

The **Variety of Output** refers to the range of different products a company produces to meet various customer needs, showcasing its flexibility in customizing and diversifying its offerings. Typically, as product variety increases, the production volume of each specific item tends to decrease, reflecting a trade-off between variety and efficiency. (Salvador et al. 2002)

At ValueDrive Motors, decisions about the variety of output were rather strategic than operational. The operations department determined the regions (America, Europe, China) for production based on tariffs and customer preferences, aiming to produce where demand was highest. City and Micro Cars (budget-friendly) were produced in China to minimize costs, SUVs, Business and Sports Cars in Europe and Pick-Ups, a special US-Micro-Model and Luxury Cars in the US. Operations coordinated with the Innovation department to ensure new models had the most demanded features in their respective regions.

Degree of Visibility of Production refers to how transparent and accessible the production process and service delivery are to customers, including how much information customers can see regarding the status of their orders, the production stages, and any potential delays. Higher visibility builds trust, manages expectations and enhances customer satisfaction.

The Operations Manager of ValueDrive couldn’t affect Production Visibility through Management, but did so via **Sustainability Investments**. Visibility in sustainability efforts is crucial for building trust and demonstrating commitment.

Investing into **water consumption reduction** and **waste reduction** showcased environmental stewardship and reduced costs, while achieving the **ISO14001/EMAS certification** validated the company's environmental practices. **Energy efficiency investments** and the installation of **solar panels** demonstrated a commitment to renewable energy and reducing carbon footprints, while also reducing costs. Implementing an **energy management system** allowed for clear communication of energy use and efficiency gains. **Offsetting suppliers' CO2 emissions** and **choosing sustainable suppliers** may have increased costs, but highlighed ValueDrive's dedication to reducing environmental impact across the supply chain. Sharing **external battery recycling** initiatives showcased leadership in promoting circular economy practices.

By investing a total of 1,820 M$ plus approximately 360 $M yearly to offset suppliers into sustainability, ValueDrive Operations department was able to decrease their total quarterly Emissions by 65% or 478 tons from Q5 to Q28. This reduction is particularly impressive in light of the production expansion, as the company was producing 67% more cars in the last quarter than at the beginning. (Fig. 4) Despite total emissions rising by 42% from Q17 to Q22 due to increased production, emissions per car actually slightly decreased, demonstrating improved efficiency. At Figure 5, it becomes visible that the raising emissions can be tracked back to the production volume, as the Emissions per Car have even slightly decreased over the same course of time.

The efforts had several benefits, as ValueDrive has not avoided paying CO2 Penalties from Q12 onwards (Fig. 6) but also continuously achieved a Sustainabilty rating above the benchmark. (Fig. 7). Additionally, it can be assumed that access to financial resources has been improved and that the positive effect on the Brand Image attracted a lot of environmentally conscious customers, even though the exact impact on demand is difficult to quantify. (El-Khalil and Mezher 2020, 1)

1.4 Review of Finance

Financial management involves the planning, organizing, directing, and controlling of financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise. (Brigham 2009, 4–5)

1.4.1 Overview of ValueDrive's CFOs Responsibilities

The Finance Manager at ValueDrive Motors oversees financial performance of the company across all regions. Main responsibility is managing the company's capital structure, which includes the issuance of shares, securing bonds, and sourcing cheaper Green Bonds to finance climate and environmental projects. These activities are crucial for managing the cost of capital and maintaining a healthy debt ratio. (Goedhart, Koller, and Rehm 2006) One of the key KPIs the Finance Manager tracks is the Debt Ratio, as it directly impacts the company's credit rating and the cost of future loans. By monitoring D/E, the Finance Manager ensures that debt levels remain manageable and that the company can access affordable financing.

Additionally, the Finance Manager influences liquidity by setting the terms of payment for customer and supplier credit, ensuring sufficient cash flow to meet operational needs.

The Finance Manager also needs to coordinate with all other departments to evaluate the financial implications of their departmental decisions, such as investments in new projects, sustainability initiatives and production adjustments - only investments with a positive NPV using an appropriate hurdle rate should be conducted. (Magni 2009) Regular financial reporting from Controlling and Accounting departments is critical for tracking the profitability of products, monitoring overall financial health, and making informed decisions that align with the company's strategic goals. To achieve sustainable success, the Finance Manager must balance the needs of various departments with the company's financial constraints, making strategic decisions that support long-term growth while carefully managing debt and capital costs.

1.4.2 Debt Management and Capital Structure

Managing the Capital Structure is one of the most important tasks of the CFO. While the Capital Structure has no direct impact on the value of a firm (Modigliani and Miller 1958, 268), it has significant influence on its risk, creditworthiness, financial flexibility, corporate governance and decision-making and its Profitability, via interest payments and tax shield. (Goedhart, Koller, and Rehm 2006) If the Return on Assets is higher than the Cost of Capital, an increase of the Debt-Ratio results in rising profits. The leverage effect is a double-edged sword, as ROA can unexpectedly decrease while debt is mostly long-term.

ValueDrives Debt Ratio was 45% on average, with a minimum value of 36.4% in Quarter 25 and a maximum of 50.9% in Q10. (Fig 8) According to scientific research the average debt ratio for European companies in automotive sector is 62.3%, while the optimal debt ratio is 47.3%. Beyond this point, additional debt becomes counterproductive, increasing the cost of capital and reducing profitability. (Basdekis et al. 2020) While the study provides valuable insight, it is based on data from 2005-2017 and the optimal debt ratio is highly dependent on various factors like the current cost of capital, profitability and the economic environment. During conduction of the study, capital demanding electrification of the sector hasn't been an urgent issue and interest rates have mostly been at or close to zero. Nevertheless, ValueDrive's average debt ratio remained very healthy, reflecting effective management of the CFO. While optimizing the Capital Structure already contributes a lot to reducing Weighted Cost of Capital (wacc), the type of debt also plays a crucial role. As Green Bonds had a lower interest rate than conventional long-term debt, ValueDrive continuously utilized them when available, to lower its cost of capital and to signal its sustainability commitment to the market. As they Green Bonds became increasingly available with electrification of the fleet, ValueDrives Green Capital Ratio reached 100% in Q22 (Fig. 9) and wacc could be continuously decreased from 6.1% in Q5 to 5.2% in Q26. (Fig. 10)

1.4.3 Working Capital Management and Cash Conversion Cycle

The **Cash Conversion Cycle (CCC)** is a key financial metric that measures the time it takes for a company to convert its investments in inventory and other resources into cash flows from sales. It is an essential indicator of how efficient a company manages its working capital. The CCC is calculated using the following formula (Nobanee and Al Hajjar 2014):

CCC = DIO + DSO – DPO

As Operations is responsible for the DIO, the Finance Manager could only manage the DSO and DPO by changing Customer Credit and Supplier Payment terms.. In the starting position Customer Credit and Supplier Payment terms were both 30 days. They could be changed to 15 or 40 days, valid for the following year's transactions. Initially, the CFO reduced Customer Credit to 15 days and increased Supplier Payment to 40 days. (Fig. 11, Fig. 12) This allowed ValueDrive to benefit from supplier financing. After 4 quarters, it was decided that it would be more beneficial and streamlined with low-cost-strategy to decrease payment terms for suppliers to 15 days, in favor of better prices, and increase payment terms for customers to 40 days, to increase demand and attractiveness to the cost-sensitive customer target group, which often requires more time to pay for a vehicle. This change also explains the large negative Free Cash Flow in Q9. Accordingly, working capital jumped in Q9, which is an expected downside of the trade-off in becoming more attractive to customers and negotiating lower prices.

Overall, ValueDrives Financials stand out significantly compared to industry peers. The EBIT Margin reached 24% in the last year (Fig.15) with a total Free Cash Flow of 6.2 Billion, while peers like Volkswagen or Tesla have EBIT-Margins of 5-8% with lower or even negative free cash flows, depite more than double the sales. (Volkswagen 2023) (Tesla 2024). The exceptional performance has been honored by the stock market with the stocks soaring from 396 to 860 since new management took over (Fig 16), an annualized return of 13.8% outperfoming all usual benchmarks without taking dividends into account.

1.5 Conclusion

This review of ValueDrive Motors' strategic and operational management within the Business in Practice (BiP) simulation has provided a comprehensive look at the complexities involved in navigating the rapidly evolving automotive industry. Through the analysis of the company's strategy, operations, and financial performance, several key insights have emerged.

The formulation and implementation of ValueDrive's strategy highlighted the importance of aligning business goals with both internal capabilities and external market conditions. The "Excellence without Excess" strategy, aimed at achieving cost leadership in the middle-class EV segment, was well-conceived based on the external and internal analyses. However, the simulation revealed critical limitations in executing this strategy, particularly the lack of control over key cost-driving elements. This experience underscored the need for a more adaptable and flexible approach when external constraints limit the effectiveness of a chosen strategy. Moreover, it became clear that a successful strategy must consider not only market positioning but also the practical realities of implementation, including the company's ability to control costs and manage production processes effectively.

The operations review demonstrated the critical role that effective production management plays in achieving strategic goals. Initially, ValueDrive faced significant challenges related to overproduction and high inventory levels, which stemmed from a reactive approach to demand forecasting. These issues highlighted the importance of accurate demand planning and the risks associated with relying solely on production volume to drive down unit costs. The eventual integration of marketing data into production planning processes led to improved operational efficiency and better alignment with market demand. This experience emphasized the necessity of interdepartmental collaboration, particularly between operations and marketing, to optimize production decisions and avoid costly misalignments between supply and demand.

The financial analysis further illustrated the interconnectedness of business functions and the critical impact of financial management on overall business performance. The CFO's management of capital structure and working capital was essential for maintaining financial health and supporting the company's strategic objectives. The strategic use of Green Bonds to lower the cost of capital and the adjustments to payment terms demonstrated how financial decisions can directly influence the company’s competitive positioning and operational flexibility. This experience highlighted the importance of understanding the ripple effects of financial choices on other departments and underscored the need for financial strategies that are closely aligned with broader business goals.

Overall, one of the most significant lessons learned through this simulation is the critical importance of interdependencies and the intertwining of decisions across business functions. Strategy, operations, finance, marketing, and human resources do not function in isolation; rather, they are deeply interconnected, with decisions in one area having profound impacts on others. The success of ValueDrive Motors hinged on the ability of its management team to work collaboratively, ensuring that decisions were made with an understanding of these interdependencies. This experience has reinforced the understanding that in a real-world business environment, effective management requires not only a deep knowledge of one’s own functional area but also an appreciation of how each function contributes to the company's overall success. The simulation underscored the necessity of cross-functional collaboration, adaptability, and strategic alignment to navigate the complex challenges faced by modern businesses, particularly in industries undergoing significant transformation, such as the automotive sector.

2 Individual reflection

2.1 Introduction and Overview of two Incidents

Self-reflection is crucial for developing leadership skills, allowing leaders to critically evaluate their actions, decisions, and interactions. By regularly reflecting on experiences, leaders can identify areas for improvement, recognize patterns in their behavior, and gain deeper insights into their strengths and weaknesses. This ongoing process of self-reflection is essential to learn from experiences, leverage strengths, work on weaknesses and evolve into a business leader.

In the "Business in Practice" simulation, two key incidents provided deep insights into leadership, team dynamics, and personal growth. The first incident involved a strategic decision where I stood alone with my opinion and couldn’t enforce it for the first time. Ultimately, I accepted the team's opposing opinion, which unfolded to be superior. This was a humbling experience, challenging my previous confidence in my decision-making. The second incident centered on a team member who showed less initiative and engagement. I took on more work to support this individual, partially neglecting my own responsibilities and did not delve into the root of the issue, which contributed to harmful speculation. It was later revealed that the team member struggled with a lack of business background and limited English proficiency, which had not been clearly communicated. For each incident I will first describe the event in detail, then analyze the situation and my personal response before I point out the lessons learned for future actions. Finally, I will provide a Conclusion and Review of learning, including critical discussion of peer feedback.

My personal reflection is grounded in the *Insights Discovery*® personality test, which highlights my dominant traits. I have a mix of Cool Blue and Fiery Red energy, reflecting my natural tendencies towards precision, analytical thinking and objectivity. I am competitive, determined and performance-driven, while I also exhibit traits of suspicion and control. (Fig. 17, 18)

2.2 Incident 1: The value of collective wisdom – a leader's humbling lesson

2.2.1 The Event

Since the start of our business simulation, I had naturally assumed a leadership role within the team, often leading discussions and guiding decision-making processes. Usually our decision-making process followed a standard procedure to be efficient and save time: The department responsible for the decision suggests their preferred option and briefly explains the relevant factors. If everyone agrees, we go forward with the proposal. In case at least one person is opposed to the suggestion, we exchange opinions and engage in a discussion before entering a democratic vote. Although such decisions were made democratically, I had a strong influence and generally managed to convince the team to follow my vision. This leadership style seemed effective until a pivotal moment that changed my perspective.

At one point, the team faced a strategic decision regarding expansion of our production facilities in China. Together with my Co-COO, I was primarily responsible for this decision and proposed building a fifth factory to capitalize on anticipated market growth and further increase our production capacity. However, the rest of the team (including Co-COO) were opposed to this idea, citing concerns about our existing slight overproduction and questioning the need for additional capacity at that stage. Despite my initial confidence in the expansion plan, I conceded to the majority's viewpoint after intense discussion, realizing I was the only one advocating for the additional factory.

As the simulation progressed, it became clear that our existing production capacity was indeed sufficient. We continued to experience slight overproduction even without the fifth factory, validating the team's more cautious approach. This outcome was a stark revelation for me, as it was the first time my judgment had been proven clearly incorrect, and the team's collective wisdom had prevailed.

2.2.2 Situation & Personal Response Analysis

2.2.2.1 Effective Consensus Decision Making

The decision making process in this situation aligns with the principles of consensus decision-making. (Gleeson 2012) While it was generally a decision Operations capould make alone, we decided to share responsbility with the team, as this was a strategic decision significantly impacting the overall result of the simulation. This clear decision-making process allowing everyone to be heard is also a sign of strong structure within the team. (Haas and Mortensen 2016) Even though I was unhappy with the result of the vote, I was delighted to see my team involved and passionate in the discussion. I knew about the importance of everyone pulling in the same direction so I had no choice than accepting the majority rule.

2.2.2.2 Embracing Team Unity Over Individual Persistence

Team alignment is a critical factor for success. All members need to work towards the same goal to maximize efficiency and overall performance. (Hackman 2002)

In this situation, the team and me showcased having a compelling direction - as we all had the goal of optimizing production capacity and worked together to achieve it, even though we had differing opinions of the best way to do it. (Haas and Mortensen 2016)

Continuing to push for the idea of expanding production facilities which lacked majority support, would have not only been a misallocation of time and resources but would have also risked creating division and delaying the team's progress. Recognizing the importance of alignment and efficiency, I chose to accept the vote’s outcome and pivoted to support the majority’s decision. By uniting behind this approach, we maintained momentum and ensured everyone was working towards the same goal. This experience highlighted the value of stepping back from individual visions in favor of collective action, dedicating efforts to strategies with the strongest support and highest likelihood of success.

2.2.2.3 Reevaluation of Self-Confidence and Value of Team Input

Before this incident, I was confident in my decision-making abilities, often believing that my perspective was the most reliable, a confidence rooted in past successes. However, the decision against expanding the factories was a humbling experience, challenging my belief in my infallibility. This situation made me realize that leadership is not about always being right, but about facilitating the best possible decisions for the team. As someone influenced by Fiery Red, I learned to balance my dominant traits and confidence in my own decision-making with greater openness to alternative ideas. Previously, I may have underappreciated the value of diverse opinions within the team, often favoring my own judgment. This experience emphasized the importance of actively seeking and considering the viewpoints of all team members. I began to pay closer attention to the reasoning behind their ideas, recognizing that collective input often leads to more balanced and well-considered decisions. This approach is essential for maintaining a shared motivated purpose, as neglecting team members' contributions can lead to a loss of motivation and a sense that they are working for the dominant person's purpose rather than a shared goal.

2.2.2.4 The Role of a Leader in Facilitating, Not Dictating

A key takeaway was understanding that good leadership involves more than just guiding decisions; it also includes knowing when to step back and let the team's consensus lead. This realization was pivotal in reshaping my approach to leadership. Rather than positioning myself as the sole decision-maker, I started to see my role as a facilitator who ensures that all voices are heard and considered. While my dominant Fiery Red tendencies pushed me to take a leading role in decision-making, the strong Cool Blue component guided me to reevaluate and appreciate the team's more cautious approach. This balance of traits is essential in recognizing when to lead and when to facilitate.

2.2.3 Lessons Learned & Future Actions

2.2.3.1 Embracing Collective Decision-Making

The most important lesson from this incident is the value of collective decision-making. Recognizing the strengths of my team members and the importance of their input has become a cornerstone of my leadership approach. I now prioritize creating an environment where everyone feels comfortable sharing their perspectives, knowing that this diversity of thought leads to better outcomes.

2.2.3.2 Building Trust and Encouraging Open Dialogue

This experience highlighted the need to build trust within the team and encourage open dialogue. By openly discussing the reasons behind our decisions and acknowledging when the team's insights prove correct, we can build a more trusting and cooperative environment. This approach not only strengthens team dynamics but also enhances our collective problem-solving abilities.

2.2.3.3 Accepting Mistakes Gracefully

Adapting a growth mindset was highly important in learning to accept mistakes gracefully. Moving forward, I will consciously balance my Fiery Red traits with greater openness to alternative viewpoints, ensuring that I fully consider the reasoning behind each team member's contributions. By contributing to an environment where all voices are heard and valued, I aim to maintain a shared sense of purpose and motivation within the team, ensuring that our decisions are well-rounded and supported by the collective wisdom of the group

2.2.3.4 Leadership as a Supportive Role

Finally, this incident reinforced the concept that leadership should be supportive rather than authoritative. A leader's role is to guide, support, and sometimes step back to allow the team to take the lead. This shift in perspective has made me more appreciative of the contributions of others and more committed to fostering a collaborative team environment.

2.3 Incident 2: Unseen Barriers – Hidden Challenges of a Team Member

2.3.1 The Event

My team faced a challenge with a business unit manager, who showed significantly less initiative and engagement compared to others. While they completed tasks when assigned, the work was rarely satisfactory and they didn't show any proactive behavior or deep understanding of the business mechanics and role expectations. Recognizing this, I offered my assistance, but often ended up taking over their responsibilities, diverting my attention from my core duties. Despite this, the team functioned smoothly, and we successfully navigated through the simulation.

During a leadership practice session, we discussed a similar hypothetical scenario: a team member who meets only the minimum requirements. When asked how they would handle it, the struggling team member suggested they would "probably talk to them." After the session, I encouraged them privately, offering more help and urging active participation. While their engagement and motivation increased, their work quality did not improve significantly. The team collectively accepted this dynamic, maintaining a positive environment despite the imbalance.

In the team dynamics clinic, the absent member became the main topic of discussion. There was suspicion their absence was deliberate to avoid criticism. Despite my efforts to support them, I faced criticism from the external leader, for possibly intimidating them or not offering enough help. This accusation was hurtful, given the time and effort I had invested. The clinic disrupted our team's harmony, reviving frustrations we thought were resolved and distracting us from the simulation's business challenges.

After the simulation, during a team celebration, the team member revealed that they had no business background and had only started learning english recently. We were both shocked and impressed, as our own capabilities might have been even more limited in their situation.

2.3.2 Situation and Personal Response Analysis

2.3.2.1 Lack of Trust and Fear of Conflict Lead to Unconscious Bias and Miscommunication

The team member's reluctance to engage proactively or show a deeper understanding of the business could be rooted in a **lack of trust** within the team. They may not have felt comfortable admitting their lack of experience or language skills, which would have required vulnerability. The fact that they only revealed their challenges after the simulation suggests that they did not trust the team enough to share their struggles earlier. The team's collective acceptance of the dynamic, where the underperforming member was not held accountable or pushed to improve significantly, suggests a **fear of conflict**.(Joosr 2015)

Initially, I misinterpreted the team member's lack of initiative as disinterest or unwillingness to engage, leading to frustration. I failed to consider potential barriers such as language skills, cultural differences, or lack of relevant experience, which later emerged as significant factors. As someone with a strong Cool Blue trait, I naturally prioritize structure, precision, and meeting expectations. This inclination might have contributed to my initial frustration with the team member’s perceived lack of engagement.

2.3.2.2 Reducing Motivation and Coordination Cost by Supporting Each Other

Teams generally spend a significant amount of time and energy on coordination tasks and aligning efforts and motivation. (Noonan Hadley and Mortensen 2022) In our situation, the team's coordination costs were heightened due to language barriers and the struggling team member's lack of essential knowledge. It was collectively perceived that the time and effort required to ensure everyone fully understood each task would exceed the cost of having one team member directly support the underperforming department, explain plans, and partially take over responsibilities. Team success sometimes requires individual face-to-face promotive interaction and team members might be required to support each other in order to accomplish the task. (P. R. Johnson, Heimann, and O’Neill 2000). Recognizing that one department could

benefit from additional support while another had excess capacity, we decided to reallocate a team member's time to assist in the area of need. I volunteered to take on this role, which unfortunately diverted my focus and capacities away from my own core responsibilities. Still, this strategic move showcased our team's agility and contributed to its overall success.

2.3.2.3 Neglecting Immediate Action Intensified Challenges and False Assumptions

When differences surface, destructive conflicts can and should be preempted, even when the group seems homogeneous and harmonious. (Toegel and Barsoux 2016) While we did address the issue and took action, we failed to delve into its root causes, which led to harmful speculation. If we had identified the underlying problem earlier, we might have avoided the frustration experienced during the team dynamics clinics.

The situation highlighted the dangers of assumptions based on limited information. The team and I speculated about the reasons behind the member's behavior without fully understanding their background or challenges. This lack of understanding was only rectified post-simulation, when the individual shared their difficulties with language and cultural integration. The experience underscored the importance of slowing down, gathering all relevant information, and approaching situations with a more open and investigative mindset.

2.3.3 Lessons Learned & Future Actions

2.3.3.1 Fostering Inclusive Communication and Understanding

One of the key takeaways is the critical importance of creating enabling conditions for effective team work establishing open and inclusive communication channels from the start. Encouraging team members to share their backgrounds, strengths, and challenges early on can help prevent misunderstandings and foster a supportive environment. As a leader, it is crucial to proactively engage all team members, particularly those who seem less engaged or isolated, early in team projects. My strong inclination toward Cool Blue emphasizes the importance of

clear, structured communication. In future projects, I will leverage this trait to establish open communication channels and prioritize team-building activities, such as casual meetups, team dinners or coffee breaks, to facilitate better interpersonal understanding. Additionally, I will continue to regularly check in on struggling colleagues and offer tailored support, while encouraging their participation in discussions and decision-making.

2.3.3.2 Flexibility is Key for Team Success

A key takeaway is the importance of flexibility within a team, particularly the ability to have team members who can step in and partially fill roles when others are unable to do so due to various circumstances, such as illness, pregnancy, or lack of experience. This adaptability not only ensures continuity in the team's progress but also contributes to a supportive environment with shared responsibilities. In future projects, I will prioritize cross-training and knowledge sharing to build a team capable of covering for each other when needed, ensuring that our work remains efficient and resilient in the face of challenges.

2.3.3.3 Managing and Addressing Feedback Constructively

My combination of Cool Blue and Fiery Red means that I tend to take feedback seriously, sometimes viewing it through a critical lens. Receiving critical feedback was challenging, but it provided an invaluable perspective. It highlighted the importance of not taking external observations personally and using them as opportunities for growth. Moving forward, I will work on accepting feedback more constructively and using it to refine my leadership approach, while also ensuring that it is contextualized with the full picture. If I know the critic is missing important information required for the judgment, I won’t let it too close to avoid further frustration.

2.4 Conclusion and Review of Learning

Reflecting on the simulation experience and feedback, I gained valuable insights into my leadership strengths and areas for improvement. In the **first incident,** I learned that effective leadership often means stepping back, listening, and facilitating consensus rather than dictating solutions. This approach improves the team's cohesion and highlights the importance of providing an inclusive environment where all voices are heard. In the **second incident**, I learned the critical value of adaptability and open communication. Supporting a struggling team member without fully understanding their background led to miscommunication, frustration and assumptions. Moving forward, I will focus on creating clear communication channels and promoting transparency to avoid similar challenges, ensuring that team members feel comfortable sharing their limitations or concerns early in the process and continue to help when it is necessary.

The peer feedback, which rated my contributions highly across the board, aligns with my self-assessment in most areas, as my peers gave me the full score (5/5) in all categories. (Fig. 19) The differences, especially in expecting quality, might be due to cultural differences unfolding in the way we grade each other. The majority of the team was Southern European, while I am German. According to Geert Hofstede's Cultural Dimensions Theory, Germans are more individualist and long-term oriented, while Southern Europeans are more collectivist and short-term oriented. (Hofstede 1984) This could translate into me being more objective and direct with my feedback, while my peers were grading more generous to improve group harmony and avoid conflict. These cultural tendencies could be amplified by my Cool Blue Personality, which makes me tend to be perfectionist and critical of myself and others. Additionally, I might have assessed my own performance a bit too low due to defensive pessimism. (Norem and Cantor 1986) However, receiving perfect peer feedback was overwhelming in a positive way, as it made me feel that my hard work and engagement were truly appreciated by the team.

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Appendice

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Figure 1: Final Score (Value Added in M$)
Source: Simulation

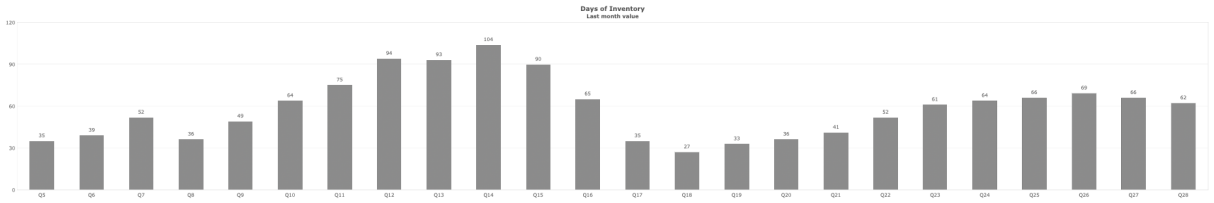


Figure 2: Days of Inventory (Last month value)
Source: Simulation

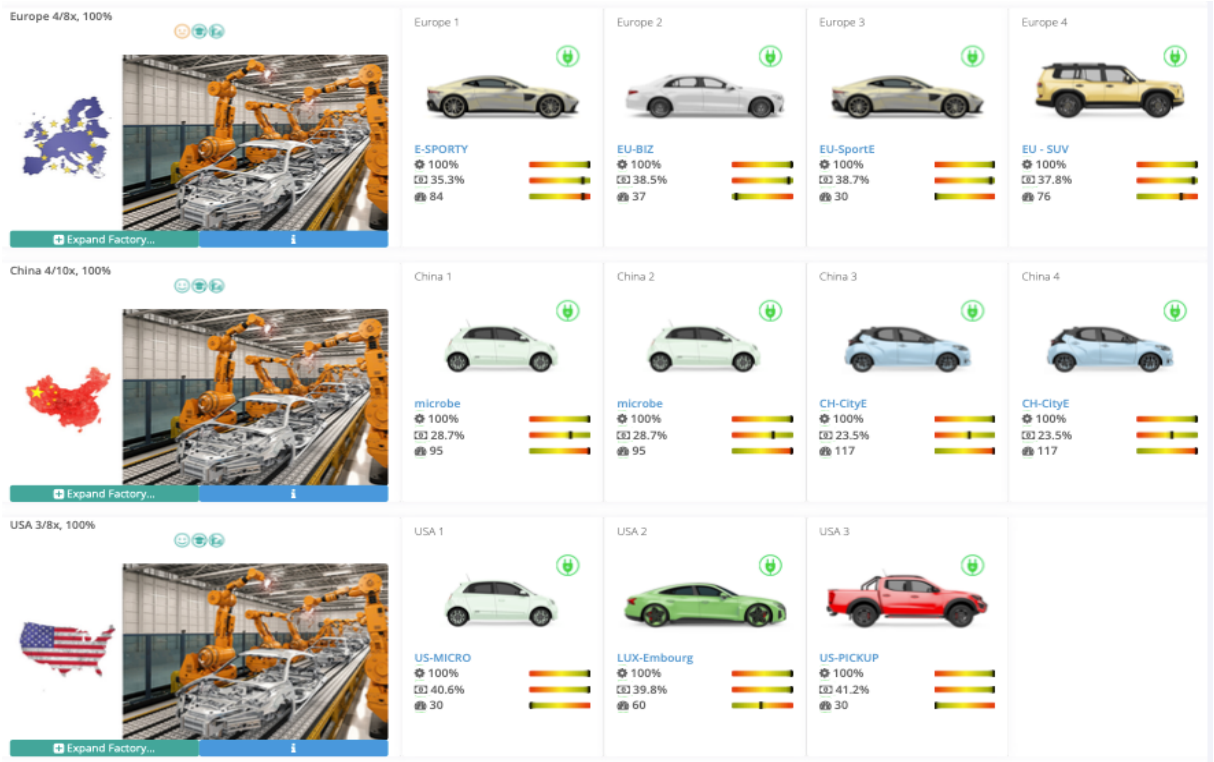


Figure 3: Final Production Overview
Source: Simulation

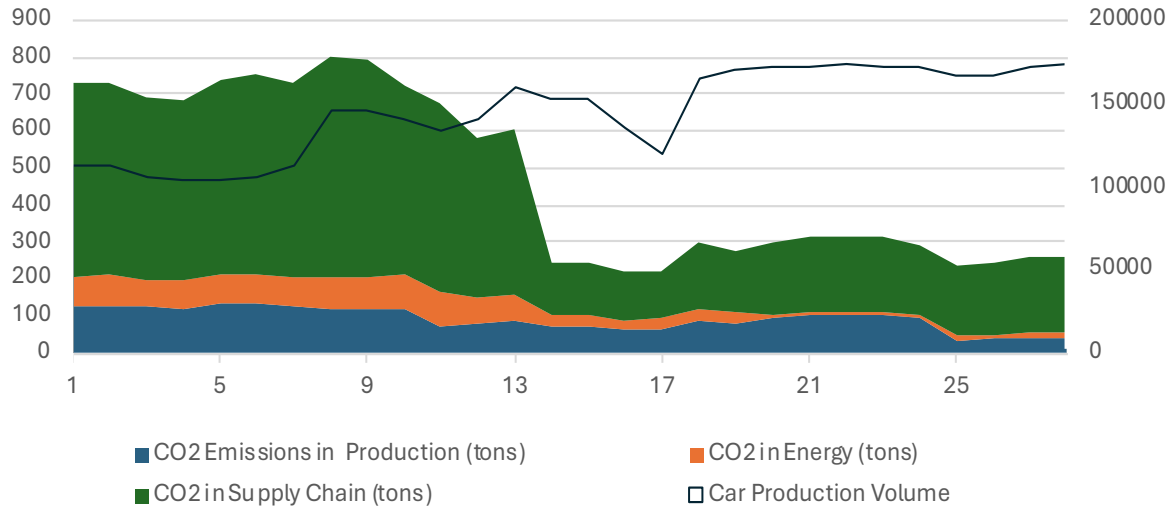


Figure 4: Total Emissions in Operations and Production Volume
Source: Own illustration of imulation data

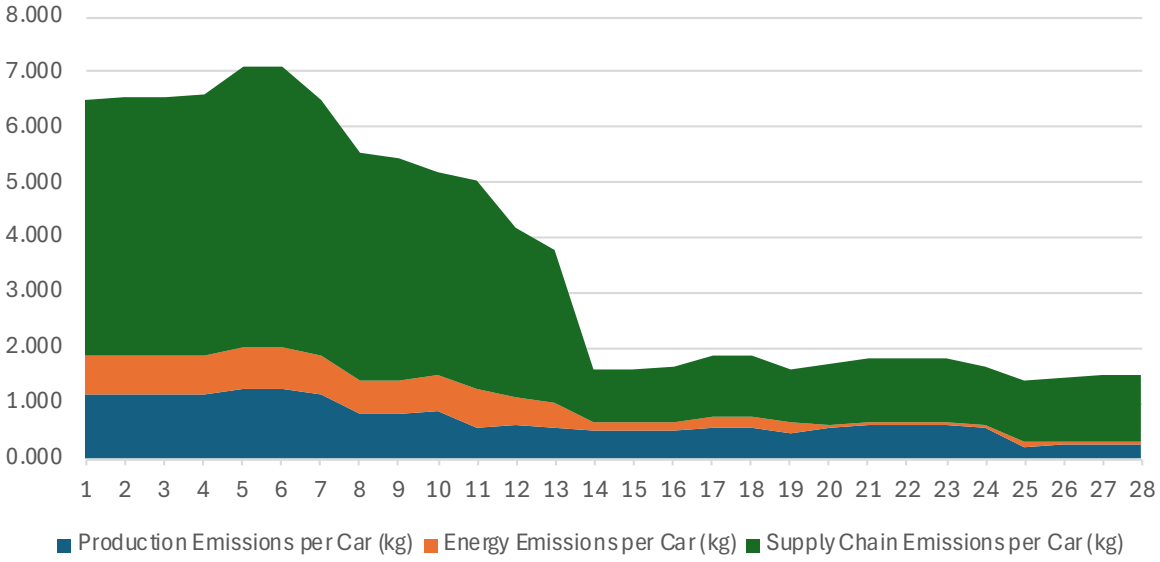


Figure 5: Total Emissions in Operations per Car
Source: Own calculations using simulation data (Sum of operations emissions divided by total production volume)

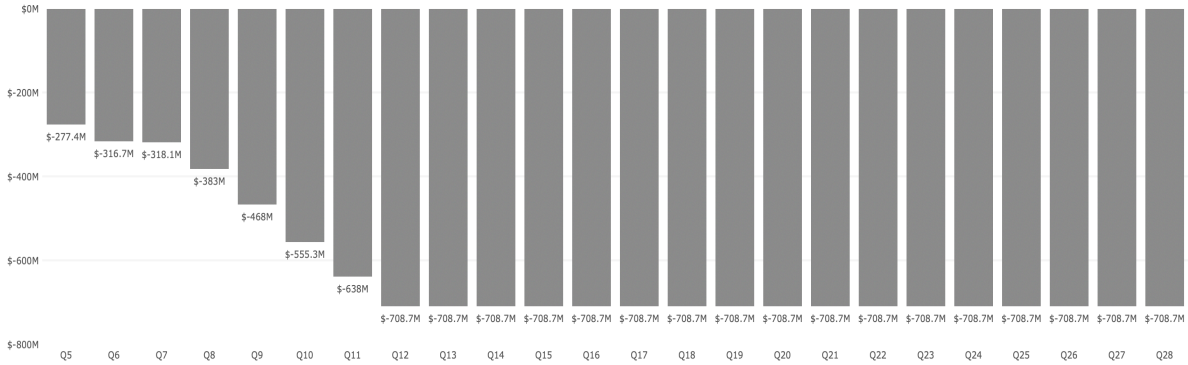
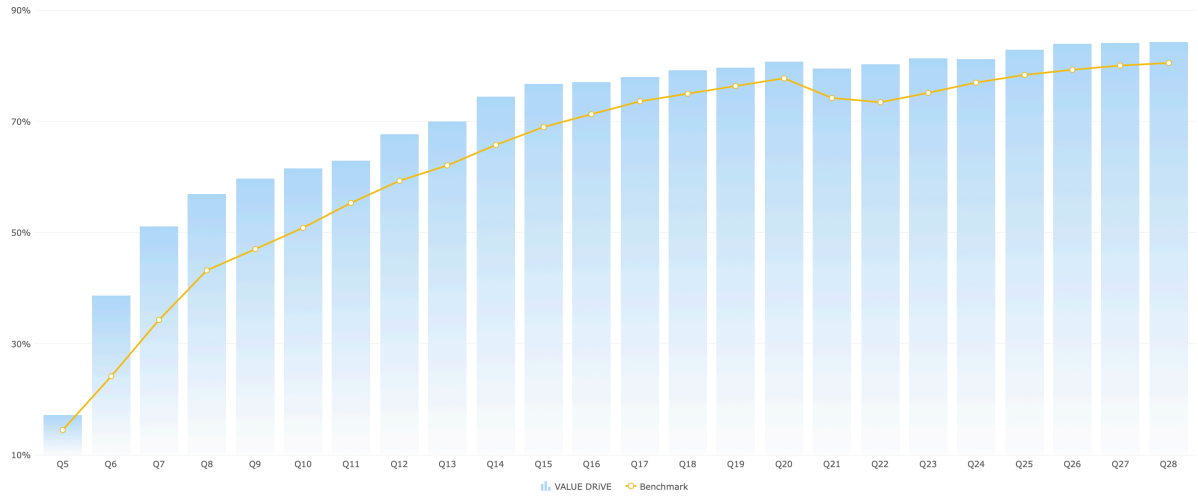


Figure 6: Cummulative CO2 Penalty (Last month value)
Source: Simulation



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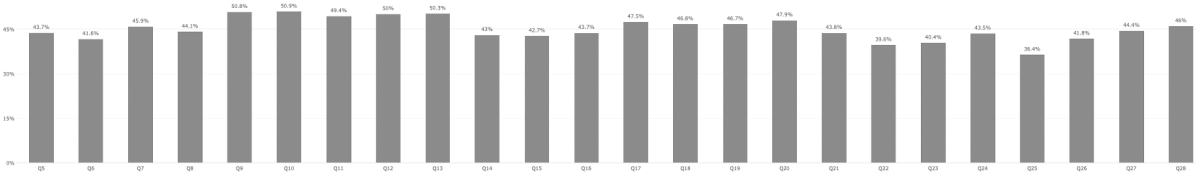

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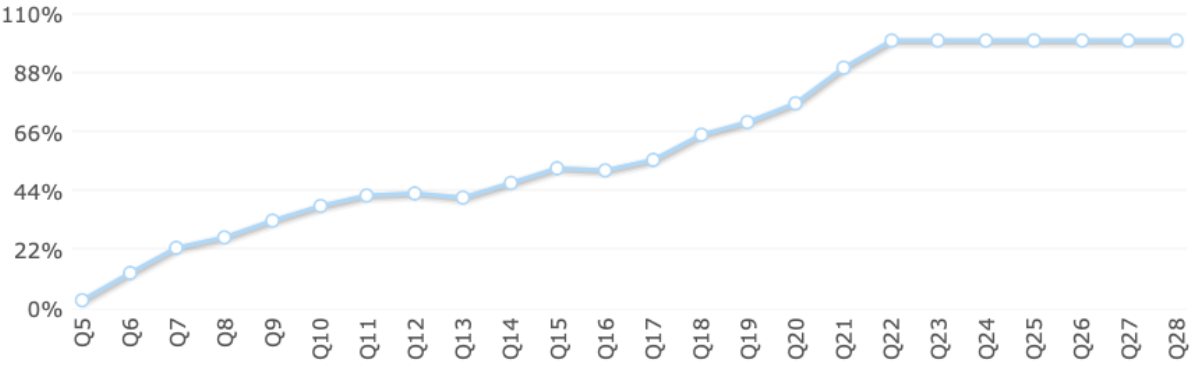

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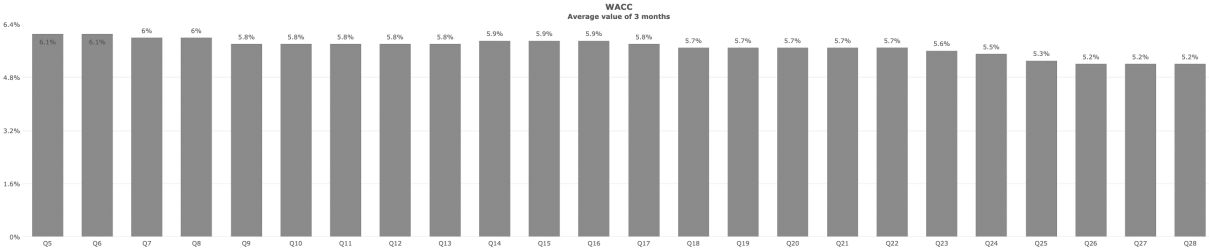
Source: Simulation



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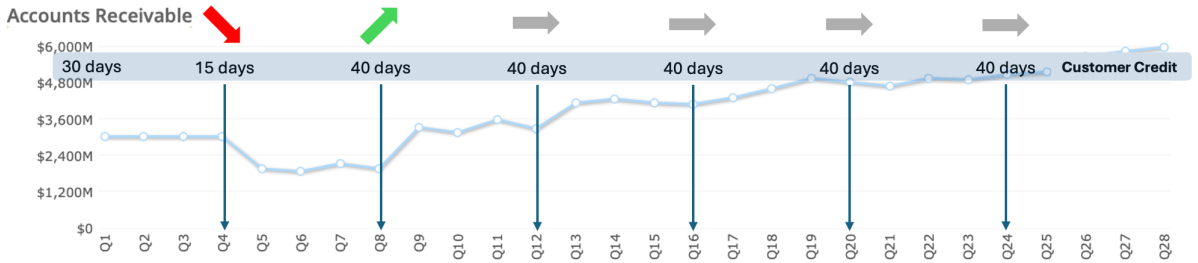
Source: Simulation



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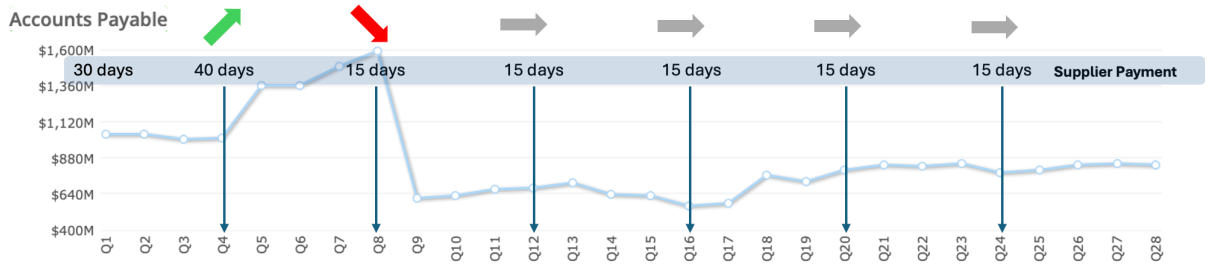

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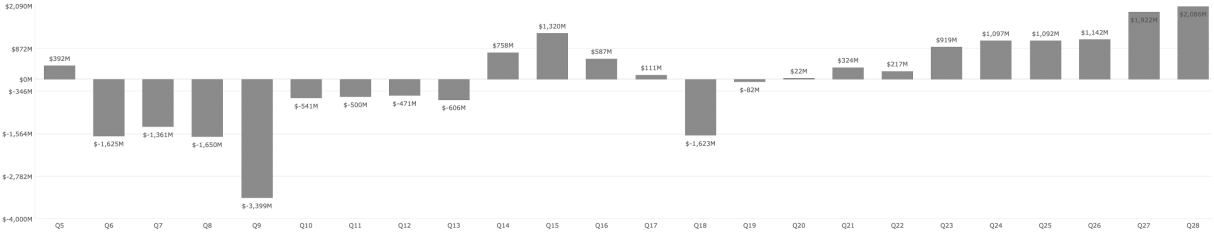

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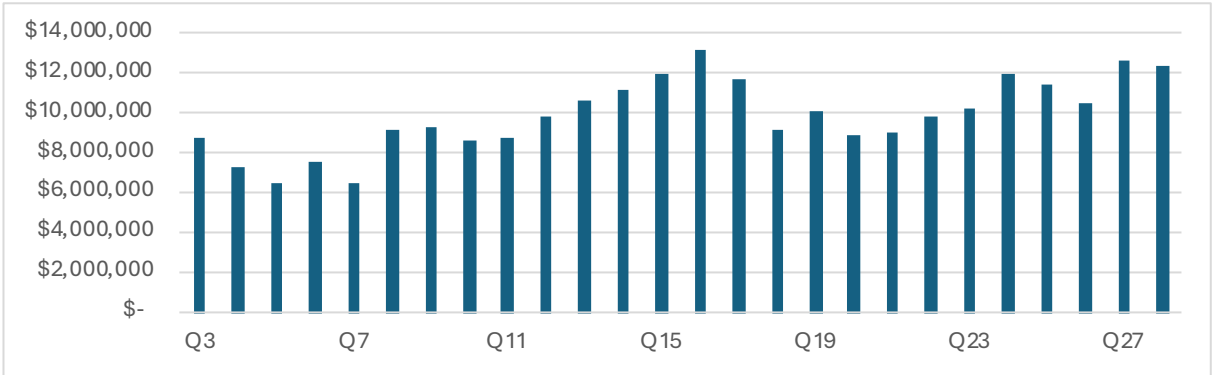
Source: Simulation



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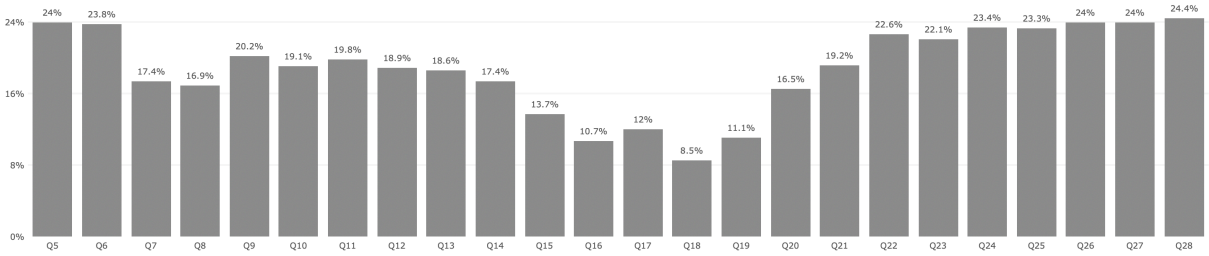

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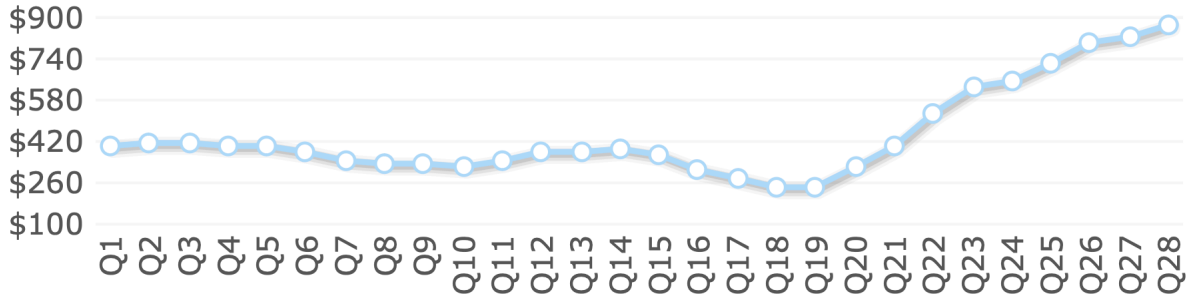

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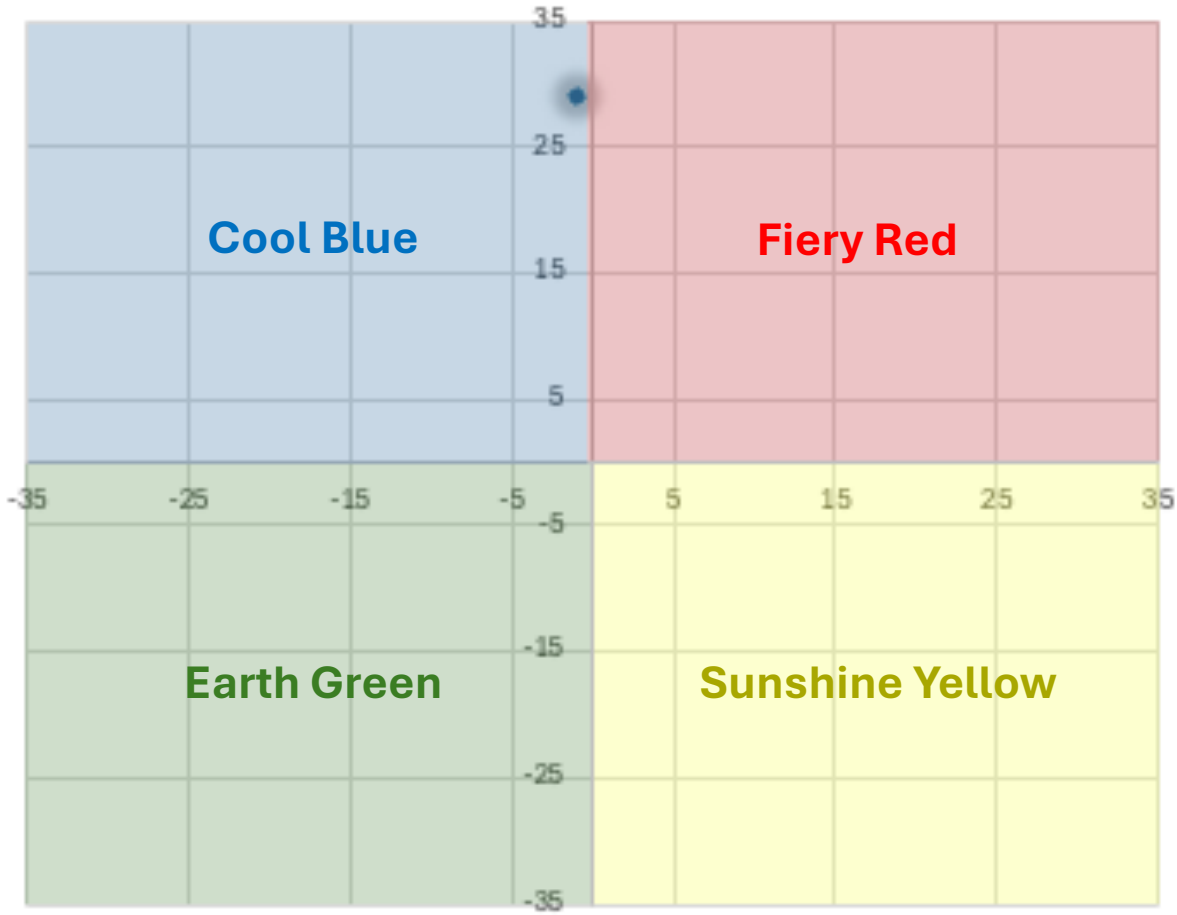

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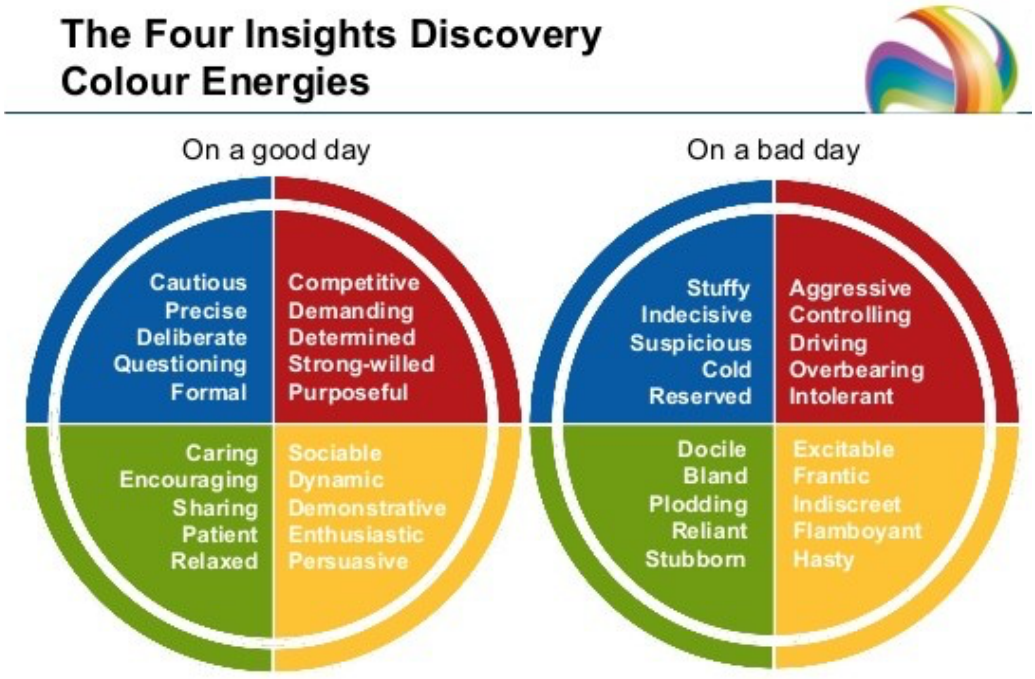

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Source: © The Insights Group Limited, 2018

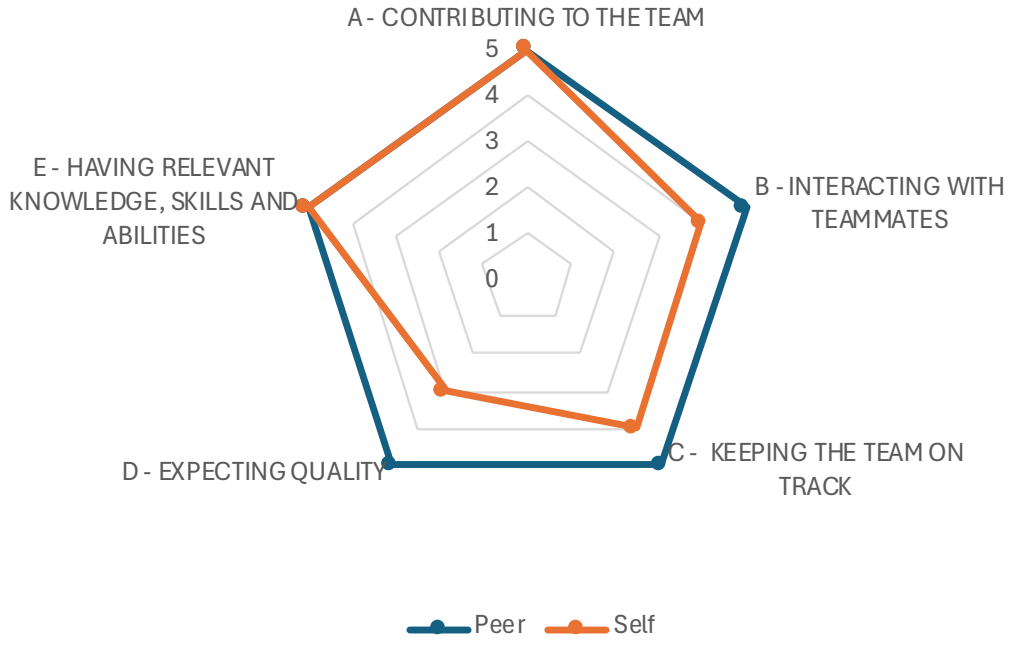

Figure 19: Peer & Self Evaluation
Source: Results of peer & self evaluation from Team Dynamic Clinics

Financial Statements

Source: Simulation Data

Balance Sheet

	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
LT Assets	**15,412,824**	**14,718,160**	**15,810,318**	**17,572,811**	**16,914,059**	**18,155,017**	**19,239,409**	**18,046,992**	**17,343,743**	**17,623,215**	**17,737,170**	**17,770,411**	**17,740,671**	**18,496,730**	**19,866,960**	**20,707,971**	**20,318,437**	**20,093,762**	**19,256,044**	**19,279,657**	**17,777,089**	**17,446,331**	**17,455,030**	**17,320,428**	**16,890,867**	**16,451,717**
> PP&E	10,687,824	10,018,160	11,135,318	12,922,811	12,289,059	13,555,017	14,664,409	13,496,992	12,818,743	13,123,215	13,262,170	13,320,411	13,315,671	14,096,730	15,491,960	16,357,971	15,993,437	15,793,762	14,981,044	15,029,657	13,552,089	13,246,331	13,280,030	13,170,428	12,765,867	12,351,717
> Land & Buildings	4,725,000	4,700,000	4,675,000	4,650,000	4,625,000	4,600,000	4,575,000	4,550,000	4,525,000	4,500,000	4,475,000	4,450,000	4,425,000	4,400,000	4,375,000	4,350,000	4,325,000	4,300,000	4,275,000	4,250,000	4,225,000	4,200,000	4,175,000	4,150,000	4,125,000	4,100,000
Current Assets	**9,647,507**	**8,265,130**	**7,818,444**	**8,903,898**	**7,885,948**	**10,629,234**	**9,894,157**	**9,141,886**	**9,400,540**	**10,501,108**	**11,245,643**	**11,723,227**	**12,449,840**	**13,656,129**	**12,239,523**	**9,816,687**	**10,800,761**	**9,671,948**	**9,729,259**	**10,595,038**	**11,048,315**	**12,604,187**	**12,175,456**	**11,246,261**	**13,419,126**	**13,102,857**
> Cash and Cash Equivalei	4,267,767	4,097,408	4,080,322	4,615,838	4,540,721	6,300,614	3,534,076	2,419,507	1,762,484	2,010,157	1,428,403	1,995,019	3,403,919	5,563,914	5,060,684	2,603,305	3,890,029	2,711,430	2,266,623	2,189,873	2,218,019	3,324,954	2,712,651	1,316,980	3,496,516	3,312,497
> Accounts Receivable	3,031,427	3,035,286	1,955,105	1,877,268	2,144,258	1,944,596	3,333,586	3,138,780	3,562,579	3,295,378	4,140,738	4,274,487	4,136,547	4,080,080	4,295,549	4,597,332	4,940,911	4,796,650	4,688,472	4,922,116	4,886,826	5,066,880	5,140,194	5,661,905	5,829,258	5,949,197
> Inventory	2,348,313	1,132,436	1,783,017	2,410,792	1,200,969	2,384,024	3,026,495	3,583,599	4,075,477	5,195,573	5,676,502	5,453,721	4,909,374	4,012,135	2,883,290	2,616,050	1,969,821	2,163,868	2,774,164	3,483,049	3,943,470	4,212,353	4,322,611	4,267,376	4,093,352	3,841,163
Equipment on Lease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Receivables from Financial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Receivables from Financial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Assets	**25,060,331**	**22,983,290**	**23,628,762**	**26,476,709**	**24,800,007**	**28,784,251**	**29,133,567**	**27,188,878**	**26,744,284**	**28,124,324**	**28,982,813**	**29,493,638**	**30,190,511**	**32,152,860**	**32,106,483**	**30,524,659**	**31,119,198**	**29,765,710**	**28,985,303**	**29,874,695**	**28,825,405**	**30,050,519**	**29,630,487**	**28,566,690**	**30,309,993**	**29,554,574**
Shareholder Equity	**12,297,532**	**11,425,946**	**12,020,738**	**12,633,025**	**12,219,903**	**12,255,030**	**12,834,518**	**12,698,983**	**13,046,737**	**13,124,760**	**15,133,880**	**15,810,663**	**16,335,353**	**15,798,155**	**16,175,788**	**15,265,472**	**15,402,230**	**15,283,899**	**15,784,288**	**16,886,264**	**15,465,954**	**17,519,240**	**16,228,573**	**14,802,349**	**16,209,352**	**15,496,404**
> Share Capital	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,350,000	10,350,000	10,350,000	10,350,000	10,350,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	9,650,000	10,000,000	9,650,000	9,300,000	9,300,000	9,300,000
> Capital Reserve	0	0	0	0	0	0	0	0	0	0	964,880	964,880	964,880	964,880	964,880	484,645	484,645	484,645	484,645	484,645	-1,346,520	575,925	-1,573,250	-3,998,540	-3,998,540	-3,998,540
> Retained Earnings	2,297,532	1,425,946	2,020,738	2,633,025	2,219,903	2,255,030	2,834,518	2,698,983	3,046,737	3,124,760	3,819,000	4,495,783	5,020,473	4,483,275	4,860,908	4,780,827	4,917,585	4,799,254	5,299,643	6,401,619	7,162,474	6,943,315	8,151,823	9,500,889	10,907,892	10,194,944
Liabilities	**12,762,799**	**11,557,344**	**11,608,023**	**13,843,683**	**12,580,104**	**16,529,221**	**16,299,049**	**14,489,895**	**13,697,547**	**14,999,564**	**13,848,933**	**13,682,975**	**13,855,158**	**16,354,706**	**15,930,695**	**15,259,187**	**15,716,968**	**14,481,811**	**13,201,015**	**12,988,431**	**13,359,451**	**12,531,279**	**13,401,914**	**13,764,341**	**14,100,642**	**14,058,170**
> LT Debt	11,755,669	10,547,902	10,242,610	12,484,963	11,091,131	14,939,067	15,682,507	13,863,739	13,026,738	14,320,622	13,137,857	13,041,890	13,222,020	15,793,141	15,349,605	14,495,906	14,997,272	13,685,687	12,370,280	12,162,280	12,516,880	11,748,880	12,604,880	12,928,680	13,254,080	13,221,120
> ST Debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	1,007,130	1,009,442	1,365,413	1,358,720	1,488,973	1,590,154	616,542	626,156	670,809	678,942	711,076	641,085	633,138	561,565	581,090	763,281	719,696	796,124	830,735	826,151	842,571	782,399	797,034	835,661	846,562	837,050
Total Liabilities and Equity	**25,060,331**	**22,983,290**	**23,628,761**	**26,476,708**	**24,800,007**	**28,784,251**	**29,133,567**	**27,188,878**	**26,744,284**	**28,124,324**	**28,982,813**	**29,493,638**	**30,190,511**	**32,152,860**	**32,106,483**	**30,524,659**	**31,119,198**	**29,765,710**	**28,985,303**	**29,874,695**	**28,825,405**	**30,050,519**	**29,630,487**	**28,566,690**	**30,309,993**	**29,554,574**

Income Statement

	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
Revenue	4,564,360	4,578,910	4,043,870	4,153,185	4,354,545	3,910,606	4,852,469	4,770,855	5,257,634	4,928,686	6,152,465	6,339,156	6,413,384	6,126,461	6,559,489	6,476,480	6,680,851	7,059,210	7,089,833	7,384,651	7,441,854	7,665,533	7,801,398	8,417,195	8,785,355	8,931,666
> % growth		0.32%	-11.68%	2.70%	4.85%	-10.19%	24.08%	-1.68%	10.20%	-6.26%	24.83%	3.03%	1.17%	-4.47%	7.07%	-1.27%	3.16%	5.66%	0.43%	4.16%	0.77%	3.01%	1.77%	7.89%	4.37%	1.67%
COGS	2,827,410	2,893,458	2,455,506	2,507,831	2,716,670	2,396,714	2,968,493	2,904,840	3,231,306	3,067,284	3,863,685	4,074,219	4,377,937	4,167,417	4,466,611	4,341,944	4,333,140	4,324,855	4,217,850	4,237,425	4,278,347	4,467,527	4,596,033	5,006,624	5,230,299	5,301,678
> % of Revenue	61.95%	63.19%	60.72%	60.38%	62.39%	61.29%	61.17%	60.89%	61.46%	62.23%	62.80%	64.27%	68.26%	68.02%	68.09%	67.04%	64.86%	61.27%	59.49%	57.38%	57.49%	58.28%	58.91%	59.48%	59.53%	59.36%
Gross Profit	**1,736,950**	**1,685,452**	**1,588,364**	**1,645,354**	**1,637,875**	**1,513,892**	**1,883,976**	**1,866,015**	**2,026,328**	**1,861,402**	**2,288,780**	**2,264,937**	**2,035,447**	**1,959,044**	**2,092,878**	**2,134,536**	**2,347,711**	**2,734,355**	**2,871,983**	**3,147,226**	**3,163,507**	**3,198,006**	**3,205,365**	**3,410,571**	**3,555,056**	**3,629,988**
Marketing Expenses	54,627	59,379	60,969	63,105	71,523	93,856	143,771	154,760	198,672	196,655	241,975	229,948	229,948	169,286	160,170	214,341	205,980	189,011	207,127	200,948	217,945	190,702	152,991	134,519	157,250	146,612
> % of Revenue	1.2%	1.3%	1.5%	1.5%	1.6%	2.4%	3.0%	3.2%	3.8%	4.0%	3.9%	3.6%	3.6%	2.8%	2.4%	3.3%	3.1%	2.7%	2.9%	2.7%	2.9%	2.5%	2.0%	1.6%	1.8%	1.6%
G&A Expenses	145,921	150,244	189,812	200,680	289,649	304,564	282,984	279,702	286,323	251,021	299,728	302,696	280,783	468,204	462,020	617,068	546,461	580,435	508,232	506,769	481,382	433,122	444,912	444,736	449,709	453,318
> % of Revenue	3.20%	3.28%	4.69%	4.83%	6.65%	7.79%	5.83%	5.86%	5.45%	5.09%	4.87%	4.78%	4.38%	7.64%	7.04%	9.53%	8.18%	8.22%	7.17%	6.86%	6.47%	5.65%	5.70%	5.28%	5.12%	5.08%
> % growth		2.96%	26.34%	5.73%	44.33%	5.15%	-7.09%	-1.16%	2.37%	-12.33%	19.40%	0.99%	-7.24%	66.75%	-1.32%	33.56%	-11.44%	6.22%	-12.44%	-0.29%	-5.01%	-10.03%	2.72%	-0.04%	1.12%	0.80%
Bonus/(Penalty)	47,818	51,444	68,151	39,300	1,376	64,910	85,010	87,267	82,715	70,636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation	454,956	462,307	429,896	428,643	509,874	503,988	555,885	605,424	581,466	551,972	601,436	629,513	644,867	664,129	687,678	713,896	786,412	797,542	798,799	772,479	819,171	780,851	792,871	809,543	841,127	852,359
> % change		2%	-7%	0%	19%	-1%	10%	9%	-4%	-5%	9%	5%	2%	3%	4%	4%	10%	1%	0%	-3%	6%	-5%	2%	2%	4%	1%
EBIT	**1,129,264**	**1,064,966**	**975,838**	**992,226**	**768,205**	**676,394**	**986,346**	**913,397**	**1,042,582**	**932,390**	**1,145,641**	**1,102,780**	**879,849**	**657,425**	**783,010**	**589,232**	**808,858**	**1,167,367**	**1,357,825**	**1,667,030**	**1,645,009**	**1,793,331**	**1,814,591**	**2,021,773**	**2,106,970**	**2,177,699**
> % of Revenue	24.74%	23.26%	24.13%	23.89%	17.64%	17.30%	20.33%	19.15%	19.83%	18.92%	18.62%	17.40%	13.72%	10.73%	11.94%	9.10%	12.11%	16.54%	19.15%	22.57%	22.10%	23.39%	23.26%	24.02%	23.98%	24.38%
Other Items	0	-500,730	-96	-25	-940,826	-121	-52	-741,566	-377,673	-52,886	-175	-29	-55	-30	-88,883	-448,447	-455,323	-564,104	-504,604	0	-466,857	0	-34	0	0	0
Financial Income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expense	130,804	141,265	126,040	117,506	135,737	118,226	158,453	163,074	141,916	133,053	153,695	135,918	130,237	130,978	154,651	141,293	131,082	129,457	108,954	92,777	91,217	93,877	88,117	94,537	96,965	99,406
EBT	**998,460**	**422,971**	**849,702**	**874,695**	**-308,358**	**558,047**	**827,840**	**8,757**	**522,993**	**746,451**	**991,771**	**966,833**	**749,557**	**526,417**	**539,476**	**-508**	**222,455**	**473,806**	**744,267**	**1,574,253**	**1,086,935**	**1,699,454**	**1,726,440**	**1,927,236**	**2,010,005**	**2,078,293**
Taxes	299,538	185,272	254,911	262,408	104,764	-29,857	248,352	144,293	175,239	63,929	297,531	290,050	224,867	157,925	161,843	79,573	85,697	88,323	243,877	472,276	326,081	489,239	517,932	578,171	603,001	623,488
Net Operating Profit						**473,476**	**690,442**	**639,378**	**729,807**	**652,673**	**801,949**	**771,946**	**615,894**	**460,198**	**548,107**	**412,462**	**566,201**	**817,157**	**950,478**	**1,166,921**	**1,151,506**	**1,255,332**	**1,270,214**	**1,415,241**	**1,474,879**	**1,524,389**
Net Income	**698,922**	**237,699**	**594,791**	**612,287**	**-413,122**	**587,906**	**579,488**	**-135,535**	**347,754**	**682,523**	**694,240**	**676,783**	**524,690**	**368,492**	**377,633**	**-80,081**	**136,758**	**385,483**	**500,388**	**1,101,976**	**760,855**	**1,210,215**	**1,208,508**	**1,349,066**	**1,407,003**	**1,454,806**
> % change		-65.99%	150.23%	2.94%	-167.47%	42.31%	-1.43%	-123.39%	156.58%	96.27%	1.72%	-2.51%	-22.47%	-161.95%	-202.48%	-78.79%	70.77%	181.87%	29.81%	120.22%	-30.96%	59.06%	-0.14%	11.63%	4.29%	3.40%
	30.0%	43.8%	30.0%	30.0%	-34.0%	-5.4%	30.0%	1647.7%	33.5%	8.6%	30.0%	30.0%	30.0%	30.0%	30.0%	-15664.0%	38.5%	18.6%	32.8%	30.0%	30.0%	28.8%	30.0%	30.0%	30.0%	30.0%

Cash Flow Statement

	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
Net Income	698,922	237,699	594,791	612,287	-413,122	587,906	579,488	-135,535	347,754	682,523	694,240	676,783	524,690	368,492	377,633	-80,081	136,758	385,483	500,388	1,101,976	760,855	1,210,215	1,208,508	1,349,066	1,407,003	1,454,806
Depreciation	454,956	462,307	429,896	428,643	509,874	503,988	555,885	605,424	581,466	551,972	601,436	629,513	644,867	664,129	687,678	713,896	786,412	797,542	798,799	772,479	819,171	780,851	792,871	809,543	841,127	852,359
Change in Inventory	219,604	-1,081,141	650,581	627,775	-1,036,632	1,183,056	642,471	579,357	507,613	1,120,096	480,928	-222,781	-544,346	-897,239	-1,128,846	-235,045	-610,379	206,785	619,924	708,884	481,862	268,883	110,258	-55,235	-174,024	-252,189
Change in AR	13,105	3,859	-1,080,182	-77,836	266,990	-199,662	1,388,990	-194,806	423,800	-267,201	845,360	133,748	-137,940	-56,467	215,469	301,783	343,579	-144,261	-108,178	233,644	-35,290	180,054	73,314	521,711	167,353	119,939
Change in Uncollectible Accou	45,318	45,577	38,296	29,487	28,510	28,551	35,782	48,924	49,449	50,731	55,027	62,242	64,832	61,134	64,108	62,228	62,843	71,684	71,430	71,862	74,218	75,535	76,715	79,637	86,262	87,934
Change in Accounts Payable	-33,237	2,313	355,971	-6,693	130,253	101,181	-973,613	9,614	44,653	8,133	32,134	-69,991	-7,947	-71,573	19,526	182,191	-43,585	76,429	34,611	-4,584	16,420	-60,172	14,636	38,627	10,901	-9,512
Profit/Loss from Disposal of Ass	0	-500,463	0	0	-940,522	0	0	-741,095	-377,373	0	0	0	0	0	0	-448,225	-410,885	-388,356	-370,234	0	-466,579	0	0	0	0	0
Change in Equipment on Lease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Change in Receivables from Fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating CF	**842,614**	**2,234,487**	**1,771,963**	**454,811**	**1,908,659**	**181,130**	**-1,905,483**	**787,123**	**370,384**	**339,002**	**-53,505**	**1,263,096**	**1,779,064**	**1,853,621**	**1,934,105**	**1,135,265**	**1,494,426**	**1,513,602**	**1,120,856**	**855,481**	**1,542,235**	**1,406,422**	**1,755,728**	**1,651,123**	**2,179,440**	**2,341,969**
Investing CF	**-436,382**	**-87,792**	**-1,483,757**	**-2,161,648**	**-589,944**	**-1,716,394**	**-1,604,495**	**-82,925**	**-190,406**	**-780,713**	**-660,364**	**-600,512**	**-550,294**	**-1,359,055**	**-1,993,800**	**-1,908,708**	**-709,070**	**-876,802**	**-250,258**	**-724,230**	**312,476**	**-374,559**	**-724,856**	**-595,304**	**-325,304**	**-325,274**
Change in Debt	961,193	-1,207,767	-305,292	2,242,353	-1,393,833	3,847,936	743,440	-1,818,768	-837,001	1,293,884	-1,182,765	-95,967	180,130	2,571,120	-443,535	-853,700	501,367	-1,311,586	-1,315,407	-208,000	354,600	-768,000	856,000	323,800	325,400	-32,960
Change in Bank Deposits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dividends Paid	0	1,109,285	0	0	0	552,779	0	0	0	604,500	0	0	0	905,691	0	0	0	503,813	0	0	0	1,429,374	0	0	0	2,167,753
Proceeds from New Shares	0	0	0	0	0	0	0	0	0	0	1,314,880	0	0	0	0	-830,235	0	0	0	0	-2,181,165	2,272,445	-2,499,175	-2,775,290	0	0
Financing CF	**961,193**	**-2,317,052**	**-305,292**	**2,242,353**	**-1,393,833**	**3,295,157**	**743,440**	**-1,818,768**	**-837,001**	**689,384**	**132,115**	**-95,967**	**180,130**	**1,665,430**	**-443,535**	**-1,683,935**	**501,367**	**-1,815,399**	**-1,315,407**	**-208,000**	**-1,826,565**	**75,071**	**-1,643,175**	**-2,451,490**	**325,400**	**-2,200,713**
Change in Cash and Cash	**1,367,425**	**-170,357**	**-17,086**	**535,516**	**-75,118**	**1,759,893**	**-2,766,538**	**-1,114,569**	**-657,023**	**247,673**	**-581,754**	**566,616**	**1,408,900**	**2,159,996**	**-503,230**	**-2,457,377**	**1,286,723**	**-1,178,599**	**-444,809**	**-76,749**	**28,146**	**1,106,935**	**-612,303**	**-1,395,671**	**2,179,535**	**-184,018**
> % change		-112.46%	-89.97%	-3234.24%	-114.03%	-2442.84%	-257.20%	-59.71%	-41.05%	-137.70%	-334.89%	-197.40%	148.65%	53.31%	-123.30%	388.32%	-152.36%	-191.60%	-62.26%	-82.75%	-136.67%	3832.83%	-155.32%	127.94%	256.16%	-108.44%