

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

**BUSINESS IN PRACTICE: SIMULATION OF AN AUTOMOTIVE  
MANUFACTURING COMPANY POWERED BY INDUSTRY MASTERS**

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## **Abstract**

The thesis analyzes a simulated company named "Mudança Motors" over twenty-eight business quarters. The simulation is designed to address the cooperation of key executive roles represented by students. It aims to integrate theoretical knowledge with practical application in business strategy, financial decision-making, and operations management. Additionally, it presents a reflective component where the author critically evaluates his own contributions and performance within the team. Ultimately, it provides insights into the challenges of managing an automotive company amidst industry disruption characterized by electrification and sustainability, emphasizing the importance of strategic decision-making and effective team collaboration.

## **Keywords**

Business simulation, Sustainability and ESG, Team dynamics, Strategy, Finance, Operations, Inter-functional collaboration, Electric vehicles, Phase-out, Economic value added, Inventory management, Cultural differences, Shared leadership

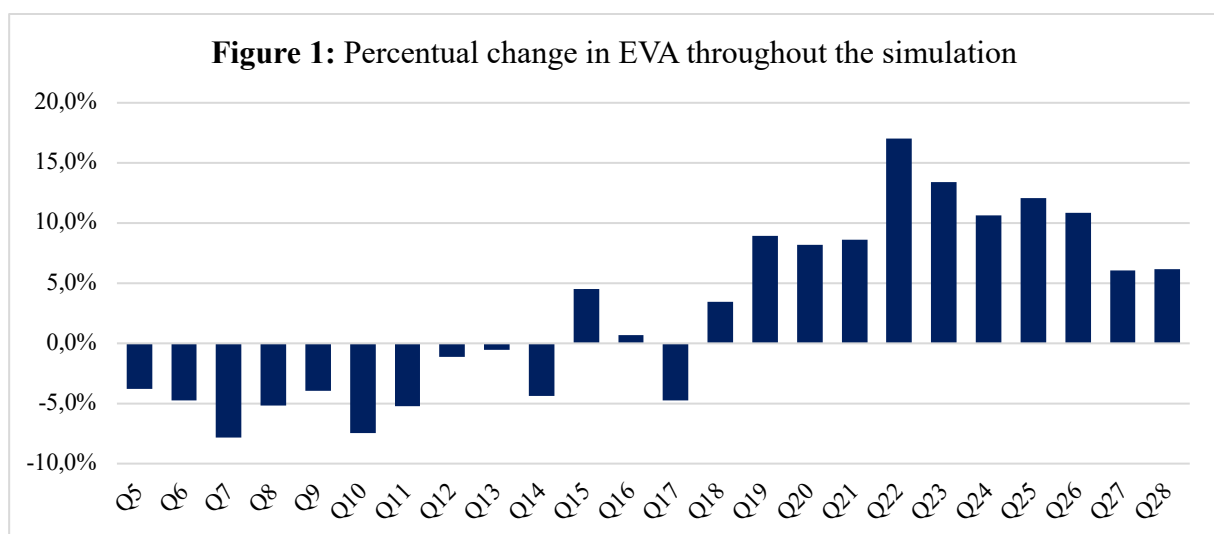
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# 1. Firm analysis

## 1.1. Introduction

According to PwC (2018), the future of the automotive industry can be described by an acronym “EASCY”: electrified, autonomous, shared, connected and yearly updated. The study indicates a major industrial disruption that has already gained substantial momentum, however, the most challenging phase is yet to come (“Five Trends Transforming the Automotive Industry” 2018). This phase will likely challenge top tier executives, requiring them to take decisions with limited amount of information, time and precedent.

While there still remains some time until this challenge completely unfolds in the real world, a handful of students from the Nova School of Business and Economics, including me, have been given the opportunity to execute decisions of such transformation within 28 simulated business quarters. For this purpose, we have managed an experimental company, which we named “Mudança Motors”. Success was measured by a variety of indicators, with Economic Value Added (EVA) serving as the primary metric. Here is a snapshot of our company’s percentual change in EVA throughout the simulation:



As illustrated by figure 1, the first half of the simulation was characterized by value destruction, followed by a turnaround and increase in EVA. This reflects a measurable magnitude of our decisions, made over several days. Each decision was preceded by discussions with team members, each of whom represented a separate executive function or shared similar role to mine. This section of the thesis will provide an insight into our strategy and two executive roles while drawing upon the most probable driver of progress in the simulation – inter-functional communication and data sharing. I will begin by discussing our strategy, followed by a finance role analysis. Finally, I will present an analysis of operations, which was my function within the team.

## **1.2. Strategy**

### **1.2.1. Generic strategy**

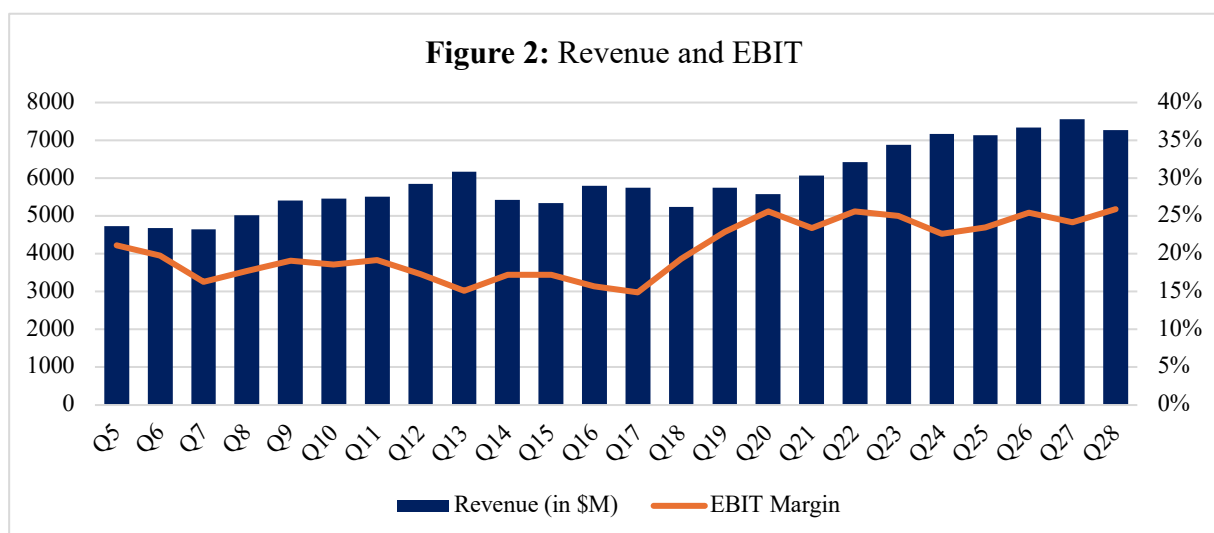
Our business strategy comprised two key dimensions: the first was achieving a complete fleet electrification by the end of year three. The second dimension established a strategic positioning by offering unique models that were unavailable from our competitors. By integrating these dimensions, we have decided to create “blue oceans” by expanding the existing industry framework and seizing new profit opportunities through products that faced no significant competition at the time of launch (Kim 2005).

Based on the ex-post data, we have successfully implemented full fleet electrification by the end of Q13, slightly behind our target. We have chosen to implement this strategy mainly due to legislative frameworks that are shaping the future of industry. For instance, European Union’s (EU) most recent greenhouse gas (GHG) reduction target aims to achieve a 37.5% reduction in GHGs by 2030 compared to 1990’s levels, “mainly via promoting an overall 30% market share of zero-emissions vehicles in new passenger vehicle sales by 2030, with a strong focus on electric vehicles (EVs)” (Tang et al. 2023).

Our strategic decision to offer unique models is based on Michael Porter’s differentiation strategy. According to David (2023), “a firm following a differentiation strategy attempts to convince customers to pay a premium price for its good or services by providing unique and desirable features”. By introducing electric versions of models unavailable in a specific market at a certain point in time, we aimed to attract customers with a desire for such products. This approach allowed us to fill a void in the market and charge a small premium for the value added coming from the uniqueness of our offering, thus increasing our margins. In case all of the available models were already manufactured by a competitor, we aimed to differentiate ourselves by offering a unique set of vehicle features that ensured adherence to our strategy. Combining these two strategic dimensions creates a focused differentiation strategy, which “requires offering unique features that fulfill the demands of a narrow market” (David 2023). A significant limitation of this approach is that it remains valid only as long as the majority of the market has not yet adopted electric vehicles. However, once widespread adoption occurs, a pivot would be necessary to sustain our focused differentiation. As Porter once said, “a company can outperform rivals only if it can establish a difference that it can preserve” (Porter 1996).

### 1.2.2. When strategy impacts growth

The following graph presents chosen financial results achieved throughout the simulation:



Implementing a fast phase-out strategy like ours requires allocating available funds mainly towards the development and relaunch of electric vehicles. This decision comes at the expense of developing new factories and scaling up production which would require a slower phase-out of combustion vehicles, as these two activities are incompatible due to financial constraints. Our revenue growth has been relatively moderate relative to other teams, achieving a compound annual growth rate (CAGR) of 7.4% per annum. Due to our restricted growth resulting from the lack of expansion, we emphasized the increase of earnings before interest and tax (EBIT) to maintain a value accretive position, as increasing EVA was one of our objectives. In other words, we adhered to a strategy of pursuing "moderate, but profitable growth." We believe that the implementation of this strategy has been somewhat successful, based on the growth of EBIT margin primarily in the second half of the simulation (see [Figure 2](#)).

### **1.2.3. Strategic alliances**

According to Gomes (2011), "a strategic alliance can be defined as a collaborative agreement between two or more organizations to achieve their strategic objectives while remaining as independent entities". In the context of our simulated environment, we received two unexpected offers to form such an alliance. The first offer involved investing into a power charging network through a joint venture (JV) to tackle range anxiety of our customers. While such an investment would have been synergistic with our full fleet electrification objective, we have taken a strategic decision of "choosing what not to do" and did not proceed due to insufficient funds and the potential risk of a decline in our credit rating if we leveraged our company further. A second investment opportunity came towards the end of the simulation in a form of partnership model for circular economy of EV batteries. We decided to invest in this opportunity, primarily due to the negative impact on consumer demand resulting from our previous decision. In this case, we evaluated that such a contractual alliance would be beneficial

for us for several reasons, including lower risk and investment requirements, compared to equity alliance (Gomes 2011).

### 1.3. Finance

#### 1.3.1. Focus on maximum value creation

As mentioned in the previous section, one of our primary goals was to achieve maximum growth in Economic Value Added (EVA). The EVA can be described by the following formula:

**Equation 1:** Economic Value Added (EVA)

$$EVA = NOPAT - WACC \times Invested\ Capital$$

where:

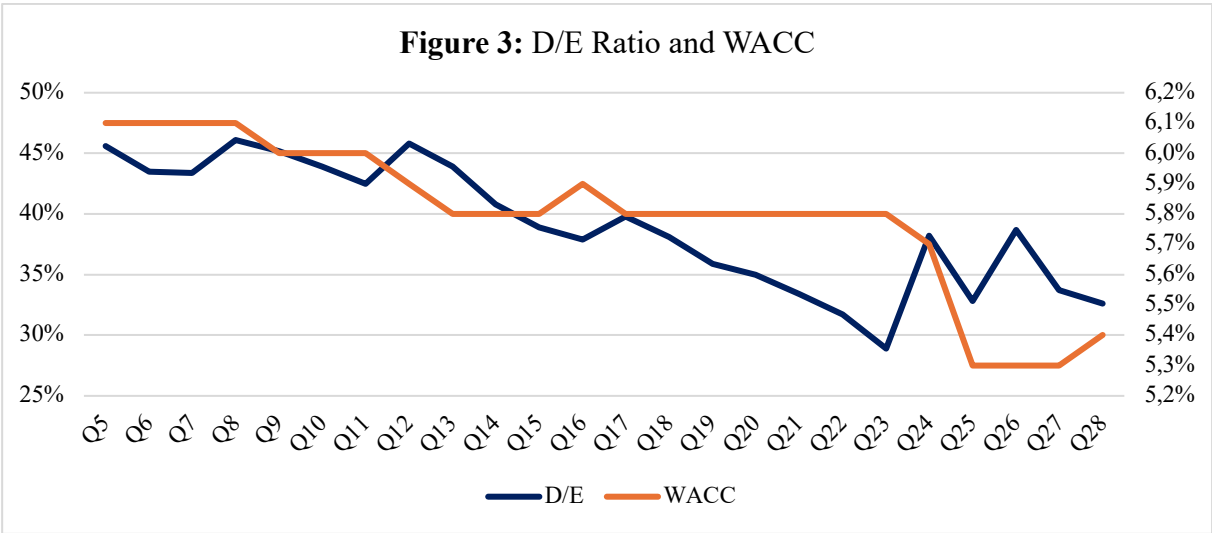
- NOPAT stands for net operating profit after tax (which is equal to  $EBIT \times (1 - \text{tax})$ ),
- WACC represents the weighted average cost of capital, and
- Invested Capital is the total amount of funds that a company has raised through equity and debt to fund its operations and growth (Berk 2023, 695–96).

Due to our strategy, the operations team was constrained in their ability to invest in new factories and finance growth. Based on this limitation, we were able to increase EVA primarily through two mechanisms on the right side of the equation: (1) by increasing the first term, or (2) by decreasing the latter terms. I will now delve into each of these mechanisms and the functions responsible for them.

Increasing NOPAT carries a positive correlation with increasing EBIT. Our efforts to increase EBIT throughout the simulation were often unsuccessful due to demands from marketing and operational inefficiencies which contributed to undesired human resource (HR) expenses. A major contributing factor was improper management causing high days of inventory (DOI), which I will discuss in more detail in the following sections. This issue frequently pressured us

into decreasing our product prices and increasing marketing expenses, resulting in margin shrinkage and lower value creation.

The second mechanism employed was leveraged share repurchase. We primarily applied this mechanism towards the end of the simulation to address a significant reduction in outstanding debt. The paid off debt resulted in decreased debt-to-equity (D/E) ratio, consequently leading to an increase in the weighted average cost of capital (WACC). Leveraged share repurchase strategy is based on adjusting the firm's capital structure by increasing the D/E ratio, which results in a lower WACC (Lei and Zhang 2016). While the exact effect of this decision cannot be accurately measured due to the higher gearing and probability of default which counteract the intended increase in value, we believe that this strategy was value accretive. This belief is based on our exclusive use of green bonds, up to a level that did not adversely impact our credit rating. This statement can be further supported by the following graph which shows the inverse relation between D/E ratio and WACC:



### 1.3.2. Liquidity and solvency as important indicators of financing innovation

According to Robinson (2009), “liquidity ratios measure the company’s ability to meet its short-term obligations”. The following table shows our liquidity ratios on a yearly basis:

| Figure 4: Liquidity Ratios |      |      |      |      |      |      |      |
|----------------------------|------|------|------|------|------|------|------|
| Financial Year             | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Current Ratio              | 8,86 | 8,01 | 7,22 | 8,25 | 5,41 | 6,71 | 5,42 |
| Quick Ratio                | 6,40 | 5,31 | 4,55 | 5,83 | 3,56 | 4,00 | 3,61 |
| Cash Ratio                 | 3,40 | 2,26 | 1,36 | 2,24 | 0,75 | 0,84 | 0,62 |

The current ratio was significantly elevated compared to the industry average, averaging at 1.26 between FY20 and FY23 (see [Appendix 1](#)). The primary reason for this deviation was the substantial proportion of inventory and account receivables, which constituted approximately two-thirds of the current assets. To provide a more accurate assessment of the company's liquidity, the table also includes the quick and cash ratios, which offer a more conservative measure. Although the trend was downward sloping, the overall liquidity throughout the simulated period remained consistently sufficient. This ensured an adequate liquidity supply and reduced the need to frequently rely on short-term debt with higher interest rates.

On the other hand, “solvency ratios measure a company’s ability to meet long-term obligations” (Robinson 2009, 277). Ensuring the company's solvency was one of our primary goals for several reasons, primarily to maintain a high credit rating and preserve sufficient debt capacity for leveraging strategic investments. Here is a snapshot of Mudança’s yearly solvency ratios:

| Figure 5: Solvency Ratios |      |      |      |      |       |       |       |
|---------------------------|------|------|------|------|-------|-------|-------|
| Financial Year            | 2024 | 2025 | 2026 | 2027 | 2028  | 2029  | 2030  |
| Interest Coverage         | 8,63 | 6,62 | 7,97 | 8,80 | 13,61 | 18,79 | 22,75 |
| D/E Ratio                 | 1,08 | 1,08 | 0,99 | 0,80 | 0,61  | 0,70  | 0,57  |
| D/A Ratio                 | 0,52 | 0,52 | 0,50 | 0,44 | 0,38  | 0,41  | 0,36  |

Solvency ratios demonstrated a strong financial position, highlighting the company's ability to meet its long-term obligations. The primary indicator is the interest coverage ratio, demonstrating capacity to cover debt payments multiple times in each period. Conversely, the Debt-to-Equity (D/E) and Debt-to-Assets (D/A) ratios consistently decreased, reflecting a reduced reliance on debt financing and a strengthened equity position. This aligned with our

strategy, which emphasized electrification efforts requiring significant capital expenditures (CAPEX) primarily during the first half of the simulation.

### 1.3.3. Factors influencing share price

[Appendix 2](#) shows the development of Mudanca's share price over the simulated horizon. The graph illustrates a rather stagnating growth within the first half, followed by a steep increase in the share price. Which factor had the highest influence on share price? Profitability, leverage, sustainability or simply more sales? To answer this question, I have calculated a multivariate regression analysis to find out which variables most likely contributed to this change:

| Figure 6: Multivariate Regression Statistical Analysis |        |         |              |       |
|--------------------------------------------------------|--------|---------|--------------|-------|
| Variable                                               | Coeff. | p-value | Sign. at 95% | Betas |
| Revenue                                                | 0,15   | 0,000   | Yes          | 0,86  |
| EBIT margin                                            | 10,55  | 0,008   | Yes          | 0,25  |
| D/E ratio                                              | -7,97  | 0,024   | Yes          | -0,26 |
| Sustainability                                         | -2,57  | 0,002   | Yes          | -0,37 |

The table above shows relevant data for a set of four independent variables: revenue, EBIT margin, D/E ratio and sustainability. All of the above-mentioned factors had a significant influence on the share price at a 95% confidence level.

Revenue shows the strongest positive impact with a beta of 0.86 and an unstandardized coefficient of 0.15, indicating it has the strongest effect on share price among the analyzed variables. EBIT margin also demonstrates a positive relationship, with a high unstandardized coefficient of 10.55 but a lower beta of 0.25. The D/E ratio and sustainability measures both exhibit negative relationships with share price, as evidenced by their negative coefficients. The D/E ratio has an unstandardized coefficient of -7.97 and a beta of -0.26, while sustainability shows an unstandardized coefficient of -2.57 and a beta of -0.37. The betas allow for direct comparison of impact exhibited by analyzed variables, with revenue clearly having the most

significant effect, followed by sustainability (surprisingly in the negative direction), then the D/E ratio, and finally EBIT margin.

#### **1.3.4. Are green bonds really cheaper?**

According to Flammer (2021), “the issuers improve their environmental performance post-issuance, for instance, by achieving a higher environmental ratings and lower CO2 emissions”. Both of these impacts have materialized in case of our simulated company, however, I found this article particularly interesting due to its finding of “no pricing differential for corporate green bonds” which is “inconsistent with the cost of capital argument, according to which companies would issue green bonds to benefit from a cheaper source of financing” (Flammer 2021). The simulation implicitly assumed that issuing green bonds is a more cost-effective source of financing, however, existing studies present mixed evidence regarding this assumption (Bhutta et al. 2022).

### **1.4. Operations**

The operations role was pivotal in the company's strategic execution. Chief Operating Officers (COOs) were primarily tasked with planning ahead while executing strategic initiatives such as phasing out combustion engine vehicles, developing new factories, launching new models, and most critically, managing inventory.

#### **1.4.1. Planning ahead**

Donald Rumsfeld, a former US Secretary of Defense, once said, "Think ahead. Don't let day-to-day operations drive out planning." Planning ahead was one of the most important functions of operations directors, as maximizing operating efficiency hinged on their ability to closely match demand with supply at any given point in time. Our efforts to maximize planning

efficiency are illustrated in the following [compact] table, which provides information about anticipated events in their corresponding quarters:

**Figure 7: Factory planning schedule**

| Year            |    | 1   | 2    | 2     | 2    | 2    | 3    | 3    | 3    | 3    |
|-----------------|----|-----|------|-------|------|------|------|------|------|------|
| Quarter Total   |    | 4   | 5    | 6     | 7    | 8    | 9    | 10   | 11   | 12   |
| Quarter         |    | 4   | 1    | 2     | 3    | 4    | 1    | 2    | 3    | 4    |
| <b>Europe</b>   |    |     |      |       |      |      |      |      |      |      |
| 4x4 E           | F1 | 90% | 100% | 110%  | 120% | 130% | 140% | 80%  | 90%  | 100% |
| Business 135H   | F2 | 60% | 70%  | 80%   | 90%  | 100% | 110% | 120% | 130% | 140% |
| F4 Construction | F4 | 2   | 1    | Ready |      |      |      |      |      |      |
| Model N         |    | 2   | 1    | Ready | 10%  | 20%  | 30%  | 40%  | 50%  | 60%  |

The table above presents a schedule detailing European factory's timeline along with the associated management items. For instance, the first item is a maturity schedule of 4x4 electric vehicle from our portfolio. The third item demonstrates quarters necessary to build a factory until it can be introduced. The last item combines the development period with an anticipated maturity of the given model. At first glance, the table may appear straightforward; however, it served as a crucial tool for the marketing and innovation teams in determining when to start development of a new vehicle. This strategic decision was aligned with the construction of a new factory or a phase-out of an old vehicle, facilitating a synchronized planning process. As a result, we successfully completed the factory or discontinued the old vehicle while launching the new vehicle within the same quarter.

#### **1.4.2. Matching demand and supply via inter-functional cooperation**

According to Hausman et al. (2002), “inter-functional cooperation and communication are essential antecedents of business success”. One of the most impactful collaborations within our team was the communication between operations and marketing. As previously discussed, a key responsibility of the operations team was to align demand and manufacturing output to maximize our operating efficiency, a process known as demand and supply balancing (DSB). More specifically, DSB is “a cross-functional planning process that sets the overall level of

manufacturing output to best satisfy the currently planned levels of sales, while meeting general business objectives of profitability and productivity” (Coker and Helo 2016). Our DSB process began each round of quarterly decisions with a discussion between operations and marketing directors. During these discussions, directors exchanged data and adjusted production based on market demand. The decisions that took place based on these discussions were in most cases extending production of a certain model or correcting the days of inventory for models where the demand and supply were mismatched.

### **1.4.3. Managing inventory**

Based on Golas (2020), there is a statistically significant causal link between days of inventory (DOI) and company’s financial performance. Due to our initial misunderstanding of the simulated mechanism behind DOI, we mismanaged them during the first half of the simulation. During this period, we focused heavily on having the DOI indicator as low as possible, which we mistakenly thought is beneficial for our inventory management. After attending simulation clinics at the end of year three, we implemented a new strategy that improved our DOI management. However, managing DOI remained a significant challenge throughout the simulation due to a persistent mismatch between our expectations and actual market demand, which frequently resulted in high stock of certain models. This had a significant impact on the utilization of factories and workers which in turn frequently challenged our profitability. The main challenge to our financials stemmed from underutilized factories which did not contribute to value creation, yet remained in our invested capital calculation. This situation challenged our ability to extract value and made us frequently stuck at the same ranking while other competitors managed to grow. [Appendix 3](#) depicts our results regarding the DOI management.

DOI had a major negative impact on our performance due to the secondary actions required to reduce it. When the DOI of a particular model spiked too high, we had two primary strategies to boost its sales: (1) reducing the price of the model or (2) increasing marketing efforts for that model. Generally, these mechanisms were effective in reducing the model's inventory. However, they proved ineffective in certain cases, especially if the model was nearing maturity and had a weak market position. In such instances, we were forced to pause production of the model and wait for the existing stock to sell out. This scenario was detrimental to our financial performance, primarily because it resulted in low factory utilization while we continued to pay salaries to underutilized employees.

According to Koumanakos (2008), there is an evidence that lean inventory management is associated with higher profitability ratios. Based on feedback from simulation clinics after the third year, we consistently sought to implement lean techniques in our DOI management to maximize our EBIT. Our objective was to maintain the inventory at thirty-one days, which was identified as the optimal (lowest available) level in the simulation. Although we did not fully achieve this goal, we believe it significantly contributed to the improvement of our KPIs, which began to rise at the time of implementation of this technique. The rationale behind this technique was that we were holding just enough stock for the upcoming month and did not have to keep inventory in stock which increased our invested capital and decreased our ability to grow EVA.

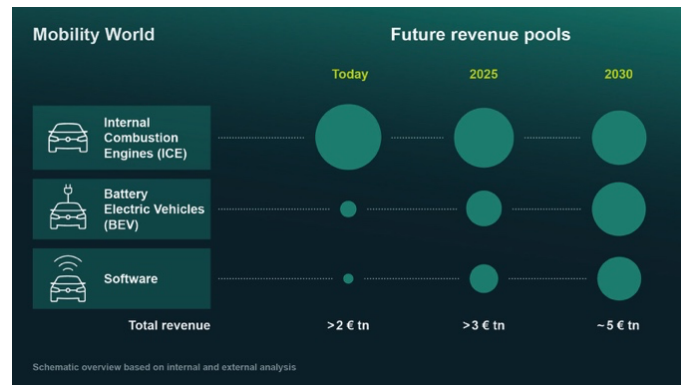
## **1.5. Comparison of our strategy**

In this section, I will draw upon my knowledge from the simulation to compare our strategic decisions with those of Volkswagen Group (VW).

### **1.5.1. Volkswagen Group's (VW) electrification strategy**

The following graphics illustrate VW's intended electrification in the upcoming years:

**Figure 8:** Volkswagen's future revenue pools



The infographic presents the forecasted revenue pools of the group. One of the main differences from our simulated company is VW's electrification strategy. We adopted an aggressive phase-out of combustion engine vehicles, while VW follows a slower roll-out of its electric fleet, which is forecasted to be equally large to combustion engine vehicles by 2030. This strategy is likely based on recent legislative amendments from the EU, which permit the manufacturing of combustion engines after 2035, provided they run on renewable fuels (Estevez et al. 2024).

Moreover, an aggressive phase-out strategy, such as ours, represents a risky investment due to its lack of diversification and the substantial capital required. By maintaining diversified revenue sources, Volkswagen is strategically postponing its transformation to a later date, allowing for a clearer determination of which technology will achieve widespread adoption. Additionally, numerous companies including Volkswagen Group, and led by Tesla Motors, are expanding to software development as a significant revenue source, driven by recent advancements in artificial intelligence (AI) and robotics.

## 1.6. Conclusion on firm analysis

Based on the information from previous sections, I conclude that our strategy has been rather conservative, which significantly impacted our top line growth. Since growth is a key

driver of EVA, we had no choice but to focus on extracting value through maintaining profitability and reducing the cost of financing. We succeeded in this by maintaining higher price points for our models and altering our capital structure through share buybacks. Moreover, our inventory management has been the most notable issue throughout the entire simulation. These problems were often addressed by leveraging marketing mechanisms, which subsequently decreased our profitability and impacted our value creation.

Over time, it became evident that a problem originating from one business function would impact all others, requiring each executive to employ their respective mechanisms to find a solution. However, the resolution was not the responsibility of any single function; instead, it involved a coordinated sequence of decisions aimed at achieving a planned outcome.

Therefore, the key takeaway of this simulation is that all functions within the firm are interdependent. While I have not examined the firm from the perspective of each individual function, the preceding sections demonstrate that no executive function operates in isolation. All the teams that participated in the simulation developed logical strategies, each of which they believed demonstrated effectivity and promised high value added. While it is challenging to determine which strategy is definitively the most suitable due to the uncertain nature of the simulated environment, it is accurate to say that the performance of each team was largely dependent on their joint decision-making and execution.

Building on this foundation, I encourage you to delve into the upcoming section, where I will offer a personal reflection on my team's dynamics. I will also analyze how specific situations influenced our inter-functional communication, ultimately leading to less effective execution of our strategy. Through this section, I hope to shed light on the challenges I faced and the lessons I learned along the way.

## **2. Personal Reflection**

In this section, I will discuss my personal reflection on two critical incidents that occurred during the simulation. Moreover, I will reflect on feedback that I have received from my peers and address parts where the feedback was different from my expectations. I will base my reflection on my personal diary and relate these insights to academic sources.

The first incident occurred midway through the simulation, right after our half-time simulation clinics. We learned that although our strategy was value-accretive, we had not significantly expanded our production capacities, which led to a noticeable decline in several rankings, such as revenue. This prompted a discussion about whether we should adjust our strategy to become more aggressive by investing heavily in new production lines. The debate divided into two opposing groups exchanging arguments.

The second critical incident involved our team's efforts to acquire a client with the potential for significant revenue increase. This section will focus primarily on our team dynamics and various aspects of leadership that were lacking, which contributed to a deficiency in collective motivation to excel in this task.

### **2.1. Incident 1: Expand factories or stick with the old strategy?**

After the simulation clinics at the end of year three, the feedback was clear: to lead in value creation, our team needed to focus more on growth. In response, I, as one of the operations directors responsible for factory management, initiated a discussion about revising our original strategy to invest more funds in building additional factories.

During the afternoon that day, we spent several hours in a deadlock argument due to various communication issues. I will now examine these, discuss my personal dynamics, and explain how I could have behaved differently to communicate more effectively.

### **2.1.1. Cultural differences**

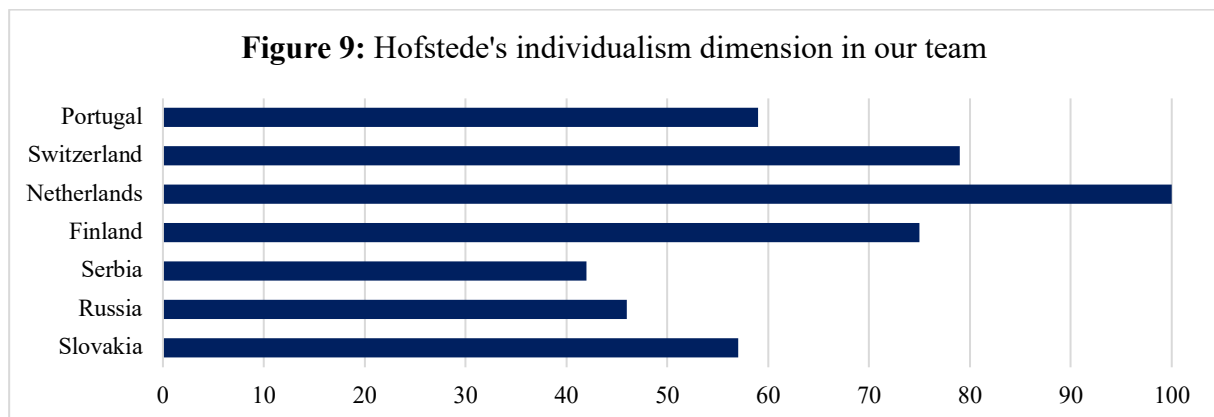
According to Haas and Mortensen (2016), “today’s teams are different from the teams of the past: they’re far more diverse, dispersed, digital, and dynamic”. Our team greatly exemplified this diversity, with members from Slovak (me), Russian, Serbian, Finnish, Dutch, Swiss, and Portuguese backgrounds. Having such a diverse team comes with communication barriers and misunderstandings that need to be managed.

Based on my own reflection and feedback from fellow team members, my communication style tends to focus on enforcing my own ideas, occasionally at the expense of considering others' opinions. According to Hofstede (1984), the individualism-collectivism cultural dimension describes whether people prefer to act as individuals or as members of groups. Moreover, this dimension implicitly uncovers instances where people’s self-validation is grounded more in valuing themselves as individuals rather than the group they belong to (Levitt 2013). I believe these findings somewhat correspond with my personality, as I consider myself an individualist. However, I would like to emphasize that this means I prefer to firmly stand behind my arguments while still maintaining the ability to work effectively in a team.

In this case, the issue was that I strongly believed my approach would benefit the value creation of the entire company. However, due to my communication style, some team members were reluctant to adopt this strategy. Although they recognized that a change was likely necessary, they felt I was considering the issue solely from an operations perspective and not taking opinions of other directors into account.

This feedback can be attributed to the variety of my team’s cultural backgrounds. In some cultures, like mine, it's common for individuals to strongly advocate for their own opinions during discussions. This means that people actively express and defend their perspectives, often engaging in debates to persuade others of their viewpoint. On the other hand, in other cultures,

discussions might be more focused on collective decision-making, where ideas are presented more neutrally. In these settings, rather than debating or strongly advocating for one's own position, the group might work together to reach a consensus, sometimes through a vote or a collaborative decision-making process. The following chart shows the different degrees of the individualism within our team:



While this graph attributes Slovakia a score of 57, I consider myself somewhere in the range of 90 to 100. My key takeaway from this situation is that I must always be mindful that my colleagues may interpret my communication style in various ways, even those that I have not intended to communicate, due to customary variations. Therefore, I should become a more active listener, ensuring that the message I am trying to convey is correctly understood by the opposing party. Likewise, I must acknowledge the opinions of my team members and, if necessary, explain the motivation behind advocating my suggestion so strongly and what benefits it might bring if implemented correctly.

### **2.1.2. Is strategy transition suitable in half-time?**

While the feedback indicated that we need to make changes in case we want to grow faster, it is questionable whether we should deliberately change the entire strategy and potentially disrupt successfully implemented processes. According to Gersick's punctuated equilibrium, teams develop through two stable phases separated by a significant midpoint transition. This

transition marks a sudden shift in team behavior and approach, when members typically realize time is running out, prompting them to reassess their approach and make major changes to finish on time (Gersick 1988). According to the theory, significant strategic changes are advantageous only if made before or at the midpoint, while any substantial changes made afterward tend to be detrimental.

Delving deeper into our discussion about changing the strategy, a key argument from one side of our team was that the established processes are effective. They believed that a major shift in strategy would be unbeneficial, as it would take us until the end of the simulation to troubleshoot and refine these new processes. While this might have been a valid argument, I was advocating against it as I believed that building new factories only forces us to replicate already existing processes and apply them to new production lines.

From my point of view, there were several factors that have made some team members reluctant to support the change. Based on Ford and Sullivan (2004), issues such as timing, groupthink and affective conflict often play a role on how individuals behave during midpoint discussions.

Timing was undoubtedly a critical factor in this discussion. Although it had been evident to me for some time before the simulation clinics that we would likely need to invest more into expansion, I refrained from raising this issue to avoid diverting attention from the execution of the strategy at that time. I now believe that my timing was appropriate, as the feedback from the simulation clinics supported my arguments. Conversely, according to Gersick's theory, this was indeed the last optimal moment to implement a change.

What I regarded as a large issue in my group was the groupthink phenomenon. According to Janis (1972), the phenomenon shows that group members prioritize consensus over the quality of the decision, often leading to poor choices because dissenting opinions are suppressed and alternative viewpoints are not considered to maintain harmony in the group. This issue can be

connected to the individualism-collectivism cultural dimension discussed earlier, which highlights how different members perceive their role within the group. Specifically, we can evaluate whether individuals view the group as a “shared brain,” where collective idea formation takes precedence, or as a mechanism for using discussions to filter and prioritize the best individual ideas. During our discussions, the issue was that many members were reluctant to engage in conflict; instead, they often chose a side and supported arguments without critically evaluating the potential impact of the decision. This has been a very frustrating factor for me, as it hindered my ability to develop the discussions. I felt that some members opted to avoid constructive conflict, which prevented us from fully exploring and addressing our issues.

Lastly, I would like to highlight that this frustration led to an affective conflict, which may have impaired my ability to communicate effectively. In retrospect, when faced with such issues, it is crucial to employ emotional intelligence to better understand the underlying reasons for others' behaviors. By doing so, I could have gained a clearer insight into my teammates' perspectives and engaged in perspective-taking. This approach would have allowed me to acknowledge their viewpoints while also articulating my own perspective and explaining the rationale behind my suggestions.

## **2.2. Incident 2: When sales pitch uncovers poor team dynamics**

During the simulation, all teams were given the opportunity to present a sales pitch with significant upside revenue potential. Considering our struggles with slow growth, this was a crucial chance to improve our income and climb the rankings. However, it turned out to be a missed opportunity. Although we did not lose the client, we also did not secure any additional revenue streams, leaving us in the same position as before. Reflecting on our performance, it was ultimately unsatisfactory due to several key issues, primarily a lack of commitment and a lack of clear leadership on this project.

### **2.2.1. Commitment issues**

I believe that one of the biggest factors influencing my performance was a lack of commitment. According to Joosr (2015), a lack of commitment “will find the team unsure about its actions, leading to wasted time, missed opportunities, and frustrated team members”. The theory says that such a lack is a result of two independent factors: (1) unanimously agreed decisions, and (2) lack of certainty (Joosr 2015).

The first factor is closely related to our overall strategy, both before and after the simulation clinics. Our final strategic decisions have always been made through voting, which consistently resulted in unanimous outcomes. However, since I did not entirely agree with the strategies we had pursued, my commitment to the simulation was limited. This is based on both my personal diary as well as feedback from my colleagues. Unfortunately, it led to several issues during the sales pitch. One of the main problems I recall was my difficulty in representing our company values and objectives. When the customer asked for clarification of certain parts of the pitch, it was evident that I couldn't provide thorough answers because I did not fully support the ideas I was delivering.

What could I have done differently to represent my company in a better way? While it is never possible to have the entire team agree on every decision, most of the time there will be decision taken that I have supported. According to the self-determination theory, members who are intrinsically motivated, are more likely to perform better because they are genuinely invested in the subject (Ryan and Deci 2000). Based on this observation, I contend that an effective approach to supporting my team during critical moments, such as a sales pitch, is to take responsibility for areas in which I have a strong personal investment. For example, if other members of the team were to approve my proposal to focus exclusively on electric vehicles, I

would be well-suited to lead this aspect of the pitch due to my intrinsic motivation and commitment to the initiative.

### **2.2.2. When shared leadership does not work**

I believe that one of the critical factors contributing to our missed success was the absence of clear leadership on this pitch and within the group as a whole. Our team worked on an idea of a shared team leadership, in which “team members exert leadership influence and provide guidance to one another as needed” (Carson, Tesluk, and Marrone 2007). For instance, team members who are experts in a particular field might take on leadership roles within that area, while acting as followers in other areas (Manz et al. 2015). Based on these theories, our team implemented exactly this approach. However, while the model proved useful in certain situations, it failed to deliver desired results in others. Specifically, the issue with the shared leadership model during the sales pitch was the absence of someone with substantial experience in sales who could provide guidance. When expertise is not clearly defined, the shared leadership model can falter, as it did in our case, because ultimately no one effectively assumed a leadership role at any point of the process.

During the sales pitch, I observed that no one effectively took charge of specific parts of the project, with the exception of one member who handled the pitching itself. Additional tasks, such as creating a supporting presentation, and roles for the two other members who attended the pitch and addressed customer questions, were not clearly assigned or managed. I was one of the members who took part in answering the questions. From my perspective, one of the major issues was that we never rehearsed the pitch beforehand, which left me unprepared to effectively expand on my colleague’s presentation. Moreover, this issue was closely linked to my own lack of commitment, as I was not fully invested in the vision we presented in our pitch.

Consequently, I was hesitant to take more initiative, believing that other team members might offer better contributions.

### **2.2.3. Can these problems be solved by cutting down on teams?**

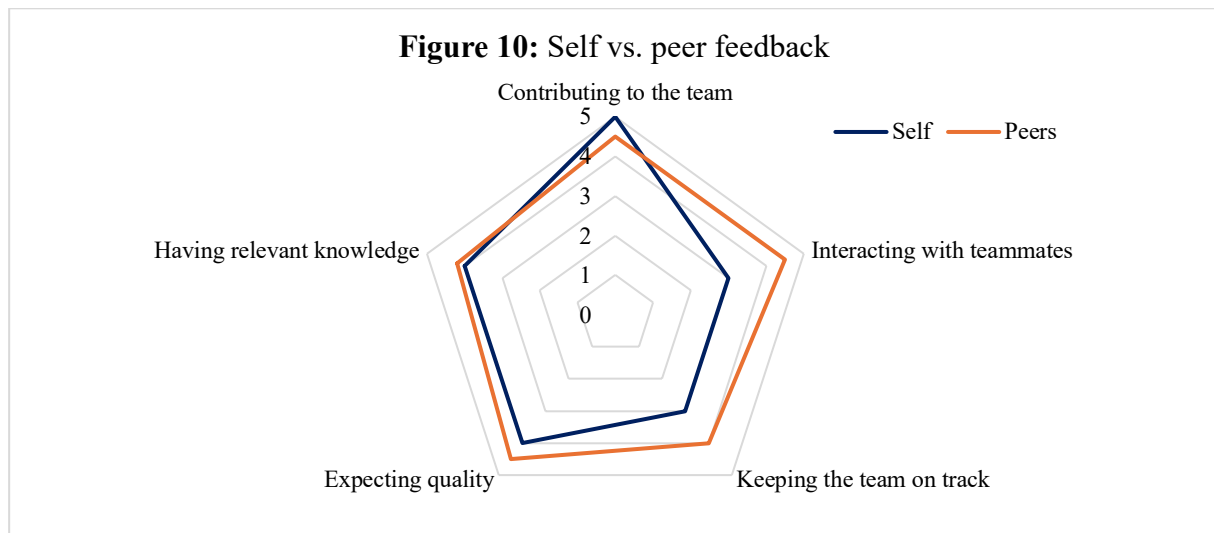
Connecting commitment and leadership issues, I would like to analyze an article by Noonan Hadley and Mortensen (2022), which questions the ordinary notion of teams which was established in 1980s. According to authors, classical teams often present “problems with coordination and motivation which typically chip away the benefits of collaboration” (Noonan Hadley and Mortensen 2022). The article suggests that if the problems with teams outweigh the benefits, the structure can be changed to one of the following: (1) disbanding the teams in favor of individual contributions, or (2) breaking down the teams into looser groups to facilitate more streamlined collaboration.

Looking back at our issues with commitment, the first suggestion could be beneficial in terms of allowing each member to specialize on their own. In my case, while I was reluctant to collaborate on creating a presentation of the general strategy of the company, I had a strong interest in more specialized areas such as the company's financing or operations management. These were topics I could have presented to the client with greater enthusiasm and expertise.

The second suggestion could have also been beneficial, as there were distinct groups supporting different ideas. Even if our team decided to pursue a certain vision not everyone supported, we could have divided into smaller teams based on shared opinions. These smaller teams would have been easier to manage, ensuring that each member was engaged and committed, thereby creating more value compared to a large team where only a few members were truly invested.

### 2.3. Comparison of my own assessment to peer feedback

I would like to connect these two incidents by referring to the self and peer feedback we completed towards the end of the simulation. The following chart illustrates our inputs:



The only area where I rated myself higher was in contribution to the team. Although the difference in rating was not significant, I felt I had been putting in considerable effort. Reflecting on this, I recognize that this discrepancy may be attributed to auxiliary activities, such as the sales pitch, where my contribution fell short of expectations. Despite my lack of commitment, I could have addressed this issue openly with other members and help to realign our collective efforts.

My peers rated my interactions with teammates and my ability to keep the team on track significantly higher than I did myself. Reflecting on this in the context of my previous work experience, I often underestimate my social skills. Feedback from other team members noted that I have a "positive attitude and charisma" and "always a smile on my face." Given these positive comments, it would be advantageous for me to stop underestimating myself. Instead, I should focus on further developing my communication skills and recognize them as strengths that can be utilized to increase team motivation and help strengthen the connections.

Lastly, the areas where my self-rating aligns with peer feedback are my expectations of quality and my relevant knowledge. I was not surprised by this alignment, as I am aware of my strengths in finance and operations knowledge and attention to detail. I was even told that, despite finance not being my designated role within the simulation, I demonstrated to the rest of the team that it is beneficial to engage with this topic without being directly responsible for this role, as it brings a better overall understanding of decision-making with a constraint budget.

## **2.4. Conclusion on personal reflection**

To conclude this section, I would like to highlight that one of my most significant learnings from this simulation was not only the importance of exchanging relevant information with other executives but also effectively functioning within a multicultural environment over a three-week period. This experience has greatly enhanced my cultural and emotional intelligence, which I believe will be a valuable asset in my future career.

Addressing team issues involves fostering mutual understanding followed by engagement in perspective-taking which is a useful tool to help other members identify why some members might have opposing beliefs. Given the leadership and commitment issues, it is crucial that team members break the groups down to specialize on areas where they have high intrinsic motivation and that an appropriate leadership model is applied to each specific situation.

Reflecting on our incidents, I believe that in the near term, I should focus on enhancing my ability to listen to others and understand the reasons behind their behavior. A business leader I greatly admire once advised me that success in today's business world requires more than just a high IQ. It also demands strength in emotional intelligence (EQ) and resilience, often referred to as adversity quotient (AQ). To conclude this thesis by drawing upon his insight, an exceptional leader in the twenty-first century must master all of these qualities.

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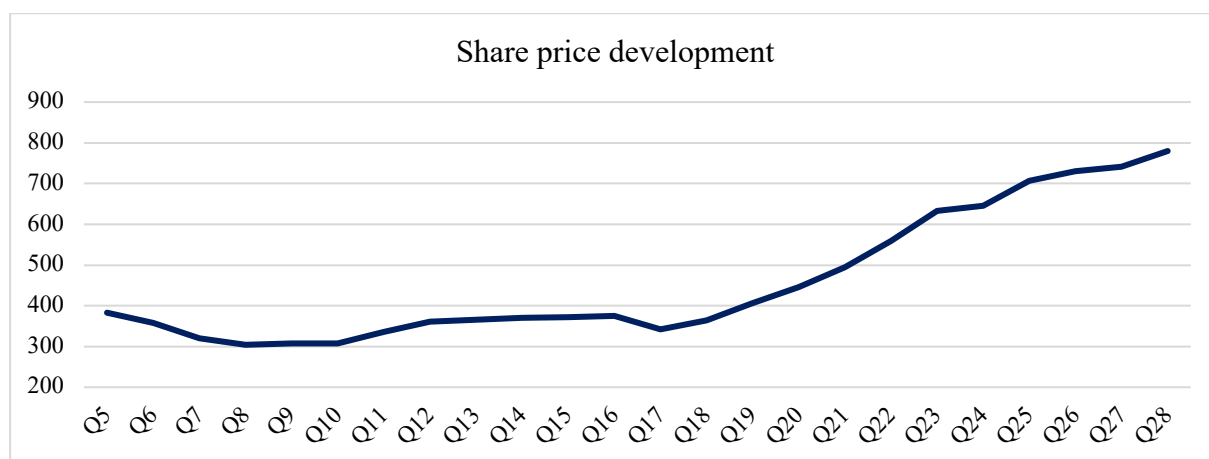
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## Appendices

### Appendix 1: Average financial ratios of real-life peer companies obtained from Orbis

| Average peer ratios between 2020 and 2023 |               |                   |           |
|-------------------------------------------|---------------|-------------------|-----------|
| Peer                                      | Current ratio | Interest coverage | D/E ratio |
| VW AG                                     | 1,20          | 8,27              | 1,62      |
| BMW AG                                    | 1,11          | 32,82             | 1,31      |
| TESLA, INC.                               | 1,63          | 39,63             | 0,45      |
| AUDI AG                                   | 1,49          | n.a.              | 0,58      |
| RENAULT S.A.                              | 1,09          | 1,17              | 2,44      |
| VOLVO CAR AB                              | 1,07          | 12,70             | 0,69      |

### Appendix 2: Development of share price over the simulated time horizon



### Appendix 3: Days of inventory (DOI) throughout the simulated time horizon

