

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

BUSINESS IN PRACTICE: AN ANALYSIS OF VOLTA'S STRATEGIC EVOLUTION IN
ELECTRIC MOBILITY AND SELF-REFLECTION

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12-09-2023

Abstract

Business in Practice is an enriching experience in both professional and personal ways. During this simulation program, the different directors of the company's departments work together making decisions and having as a common goal the best performance of the company. An overview of the strategy of the company and the operations and marketing functions allows an understanding of the interconnectedness of the different areas of the firm and their decisions. For the success of the group, communication and trust are fundamental, and analyzing two personal incidents can help understanding how personal life can influence teamwork and its effectiveness.

Keywords

Sustainability, ESG, Automotive industry, Electric Mobility, Innovation, Operations, Building a Business Strategy, Team Dynamics, Business Simulation, Apply Theory in Practice, Self-awareness, Relationship Management.

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

1. Firm Analysis

Climate change is causing some damage to planet earth and mitigate those events has been the priority of the governments. The Paris Agreement, in 2015, was one of the turning points of that change and shows the commitment of the population to slow down global warming. One of the responsible for that concern is domestic transportation and, so, car manufacturers committed themselves to reduce these numbers, setting a target year to become fully electric. Volta is one of them.

Volta is a Portuguese car manufacturer that is known for producing internal combustion engines and operates in Europe, Asia, and the USA.

1.1. An overview of the company's process of transition

1.1.1. Strategy

A company's strategy requires a structured approach and involves making choices about what to do and what not to do. It requires more than just following a formula. It is about rigor and creativity, is about expressing what the firm is trying to achieve, is about financial projections. The process of defining strategy is interactive, continuous and implies an external and internal analysis of the company and of its sector.

Volta's vision focuses on "driving seamless change". In this way, its mission is "to revolutionize the automotive industry by delivering cutting-edge electric vehicles that combine exceptional performance, advanced technology, and environmental sustainability" (ESG Report 2023). The company operates under the values of sustainability, innovation, excellence, collaboration, and integrity.

External Analysis:

To develop a successful business strategy, a company must know its competitors, consumers, and suppliers and to have a better understanding of the industry, companies must

conduct an external analysis. They can use frameworks like PESTEL or Porter's Five Forces for this purpose.

The PESTEL analysis (Table 1) considers factors that can affect a company's strategy. It shows that the automotive industry has been transforming. This sector is a major source of CO₂ emissions, which causes climate change. Governments and public authorities are prioritizing ways to address this problem. In 2021, the EU commission took some measures to reduce pollution, establishing a reduction in car emissions of 55%, by 2030, taking advantage of the higher environmental awareness, by the society. For that, it offers incentives to purchase EVs and invests in charging infrastructures. In economic terms, the increase of the fuel prices makes it more affordable to customers to have an electric car, but the higher price of EV compared to combustion ones is still a barrier for customers to switch from one to another. The demand for this new type of vehicle has registered an increase in demand in the last few years. Another factor that can change the way the automotive industry is seen is the higher investments in the development of high-performance batteries and self-driving technologies.

The Porter's five forces (Table 2), is explained by its author as the "awareness of the five forces can help a company understand the structure of its industry and stake out a position that is more profitable and less vulnerable to attack." (Porter 2008). Through this framework, it is possible to conclude that the threat of new entrants and the bargaining power of suppliers are low because of the high capital investments needed for new competitors and the large number of suppliers. Conversely, buyers hold a medium/high bargaining power because of the low amount of switching costs (customers can easily switch from one brand to another based on cost) and the influence that large corporations hold when purchasing large quantities, allowing them to negotiate lower prices. The threat of substitutes is high once the increase in fuel prices can lead consumers to explore more cost-effective alternatives. Combining the four forces mentioned before, the industry rivalry is considered to have medium force.

Internal Analysis:

Volta's internal analysis can be summarized through the SWOT's weaknesses and strengths (Table 3). This framework reflects the opportunities and threats of the market that can influence its strategy and the strengths and weaknesses of the company that it could take advantage of. Based on the data given by the simulation, to start the transition into electric mobility, the firm benefited from short-term revenue brought by investments in electric vehicles and good productivity because of excellent employee achievements. This allowed Volta to enter the electro mobility market that made up an opportunity for the firm. Although the product portfolio consisted, initially, only of conventional vehicles, the company could produce and sell a new electric product on the market within 3 quarters and that contributed to a faster growth of the company among the competitors. These movements turned Volta able to meet the EU Commission's target of reducing emissions by 2030, achieving 0,00g/mile and meeting the expectations. This way, the firm could benefit from a bonus due to low emissions and eliminate the threat of aggressive government regulations that threaten profitability.

The Strategy:

After the conclusion of the definition of its purpose, values and mission and the external and internal analysis of the company, it is fundamental to draw up a strategy capable of meeting the objectives of the company: become full electric at the end of the simulation.

The initial strategy went with consumer preferences and did not go into electric vehicles too early since the market did not seem to be ready for a full transition in Q4. In this way, Volta was trying to pursue a strategy based on consumer preferences, going with customer lifetime value. The goal was to keep customers and take them on a journey throughout the firm rather than excluding them and finding a new customer base. This allowed the company to detect trends as soon as possible and expect the competitors.

Volta had a “seamless change”, and, like Volvo, launched hybrid versions of existing cars before becoming electric. These two companies present similar paths in their journey to electrification. The Swedish one started for launching its first plug-in hybrid in 2012 and, in 2019, hybrid versions of its combustion cars.

This strategy seemed reasonable because the customers were not used to EV, were receptive and the hybrid option could be a safe way for them to adapt. When Volvo launched “the world's first diesel plug-in hybrid, the Volvo V60 Plug-in Hybrid” (Volvo 2013), it was an immense success, and the company had to increase its production. This did not happen with Volta’s hybrid cars: two hybrid models launched in Q7 and Q8 did not sell out as much as expected. The firm did not follow its customer-based strategy: the market did not demand it and the firm’s assumption was not right. It is important to understand that the market might act differently from what we expect. The strategy went well for Volvo once it was new on the market and the first alternative to combustion cars.

The strategy included new initial investments in all departments to develop cars with new and better features and, so, achieve the 0,00g/mile emissions target. Volta implemented high prices due to their search for differentiation, resulting in low sales and high inventory. The strategy incurred a high cost and resulted in a 796% decrease in the company's added value by the end of the third year, in comparison to Q4. The company's turning point was marked by this value.

After the Q8, the company changed its pricing strategy, offering lower prices, and the production of the vehicles achieved economies of scale. The location of the production was discussed once changes in it caused unit losses and costs for the company.

It launched the first two full electric vehicles in Q9 and because of the high market offer of the LUX Electra, this model did not succeed as much as the Micro Electra, an enormous

success in Asia. After this moment, Volta's strategy focused on compact vehicles in Europe, Micro Vehicles in China, and convertible and executive electric cars in the USA. This strategy allowed the company to grow in the final three years of the simulation.

1.1.2. Operations

Porter once mentioned that “operational effectiveness is not strategy” (HBR and Porter 1996), but a consequence of the company's strategy, i.e., the company defines its strategy and then, the operational side of the firm decides based on it. When building its operations strategy, the company needs to consider several factors, such as market preferences, forecast demand, for example, and the company's resources.

“Operations adds value for customers and contributes to competitiveness by being able to satisfy the requirements of its customers.” (Slack et al. 2006). In this way, “processes also differ in terms of demand for their products or services” and there are four characteristics that “have a significant effect on how processes need to be managed”: volume, variety, variation, and visibility (Figure 1). Based on the company's strategy of focusing on customers' needs, the processes operate in high-volume production and high variety of products, at least while processing the transition (in the end the company will focus in only four models), while facing high variation in demand. The degree of visibility is low once the amount of Volta's processes experienced by the customers is minimum.

Volta's strategic objectives can be separated into various levels of aggregation. The simpler one refers to generic operations performance measures and includes quality, dependability, speed, flexibility, and cost, “describing what customers want in terms of a clear and prioritized set of operations” (Slack et al. 2006). Volta's customers appreciate different aspects of the company's operations, considering the operations' performance objectives. (Table 4)

Strategy and performance analysis

It structured the production of the company focusing on a just-in-time manufacturing method, aligning production and demand. The Lean system uses a pull method of work flow “in which customer demand activates the production of a good or service” (Krajewski et al. 2016). By using this method, Volta pretends to reduce inventory, waste, and costs. In addition, the production of the firm was designed to reduce CO2 emission. For that reason, some investments had to be made in all the scopes: scope 1, that refers to emissions that are directly connected to the company, and scope 2 and scope 3, that refers to the ones indirectly connected to the company (upstream and downstream activities).

The initial operational strategy designed for the company focused on achieving 100% factory utilization, to reach lower costs, once that lower utilization increases fixed costs per unit produced. The company struggled to not empty factories in the different regions, otherwise, it would incur some costs: fixed costs of that factory, workers that are still being paid or needed to be fired. Another aim was to have between 35 and 65 days on inventory because that would mean that the company is selling everything that is produced and does not carry storage costs.

The Volta's production performance can be measured through some relevant KPI's such as days of inventory, the factory utilization and concerning sustainability, the CO2 scope emissions can be relevant too.

As mentioned before, the days of inventory are an important measure of performance of a company. This indicates how much unsold inventory the company holds, compared to the most recent sales rate and can be translated into the number of days it would take to sell the inventory at an estimated sales rate. Regarding this KPI, the data collected from the simulation shows that Volta was only capable to meet its target in 13 of the 25 quarters (Graph 1), so the days of inventory were too high in almost all the referred period and that may have caused some

extra costs to the company, increasing the cost per unit and, decreasing the margin per unit. Another conclusion is that some products registered days of inventory higher than 120 days, so there was more than enough inventory in the warehouse to satisfy the demand of one quarter. When this happens, Volta incurs some extra warehouse costs and, if the demand does not increase, the inventory increases. The solution for this problem was, numerous times, stop producing the vehicle to sell out the existing units but this could bring two different scenarios: an empty factory in one region or, if the demand increase, not enough stock to satisfy the customers and, so, lack of trust by the clients and opportunity cost for the company. In the last 2 years of the simulation, the firm could manage these conflicts and achieve values within the established target.

Another KPI that was considered to analyze the performance of the company was the factory utilization that refers to the “degree to which a resource (...) is being used and is measured as the ratio of average output rate to maximum capacity” (Krajewski et al. 2016) and this should present a rate of 100%. Considering the data regarding Q12 and Q13 (Graph 2), the factory utilization decreased, because of two empty factories in Europe and China. This problem emerged from discontinuing two products because of high inventory in Q12 and, although the company has reintroduced on product in China, the one in Europe continued empty. As mentioned before, this brings problems regarding costs to the company and shows that the decisions according to days of inventory are related to the production assignment ones.

The last measure mentioned is the amount of CO₂ emissions produced related to the three scopes. One objective of the company was to achieve 0,00 mg/mile, but in order to reach that goal, some investments regarding the three scopes had to be made. From the data, it is possible to conclude that all the investments made resulted in a reduction of the CO₂ emissions within 1 and 3 quarters after the implementation period. The first three investments (“choose a sustainable supplier”, “water consumption reduction” and “energy investment”), although the

company incurred high investment costs, paid off in the long-run and aligned with the team's strategy. At the end of the six years, Volta presented an annual decrease of 16% in Scope 1 and 2 emissions (Graph 3; Graph 4) and an annual decrease of 11% in scope 3 emissions (Graph 5). These numbers are like the ones that Volvo presented between 2019 and 2022, when the GHG emissions from own operations were 13% (Volvo 2023). Those values are a consequence of working "with energy efficiency improvements and sourcing of more renewable energy", like Volta. Scope 3 registered a decrease of -4% in that period, too.

1.1.3. Marketing

"Marketing is the management process responsible for identifying, anticipating and satisfying customer requirements profitably" (CIM, 2015). The identification of the customer requirements implies an internal and external analysis of the company. This evaluation was made when determining Volta's strategy and based on PESTEL, Porter's five forces, and SWOT frameworks.

Diagnosis:

Overall, the electric vehicle (EV) industry, driven by political mandates, economic factors, and societal awareness, holds promising long-term market potential. Advancements in battery and charging tech, coupled with autonomous driving integration, redefine the landscape. Environmental regulations and the promotion of renewable energy are shaping corporate strategies. Legal incentives favor EV growth, while high entry barriers, substitute options, buyer power, and supplier influence shape the competitive arena. Success requires navigating these complex external forces within the EV market.

The company leveraged investments in electric vehicles for short-term revenue and employee excellence for enhanced productivity during the transition to electric mobility. This enabled Volta's swift entry into the electro mobility sector, even with an initial portfolio of

conventional vehicles. Rapid introduction of an electric product within three quarters facilitated significant growth and achievement of EU Commission emission reduction targets, eliminating the threat of stringent regulations, and securing emission-related bonuses.

Strategy:

The development of a marketing strategy is the process where the company defines the market segmentation, targeting and positioning. The segmentation “is the separation of a group of customers with different needs into subgroups of customers with similar needs and preferences” (Gavett, 2014, HBR). This stage of the process was made based on psychographic segmentation and the EV industry’s consumers are known for caring about environmental issues, are passionate about innovation and enjoy travelling around. This allowed Volta to decide to target the segment of upper middle class, since the company charges a slight premium on cars (Volta 2023). In this way, Volta positions itself as “having the perfect EV car for everybody. Volta cars are cars that make a statement and that show that their customers are different and cooler than people that have cars from the traditional brands.” (Volta 2023). The positioning map can show where the company fits into the market (Figure 2).

Execution

The positioning of the company influences the marketing mix of it. Jerome McCarthy (1964) defined the marketing mix as a combination of all the factors that managers can use to meet market needs. It comprises four elements: product, price, place, and promotion.

Yudelso (1999) defined the first "P", product, as "the benefits over time that the user receives from the exchange." Regarding this, the company followed a strategy designed to offer several variants in the cars it offers (for example, Micro Electra and Micro Electra PRO), adding distinct features in different versions of the vehicle.

During the simulation, the company decided to “slowly take out current cars, introduce hybrid and then have a full-on EV portfolio” and “the ultimate focus would be on micro city cars.”. (Volta 2023) (Figure 3). Through the six years, it was visible that introducing hybrid cars turned out to be a mistake, as mentioned before in the strategy section. Although that, it helped the firm to decrease its fleet emissions in the first years since it had not made enough investments to produce electric cars with the pretended features, by that time.

Another decision that appeared to be wrong was keeping the production of the City 75G car, a combustion vehicle. The aim was to hold on until its revenues decreased, but it was not worth it, and Volta could increase its CO2 bonus if stopped production. In Q9, it launched the first electric (the Micro Electra) and in Q11 there was an exponential growth in this product's sales (Graph 6). After that, new EVs went on the market and new and better versions of existent ones. The sales of the older versions were affected by introducing Micro Electra PRO and City Electra PRO, but later it proved to be a wise choice. The company focused on market preferences and increased its overall value by limiting its portfolio to just six models.

Yudelson (1999) defined the price as “everything given by the acquirer in terms of money, time and effort given to get the product”. The strategy on pricing followed a price-skimming strategy that comprises setting high prices on new products and then lowering them as competitors enter the market once the company's positioning lies on the high prices' axis. At the beginning, the company considered a viable option of implementing a price-skimming strategy for their new products. However, by the end of the third year, the company realized that even though Volta's vehicles had better features compared to their competitors, the customers could not afford the high prices. As a result, sales were low after the introduction phase. In the first two quarters of the product, it was verified that the demand was higher than production and, because of that, high prices seemed to make sense in that period. The assumption that the demand would remain high for too long was wrong and, so, the company

underestimated low demand for EV and the willingness to pay the customers. After the third year, Volta started reducing prices sooner and monitoring competitors more.

Place represents “everything that is done and necessary to smooth the process of exchange” (Yudelson 1999). Regarding this, Volta bet on the Asian market, the one with the best potential. This was the place where the Micro Electra and the Micro Electra PRO were most popular and the sales of these products and their gross margins.

The promotion “can be redefined in order to include all of the information that is transmitted among parties” (Yudelson 1999). Volta’s promotion remained moderate through the entire period, except from Q9 to Q12, where marketing expenses were too high and, low profitability. The investment in the product placement in a movie had little effect on sales.

1.2. Interconnectedness of functions is essential for success.

Volta's transition process shows the interconnectedness of its functions and specially of strategy, operations, and marketing. The decisions taken in each influenced the other ones and, so, the performance of the company.

The alignment between the functions of a firm is essential. As shown before, the general strategy of Volta guides the other departments of it and, in this case, the operations and the marketing ones.

Inventory management can directly influence marketing decisions regarding the price of a product. If the company registers a high inventory, it will incur some costs and that will reduce the gross margin of the product. The solution to drain the excess of units can be, for example, decrease the price. This high level of inventory can be caused by a bad understanding of the market by the marketing department, and practicing prices higher than the ones the costumers can afford. This was the problem that Volta had to deal with at the beginning, but, when the problem was identified, could correct it.

Operations decisions were aligned to improve efficiency, reduce waste, and meet sustainability goals, but that was defined based not on the overall strategy of the company to become electric but also on the market preferences and expectations. This shows that if the customers were demanding more sustainable practices by the company and it does not meet their prediction, Volta could lose some market share and customer loyalty.

Finally, Volta's strategy to derive "a seamless change", introducing hybrid cars first and then electric vehicles, implied some changes regarding production processes and the marketing department had to communicate the changes and positioning the products.

1.3. Conclusion

Throughout our academic journey, we learn how to run a business, in theory. The professors teach us some business fundamentals and their definitions and formulas, ignoring other areas of a company. For example, when we learn about operations strategy, the price decision is ignored because some assumptions are considered. That does not happen in real life. The three weeks of the simulation gave us the opportunity to bring theoretical lessons into reality and start applying it in practice.

This immersive experience showed us that communication and truth are the two most important words in a company. It must take all the decisions considering whether each department's move can influence the other ones or be influenced.

The group had six moments to sit down and take measure for four quarters each, in a time space of just three hours. Initially sight, if we think about just one department, that time would be more than enough to take all the decisions needed. When we understood that it must align all the moves with the overall strategy of the company and with the other departments, that was the biggest challenge.

The operations and marketing areas are an example of a cooperation that must work together. As stated before, the higher price of production had some repercussions on the inventory and on the production costs of the vehicles. Operational decisions affect the Human Resources department and, so, it is fundamental that both directors discuss it and share information. If the production line has utilization higher than 100%, employees will be unsatisfied and that can make some of them quit the job.

The simulation was a very enriching experience. During this period, I could apply what I learned in my bachelor's and in my master's degree and have first contact with what the companies expect from us. It showed me that, when working in a firm, our department objectives cannot be our priority. I was an operations director and, to win the operations prize, we needed to achieve the highest factory utilization. At the beginning, I had my eyes on that, but I realized that, if I had to harm the firm to get that, I did not want that. At some point, all the departments forgot about those classifications and worked together for the best result for Volta. The group ended up winning the sustainability prize, and that showed that, even though we were not seeking it, together we could achieve our primary goal that was making the company more sustainable.

Overall, this experience made me grow and prepared me for the future. I can now communicate better and have the courage to make bold decisions. This also showed me that working with people is better than working alone, despite all the tensions that it can cause and disagreements about the company's decisions.

2. Personal Reflection

2.1. Introduction and overview

The second section of this essay presents a personal reflection of what happened during the three weeks of the simulation and how that affected me.

After this experience, the major lesson I can take is that, when we are working in teams, communication and trust are the keywords for the success of the project. As Patrick Lencioni once said: “teamwork begins by building trust. And the only way to do that is to overcome our need for invulnerability” (Lencioni, P, 2002) and I think this can sum up the difficulties I faced.

The first incident, and the most challenging one, made me realize I was judging the situations that happened to me during my master's wrong and made me look at it differently. I proposed a tough conclusion: I was not communicating because I thought that the other ones were better than me but because of the fear of rejection and failure.

The second incident happened when we received our results from the peer assessment. It was a moment that created a tremendous tension in me because it frustrated me with some of my colleagues because of disagreements on the evaluation. That happened because I did not have the courage to question their decisions and try to understand their point of view just because I was avoiding moments of conflict within the group.

2.2. Self-awareness is fundamental when working in a group.

Daniel Goleman defended that emotional intelligence is defined as “a person’s ability to manage their feelings so that those feelings are expressed appropriately and effectively.” (Goleman, D., 1998). For that, the journalist created a model that includes four domains: self-awareness, self-management, social awareness, and relationship management.

The author explains self-awareness as “the ability to read and understand your emotions as well as recognize their impact on others” (Goleman, D., 2002) and that is what this incident reflects about.

In one of our first meetings, we presented ourselves to the group (our experiences and what we expected for the future, after NOVA SBE). I was quiet, listening to all the things they had to say – how much they had already done – and I felt useless. I heard them saying that some of them went travelling with just a backpack for months, others already had work experience and even one of them had already found a start-up.

When it was my time to consider me and my past, I laughed, like I was ashamed of myself and told them I have only done my bachelor’s degree, before coming to the master’s degree. I was the only one with no work experience and, so, I felt like the child of the group. At that moment, I confessed that, at NOVA, I felt that older students (almost all of them) used to see me as less capable than them because of the range of ages and experience. They told me I should not think that way because I am younger than them but capable of doing the same thing that they are doing right now (the master’s degree) with 3 more years than me, and that should be considered.

Right after, I told them that most of the time I did not give my opinion or my suggestions to my other group projects at the faculty, with the fear of being rejected or not listened to. I could speak from my heart and that was the first time I said out loud what I thought and how I felt during my master’s degree. There were some situations where I felt that expressing my thoughts was useless and my effort to contribute to the team was invaluable to the others.

My team tried to understand why I had those concerns, which episodes lead me to think that way and to retract those feelings. They asked me some questions about those situations,

and, during the process, I could clear up my head about those times and have a better picture of what happened before.

The fear of failure and rejection:

I used to say that exists a version of me before NOVA SBE and during it. Before my master's degree at NOVA, I used to lead all my group work, giving the insights needed for the job and guiding all my teammates through the projects. I was confident enough to do that, and they trusted me to do so. Going back in time, now I realize that was not the best method to do those types of activities, where everyone should participate and in the same amount of work. I always felt good leading teams, having time to review all the work and being able to make suggestions to others to improve their own.

Although, when I arrived at NOVA, I recognized, initially sight, that I would never have that time to organize the work as I would like – organization takes time, and the projects had a short period to be done. That was one thing that made me feel stressed at the beginning of the masters', but I realized that is what my future in the workplace expects and I just learned to be more efficient.

Outside that I would never have that kind of leadership and team trust I had before, and that was the hardest part – I had a difficult adaptation to this new way of working.

Working with people from different countries, cultures and, especially, ages and experiences can be challenging. At the beginning, I my first group projects were made with Portuguese members and, some of them, people that I knew already from by bachelor's at FEP and, so, I did not notice a tremendous change.

The time passed by, and I had to work with people I did not know before and older than me. I had some struggles with communication because I assumed they were the ones with the knowledge and skills needed to do that but turns out that was not the issue. The moment of

change was the moment I could discuss it out loud. I realized the problem was my fear of failure and being rejected.

Support from others was crucial to surpass my fears.

Opening to someone is always hard, and especially to someone you do not know. I knew I would have to work with them for the following three weeks and showing my weaknesses seemed scary, at the first time.

After the conversation, I went home and thought about everything and some questions came to my mind: “Was this worthless, opening to the team?”, “Will this have some effect on the future me and on the way I work with others?”.

The three weeks of the simulation showed me that trust and intelligence in teamwork are two factors that are essential.

I participated in the second role play. At the beginning, I feared speaking and discuss in front of the people who were going to judge our capacity to keep a client because I did not want to fail representing the team once we needed to win that because of our situation in the competition in that time. I was scared: “What if I say something wrong and we end up losing the money? What if they ask something and I don’t know the answer?”. However, when I looked around at my colleagues, I realized they were scared too. None of us had experience in sales, so we were all in the same situation. As mentioned before, one pillar of a team is trust and, in this way, the other members needed to trust that we were going to do our best, and they did.

Once in the roleplay, I felt myself in a secure place and I could speak up. The other members in the room knew it scared me and pulled me into the discussion. After that, I started talking and defending our argument, helping the team. This was a crucial moment for me to raise my self-esteem and confidence.

2.3. Comparison can lead to tension

The second difficult moment for me was the one when we received our peers and self-assessment in the session with Miguel.

In the team's morning dynamics, we had the client retention roleplay, and I participated in it. I was nervous, feeling the pressure of helping the team and do not failing. We had a training session in front of our colleagues. That increased the pressure on me, but it went well, and we came out being very confident after it.

Until the moment that the results of the peer assessment were revealed, I thought that my effort was being recognized by the group and, so, I was expecting a peer evaluation with medium/top grades. Each person needed to evaluate their own effort, knowledge, and motivation to better understand the difference between what I thought I delivered to the team. (Figure 4)

In the team dynamic clinics, we had access to the evaluation. The radar chart allows two or more items to compare themselves, considering some characteristics. We compared ourselves to the team's average evaluations to see where we excel according to their perspective. I felt both happy and sad when I saw the results. I was happy they acknowledged my skills to help the team, but sad because they rated me lower on "expecting quality."

When I looked around, I could see the peer assessments of my colleagues and I realized that some of them had an almost perfect pentagon, so they were good at all the parameters. This made me even more sad. I was thinking about the past two weeks, and I could find some reasons for them not to be perfect.

I started questioning and comparing myself to the other team members. For example, on the Q4 parameter (Expecting Quality), there was one person who was evaluated with a higher score than me. That made me wonder why that happened once that person showed up late for

the roleplay he was presenting and did not participate in the academic sessions because he thought it was useless. “How can a person expect quality if it doesn’t even care about learning some essentials for the simulation and to help the team?” That was the first thought that came to my mind.

After the meeting, I went to the classroom with my colleagues for another session and I kept silent. I was reflecting on what had just happened and the rest of the team was happy about their results.

The roleplay’s grade was released, and the team scored 34 points. I can confess that sheered me up because, for the first time, I felt the members of the team could see I was capable of the job. However, after that, I discovered that one member did not trust the team to do the role play in the morning. When questioned about the possibility of hearing our role play by another element, she answered saying: “I prefer not to hear, otherwise I am afraid I will be upset with them if they fail”. This got me mad when I discovered. We were a team, and we needed to trust each other. On her roleplay she failed and, even though, I believed she gave her best on it and never judged her.

This situation made me compare, again, the results of the peer assessment, where she had almost the highest grade on the parameter “Q4. Expecting quality” which means: “Believes that the team can do excellent work” and, for me, that was unfair.

Ability to answer differently to a situation

One of my teammates noticed I was down and tried to sheered me up. Initially, I denied the conversation, as I used to do in those kinds of moments, but then I realized that if I did not discuss what happened and the reasons why that happened, I would never be at peace with myself.

I went to him and explained how I was feeling but he made me see things differently. He clarified that people that work closer with someone can see their strengths and even weaknesses that others cannot. He was the person with whom I worked closer, since we handled the same department, and, so, he knew everything I had done for the group. Most of my communications were with him and he was the one speaking up for the operations team and that was why the rest of the group stated I did not communicate that much.

He made me realize that this assessment occurred before all those bad actions from the other colleagues that I mentioned before and that the assessments could be different if completed in different moments of the simulation.

Considering my feelings can change my perspective over the situation.

The conversation made me understand that comparison with other members of a team can have a negative impact both on the way we see our colleagues and the way we see ourselves.

The crucial moment was the one where we received our valuations, and I looked at the others. That was the instant that triggered all the thoughts and made me judge every action that each teammate had until that moment. In this way, all those thoughts that I had could be avoided if I did not have those instincts to make comparisons.

In addition, I knew I shut down myself for something that was not even reasonable and, if I had questioned my colleagues during the team clinics, those moments of suffering would not even exist. I usually run away from moments of tension and arguments, and that is why I did not make a statement during the session.

When Miguel told us that discussions are important on a team, I did not take it as so important as it is. I wanted to believe that my group worked well together, and I felt that. Since the beginning, I was avoiding discussing the things that were bothering me.

Avoid comparisons and discussing my feelings is the strategy for the future.

This episode made me understand that, when receiving an evaluation as the referred one, I must pay attention just to my results and think about why I had those grades or even ask the others to explain their perspectives. From that moment on, I compromised myself to always speak up and question others' opinions and statements.

In the final year's decisions, I realized the group was trying to decide for me on the operations' department and, for the first time, I interrupted them and marked a position. Even though the team needed to work together on the measures to take, I was still the operations' director and, so, I had an opinion on those. That was the turning point for me on communication, even if it was too late for the simulation.

Overall, I believe that I grew up and I am not afraid to question everything that I do not agree with. Another lesson that I learned is to never compare myself to someone because everyone is different and the way we see things is such as our evaluations.

2.4. Conclusion

The simulation itself is a brilliant method of learning and growth, but the most relevant lesson that I take from it are the personal ones. I said before that there is an Antónia before NOVA and an Antónia during NOVA. Now I can say that there is an Antónia after Business in Practice.

During the three weeks of the simulation, it tested me in both professional and personal ways, but the one where they will reproduce effects in all stages of my future life is the second one.

In this period, I put my confidence in myself to the test. I started by saying that I was a child, compared to my colleagues, and opened myself for the first time to them. In this way, I ended up being side by side with them, having the same responsibilities, and acquiring their respect and support.

Another aspect that working on a team made me improve is the capacity to speak up, question things and do not be afraid of conflict because ignoring it can cause a bigger problem. Working with people can be hard sometimes, but communication and trust are the keywords in this relationship.

Overall, this experience brought big and excellent changes to my life and in the way I behavior with other people.

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Appendix:

Table 1: PESTLE Analysis: Automotive Industry

Political	- Establishment, by the European Commission, of a target to reduce car emissions by 55% by 2030. (European Commission, 2021) - Incentives to purchase electric cars and investments in charging infrastructure (European Commission, 2021) - Incentive mechanism for zero- and low-emission vehicles (ZLEV) will be in place from 2025 until the end of 2029 (European Commission, 2021)
Economic	- Increase in fuel prices, due to Russia-Ukraine conflict (Statista, 2023) - Electric vehicles have a higher price than combustion ones (Iacurci, 2023) - Interest rates increased and there is a strong inflation (While, 2023)
Social	- Increasing environmental awareness (Cohen, 2022) - Growing demand for EVs (Connelly, 2023)
Technological	- Development of high-performance batteries and fast charging technology (IEA, 2023) - Self-driving technologies (Shell)
Environmental	- Monitorization of carbon emissions (European Commission, 2021) - Increasing focus on renewable energy (European Commission, 2021)
Legal	- Implementation of tax policies for combustion engines vehicles (Wappelhorst et al, 2018) - Governments implement incentives for manufacturers and consumers of the EV industry (European Commission, 2021)

Table 2: Porter's Five Forces - Automotive Industry

Threats of New Entrants: Low	- Large Capital investments to set up manufacturing facilities and a distribution network. - Existing multi-national major competitors benefit from economies of scale and scope. - The industry is not likely to become profitable in the short term. - Established automakers have resources and expertise to develop infrastructure for producing electric vehicles
Threat of substitutes - high	- The increase in fuel prices pushes consumers to search for more cost-efficient solutions as public transportation
Bargaining power of buyers – medium/high	- Switching costs are low for buyers and their decisions is usually based on the cost of the vehicle - Corporations or governments that purchase large fleets can bargain for lower prices
Bargaining power of Suppliers - Low	- Large number of suppliers - Suppliers are facing the challenge of fulfilling the need to support the transition to electronic vehicles and autonomous driving. - Automakers with strong positions on the market have the possibility to negotiate with suppliers and dictate the prices
Competitive Rivalry: Medium	- Development in technology and consequent cost reduction attract companies from the traditional auto industry. - Government agencies are giving support to electric mobility - Exit barriers to exit the automotive industry

Table 3: Volta's SWOT

Strengths	Weaknesses
• Vehicle lines that are popular and selling well (<60 days of inventory) • Initial stages of investment in electric vehicle are expected to bring revenue growth in the short term. • Excellent employee relations leading to good productivity achievements	• The product portfolio consists exclusively of conventional vehicles. • Three vehicle lines with >60 days of inventory need management attention in operations and marketing • A restructuring of the business in the short term may be required
Opportunities	Threats
• Electromobility is the future! E-Drive modules can be used in 3 quarters. • Green investments that can be financed with green bonds are available. • New product offerings with up-to-date technology • Expansion of factories is possible. • The stock market appears receptive to a share issuance. • The market responds well to marketing spend	• Older model lines are a drain on resources • Expensive debt due to current credit rating and access to new borrowing • Increasing competition in the electric vehicles market • Continuing aggressive government regulations that threaten profitability. • Volatility in the cost of raw materials

Figure 1: Volta's 4V's Framework

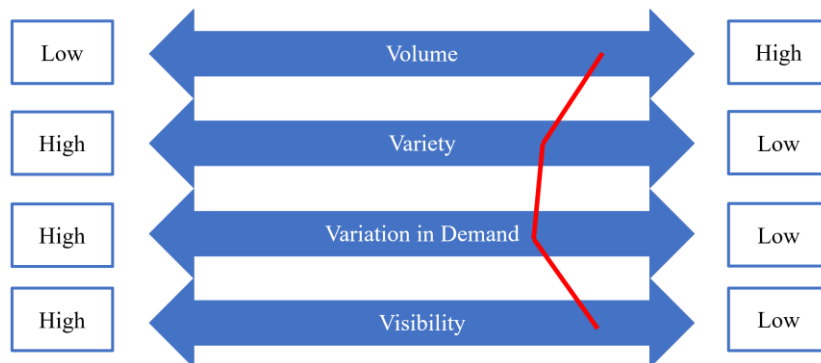
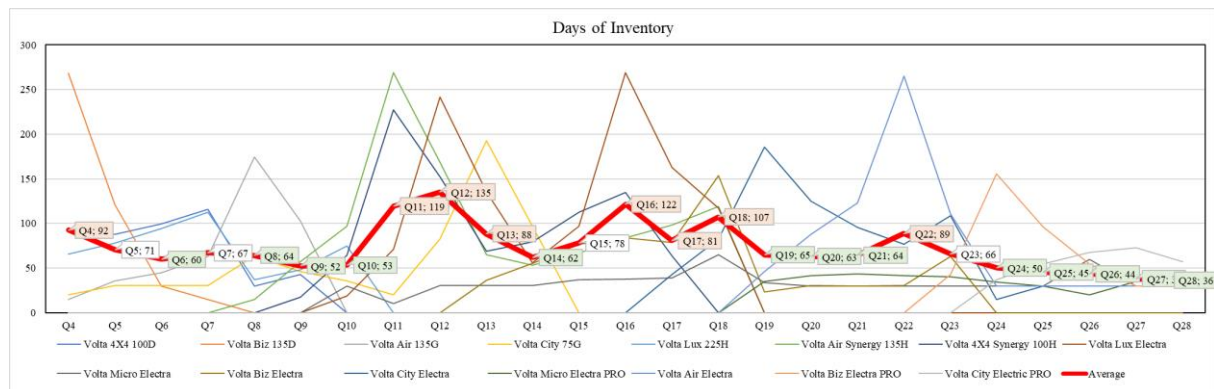


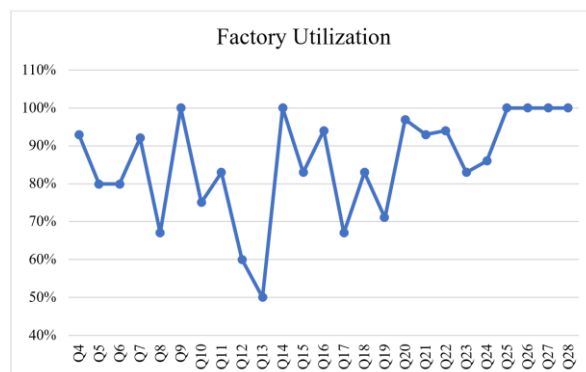
Table 4: Volta's Performance Objectives

Performance Objectives	
Quality	- Specifications of the product/customer satisfaction - Update on recommended maintenance procedures - Safety
Speed	- Lead-time from order to delivery
Dependability	- Fulfilling the demand on time
Flexibility	- Possibility to produce different products in the same assembly line. - Ability to produce vehicle with more and improved features. - Introduction of new models - Deal with changing market needs
Cost	- Offer high-quality vehicles with a reasonable price. - Ability to achieve economies of scale. - Adapt production locals to market demands

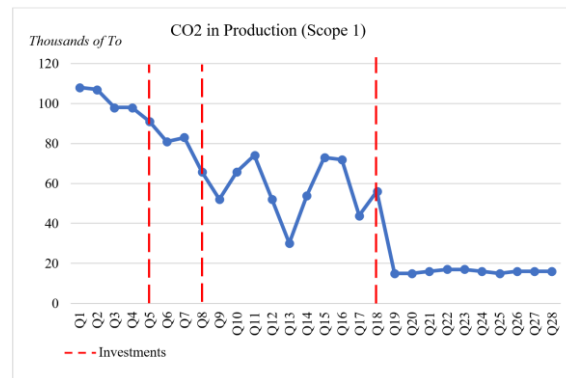
Graph 1: Days of Inventory



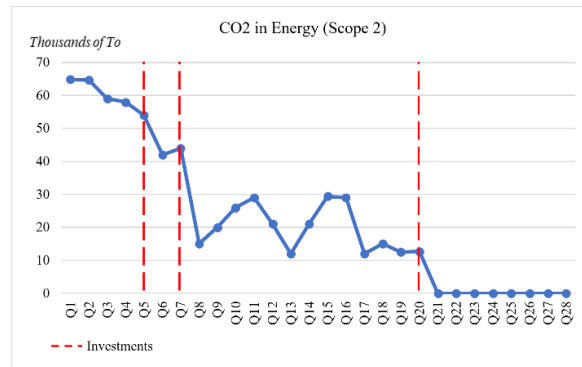
Graph 2: Volta's Factory Utilization



Graph 3: CO2 in Production (Scope 1)



Graph 4: CO2 in Energy (Scope 2)



Graph 5: CO2 in Supply Chain (Scope 3)

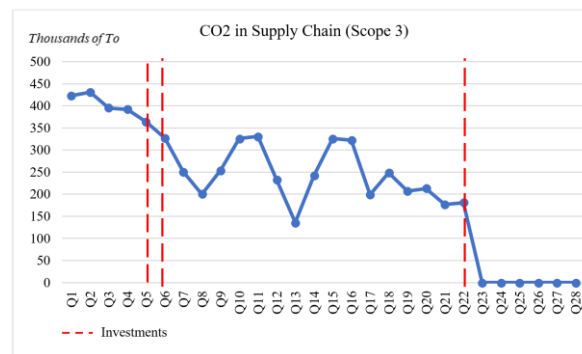


Figure 2: Positioning Map - Automotive Industry

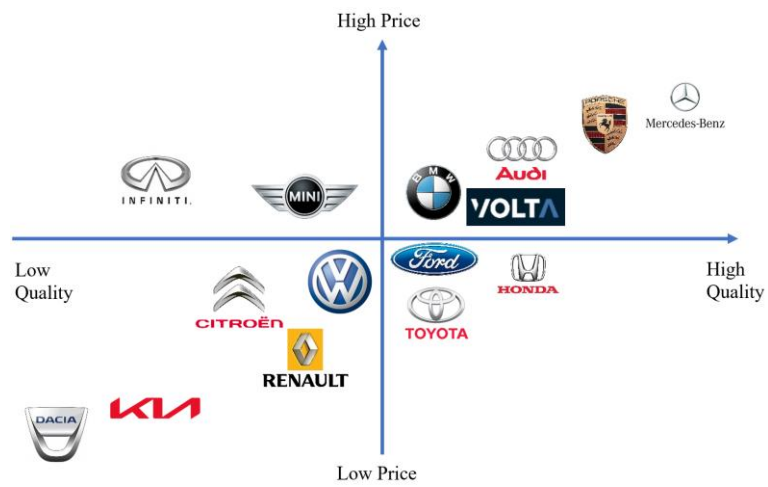
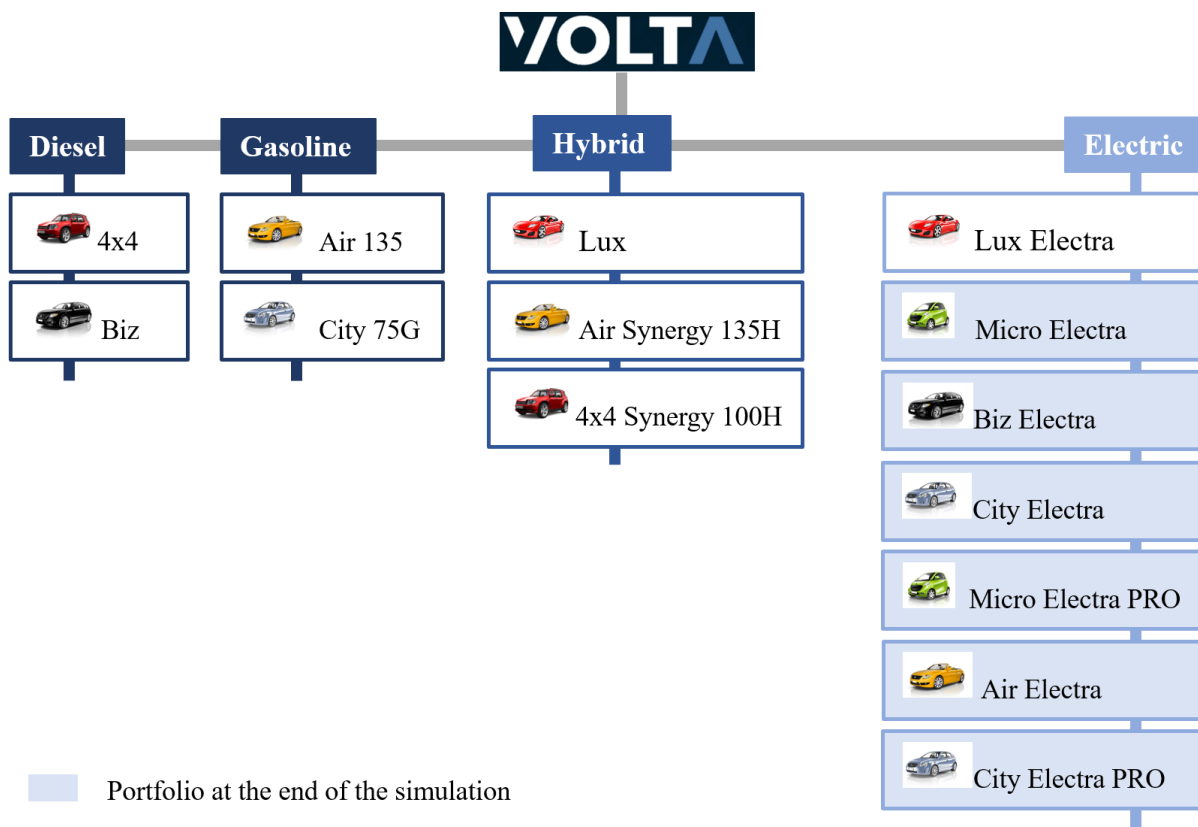


Figure 3: Volta's Portfolio



Graph 6: EV Sales Price

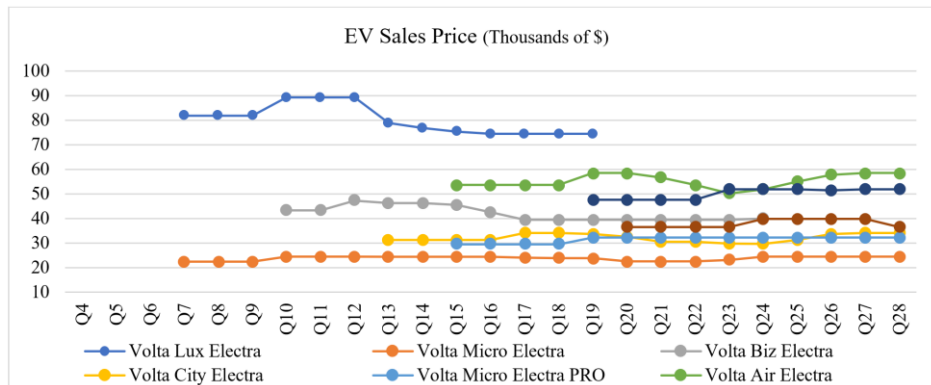


Figure 4: Peer and self-assessment

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