

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: Firm Analysis and Personal Reflection on the Journey of a GAMA Team Member

António Miguel Palmito Bispo

Work project carried out under the supervision of:

João Miguel Baptista

10-09-2024

Abstract

The Business in Practice project is an immersive and intensive simulation in which participants make a wide range of strategic decisions for an automotive company. Throughout the simulation, students are confronted with both functional and behavioral challenges, gaining insights and developing a deeper understanding of how to address such challenges in the real market.

This document analyzes these aspects from the perspective of a participant, providing detailed analysis and personal reflections. The study draws several conclusions, the primary one being that anticipated behavior can differ significantly from actual responses in practice and that there is always room for improvement.

Keywords

Apply Theory in practice, Business Simulation, Development of Business Strategy, Integrate and coordinate decisions across business functions, managing a business, reflective practice, intense practice, sustainability and ESG, Team Dynamics, Working in teams, Car Industry, Develop through incident learnings, Emotional analysis, Innovation development and analysis, Operations development and analysis, Strategy development and analysis.

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: The Journey of GAMA

1.1. Introduction:

“Always plan ahead. It wasn’t raining when Noah built the ark.” - Richard Cushing (n.d.)

Today, we live in a world filled with change and uncertainty, where new technologies, diverse beliefs, and concerns are emerging. According to Harvard Business School (Miller 2020), the focus on environmental, social, and economic issues has increased, leading to new strategic paths such as sustainable business strategy. With these concerns in mind, as Richard Cushing affirmed, to prepare for the future and address these consumer priorities, the car company GAMA was established. This company aspires to be a premium car manufacturer, akin to BMW and Tesla, aiming to balance the previously mentioned concerns (environmental, social, and economic) and operate as a sustainable company with an exemplary business strategy. GAMA is committed to providing the quality the clients deserve while satisfying diverse shareholders across different market segments (Broad Differentiation).

With this in mind, this firm analysis will examine three key areas within the company that collaborated to achieve the desired results: Strategy, Operations, and Innovation. The Strategy section will analyze the strategic plan defined and followed by GAMA to achieve its goals, highlighting and examining key points that influenced the company's overall trajectory. This section will conclude by comparing the company's intended achievements with its actual outcomes. The Innovation section will start by showing the role initial strategy and then analyze key KPIs to assess the company's performance in this area and suggest decisions that could have been improved. This area is crucial for a company such as GAMA, which aims to focus on innovation, but as will be further analyzed, the path taken is not always as expected. The Operations section, similar to the others, will demonstrate the crucial role of operations in the company's success, identifying key problems encountered in this area by analyzing KPIs and identifying mistakes that should have been avoided.

1.2. Strategy: The plan of GAMA

1.2.1. What we aimed to be:

“Strategy is not the consequence of planning, but the opposite: its starting point”-

Henry Mintzberg (2000). “The Rise and Fall of Strategic Planning”

Just as Mintzberg affirmed, strategy is a starting point—a guide towards what a company wants to achieve and aims to be, based on diverse factors. GAMA defined its strategy by analyzing the market, consumers, and competitors to establish its values, mission, and vision, which would guide the company's strategy. To do this, several frameworks were utilized, to create the strategy, analyze the mistakes, and take conclusions from the implementation of the last as it is possible to see in Table 1 .

The mission emerged as "Navigating a better future together," which aimed to show our commitment to innovation and the exploration of new and better products. This mission was inspired by the Portuguese navigator Vasco da GAMA, the namesake of our company, who navigated unknown seas to find new worlds and help his country evolve. The vision created was "A world where innovative and sustainable automotive solutions elevate humanity and safeguard the planet for generations to come," reinforcing our commitment to sustainability in our strategy. Lastly, our values are innovation, sustainable growth, transparency, respect and honesty, DE&I, and environmental responsibility. These values represent our focus on the triple bottom line—environmental, social, and economic aspects—to create a sustainable company that satisfies all our stakeholders and continues evolving following the image of our role model company BMW, and others that follow a similar preoccupation with sustainability and quality such as Tesla which has disrupted the market with these ideals. To analyze the performance of the company in pursuing its strategy, six KPIs are highlighted: Value Added Score (Graph 1), Overall Sustainability Rating (Graph 2), CO2 Fleet Emissions (Graph 3) , Number of New Cars (Figure 1), Free Cash Flows (Graph 4), Net Operating Profit (Graph 5), and Employee Satisfaction (Graph 6) . These KPIs will help us assess the three bottom lines and analyze the strengths and weaknesses in pursuing the initial strategy.

1.2.2. Analysis:

1.2.2.1. Initial plan of Strategy:

The automotive industry is moving towards a more technological and sustainable environment, predicting that by 2030, there will be a major increase in electric vehicles (EVs) due to their more sustainable position (McKinsey & Company 2016). Furthermore, the current car market (McKinsey & Company 2020), is showing indications that the predictions of 2016 seem to be correct, with the electric vehicle market showing significant growth. This is exemplified by Tesla, which has rapidly expanded with its electric vehicles and has become the largest automaker by market capitalization (Companies Market Cap 2024).

From a strategic standpoint, it is evident that the company GAMA has followed a path that shows promise for the future, with the potential to create a sustainable business. By analyzing the company's position in the market (Figure 2), Porter's Five Forces (Figure 3), SWOT Analysis (Figure 4) and PESTEL (Figure 5), it is apparent that GAMA had the position and structure to pursue this strategy, which is crucial due to the substantial investments needed. This strategy also helped address some of its problems, such as CO2 emission penalty and global instability, which have been mitigated through continuous innovation. According to Harvard Business School (Miller 2023), achieving a successful company now requires a sustainable business model adhering to the triple bottom line, a principle that GAMA considered when developing its strategy. The strategy consists therefore in heavy investments in new technology for the production of premium cars. This will increase the willingness to pay of the customers who want to have the new and disruptive innovative cars of a brand that cares about both people and the planet that surrounds it. The strategy of GAMA has the premise that it will be able to fulfill this new market demand.

However, while analyzing the VARS Framework (Figure 6) and the Business Model Canvas (Figure 7), we can see a revenue problem. GAMA has concentrated all its revenue on car sales without exploring other alternatives such as subscription models to diversify and generate more income. A study by NOVA SBE, the University of Granada, and Ernst & Young (Zejnilovic, Bustinza, & Genzlinger 2020) indicates

that the industry is becoming more service-oriented with the surge of new technologies such as self-driving cars that are being produced. This market shift has not been addressed in GAMA's strategy, creating a critical gap that may hinder GAMA's long-term innovation, differentiation, and revenue growth.

1.2.2.2. Implementation and results of the strategy:

Effective implementation involves constantly monitoring, evaluating, and adjusting strategy initiatives while facing potential tensions, aligning them with initial beliefs and objectives, ensuring employee satisfaction, and controlling risk (Gibson 2024). Initially, GAMA made significant investments to achieve its objectives, introducing four new innovative cars in a short period, converting its fleet entirely to electric, and making other environmentally focused investments. These actions aligned with the strategy but led to an initial reduction in Value Added (Graph 1) and Free Cash Flows (Graph 4) due to high investments and rapid changes. This implementation caused financial tensions, forcing GAMA to slow down changes and reduce major investments to recover, since the company, at the time, did not know that they could use green bonds to fund more than just the green signed investments. In the long term, these decisions negatively impacted GAMA's innovation trajectory, as the company was unable to innovate as much as initially intended (financial misunderstanding), although it remained a significant market innovator. According to Forbes (Wachter 2023), companies need to embrace regular change to avoid negative impacts. GAMA's mistake was in making rapid changes that carried too much immediate risk. Fortunately, the company quickly monitored and adapted its strategy, leading to gradual growth and overall recovery from the past financial problems (Value Added – Graph 1) from quarters 21 to 28.

Despite these financial challenges, GAMA's decisions helped achieve its initial objectives. The company quickly achieved zero fleet emissions by quarter 15, a high sustainability rating of 77.2% , and employee satisfaction above 90% by quarter 9. These outcomes show that GAMA's decisions positively impacted two of the three pillars of long-term sustainability from the beginning (Figure 8). The economic pillar also grew more consistently from quarter 17, following strategic price changes that temporarily adjusted its

initial position (a few quarters) to a more low-cost customer due to inventory problems. After resolving the inventory problems, the company returned to its initial price strategy, showing consistent growth. This strategy has also been used by famous brands such as Jeep from the Stellantis Group which due to high inventory was forced to cut its prices to foment sales and reduce their inventory costs (Miller 2024). Ultimately, GAMA achieved its objectives, surpassing the benchmark in all sustainability pillars.

Overall, GAMA followed its strategy and adapted when needed. However, the company was not as innovative as initially intended due to early drastic changes, leading to inventory and pricing issues. Additionally, GAMA missed opportunities by not defining a brand in marketing and failing to diversify income, resulting in potential revenue loss.

1.3. Innovation: The Future of GAMA

1.3.1. The Search of GAMA for the future:

“Innovation distinguishes between a leader and a follower” – Steve Jobs (2001). “The Innovation Secrets of Steve Jobs.”

Innovation (McKinsey & Company 2022) involves the ability to "conceive, develop, deliver, and scale new products, services, processes, and business models for customers." Steve Jobs highlighted that innovation distinguishes high-performing companies, positioning them better compared to follower companies that lack innovative products. However, implementing innovation is challenging, often necessitating significant transitions. Anderson (2022) notes that change is inherently difficult for humans, who fear it may worsen the current situation, complicating the implementation of innovation. This is particularly true for major shifts, such as GAMA's transition to a fully electric car portfolio, which, if unsuccessful, could reduce shareholder revenue. Despite these fears, Shanker (2021) asserts that innovation is crucial for companies to address customers pain points and remain relevant and meaningful in their markets. GAMA aimed to be a leading innovative company, with a diversified car portfolio

designed to meet various client needs and focus on the different sustainability's. This focus aligns with the SDGs (Figure 9), which are crucial for the future of the world, as noted by Megan Rowling (2020). To analyze GAMA's innovation strategy diverse frameworks will be used to draw conclusions about the plan and implementation as can be seen in Table 1.

GAMA's innovation path was initially determined through market analysis based on marketing, operations, and financial data. The strategy aimed to be disruptive, requiring strong innovation, financing, and a well-designed timeline. Key investment criteria included industry success (Figure 10), competition level (number of competitors in each car segment), differentiation potential, the car's life cycle stage (initiation, growth, maturity, and decline), time to market, pollution characteristics, and Projected revenue based on historical data.

These criteria led to Investments being made in new PU Electric, Luxury Electric, City Electric, and Sport Electric models. The PU change was prioritized due to its high pollution levels and large market share, making it essential to develop an electric alternative and phase out the gasoline version. The Luxury Electric was the second investment, targeting both economic and environmental goals, driven by the success of a competitor's top-selling electric version. The City E and Sports E models were chosen for their high sales potential and new technologies, aiming to dominate their segment. Despite initial delays, these investments were very successful. Other Investments were made in features to help the company innovate, such as batteries. The success will be measured by KPIs such as the number of new cars, sustainability rating, CO2 fleet emissions (g/mile), and a comparison of car characteristics with competitors.

1.3.2. Analysis:

1.3.2.1. Initial Plan:

According to Peter Landau (2023), an effective operational plan encompasses daily activities in a company, leading to the creation of products and other critical services. The operational

plan must complement the strategic plan initially defined and therefore, an exemplary plan involves managing business processes, setting operational goals, determining timelines, defining resource requirements, estimating budgets, hiring necessary personnel, and establishing key performance indicators (KPIs) to monitor and understand the current situation.

The innovation process at GAMA began with market analysis to understand needs before creating new products. This led to a robust initial innovation plan, focusing on opportunities in electric cars which had the potential for new features and innovations, allowing for differentiation. The VCW (problem definition, solution, selection, and evaluation), more specifically value creation funnel (Lages n.d.) (Figure 11) was used to identify and select this opportunity. This strategy was driven by customer demand for sustainable options, government incentives, and shareholder recognition of the revenue potential. While the implementation phase of the value creation wheel faced some issues, it was an integral part of the strategy.

Overall, the plan addressed market needs and operational goals with a clear timeline for product implementation. The company had access to necessary resources, although some it failed to notice, required personnel, and a defined budget as seen in Figure 12. Additionally, GAMA established KPIs to measure the success of this initiative, as detailed in the previous section.

GAMA's approach parallels BMW's strategy (BMW n.d.), which defined the future as electric and invested heavily in this segment. BMW's success is evident, being the fifth brand with the highest revenue in the market (Companies Market Cap 2024). However, GAMA's innovation plan fell short of its goals. According to Sutton (2022) from Car and Driver, BMW planned to launch or innovate more than five cars in 2023, a significantly higher number than GAMA's plan, highlighting a miscalculation in the necessary investment to achieve its innovation goals and become the model of BMW it aimed to be. To improve, GAMA should have increased its investment in new cars, aiming to produce more vehicles across different segments. This would

improve its fleet to accommodate even more customer needs. This could be achieved with the help of Green Bonds, making it a less risky but crucial investment for the company's future.

1.3.2.2. Implementation and results of the strategy:

Successful implementation of a plan requires ongoing monitoring, evaluation, and adjustments to achieve the main objectives. This is why GAMA created its initial plan and later made adjustments to address emerging needs and maintain the company's innovative edge. Unfortunately, an analysis of these adjustments reveals some problems.

GAMA met most of its sustainability and performance goals, achieving a high sustainability rating of 77.2%, 0g CO2 fleet emissions, and car characteristics above the market average (Figure 13) However, the car pipeline reveals that overall innovation declined significantly after year 3, with few investments and no new car models. Initially, the company aimed to create many new cars but ended up scheduling the creation of only two. GAMA wanted to assess market conditions after launching these two vehicles to identify new investment opportunities. Despite this intention, the company did not produce much beyond the initially scheduled cars, leading to gaps in segments such as business and micro and resulting in many relaunches. This lack of innovation extended to potentially profitable areas like 4x4 vehicles.

The company did not explore several technologies, such as autonomous driving, advanced security, personalized services, and vehicle-to-vehicle communication. This limited GAMA's potential to become more disruptive. The reduced investments from round 3 were primarily due to financial issues and concerns about the 6-year timeline. However, continuous innovation through new cars and investments would have increased the company's value, leading to better long-term results. While analyzing the SWOT (Figure 4), some weaknesses, like reducing PU

emissions, were addressed through innovation. However, some strengths, like having a diverse fleet, were diminished, leaving the fleet only slightly above the market average.

In conclusion, GAMA's innovation efforts had several shortcomings in both implementation and planning, failing to capitalize on opportunities and deviating from the initial strategy, especially when compared to its model company, BMW. Despite performing well in its market and owning the top six selling cars by revenue, GAMA's competitors faced numerous problems, reducing their potential and highlighting opportunities for GAMA to innovate and grow further. The role of innovation should have been more prominent during these six years due to GAMA's objectives. This lesser focus on innovation in the latter half led to a change in the essence of GAMA, potentially resulting in a loss in the overall value of the company.

1.4. Operations: The Foundation of GAMA

1.4.1. The Production of GAMA:

“A company can seize extra-ordinary opportunities only if it is very good at the ordinary operations.” - Marcel Telles (n.d.)

As Brazilian billionaire Marcel Telles notes, for a company to innovate and excel, it must have its basic operations well-managed and generate results. According to the Corporate Finance Institute (2023), this is precisely the role of operations: managing regular business practices to increase the company's efficiency. As a car manufacturer, GAMA's operational responsibilities involve managing the production process, deciding on production locations and quantities, and accounting for tariffs. This also includes determining the company's factory needs, understanding worker satisfaction, motivation, qualifications, and workload, and identifying potential investments to enhance sustainability, reduce costs, and increase demand.

According to Landau (2023), understanding production capacity and managing costs is crucial for achieving results. GAMA applied this principle to determine the number of factories needed, concluding

that current capabilities were sufficient for the short term. The strategy aimed to keep production low and prices high, aligning with the brand image, and maintain inventories at 50-70 days to avoid overstocking while ensuring full factory utilization. Efficient management of production and maintaining a sufficient car fleet for the factories was key to this approach.

According to the Capgemini Research Institute (2022), the automotive industry is increasingly being pushed towards sustainability. However, integrating sustainability into regular activities remains a challenge, with few companies doing it effectively. GAMA aimed to address this by incorporating more sustainability into its production processes, transitioning to a fully electric fleet, and investing in initiatives to reduce consumption and pollution, such as reducing water usage and increasing energy efficiency.

The main frameworks influencing GAMA's operations strategy that are going to be used to analyse GAMA performance are present in Table 1. To measure the success of the operations role, the KPIs that will be used to analyse include factory utilization (initially aiming for 100%), days in inventory, production costs per car, sustainability rating, and CO2 emissions in production, energy, and the supply chain.

1.4.2. Analysis:

1.4.2.1. Initial Plan:

According to Landau (2023), an operational plan must meet specific standards, and GAMA adhered to a similar process as the one referred by him for its plan. To start the company defined activities for the operations role, such as overseeing production, determining production quantities and schedules, estimating necessary investments, and identifying the required number of factories to fulfill the company's needs based on its strategy.

The operations role had clear key performance indicators (KPIs), and timelines, with designated periods for analysis and decision-making before consulting with team members for implementation when it comes to bigger decisions. As depicted in the 4Vs framework (Figure

14), GAMA had a clear vision of its operational objectives, modeled after BMW. In the beginning, the operations team was equipped with the necessary personnel and resources, and communicated with finance and HR only for changes or unusual investments, or information. The company also estimated the budget required for these unusual short-term investments and subsequently made other additional investments that the company deemed necessary for its objectives, resulting in the investment map (Figure 15).

The core issue was the miscalculation of expected operational costs. GAMA failed to accurately predict changes in operational costs with the inventories and factory moving costs, leading to an unexpected increase in costs that impacted the financial phase. Additionally, although GAMA aimed to emulate BMW, it lacked the necessary number of cars to achieve this goal while also pursuing a rapid transition to sustainability, resulting in implementation conflicts.

1.4.2.2. Implementation and results of the strategy:

Effective implementation involves monitoring, evaluating, and adjusting. This approach is confirmed by the PDCA (Plan, Do, Check, Act) cycle (Lean Enterprise Institute, 2022), commonly used to enhance operations. This cycle involves constant analysis to achieve objectives, making it crucial for GAMA to improve and resolve problems. Initially, GAMA focused on increasing inventory for cars with the highest margins and lowest pollution to reduce environmental impact and boost profits. However, a rapid shift to electric cars and the discontinuation of hybrid and gasoline models led to high inventory levels, peaking at 129 days in quarter 17 (Graph 7). This situation increases costs and loses potential revenue (Graph 8).

The Theory of Constraints framework is a 5-step plan that was indirectly used to identify and address the bottleneck (Lean Production n.d.). To tackle this inventory issue, GAMA invested in demand-increasing areas and reduced prices to clear excess inventory. This adjustment,

although seemingly contrary to the initial strategy, proved successful, allowing the company to return to its original strategy in a more structured manner. Another key issue was the constant relocation of factories, creating production imbalances and contributing to inventory problems. GAMA minimized factory relocations and reduced inventory, yielding positive results.

Regarding investments, the company followed its initial strategy of not building new factories to maintain its premium brand image and instead invested in production and energy improvements to meet consumer needs. Unfortunately, the company made a significant mistake in its analysis. It failed to notice the importance of supply chain investments and how they could help the company. GAMA assumed that a fully electric fleet did not need further CO2 offsets in the supply chain area, leading to a substantial mistake in the operations role to meet goals.

Overall, GAMA demonstrated strong implementation capabilities, achieving most objectives. Key metrics included an average factory utilization of 100% (Graph 9), 59 days of inventory (Graph 7), stable production costs per unit with occasional peaks (Graph 10), a high sustainability rating of 77.2%, and positive results in CO2 emissions for production and energy (Graph 11 & Graph 12). However, supply chain emissions were negatively impacted due to the oversight (Graph 13) making GAMA lose an opportunity to further develop its sustainability.

The key mistakes identified were focusing on profit instead of inventory and the lack of investment in the supply chain. To resolve the first issue, the company could have produced more new models and diversified the fleet, aligning with its objectives and improving innovation. Another alternative would be the adoption of the subscription business model to reduce inventory. The second issue could have been resolved by investing in opportunities to improve the supply chain and aligning all the investments with the company's sustainability objectives. It would be important to define a timeline for these new investments.

1.5. Together For Success:

According to Nexford University (Rostron 2024), the success of an organization depends on its ability to facilitate communication and cooperation among different roles within the company, leveraging their interdependence to achieve success and follow the intended path. Car manufacturers such as Mercedes-Benz have their operations aligned, well-designed, and interconnected, determining what types of vehicles to produce, where to produce them, the path to innovation, and other related factors to achieve their successful position (Mercedes, N.D).

GAMA considered this factor essential for its success and began by identifying how each role influenced the others. The company defined a communication plan that allowed all roles to stay updated on each other's situations, enabling decisions based on broader data rather than role-specific information. Focusing on the three analyzed roles, there is a clear connection among them and how crucial their communication and cooperation are for the company's success.

Strategy was the pillar of every decision-making in the different roles, including operations and innovation, for the long term. The clear strategy influenced the type and extent of car innovation and guided operations on where to invest and what decisions to make regarding investments from various perspectives. Strategy goals were also constrained by the different areas since the goals needed to be achievable within the existing timeline. Innovation was influenced by operations, as operations helped identify when new cars needed to be developed and how much innovation should be invested to increase demand for new products. Lastly, operations needed to understand when a new car was being developed, when it would arrive, which market it was created for, and the future expectations for new cars. With this information, operations could design a better production line that would address future new entries and maximize utilization and sales. In conclusion, cooperation was crucial for the company's success and stability.

1.6. Learnings & Findings:

“If everyone is moving forward together, then success takes care of itself.” - Henry

Ford (n.d.)

As one of the famous founders of the car industry, Henry Ford, noted, if everyone in the process works together, it is easier to go further. This insight was the most significant lesson I learned during the BiP process. The crucial point for success was the interconnection between different roles and the understanding that sometimes compromises were necessary. An example of this was when operations initially focused heavily on producing the most profitable cars, basing its strategy more on finance and neglecting the major impact of inventory on the company structure. The lack of a broader perspective in operations led to problems that required compromising the company’s premium strategy and current marketing standpoint to resolve.

Another learning from this role analysis was the need and importance of more market research. Although the project was a simulation, quick research into the real-world car industry would have shown that, for GAMA to become the company it aspired to be, there was a strong need to invest in more new cars than the ones projected and the need to diversify into new business models, such as the subscription model, to increase competitiveness in this changing industry.

Additionally, there was a lack of commitment to the overall strategy at certain points, as observed from the analysis. Although the company achieved positive results, some investments and areas were not well-explored to achieve its strategic goals, such as supply chain investments. Furthermore, while GAMA reacted quickly to existing problems, it took time to be bold enough to make major changes, resulting in some losses and showing margin to improve its actions. This experience greatly enhanced my knowledge of the challenges companies face to achieve success and why some fail while others succeed, even at different levels.

2. Personal Reflection:

2.1. Introduction:

“There is no learning without some difficulty and fumbling. If you want to keep on learning, you must keep on risking failure all your life.” – Jhon W. Gardner (n.d.)

As the former Secretary of Health of the US affirmed learning arises from difficulties and challenges, which provide growth opportunities. The BiP program provided exactly this due to its intense nature, which gives students numerous intense experiences within a short period. These experiences fostered growth by presenting adversities that required prompt resolutions. Some challenges stemmed from unsuccessful decisions made, while others arose from interactions with directors who had divergent visions, goals, and work methodologies.

The following section will analyze two key incidents that, from a personal standpoint, were particularly challenging and offered me the chance to gain deeper self-awareness and develop strategies for addressing similar situations more effectively in the future.

The analysis of these critical incidents will include an initial description of the events, my reactions and responses, an evaluation of these responses, and the lessons learned. This reflection aims to identify areas for improvement based on the analysis.

2.2. Critical Incident 1:

2.2.1. Incident Description:

The first incident occurred during the preparation of the sales pitch. The primary objective of this meeting was to determine our strategy for securing the new client. To achieve this, we analyzed various points, including our brand presentation, the client's potential needs, and how our innovative car company could meet those needs. During the session, unlike my usual self, I was unable to participate in the discussion. The team's strong personalities made it difficult

for me to contribute and join the conversation, and when I finally had the opportunity to speak, my points had often already been addressed leaving me with no content to present when the opportunity arose. This inability to contribute created a sense of insecurity that culminated in a significant moment at the end of the meeting, where we needed to decide who would present.

The company was positioned as Portuguese, making it logical for a Portuguese team member to be the main speaker for the pitch. Two members fit this role: myself, the Operations Director, and the Innovation Director. The Innovation Director mentioned that he had an interview later that day, which would make it more challenging for him to prepare. Despite this, he was still willing to present. At the time, I had no such impediments, just my insecurity.

2.2.2. My Response:

Given these circumstances, the correct action would have been for me to volunteer as the main speaker, especially since I usually have no problems presenting and often volunteer to do so. However, in this situation, due to my lack of participation and built-up insecurity, I felt that I was not suitable for the role. Truthfully, I simply needed to practice the discussed topics and present showing that in fact, I had no good reason to not do so.

Facing this circumstance, instead of what was supposed, I spoke to the team and expressed my feelings of inadequacy, explaining that I believed the other candidate would be more suitable, despite his own difficulties. Consequently, he was left to present leaving him with more work.

2.2.3. Analyse of the Incident:

Workplace insecurity (Weber and Petriglieri 2018) is the worry that we are not smart, informed, or competent enough for the job or situation we are in. These feelings are completely relatable to the ones I experienced, as described earlier. The authors refer that insecurity makes it difficult

to make ourselves heard, causes dissatisfaction, undermines team collaboration, and reduces overall efficiency. In this case, it led me to burden my team members.

This situation arose because the group was predominantly composed of people with "red" personalities, which corresponds to intense strong dominant personalities. Additionally, I realized that I had the least work experience among the team members, which likely contributed to my discomfort in going to do the presentation under all those circumstances.

During the leadership decision-making session in 2024, we were tasked with defining ourselves at our best and worst. One characteristic I highlighted was good communication. This incident showed me that, although I might generally be good at communication, it strongly depends on the environment. According to Lomit Patel (Patel 2023), communication is key to the success of a good leader, as exemplified by influential figures like Gandhi and Martin Luther King. Effective communication builds resilience increases success, and enhances talent retention in businesses, being therefore an important skill to have as a leader that I need to improve.

Furthermore, beyond communication, other interpersonal skills, such as leading, influencing others, and expressing my emotions, need improvement. Tracy Brower (2023) emphasizes the importance of interpersonal skills in the job market, highlighting them as a differentiating factor that companies seek. This incident highlighted my need to practice these skills further.

Although I was able to adapt in subsequent meetings, this incident demonstrated a significant need for improvement in managing insecurity and communication. According to Patel (Patel 2016), uncomfortable feelings can be key to future growth if we face and leverage them correctly. With this in mind, despite my initial feelings of insecurity, I should have gone through with the presentation, helping both my partner and myself develop skills through this

discomfort. Although I apologized to him at the time, he still had to present, which can create a bad work environment and foster distrust, even if he understood the situation.

2.2.4. Reflections & Learnings:

This incident taught me several valuable lessons. Firstly, it helped me discover a different side of myself. As a student soon entering the job market, I learned how to prepare for scenarios where people have intense personalities and are highly motivated to participate. It revealed areas I thought I was strong in but still need improvement, such as anxiety management, communication and interpersonal relationships, and the courage to face challenging situations crucial for personal development. The disappointment of letting down a team member underscored the consequences of not improving these skills. To improve them some tactics are:

To manage anxiety, The Times of India (2023) suggests various methods such as self-reflection, positive self-talk, stress reduction techniques, gratitude, and effective communication. I have incorporated some of these strategies into my daily life to aid my personal development.

To improve verbal communication, Christiana Jolaoso (Jolaoso 2024) recommends being clear in communication, actively listening, adapting speech, and remaining courteous and open-minded. These practices are beneficial for both daily life and future work situations.

Tracy Brower (2023) highlights that enhancing other interpersonal skills requires self-awareness and learning from mistakes. This experience showed me the need for self-reflection to adjust my behavior in various situations. The Skills Builder framework (Skills Builder 2024) will further help me enhance necessary interpersonal skills, particularly communication.

Lastly, Developing courage involves stepping outside my comfort zone despite being uneasy. While this is a simple concept, it is challenging to implement, but if done well, it can positively impact both personal and professional life.

Overall, this incident was crucial for my personal development. With this analysis, reflection and methods of improving it became a significant learning experience that will help me grow. Implementing these strategies effectively is essential for improvement and represents critical insights gained from the incident analysis, aimed at achieving better outcomes in the future.

2.3. Critical Incident 2:

2.3.1. Incident Description:

During the decision-making process in the third year, on June 21, I noticed that our inventories were increasing and, if this trend continued, it could be detrimental to the company. Based on this observation, I suggested shifting our focus from margins and finance to operations. I proposed using cars with lower margins but low inventory levels, more specifically one hybrid and one combustion car, as they would sell despite the lower margin helping to balance our inventories and maximize both profits and factory utilization. From my perspective, it was preferable to sell cars with lower margins rather than stockpiling those with high margins.

However, my operations partner had a different perspective. She believed, and was later supported by other team members, that we should eliminate these low-margin cars because they were not only less profitable but also more polluting. Given our goal to be environmentally friendly, she argued for going fully electric, even considering the inventory situation. I pointed out that eliminating these cars would be detrimental to our operations and could significantly increase costs. Additionally, based on the revenue generated by these cars, I believed that the savings from not paying CO2 fines would not compensate for the potential losses.

2.3.2. My Response:

Presented with this situation, I tried to explain my perspective while attempting to understand the team's viewpoint. I ended up understanding that the purpose of this change was more toward

sustainability than profit. However, I still did not see the benefit of accumulating a large stock of cars, even though they had high margins, as they were unlikely to sell. However, the majority of the team agreed with this approach since it was the most sustainable option. After some discussion, I conceded, even though I did not agree with this strategy.

My reaction to this situation was not ideal. Following the discussion, operations decisions needed to be made based on this strategy, which meant using only the existing fleet of cars which already had a lot of inventory and, given our thought financial constraints, the company was unwilling to invest in new cars which might help in this problem. When my partner asked how I would select the factories, I replied that I honestly did not know how to manage operations with this strategy and that, even though I would try to help, I did not see a suitable path forward. This was a poor reaction on my part. Despite my disagreement and uncertainty, I should have tried to adapt and find a way to address the team's decision independently of what I believed and if I could not see a sustainable operations path from an inventory standpoint.

2.3.3. Analyse of the Incident:

As referenced in the previous incident, communication in leadership is critical for creating success and achieving positive outcomes (Patel 2023). This particular event underscored some of my challenges in effectively communicating within such an environment. I struggled to articulate my ideas clearly and persuasively, which could have prevented some of the operational issues that arose later, as seen in the operations analysis.

The Communication Strategy Framework (Mind Tools 2024) provides a structured approach for delivering information persuasively. The framework suggests first identifying the type of message to be delivered, clarifying the goal of the communication, and understanding the audience's perspective. Next, it emphasizes the importance of knowing the characteristics of

the audience. Based on this understanding, the framework advises selecting an appropriate method to convey the message and determining the best communication channel. This structured approach was not applied in my case. At the time, I was focused solely on conveying my message without considering the core message I wanted to express, how to deliver it, or who my audience was. I overlooked the fact that I was unfamiliar with the audience, which made it more difficult to communicate effectively and gain their trust in such a situation.

This incident also revealed issues with my reactions to the divergency. As Steve Robbins (2004) points out, it is difficult to follow a path we don't fully believe in, but success can still be achieved if we manage ourselves to navigate that path. When the team largely accepts a particular direction, creating obstacles only hampers progress and leads to poorer outcomes.

The Thomas-Kilmann framework (Gurus 2023), which examines the relationship between assertiveness and empathy to determine conflict outcomes, identifies five potential resolutions. In this context, the ideal outcome would have been "collaboration," where both parties agree on a course of action and work together to achieve it. However, in this situation, both sides attempted to make their positions understood, but the conflict resolution ended in one of the least favorable outcomes: avoidance where one part just withdrawn. With the majority of the team favoring the opposing viewpoint, the result, from my perspective, was a lose-lose scenario, according to the framework. If my communication skills had been stronger, I might have been able to articulate my perspective more effectively, leading to a compromise that could have mitigated many of the issues while maintaining a sustainable path forward.

Overall, this incident highlighted shortcomings in my ability to work within a team. It resulted in a clear divide between myself and the rest of the group, which led to trust issues emerging due to the differing visions for both future decisions and daily interactions.

2.3.4. Reflections & Learnings:

The analysis of this incident reveals both weaknesses and opportunities for growth. According to the Thomas-Kilmann framework (Figure 16), avoidance was not an effective solution. Upon reflection, while compromise seemed difficult due to the team's differing perspective, collaboration would have been the better approach which would led to better results if I had made the correct efforts. Despite my disagreement, if I had invested more effort into the chosen strategy, I might have contributed to a more successful outcome and mitigated some of the predicted consequences. Instead, I minimally engaged for a period, which likely had a negative impact on the team. From a communication standpoint, there is a clear need for improvement. Techniques from the first incident are useful, but I also need to focus on other forms of communication, such as written, non-verbal, and visual, while enhancing my persuasive abilities (Coursera 2024). Indeed (Indeed Editorial Team.2023) identifies many barriers to working with others with success like goal confusion, communication gaps, lack of trust, team size, and poor conflict resolution, many of which have been created after the incident. I believe the short time frame and conflicting personalities were key factors in this incident.

During the "Leading Yourself" session (Fernandes 2024), the professor emphasized the impact of different personalities. Our team had many dominant personalities, which likely fueled the conflict when there were disagreements. I should have leveraged this understanding to improve my communication and express my concerns more clearly, potentially reducing conflict intensity and fostering a better team environment.

This experience provided insight into my personality traits, emotional responses, and areas for self-management improvement. The key takeaway is that I should always give my best, regardless of disagreement. While the group had differing views, I should have supported them

rather than merely complying. Although things improved in later sessions, this lesson is crucial for handling similar situations in the workplace that might arise.

2.4. Formative Peer Feedback:

A survey was conducted in the final week to evaluate each team member's performance across various areas from the perspective of their peers (Figure 17). Additionally, after the simulation, the group held a feedback form to provide more explicit, individualized feedback to help members understand their flaws from others perspectives. The analysis of this data aligns with the conclusions drawn from the incidents analysis, highlighting areas for improvement.

According to the feedback, my peers acknowledged that I participated, prepared for meetings, and made an effort to understand their perspectives (Questionnaire 1). However, they also noted that in the second half of the simulation, my motivation seemed to decline, and some of my contributions were perceived as confusing and misplaced in the referred contexts. This feedback reinforces the communication issues identified earlier and underscores the need for me to focus on improving my clarity and effectiveness in interactions.

Regarding keeping the team on track and maintaining quality, the feedback suggested that due to differing ideas, I did not contribute as effectively in helping the team stay on course or achieve its objectives. This further confirms that my reduced effort after Incident 2 was a significant issue, as it is critical for every team member to consistently give their best once decisions are made, regardless of personal disagreements.

Lastly, in terms of skills, the team observed that the role we played, both me and my partner in operations, was notably different from our typical student experiences. Furthermore, the variety of opinions made it difficult to foresee how my contributions might have evolved had I maintained full engagement in the later stages or the path was different.

2.5. My Journey Learnings:

The BiP project is an unconventional type of thesis that emphasizes practice over theory, fostering a variety of learning opportunities. This project was an intense journey, requiring numerous decisions and collaboration in a short period of time, which heightened the potential for conflict and valuable learning experiences. These are evident in the incidents discussed in this section, where I observed and analyzed behaviors in myself that differed from my usual tendencies, revealing a side of me I hadn't previously recognized. I realized that my ability to handle interpersonal situations was not as strong as I had thought, particularly in terms of communication, where I struggled to be persuasive and clear.

Moreover, these incidents highlighted the need to improve how I handle disagreement and manage my emotions. As noted, I let my colleagues down multiple times, with my reactions to these accidents which if managed in a different way could maybe even improve our performance. This approach is problematic, as in the job market, we often need to follow strategies and norms we may not fully agree with. Nevertheless, it is our duty to, strive for the best outcome despite personal reservations which I did not do in these situations. Developing greater emotional control will be critical, as challenges will undoubtedly arise in the workplace.

These are just a few of the major lessons the BiP project has taught me, which helped me to understand where I need to improve and how to go about it, in the near future. The sessions and research for this project have equipped me with tools to address these shortcomings, underscoring the significance of BiP for my future growth.

In conclusion, BiP has shown me that, after reflection and analysis, there is substantial room for improvement. As I transition from my master's program to the job market, I recognize that this is just the beginning of a new journey where I will continue to learn and develop into a better colleague and, potentially, a leader.

3. References:

- Andersen, Erika. 2023. "Change Is Hard. Here's How to Make It Less Painful." Harvard Business Review. Accessed July 8, 2024. <https://hbr.org/2022/04/change-is-hard-heres-how-to-make-it-less-painful?registration=success>.
- Basra, Hassan Sherez. 2024. "The '4Vs' - the 4 Dimensions of Operations - Rowtons Training." *Rowtons Training*, Accessed July 16, 2024. <https://rowtonstraining.com/the-4vs-the-4-dimensions-of-operations/>.
- BMW. n.d. "The Future is Electric". BMW. Accessed July 1, 2024. <https://www.bmwgroup.com/en/report/2021/bmw-group-report/the-future-is-electric/index.html>.
- Brower, Tracy, PhD. 2023. "Interpersonal Skills: What They Are and Why They're Important to Getting Hired." *Forbes*. Accessed July 28, 2024. <https://www.forbes.com/sites/tracybrower/2023/08/22/interpersonal-skills-what-they-are-and-why-theyre-important-to-getting-hired/>.
- Cap. Companies Market. 2024. "Largest Automakers by Market Capitalization" Companies Market Cap. Accessed July 8, 2024 <https://companiesmarketcap.com/automakers/largest-automakers-by-market-cap/>.
- Cap. Companies Market. 2024. "Largest Automakers by Market Revenue." Companies Market Cap. Accessed July 11, 2024. <https://companiesmarketcap.com/automakers/largest-automakers-by-revenue/>
- Capgemini. 2022. "Sustainability in Automotive: From Ambition to Action - Capgemini,". Accessed July 11, 2024. <https://www.capgemini.com/insights/research-library/sustainability-in-automotive/>.

- Danao, Monique. 2024. “Porter’s Five Forces: Definition & How to Use the Model.” Forbes Advisor. Accessed July 4, 2024. <https://www.forbes.com/advisor/business/porters-five-forces/>.
- Editorial Team, Indeed. 2023. “11 Common Barriers to Teamwork and How You Can Overcome Them.” Indeed Career Guide. Accessed August 10, 2024. <https://www.indeed.com/career-advice/career-development/barriers-to-teamwork>.
- Emerson, Mary. 2024. “8 Ways You Can Improve Your Communication Skills”. Professional & Executive Development | Harvard DCE. Accessed July 22, 2024. <https://professional.dce.harvard.edu/blog/8-ways-you-can-improve-your-communication-skills/>.
- Gallo, Amy. 2017. “How to Control Your Emotions during a Difficult Conversation.” Harvard Business Review. Accessed July 23, 2024. <https://hbr.org/2017/12/how-to-control-your-emotions-during-a-difficult-conversation>.
- Gardner, Jhon W. n.d. “A Quote by John W. Gardner.” Goodreads. Accessed July 22, 2024. <https://www.goodreads.com/quotes/7550287-we-pay-a-heavy-price-for-our-fear-of-failure>.
- Gibson, Kate. 2024. Accessed July 2, 2024. “A Manager’s Guide to Successful Strategy Implementation.” Business Insights Blog. <https://online.hbs.edu/blog/post/strategy-implementation>.
- Gurus, Quality. 2023. “Conflict Resolution (Thomas-Kilmann Model).” *Quality Gurus* (blog). Accessed August 10, 2024. <https://www.qualitygurus.com/conflict-resolution-thomas-kilmann-model/>.
- Jolaoso, Christiana. 2024. “10 Tips for Effective Communication in the Workplace.” Forbes. Accessed August 5, 2024. <https://www.forbes.com/advisor/business/effective-communication-workplace/>.

- Joseph, Chris. 2018. “How to Get over Feeling Insecure at Work,”. Work - Chron. Accessed July 23, 2024. <https://work.chron.com/effects-work-life-imbalance-5967.html>.
- Landau, Peter. 2023. “How to Calculate Production Capacity: Formula & Examples.” ProjectManager, Accessed July 15, 2024. <https://www.projectmanager.com/blog/production-capacity>.
- Landau, Peter. 2023. “Operational Planning: How to Make an Operations Plan.” ProjectManager. Accessed July 16, 2024. <https://www.projectmanager.com/blog/operational-planning-make-operation-plan>.
- Lean Enterprise Institute.2022. “Plan, Do, Check, Act (PDCA) — a Resource Guide.” Lean Enterprise Institute. Accessed July 15, 2024. <https://www.lean.org/lexicon-terms/pdca/>.
- McKinsey & Company. 2016. “Automotive Revolution – Perspective towards 2030,” J. McKinsey & Company. Accessed July 2, 2024. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/disruptive-trends-that-will-transform-the-auto-industry/de-DE>
- McKinsey & Company. 2020. “McKinsey Electric Vehicle Index: Europe Cushions a Global Plunge in EV Sales,” McKinsey & Company. Accessed July 2, 2024. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/mckinsey-electric-vehicle-index-europe-cushions-a-global-plunge-in-ev-sales>.
- McKinsey & Company. 2022. “ICE Businesses: Navigating the Energy-Transition Trend within Mobility,” McKinsey & Company. Accessed July 1, 2024. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/ice-businesses-navigating-the-energy-transition-trend-within-mobility>.

- Miller, Kelsey. 2020. “The Triple Bottom Line: What It Is & Why It’s Important.” Business Insights Blog. Accessed July 1, 2024. <https://online.hbs.edu/blog/post/what-is-the-triple-bottom-line>.
- Miller, Robert S. 2024. “Stellantis and Its Dealers Forced to Cope with Excess Inventory.” MoparInsiders. Accessed July 16, 2024. <https://moparinsiders.com/stellantis-and-its-dealers-forced-to-cope-with-excess-inventory/>.
- Molloy, Janice. 2019. “Five Steps to Implementing Innovation.” Harvard Business Publishing. Accessed July 10, 2024. <https://www.harvardbusiness.org/five-steps-to-implementing-innovation/>.
- Patel, Lomit. 2024. “The Power of Effective Communication in Leadership.” *Forbes*. Accessed August 7, 2024. <https://www.forbes.com/councils/forbesbusinessdevelopmentcouncil/2023/09/05/the-power-of-effective-communication-in-leadership/>.
- Patel, Sujan. 2022. “Why Feeling Uncomfortable Is the Key to Success.” *Forbes*. Accessed July 23, 2024. <https://www.forbes.com/sites/sujanpatel/2016/03/09/why-feeling-uncomfortable-is-the-key-to-success/>.
- Porter, Michael E. 2023. “What Is Strategy?” Harvard Business Review. Accessed July 1, 2024. <https://hbr.org/1996/11/what-is-strategy>.
- Pogue, Steve. 2021. “46 Project Planning Quotes to Help You Reach Your Goals.” Workzone. Accessed July 1, 2024. <https://www.workzone.com/blog/project-planning-quotes/#:~:text=%E2%80%9CA%20goal%20without%20a%20plan%20is%20just%20a,%E2%80%95%20Yogi%20Berra%2C%20former%20New%20York%20Yankees%20catcher>.

- Production, Lean. n.d. “Theory of Constraints (TOC) | Lean Production,” Lean Production. Accessed July 14, 2024. <https://www.leanproduction.com/theory-of-constraints/>.
- Robins, Stever. 2004. “Is Belief Crucial to Success?,” HBS Working Knowledge. Accessed August 1, 2024. <https://hbswk.hbs.edu/archive/is-belief-crucial-to-success>.
- Rowling, Megan. 2020 . “What Are the SDGs, and Why Do We Need Them?,” The World Economic Forum. Accessed July 8, 2024. <https://www.weforum.org/agenda/2015/09/what-are-the-sdgs-and-why-do-we-need-them/>.
- Satell, Greg. 2015. “Why Communication Is Today’s Most Important Skill.” *Forbes*. Accessed July 22, 2024. <https://www.forbes.com/sites/gregsatell/2015/02/06/why-communication-is-todays-most-important-skill/>.
- Shanker, Naresh. 2021. “Impactful Innovation Needs to Focus on the Why, Not the How.” Accessed July 8, 2024. *Forbes*, <https://www.forbes.com/sites/forbestechcouncil/2021/08/17/impactful-innovation-needs-to-focus-on-the-why-not-the-how/>.
- Silberg, Gary. 2023. *The Future of Automotive*. KPMG. Accessed July 1, 2023.
- Skill Builder. n.d. “Staying Positive Skills | Universal Framework,” Skill Builder. Accessed August 1, 2024. <https://www.skillsbuilder.org/universal-framework/staying-positive>.
- Staff, Coursera. 2024. “22 Ways to Improve Your Communication Skills in the Workplace.” Coursera. Accessed August 1, 2024. <https://www.coursera.org/in/articles/communication-skills?msocid=0d4f7731b8fa67fd2c1d63b9b94e6622>.

- Staff, Coursera. 2024. “Important Communication Skills and How to Improve Them.” Coursera. Accessed August 1, 2024. <https://www.coursera.org/articles/communication-skills?msocid=0d4f7731b8fa67fd2c1d63b9b94e6622>.
- Sutton, Mike. 2022 “2023 BMW Lineup Overview: New 7-Series, XM, and More.” *Car And Driver*. Accessed July 10, 2024. <https://www.caranddriver.com/news/a41299511/2023-bmw-new-cars/>.
- Team, Cfi. 2023 “Operations Management.” Corporate Finance Institute. <https://corporatefinanceinstitute.com/resources/management/operations-management/>.
- Telles, Marcel. n.d. “Operational Excellence and Leadership Quotes | Operational Excellence Consulting LLC.” Operational Excellence Consulting. Accessed July 15, 2024. <https://www.operational-excellence-consulting.com/operational-excellence-quotes>.
- TIMESOFINDIA. 2023. “How to Deal with Insecurity and Jealousy at the Workplace.” *The Times of India*. Accessed August 1, 2024. <https://timesofindia.indiatimes.com/life-style/relationships/work/how-to-deal-with-insecurity-and-jealousy-at-the-workplace/articleshow/106312401.cms>.
- Tools, Mind. 2024. “The Communication Strategy Framework.” Mind Tools. Accessed August 8, 2024. <https://www.mindtools.com/aoahct/the-communication-strategy-framework>.
- University of Cambridge. “Porter’s Generic Competitive Strategies (Ways of Competing),” Management Technology Policy. Accessed July 1, 2024. <https://www.ifm.eng.cam.ac.uk/research/dstools/porters-generic-competitive-strategies/>
- Wachter, Chad. 2023. “The Importance of Embracing Change in Business.” *Forbes*. Accessed July 10, 2024.

<https://www.forbes.com/sites/forbesbusinesscouncil/2023/04/13/the-importance-of-embracing-change-in-business/>.

- Walker, Helen. 2022. "Driving Brand Loyalty: How the Automotive Industry Can Retain Customers." Converge. Accessed July 1, 2024. <https://converge.today/article/driving-brand-loyalty-how-the-automotive-industry-can-retain-customers>.
- Weber, Svenja. 2018. "To Overcome Your Insecurity, Recognize Where It Really Comes From." Harvard Business Review. Accessed July 23, 2024. <https://hbr.org/2018/06/to-overcome-your-insecurity-recognize-where-it-really-comes-from>.
- World Economic Forum. 2023. "The Automobile Industry Can Lead the Clean Mobility Movement. This Is How,". World Economic Forum. Accessed July 1, 2024. <https://www.weforum.org/agenda/2021/05/the-future-of-automobiles-clean-energy-decarbonization/>.

4. Appendix

4.1. Contents Others

Table 1: Frameworks Utilized for the Analysis of Each Role (António Bispo, 2024)..... 35

Table 2: List of abbreviations across the document (António Bispo, 2024) 35

Questionnaire 1: Feedback Questionnaire after Simulation 51

4.2. Contents of Figures

Figure 1: GAMA Innovation Investement Roadmap (Gabriel Paula, 2024)..... 37

Figure 2: Porter’s Generic Strategies of GAMA (António Bispo, 2024)..... 388

Figure 3: Porter's Five Forces GAMA (António Bispo, 2024) 39

Figure 4: SWOT Analysis (António Bispo, 2024) 399

Figure 5: PESTEL Analysis of GAMA (António Bispo, 2024)..... 400

Figure 6: VARS Framework (António Bispo, 2024)..... 400

Figure 7: Business Model Canvas of GAMA (António Bispo, 2024) 41

Figure 8: Tripple Bottom Line(GAMA Industry Masters Simulation, 2024) 42f

Figure 9: GAMA efforts for the SDGs (António Bispo, 2024)..... 43

Figure 10: BCG Matrix (António Bispo, 2024) 44

Figure 11: Value Creation Funnel (António Bispo, 2024) 45

Figure 12: Balanced Scorecard of GAMA (António Bispo, 2024) 45

Figure 13: Car Market Comparison of GAMA (António Bispo, 2024)..... 46

Figure 14: The Four Vs Framework of GAMA (António Bispo, 2024) 46

Figure 15: GAMA Operations Investment Roadmap (António Bispo, 2024)..... 47

Figure 16: Thomas-Kilmann Model (Quality Gurus, 2023) 50

Figure 17: Business in Practice – Peer & Self Evaluation (GAMA Group, 2023) 50

4.3. Contents of Graphs.

Graph 1: Score (Value Added) (GAMA Industry Masters Simulation, 2024) 36

Graph 2: Sustainability Ratings (GAMA Industry Masters Simulation, 2024) 36

Graph 3: CO2 Fleet Emissions (GAMA Industry Masters Simulation, 2024)..... 36

Graph 4: Free Cash Flows (GAMA Industry Masters Simulation, 2024)..... 37

Graph 5: Net Operating Profit (GAMA Industry Masters Simulation, 2024)..... 38

Graph 6: Employee Satisfaction (GAMA Industry Masters Simulation, 2024) 38

Graph 7: GAMA’s Days of Inventory (GAMA Industry Masters Simulation, 2024) 47

Graph 8: GAMA’s Inventory Costs (GAMA Industry Masters Simulation, 2024)..... 47

Graph 9: Factory Utilization of GAMA (GAMA Industry Masters Simulation, 2024)..... 48

Graph 10: Production Cost/Unit (GAMA Industry Masters Simulation, 2024) 48

Graph 11: CO2 in Production (GAMA Industry Masters Simulation, 2024) 48

Graph 12: CO2 in Energy (GAMA Industry Masters Simulation, 2024) 49

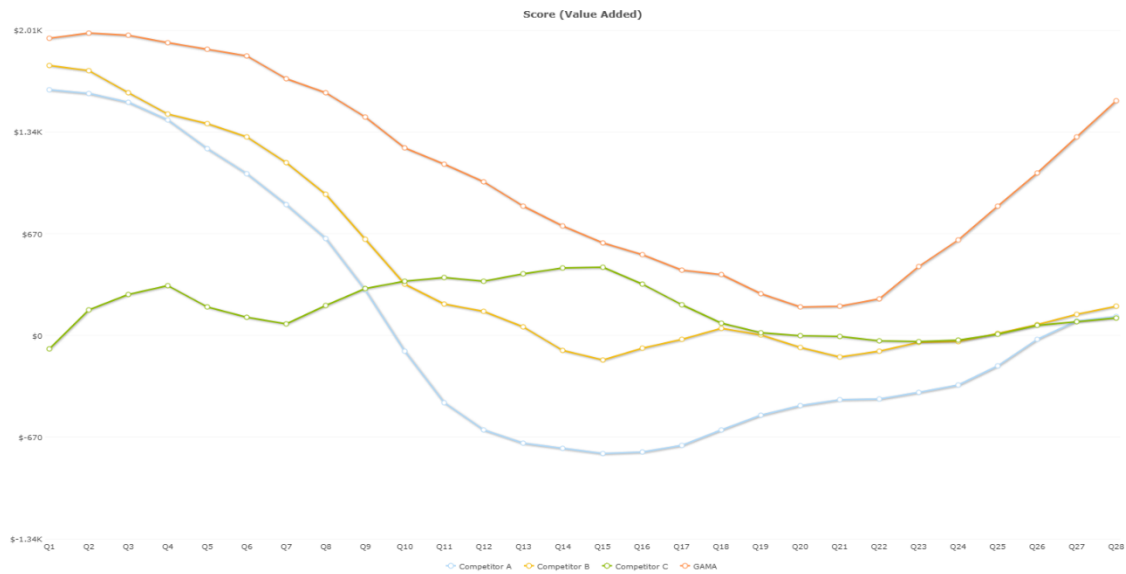
Graph 13: CO2 in Supply Chain (GAMA Industry Masters Simulation, 2024)..... 49

Role	Frameworks
Strategy	Porter’s Generic Competitive Strategies
	Porter’s Five Forces
	SWOT Analysis
	VARs Framework
	PESTEL Framework
	Business Model Canvas
Innovation	Innovation Investments Roadmap
	SWOT Analysis
	BCG Growth Matrix
	Blue Ocean Strategy
	Value Creation Wheel
Operations	Four Vs Framework
	Balanced Scorecard.
	PDCA Cycle
	Theory of Constraints

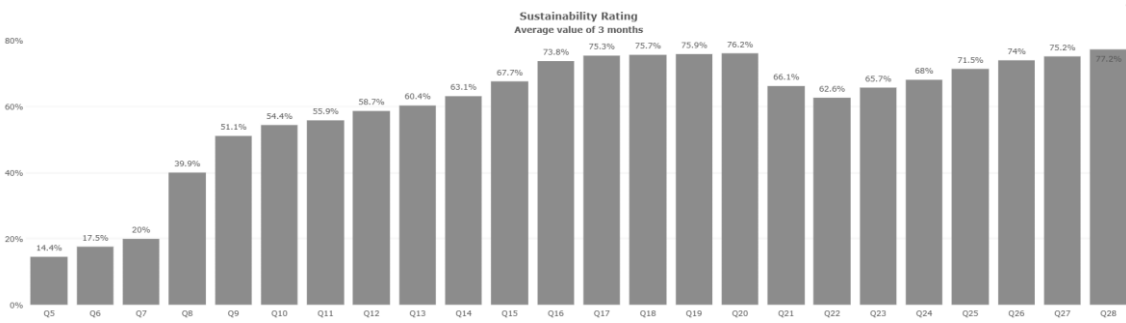
Table 1: Frameworks Utilized for the Analysis of Each Role (António Bispo, 2024)

Abbreviation	Extended Word
VCW	Value Creation Wheel
BiP	Business in Practice
KPIs	Key Performance Indicators
SDGs	Sustainable Development Goals
CO2	Carbon Dioxide
BMW	Bayerische Motoren Werke AG
EVs	Electric Vehicles
US	United States of America

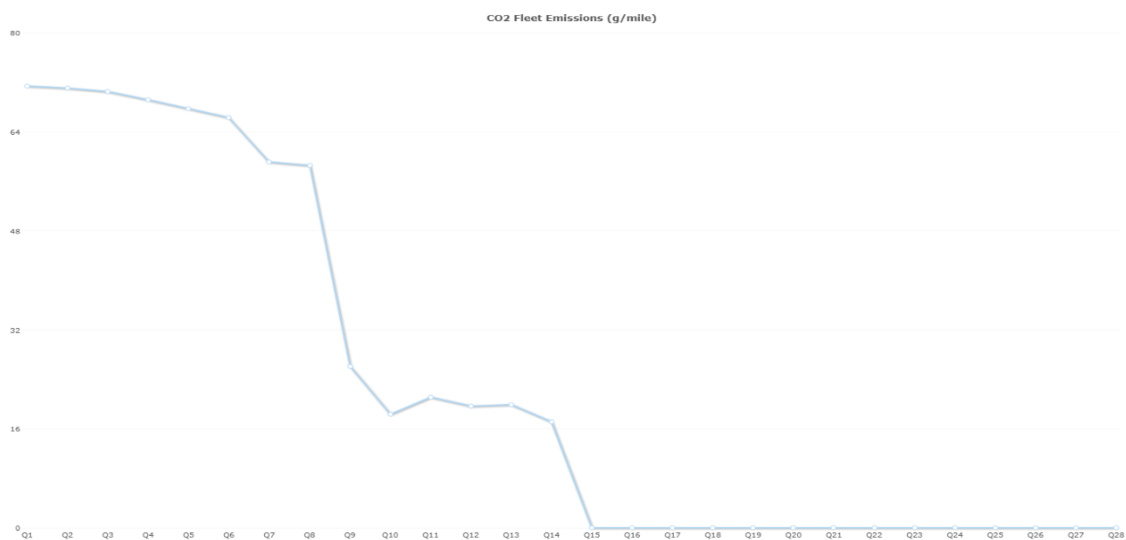
Table 2: List of abbreviations across the document (António Bispo, 2024)



Graph 1: Score (Value Added) (GAMA Industry Masters Simulation, 2024)



Graph 2: Sustainability Ratings (GAMA Industry Masters Simulation, 2024)



Graph 3: CO2 Fleet Emissions (GAMA Industry Masters Simulation, 2024)

Gama Innovation Investment Roadmap

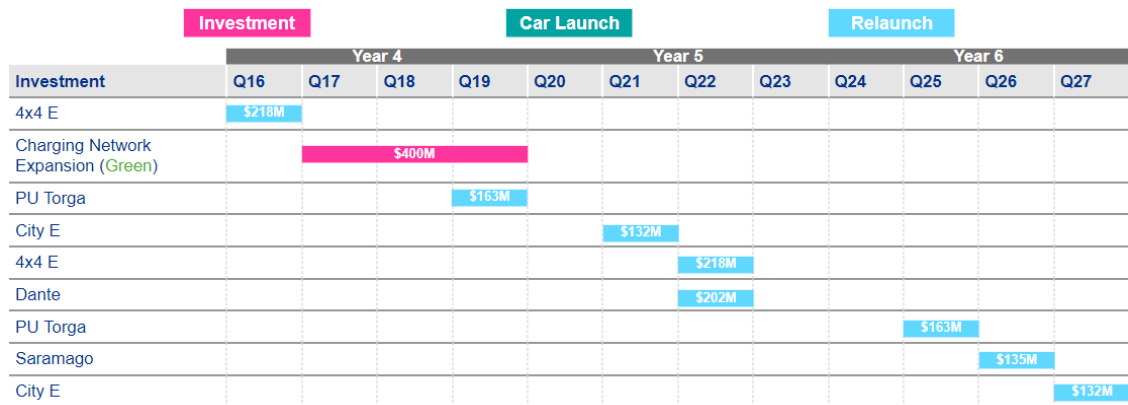
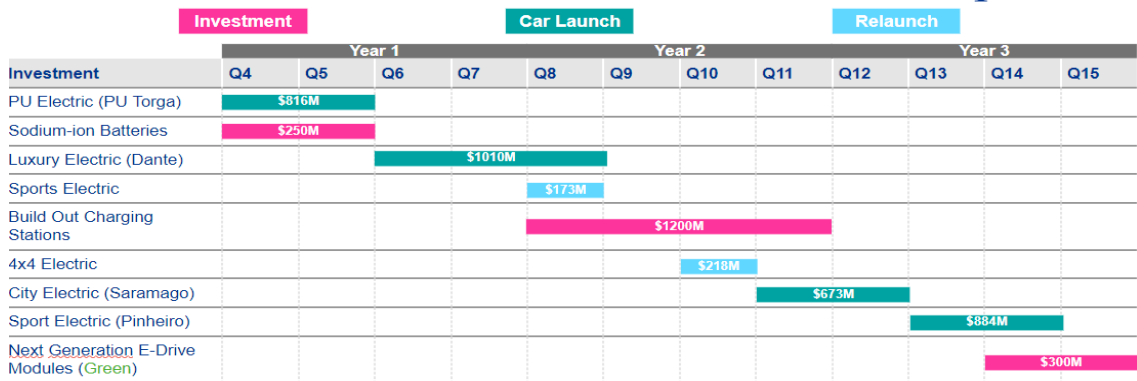
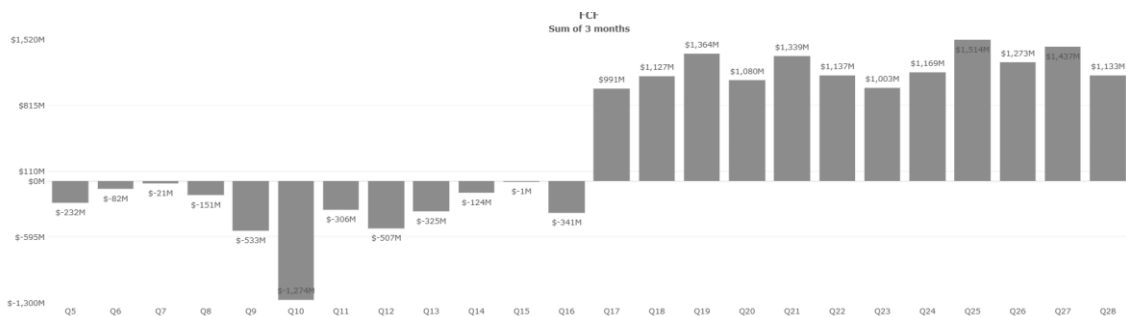


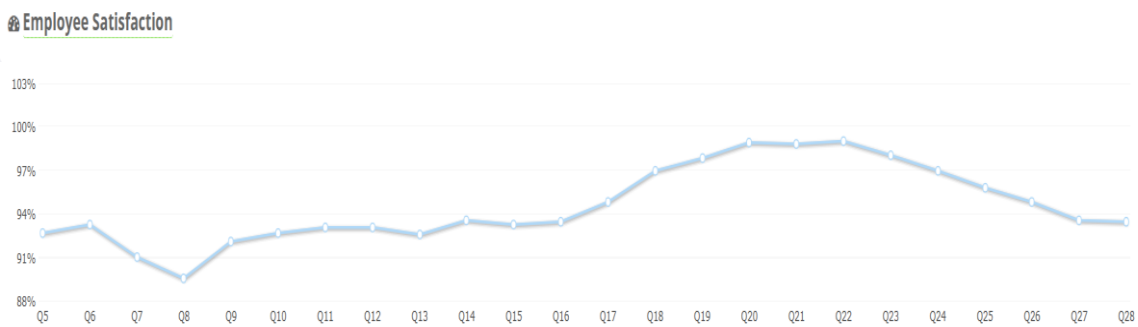
Figure 1: GAMA Innovation Investment Roadmap (Gabriel Paula, 2024)



Graph 4: Free Cash Flows (GAMA Industry Masters Simulation, 2024)



Graph 5: Net Operating Profit (GAMA Industry Masters Simulation, 2024)



Graph 6: Employee Satisfaction (GAMA Industry Masters Simulation, 2024)

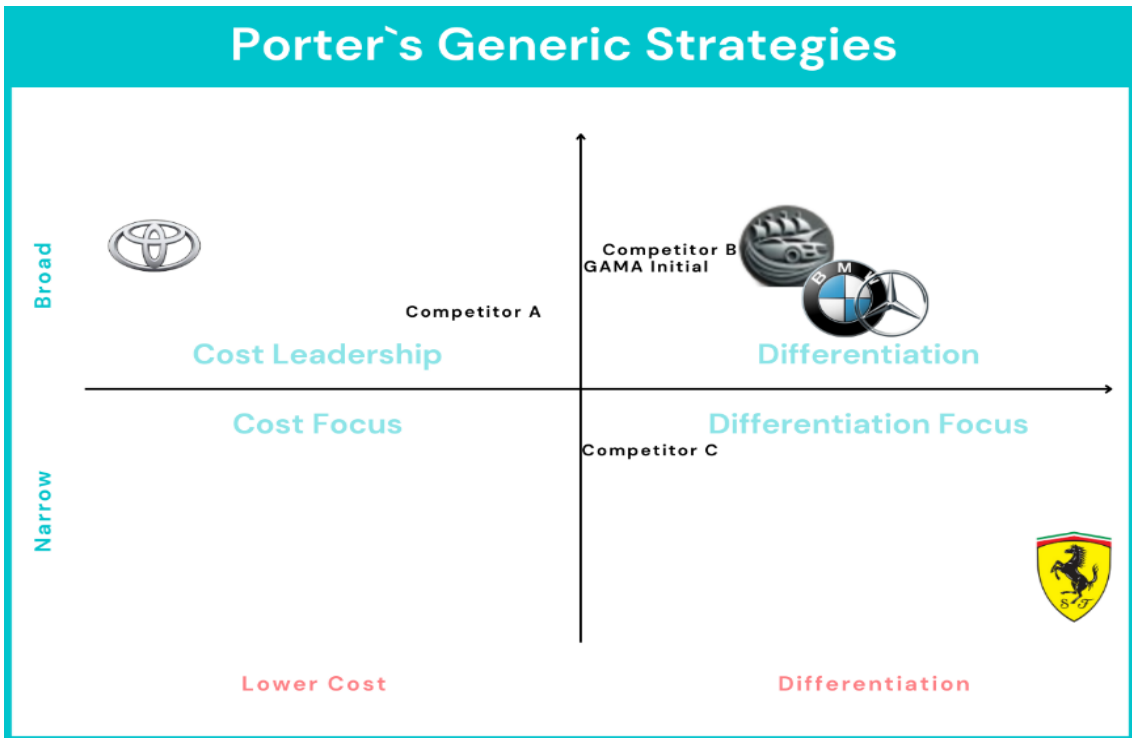


Figure 2: Porter's Generic Strategies of GAMA (António Bispo, 2024)

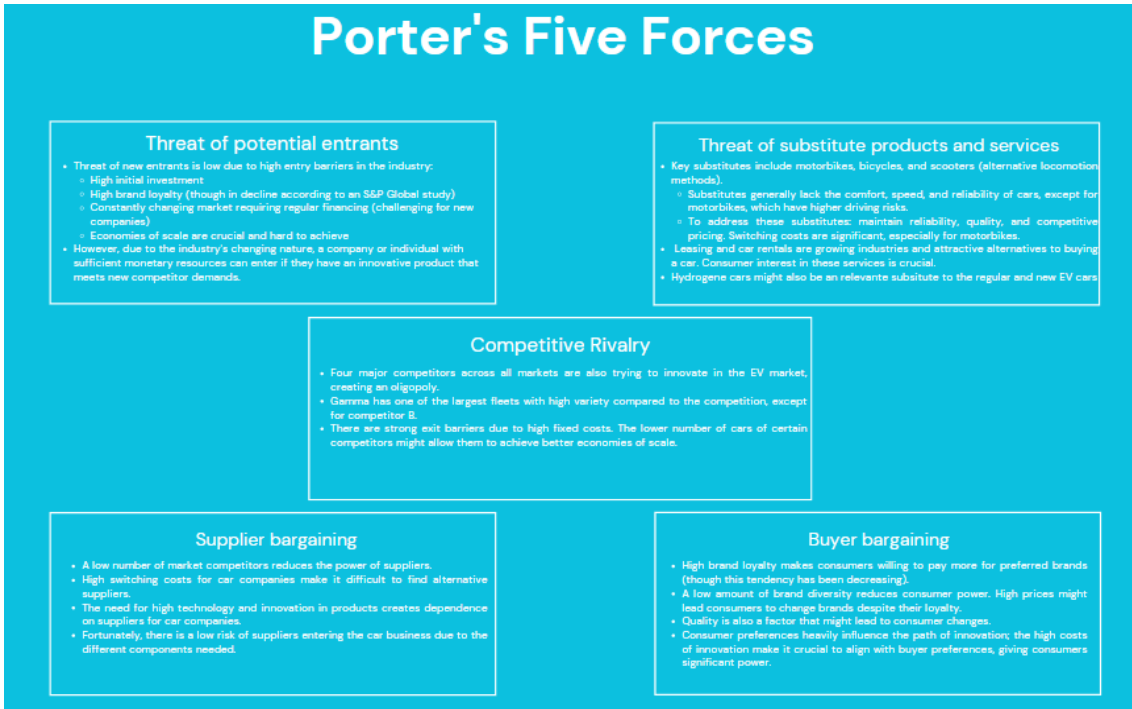


Figure 3: Porter's Five Forces GAMA (António Bispo, 2024)

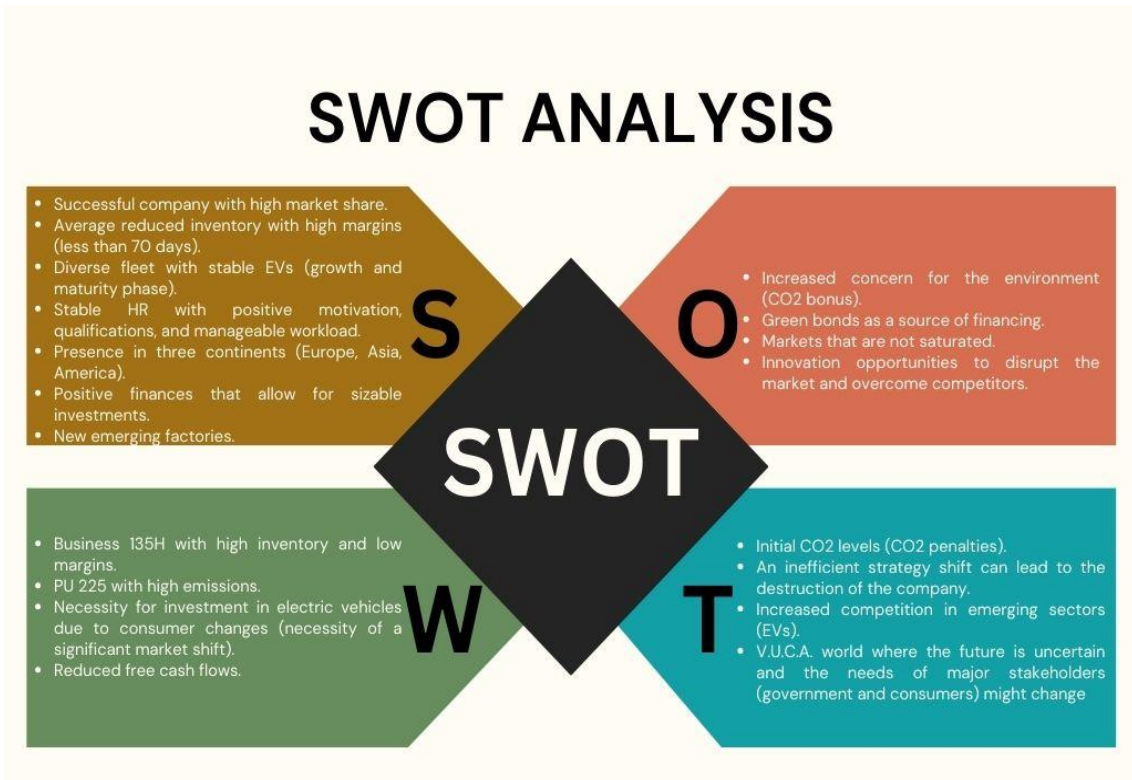


Figure 4: SWOT Analysis (António Bispo, 2024)

POLITICS	ECONOMY	SOCIETY	TECHNOLOGY	ENVIRONMENT	LAW
P	E	S	T	E	L
Government regulations and policies	Global economic conditions	Changing consumer preferences	Electric vehicles (EVs)	Reducing carbon footprints	Compliance with emissions and safety laws
Emission standards	Exchange rates	Environmental awareness	Autonomous driving technology	Sustainable practices	Labor laws
Safety regulations	Interest rates	Demand for electric vehicles (EVs)	In development car batteries for more autonomy and sustainability	Investment in cleaner technologies	Trade regulations
Trade agreements	Cost of raw materials	Demand for safety features and connectivity	AI and machine learning integration	Renewable energy sources	Intellectual property rights
Incentives to more environmental Options	Supply chain disruptions	Discerning Customers	Hydrogen Cars	Customer Preoccupations increase	Liability issues

Figure 5: PESTEL Analysis of GAMA (António Bispo, 2024)

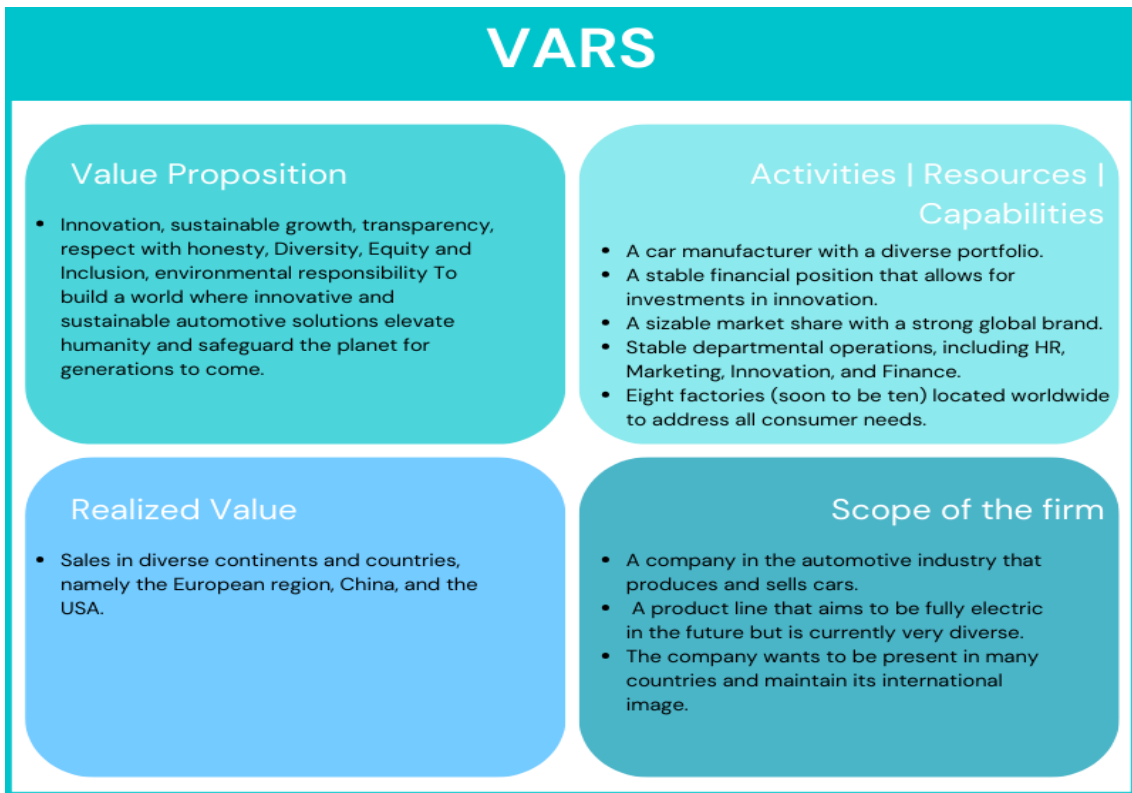


Figure 6: VARS Framework (António Bispo, 2024)

BUSINESS MODEL CANVAS

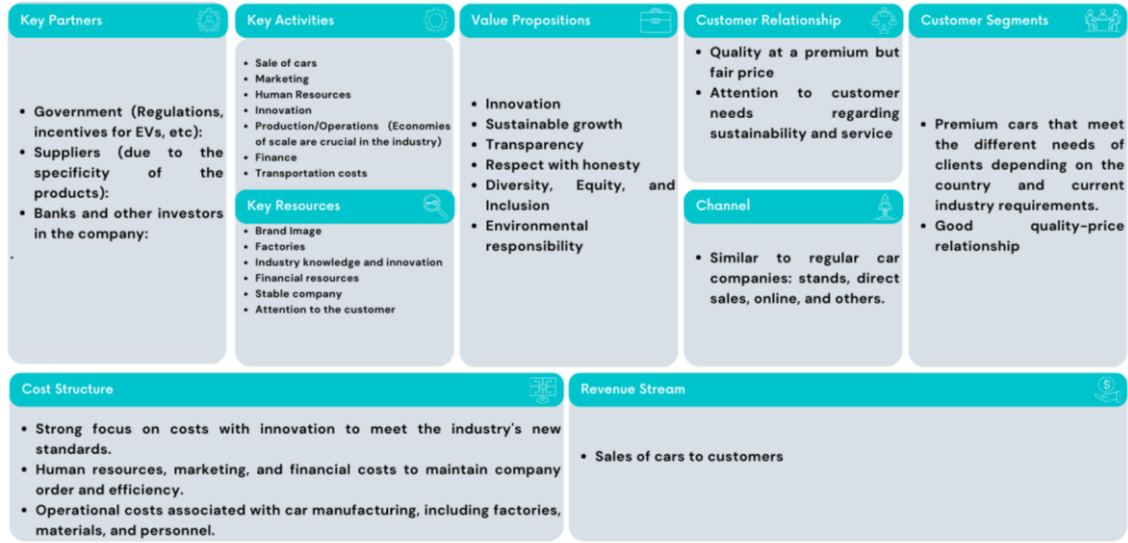


Figure 7: Business Model Canvas of GAMA (António Bispo, 2024)

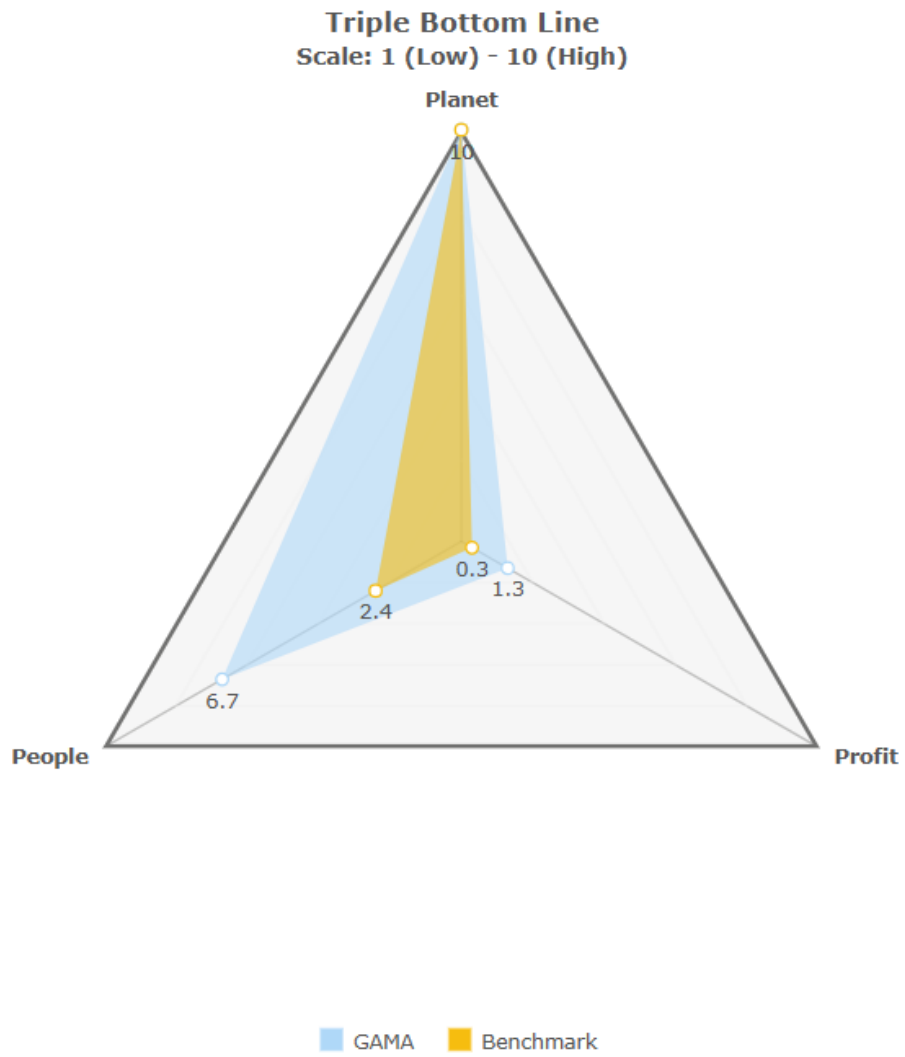


Figure 8: Tripple Bottom Line(GAMA Industry Masters Simulation, 2024)

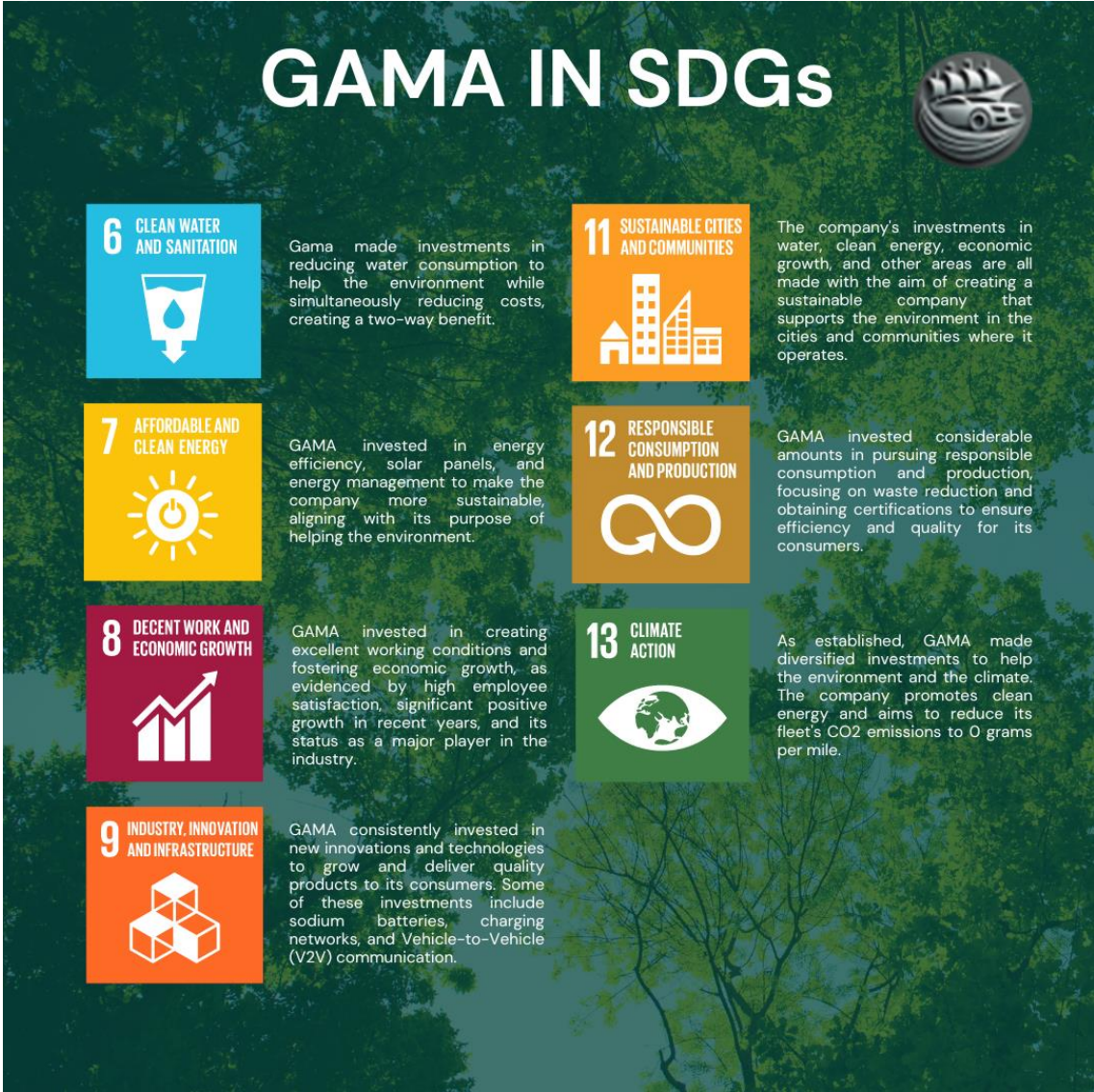


Figure 9: GAMA efforts for the SDGs (António Bispo, 2024)

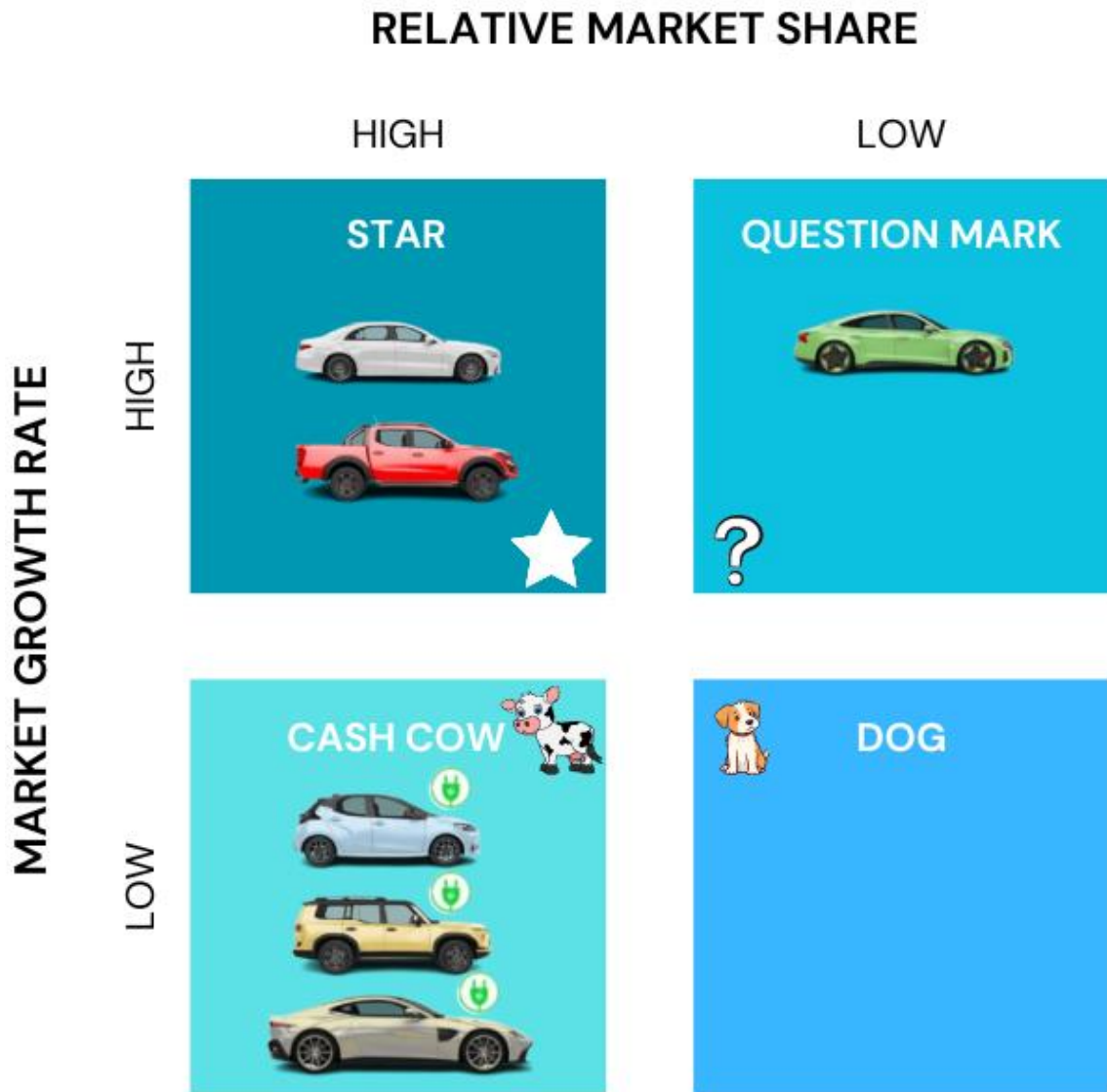


Figure 10: BCG Matrix (António Bispo, 2024)

VALUE CREATION FUNNEL

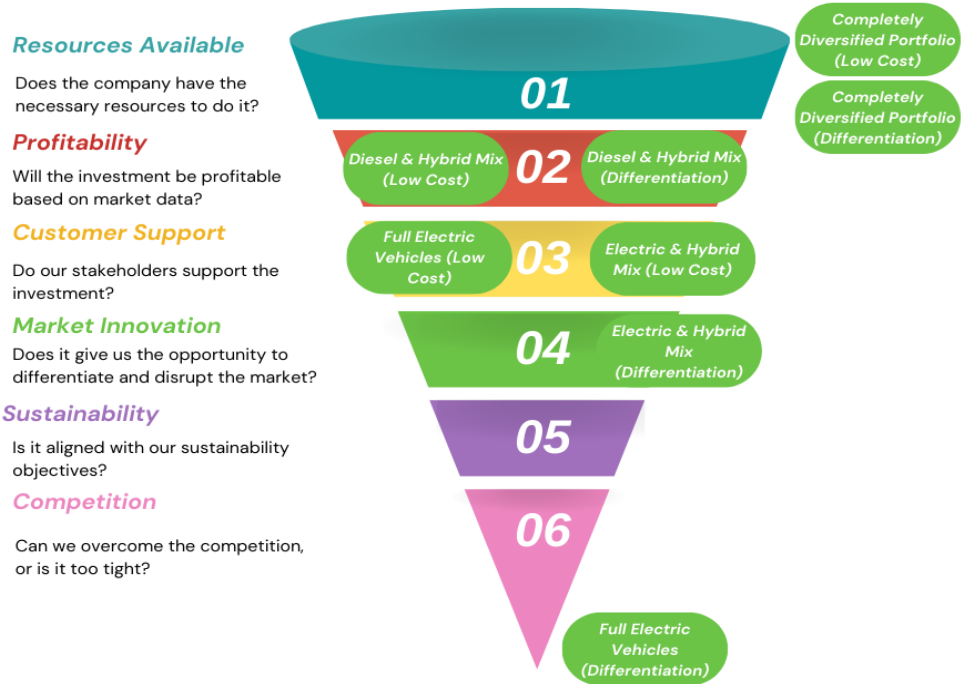


Figure 11: Value Creation Funnel (António Bispo, 2024)

Balanced Scorecard

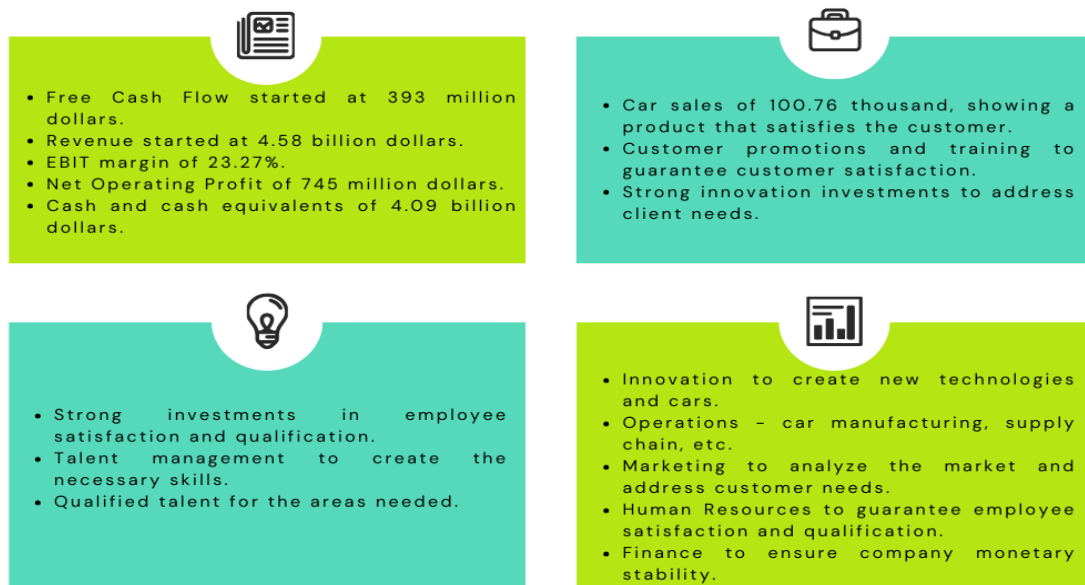


Figure 12: Balanced Scorecard of GAMA (António Bispo, 2024)



Figure 13: Car Market Comparison of GAMA (António Bispo, 2024)

The Four Vs Framework

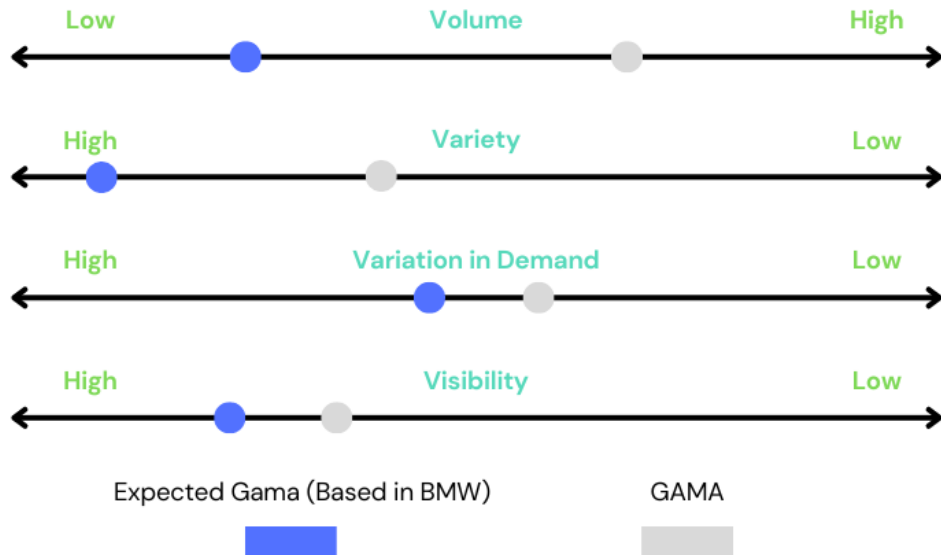


Figure 14: The Four Vs Framework of GAMA (António Bispo, 2024)

Gama Operations Investment Roadmap

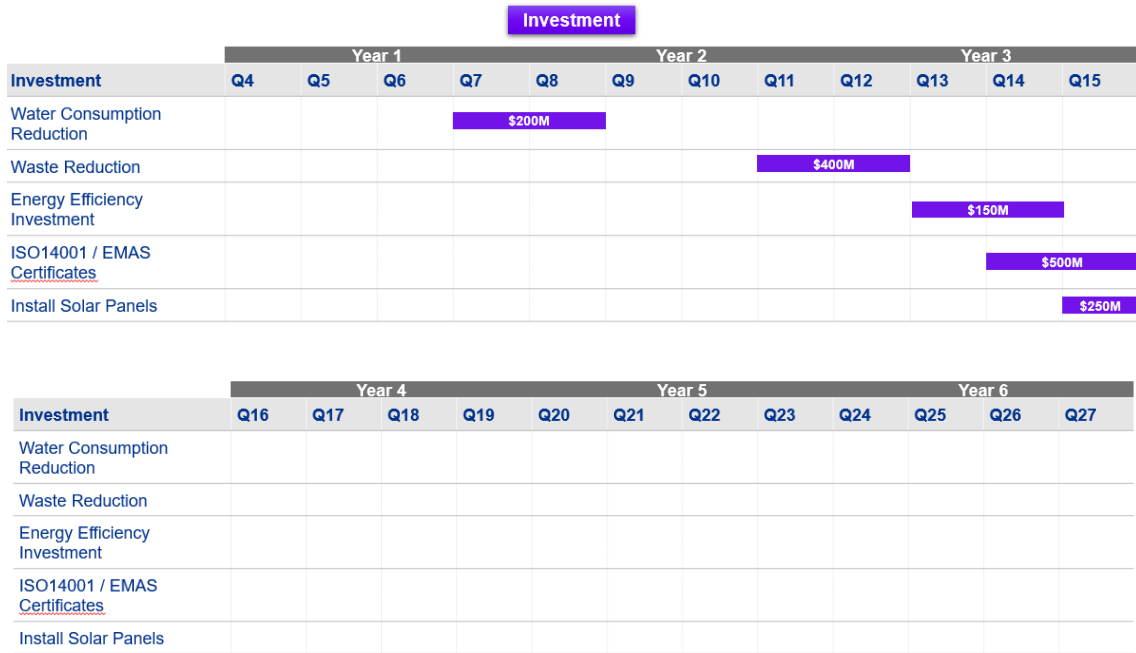
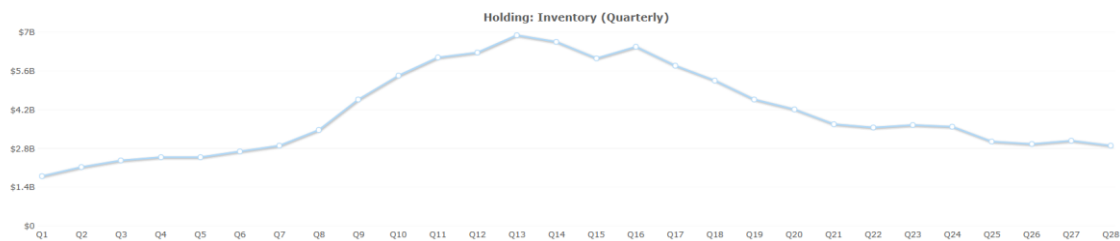


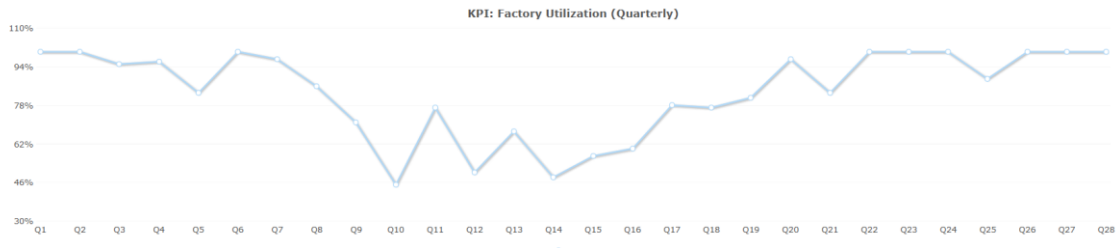
Figure 15: GAMA Operations Investment Roadmap (António Bispo, 2024)



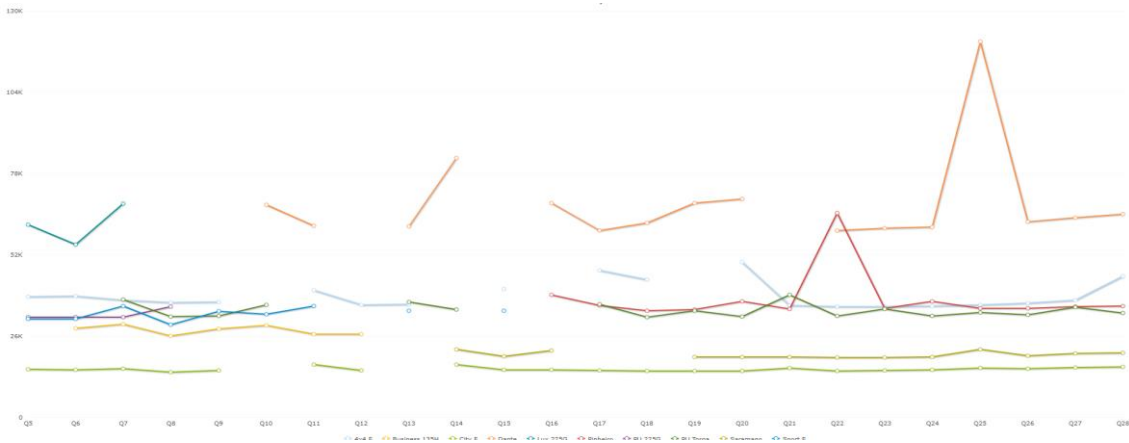
Graph 7: GAMA's Days of Inventory (GAMA Industry Masters Simulation, 2024)



Graph 8: GAMA's Inventory Costs (GAMA Industry Masters Simulation, 2024)



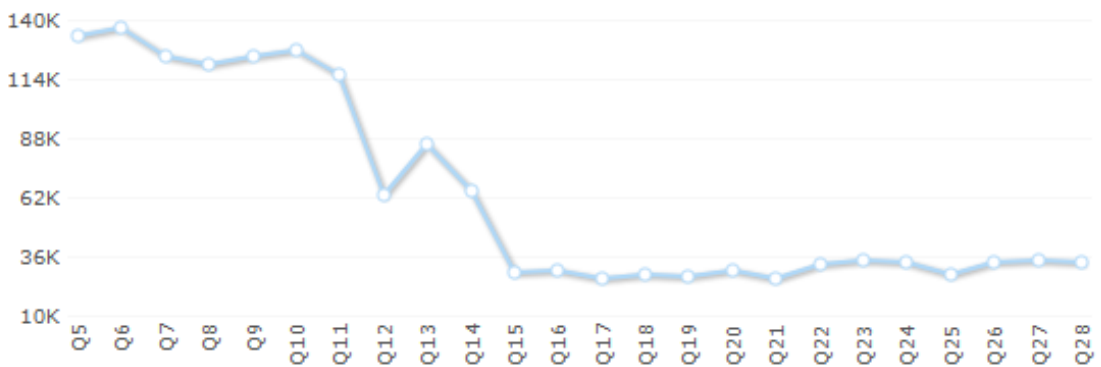
Graph 9: Factory Utilization of GAMA (GAMA Industry Masters Simulation, 2024)



Graph 10: Production Cost/Unit (GAMA Industry Masters Simulation, 2024)

CO2 in Production (Scope 1)

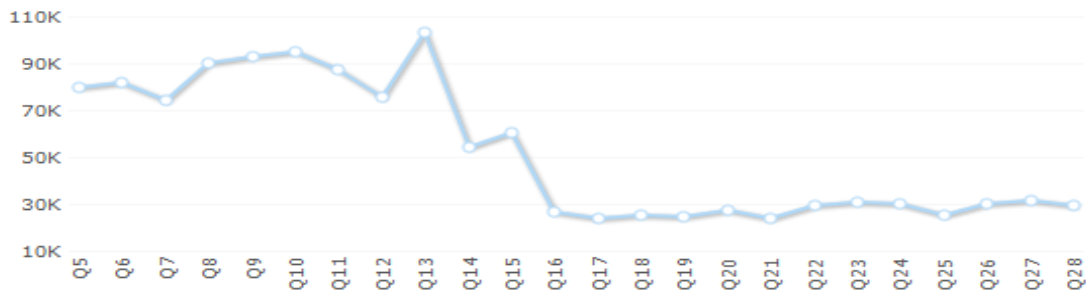
32,939 to



Graph 11: CO2 in Production (GAMA Industry Masters Simulation, 2024)

CO2 in Energy (Scope 2)

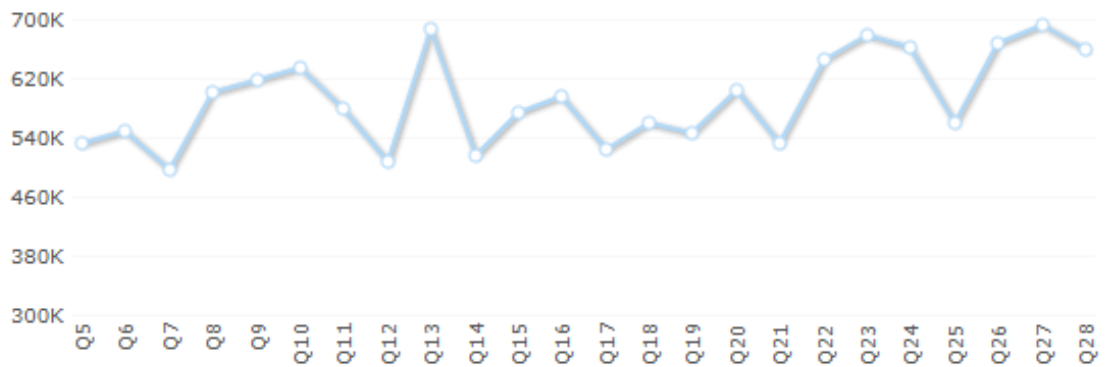
29,645 to



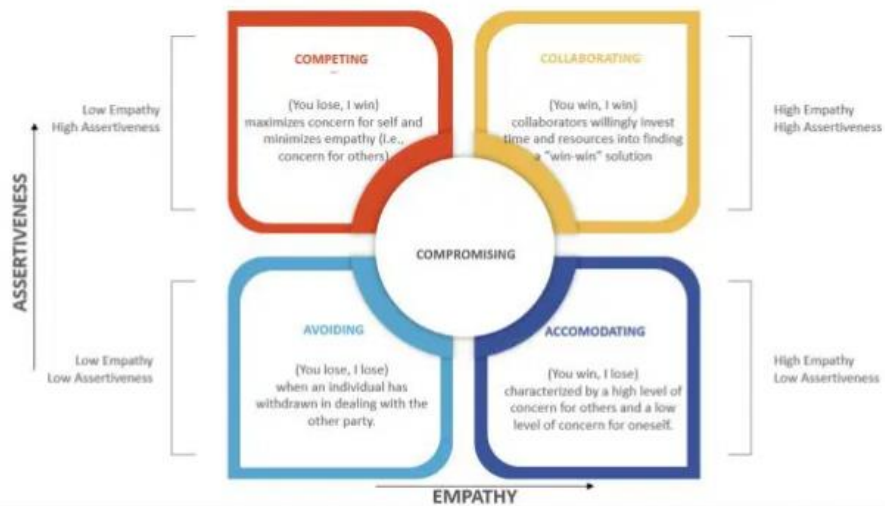
Graph 12: CO2 in Energy (GAMA Industry Masters Simulation, 2024)

CO2 in Supply Chain (Scope 3)

658,782 to



Graph 13: CO2 in Supply Chain (GAMA Industry Masters Simulation, 2024)



QG

Conflict Resolution (Thomas-Kilmann model)

Figure 16: Thomas-Kilmann Model (Quality Gurus, 2023)

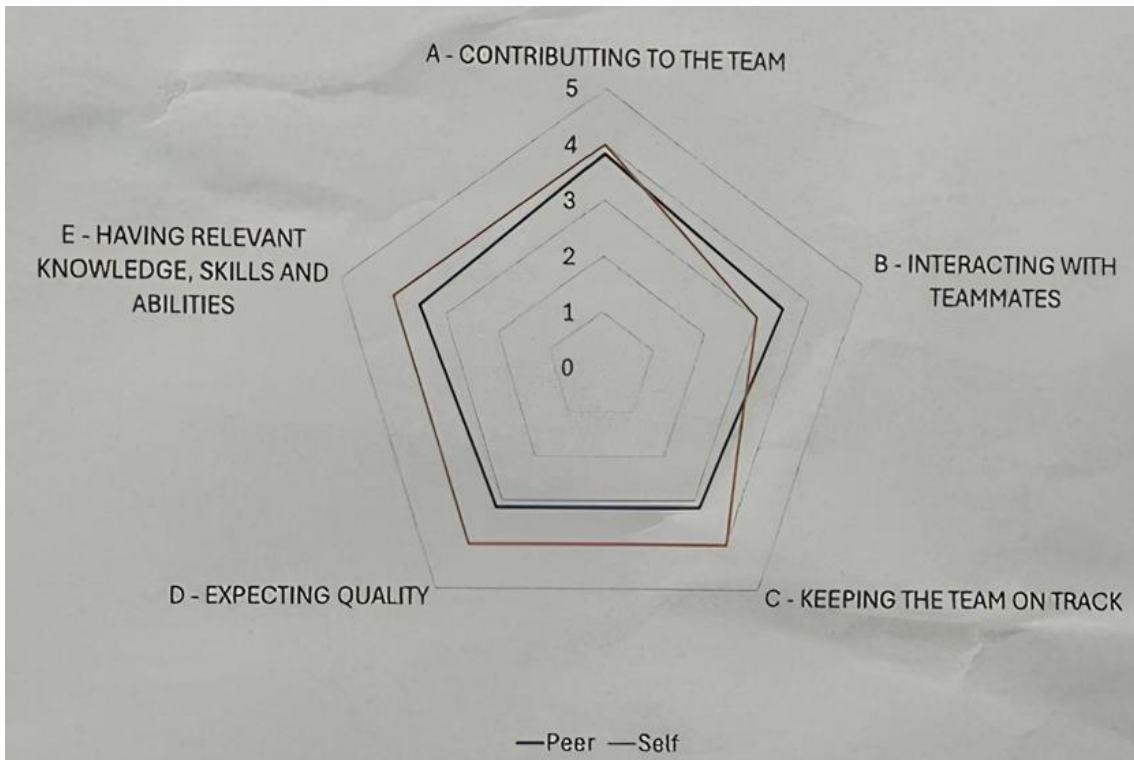


Figure 17: Business in Practice – Peer & Self Evaluation (GAMA Group, 2023)

Questionnaire 1: Feedback Questionnaire after Simulation

The following questionnaire was created by team GAMA for reflection and analysis purposes. It was conducted via Google Forms to enhance the experience and facilitate communication. The statements below pertain to the evaluation of my performance, António Bispo, only, and not that of other team members.

1. Contributing to the team

- a. Sometimes he seemed less motivated, especially in the second half of the simulation. He always accepted the majority opinion and tried to understand it, which is a great quality.
- b. Completes a fair share of the team's work; Keeps commitments and completes assignments on time; Fills in for teammates when it is easy or important. Note: For the ESG deliverable, you proactively prepared the night before knowing you wouldn't have time the next day. This foresight was greatly appreciated. Additionally, you consistently provided valuable perspectives on improving company performance. Whether or not we implemented your suggestions, challenging our decisions helped us avoid myopia.
- c. He always tried to provide his inputs to the best of his ability. However, his approach was not always aligned with the team's objectives.
- d. Always willing to help teammates when help is needed
- e. Nice contribution. Sometimes though the contribution was a little bit confused and out of timing bringing to minor losses of time

2. Interacting with teammates

- a. Sometimes it was harder to understand what he was expressing, exactly what he meant and why. This was especially the case when he was more exhausted at the end of the day.
- b. Asks for and shows an interest in teammates' ideas and contributions; shares information with teammates, participates fully in activities; Note: communication of information was not very clear (speech was very fast and words not fully pronounced) and this can impact the understanding and acceptance of proposals. Minor points are given in this area, as there is the belief that there is opportunity for growth and that you can master it.

- c. He was not as present as some other members, especially in external activities.
- d. Listens to teammates, and responds to feedback. Communication was sometimes a bit difficult. Try to focus on a clear communication.
- e. Good interacting skills, timing and communication could be improved slightly.

3. Keeping the team on track

- a. It is difficult to judge how effective his ideas would have been in the simulation, as most of the time the majority of the team had different ideas about the overall strategy. However, because he disagreed more often than not (which I have no problem with) he didn't really keep the team on track.
- b. Watches conditions affecting the team and monitors the team's progress; Knows what everyone on the team should be doing and notices problems; Alerts teammates or suggests solutions when the success is at risk.
- c. Due to differing ideas, he sometimes struggled to keep the team aligned with the original strategy. However, he was always present and usually tried to help, even when he disagreed.
- d. Some inputs were helpful others less or confusing.
- e. Good tracking of the decisions

4. Expecting quality

- a. You could see that he was trying to do a quality job. The simulation was important to him, in my opinion.
- b. Motivates the team to do excellent work; Cares that the team does outstanding work, even if there is no additional reward; Believes that the team can do excellent work
- c. He tried to do his best, although sometimes he was less engaged and motivated due to differences in the team's chosen path.
- d. Focused on the target was expecting quality from his self and the others

5. Having relevant knowledge, skills and abilities

- a. I think that his knowledge was good enough for being an operations director. However, due to his educational background, he was less able to comment on financial issues.

- b. Has sufficient knowledge, skills and abilities to contribute to the team;
Acquires knowledge or skills needed to meet requirements; Able to perform some of the tasks normally done by other team members
- c. The role was different from what he was used to, but he seemed to have sufficient knowledge to perform it effectively.
- d. I do believe the role was the most difficult, preparation for the role was not the best but I think it is just something it comes with experience