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**BUSINESS IN PRACTICE**

COMBUSTION TO INNOVATION: NOVA'S STRATEGIC PATH TO  
ELECTRIFICATION AND THE ROLE OF TEAM DYNAMICS IN A SIMULATED  
BUSINESS ENVIRONMENT

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## **Abstract**

The automotive sector is constantly transforming due to changing market dynamics, technological advances, and a growing emphasis on sustainability. As consumer preferences shift towards greener solutions, companies must rapidly adapt to new environmental realities and stricter emissions targets. This thesis examines a three-week simulation focusing on strategy, marketing, and innovation, underscoring the importance of cross-departmental collaboration for overall success. It also includes a personal reflection on two critical incidents faced as Marketing Director, detailing my approach and the lessons learned, providing insights that will guide my future personal and professional development.

## **Keywords**

Business Simulation; Automotive Industry; Business in Practice; Sustainability; Transition to EVs; Develop a Business Strategy; Competitive Advantage; Carbon Footprint Reduction; ESG Integration; Cross-functional; Marketing; Reflective Practice; Apply Theory in Practice; Team Dynamics; Innovation; Self-growth

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## **1. Firm Analysis**

Today's economies are undergoing significant transformations due to the development of emerging markets, technological advancements, sustainability initiatives, and changing consumer attitudes toward ownership. Many industries, particularly the automotive sector, are being shaped by digitalization, increasing automation, and the adoption of innovative business models (McKinsey & Company, 2016). To address the challenges posed by globalization, individualization, digitalization, and greater competition, new value-creation strategies are needed (Uchil and Yazdanifard 2014; Fonseca et al. 2019). Additionally, climate change has become a critical global challenge, requiring swift responses to new environmental realities. These responses are increasingly seen as essential and complementary mitigation efforts (Khalid Ahmed and Wei 2012; Fankhauser 2016). Thus, strategic investments in sustainable practices are becoming crucial for the future viability of companies, in a scenario that demands a profound transformation where adapting to climate change is not only a necessity but also an opportunity to create a lasting positive impact. According to McKinsey's latest Mobility Consumer Pulse Survey (2023), 62% of respondents reported changing their transportation habits due to sustainability concerns, and 42% expressed a desire for their next car to be an electric vehicle (EV), highlighting the shift toward sustainable mobility solutions.

Consequently, a new management team has been hired to lead NOVA's transition from exclusively producing combustion-powered vehicles to focusing on all-electric, battery-powered vehicles. Over six years of simulation, with factories in three regions — Europe, China, and the USA — the team has guided NOVA to offer a portfolio of seven fully electric vehicles.

In this section, I will be exploring the main activities carried out during the six-year simulation and their impact on the company's performance using frameworks, theories, and examples from real-world companies. The analysis will focus on three functional areas —

Strategy, Marketing, and Innovation — covering how they contributed individually and collectively to achieving our organizational objectives.

## **1.1. Strategy Review**

Strategic management involves the formulation, implementation, and evaluation of decisions that span multiple functions within an organization to achieve its objectives (Strenitzerová 2005). In alignment with this strategic foundation, NOVA integrates various business aspects to achieve success and maintain a competitive advantage (Strenitzerová 2005; Proskurnina and Chala 2023). This involves providing superior value to customers through well-crafted strategies that set it apart from competitors (McFarlane 2013). By embracing these principles, NOVA aims not only to respond quickly to current market demands and customer needs but also to anticipate future trends, ensuring sustained success in an ever-evolving business environment (Deshati, 2023).

### **1.1.1. Strategic Intent**

Strategic intent plays a crucial role in defining a company's strategy (O'Shannassy 2016). It is a fundamental concept to achieve competitive advantages, representing a cohesive vision of a company's growth (Sherif Ebrahim et al. 2024). This has always been a foundational principle for the NOVA team, guiding our decisions and actions over the past six years. We have consistently prioritized innovation, forward-thinking, and sustainability, ensuring that our strategy not only meets current customer demands but also anticipates and shapes future needs with the least possible impact. This mindset is essential for our continued success and growth as a company.

NOVA embarked on its journey in the simulation with an ambitious vision, to establish itself as a leading brand in the automotive sector, offering sustainable, customized, and

affordable vehicles to a wide range of consumers. The company's portfolio was designed to encompass everything from sporty and luxurious cars to family and compact models, to become one of the most distinctive brands worldwide.

### **1.1.2. Industry Analysis: Structure, Competitiveness & Strategic Groups**

#### **PESTLE**

The PESTLE framework is often used to analyze the automotive sector, particularly electric vehicles and biofuels. Political factors, economic and technological drivers, including shifts toward Electric vehicle services, play crucial roles in shaping the industry (Carvalho de Sousa and Castañeda-Ayarza 2022; Debnath et al. 2021; Wellings et al. 2021). Environmental considerations, like reducing carbon emissions and integrating renewable energy, along with social factors, further influence electric vehicle adoption (Achinas et al. 2019; Debnath et al. 2021). Legal aspects, such as tax policies and regulations on raw materials, also impact the market (Wellings et al. 2021).

In Q4, new global environmental regulations were introduced, including an emissions limit of 95g of CO<sub>2</sub> per mile for each unit sold. These measures included a \$60 premium for each gram of CO<sub>2</sub> emitted above the limit, as well as a \$20 bonus for each vehicle sold with emissions below the established limit. Concurrently, China emerged as a leader in electric vehicle technology, gaining a competitive edge through advancements in batteries, autonomous systems, and energy-efficient designs. In the following quarter, Q5, even stricter emissions standards were announced, forcing manufacturers to restructure production lines, reducing demand for conventional vehicles and accelerating the shift toward EVs. To adapt to this new scenario, NOVA was indirectly forced to invest in new technologies and processes.

In Q6, the European Union further tightened its environmental policies, reducing the average emissions limit to 47.5g of CO<sub>2</sub> per mile for cars sold, while the United States

imposed a 100% tariff on EVs imported from China, prompting China to retaliate with increased tariffs on U.S. EV imports, from 25% to 40%, in Q9. These policies aggravated the trade war, leading to causing shocks in supply chains, resulting in cost increases and reduced demand as many vehicles became too expensive for consumers. In Q12, the European Union's environmental policies continued to affect the car market, with the suspension of all bonus payments for vehicles with emissions below the CO2 limit (Fig. 1). Sustainability was once again a crucial focus in Q14, with the introduction of initiatives for the recycling and proper disposal of lithium-ion batteries, an essential component of electric vehicles, which became vital to reduce environmental risks and long-term production costs. In Q17, limited charging infrastructure, commonly known as "range anxiety," was identified as a barrier to EV adoption. However, investments in its expansion increased demand as the networks became more accessible. Finally, in Q24, a global economic recession reduced consumer confidence and disposable income, decreasing vehicle demand and raising operating costs, compelling NOVA to adapt its strategies to remain competitive.

### **Porter's Five Forces**

Porter's Five Forces model offers a framework for assessing the five forces that shape an industry's competitive intensity and profitability (Madsen and Grønseth 2022). The automotive industry faces significant challenges with high barriers to entry due to economies of scale, legal responsibilities, and established supply chains (Perkins & Murmann 2018). Entering this market requires substantial investments in factories, technology, research and development (R&D), and marketing, making it difficult for new players to compete. As a result, the Threat of New Entrants in the automotive sector is low because established companies benefit from large-scale production and cost advantages that are hard for new entrants to match. However, there are exceptions. Tesla's success is a notable example that

illustrates how new players can overcome traditional barriers through disruptive technologies and unique business models (Perkins & Murmann 2018).

Regarding the Threat of Substitutes, traditional vehicles maintain a relatively stable position due to their convenience, comfort, and versatility (Pakusch et al. 2018; Richardson and Rose 2010; Luiu, Tight, and Burrow 2018). However, the growing appeal of alternatives, especially in urban areas, poses a potential threat, driven by environmental concerns, improved public transport, and shifting preferences among younger generations.

The Power of Suppliers in the automotive industry is moderate, varying with component type and market dynamics. Suppliers of specialized parts, like electric vehicle batteries, have high bargaining power due to their limited numbers and high switching costs (Boston Consulting Group 2022; McKinsey & Company 2023). In contrast, suppliers of standardized parts wield less power due to a more competitive market (Harvard Business Review 2021). Some manufacturers, like Tesla, mitigate supplier power through vertical integration, producing key components in-house (Tesla 2022).

The Bargaining Power of Buyers is a moderately limiting factor in the automotive industry's profitability. Consumers can easily compare prices, features, and reviews, using online tools and social media to find the best deals and negotiate better terms.

Competitive Rivalry in the automotive sector is intense, with numerous equally sized competitors vying for a mature and innovative market, impacting profitability. NOVA faces direct competition from major players like Mercedes-Benz, BMW, and Tesla, all of which emphasize differentiation to attract a broader, more demanding audience (Fig. 2).

### **1.1.3. Internal Analysis: Resources, Capabilities and Activities**

The Business Model Canvas (BMC) is a strategic management tool designed to visually outline and develop innovative business models (Guadagni and Pascucci 2020). It comprises

nine essential components that guide organizations in creating, delivering, and capturing value for their customers (Crotty et al. 2017).

NOVA bases its value proposition on offering affordable electric cars to all types of customers, combining technological innovation with a strong commitment to sustainability and consumer preference. In this sector, strategic alliances and joint ventures are common, allowing companies to share risks, access new markets, and acquire knowledge (Akdemir, n.d.). Examples include GM-Saab, GM-FIAT, and partnerships in China, such as FAW-Toyota (Akdemir, n.d.). Like many competitors, NOVA invests in R&D for new vehicle development but relies on key partners for components like batteries. For example, BMW and Rimac Technology are collaborating to create advanced high-voltage battery solutions, with the Neue Klasse platform launching in 2025 (BMWBlog 2024). This strategy enables NOVA to leverage external expertise while focusing on its core competencies. To promote electric vehicle adoption, governments provide incentives such as direct subsidies and tax exemptions to reduce costs, like those in Portugal, where buyers can receive up to €4,000 in subsidies and benefit from tax breaks (Fundo Ambiental 2023; União da Mobilidade Elétrica 2024). Finally, NOVA has invested in R&D and staff training to support its portfolio transition and focuses on understanding consumer preferences in different regions to build strong, trust-based relationships with its customers (Fig. 3).

#### **1.1.4. Combined Perspectives: SWOT Analysis**

A SWOT analysis (Fig. 4) is a strategic tool used to assess an organization's internal strengths and weaknesses, as well as external opportunities and threats (Dalton 2018; Sharath Kumar and Praveena 2023). For NOVA, key Strengths include high employee satisfaction (Fig. 5), leading to strong productivity, and a robust market presence in China, the USA, and Europe (Fig. 6). Opportunities for NOVA are evident in the growing willingness of customers

to switch to new technologies and the increasing demand from emerging markets, particularly for electric vehicles. However, Weaknesses include low production relative to factory capacity, resulting in high inventory, reduced profits, and elevated marketing costs needed to stimulate demand and clear excess stock. The Threats NOVA faces include uncertainty in global economic conditions, which could affect vehicle demand, market stability, and profitability. Additionally, intense competition in the electric vehicle sector poses further challenges to its market position.

### **1.1.5. Cross-Functional Review of Strategy**

The team defined its mission as: "To offer innovative, high-quality vehicles that meet the needs and expectations of all types of customers, providing accessible and sustainable mobility for everyone without compromising on style, safety, and comfort." To achieve this goal, the Innovation Department focused on R&D and building charging infrastructure, while the Operations one ensured efficient production to meet demand and invested in the three scopes of sustainability - production, energy, and supply chain investments. The Marketing Department strategically priced models, supported by the Finance Department's securing of green funding. Human Resources played a vital role in managing talent and maintaining high standards. This cross-functional approach helped assess decision impacts and reinforced strategic coordination and effectiveness.

## **1.2. Marketing Review**

Marketing is a critical function in any business focused on understanding customer needs, creating value, building relationships, and driving business success (Casshyap 2014; Mahbod et al. 2022). Marketing not only informs and educates target markets about a company's value

proposition and competitive advantages but also builds and maintains a strong preference for the company and its products (Steinhardt 2010).

In the highly competitive automotive sector, rivalry intensifies due to increased bargaining power and easy product comparisons. To succeed, NOVA's departments collaborated to develop a customer-centric marketing strategy, aiming for growth in a dynamic market. This analysis starts with the core of the strategy: segmentation, targeting, and positioning (STP). After establishing the strategic plan, the final stage is its implementation using the Marketing Mix. Given that NOVA's products are vehicles, the focus will be on the 4Ps: Product, Price, Place, and Promotion.

### **1.2.1. Marketing Strategy - STP**

The automotive sector is undergoing a major shift as companies adjust their marketing strategies to emphasize sustainability and adapt to changing market dynamics (Polous et al. 2023). The STP model plays a crucial role in this process by identifying consumer segments, selecting target markets, and developing effective positioning strategies (DeSarbo et al. 2008).

Despite being a simulation, identifying a target market was crucial for strategic alignment and maximizing profit. NOVA adopted a positioning strategy based on a thorough analysis of regional consumer preferences, ensuring a strong match with customer values and needs. At an initial stage, before any decisions were made by NOVA, and considering that EV's had become the consumer preference in predefined geographic regions, clear differences were identified in customer expectations regarding automotive technologies (Fig. 7). In China, there was a preference for Level IV autonomous driving, while in the U.S., consumers favored Extended Sodium-Ion Batteries and similar autonomy. In Europe, Hybrid Engines paired with Level IV autonomy were preferred. These preferences guided NOVA's strategy to

focus on innovation, particularly in autonomous driving and battery technology, aligning with regional demands.

### **1.2.2. Marketing Mix – 4P's**

The marketing mix, comprising the 4Ps, is key to achieving marketing objectives and adding value (Išoraitė 2016). These strategies are extensively employed to boost sales and enhance competitiveness, with product quality significantly influencing consumer purchasing decisions (Ananda et al. 2023; Pratama et al. 2024). Additionally, sustainability has become integral to international marketing strategies as companies respond to evolving market dynamics and consumer preferences (Polous et al. 2023). The mix aligns these elements to meet consumer needs and market conditions effectively.

#### **Product:**

One of NOVA's most critical strategic decisions was choosing between launching a new model or relaunching an existing product. Initially, NOVA had a diversified portfolio of six models, ranging from growth to decline phases. Aligning with sustainability trends, the company gradually phased out combustion engine vehicles, replacing them with electric ones, positioning itself as a pioneer in the electric vehicle market (PwC 2018).

By the end of the sixth year, NOVA developed several key electric models (Fig. 8). The Astro E was introduced with extended sodium-ion batteries and Level IV autonomous driving, targeting mid-range consumers. The Luna E offered a more economical option with standard lithium-ion batteries and Level II autonomy. In the luxury segment, NOVA launched the Orion E, an SUV featuring extended sodium-ion batteries and Level IV autonomy, and the Zephyr E, with similar technology but tailored for a more exclusive market. The Sport E stood out for its performance, equipped with extended lithium-ion batteries and Level I autonomy. To further expand the electric lineup, the Aurora E and Atlas E were introduced, offering

advanced battery technology and Level IV autonomous driving. Meanwhile, underperforming models like the City E and 4x4 E were discontinued due to issues with inventory management and efficiency. This strategic evolution allowed NOVA to maintain a diversified offering, responding to consumer preference shifts and sustainability demands.

### **Price:**

In the automotive industry, pricing reflects not only production costs and profit margins but also the brand's quality, innovation, and prestige. Therefore, it must be carefully aligned with the other elements of the marketing mix: product, promotion, and distribution. Effective pricing strategies are essential for maximizing revenue and maintaining competitiveness (Gangwar and Rao 2020).

Initially, NOVA adopted a moderate pricing strategy, aiming to balance market positioning with consumer expectations. However, during the simulation, some adjustments had to be made due to unforeseen situations. NOVA prices to clear excess inventory and control stock levels over two years. This reactive approach led to instability in pricing strategies and failed to achieve desired results, such as increased sales and reduced inventory days. Instead of continually lowering prices, NOVA should have examined underlying factors affecting inventory, such as overproduction. As shown in Fig. 9, NOVA's strategy focused on reducing prices, only raising them when stock ran out, underscoring the need for a more informed approach to pricing.

### **Promotion:**

Customer-focused sales campaigns can significantly boost a firm's profits and return on investment, with high-revenue customers enhancing marketing efficiency and low-revenue customers improving overall effectiveness (Kumar et al. 2008). Meanwhile, advertising influences consumer behavior through emotional and cognitive appeals across various media platforms (Upadhyay 2024; Fan 2022).

NOVA's marketing strategy evolved throughout the simulation. In the first year, campaigns aimed to stimulate demand and prepare for new EV launches. By the second year, facing challenges like excess inventory and shipping issues, NOVA increased spending across all categories, including Influencer Partnerships to enhance brand reach, Data-Driven Marketing Analytics to optimize campaign efficiency, a Branding Campaign to position as a leader in electric mobility, and Augmented Reality Showrooms for an immersive customer experience. However, uncontrolled advertising costs strained profit margins, highlighting the need for a more balanced approach. Despite these challenges, NOVA's strategy demonstrated adaptability and a commitment to engaging customers and strengthening its position in the competitive electric vehicle market.

### **1.2.3. Cross-Functional Review of Marketing**

As the Marketing department was the only one with the ability to set prices for each model and determine the associated marketing costs, its role was fundamental to the company's success. A poorly planned pricing strategy could result in stagnant sales, directly affecting cash flow and compromising NOVA's profitability. In this context, close collaboration between Marketing and the rest of the departments was essential, ensuring that marketing decisions were informed by financial insights, operational viability and alignment with product innovations. This new approach ensured that vehicles were correctly positioned in the market and that the company achieved its billing and growth objectives.

### **1.3. Innovation Review**

Innovation is a complex, multifaceted process involving the development and implementation of new ideas within an institutional context (Ven 1986). In this sector, it has been a driving force behind the transformation, enabling companies to meet new market

demands, environmental regulations, and consumer expectations (Ettabaa et al. 2019). The focus has shifted towards sustainability and process innovation, favoring incremental changes due to lower risks and costs, such as reducing emissions and adopting eco-innovations (Vaz et al. 2017). Studies have shown that innovation capabilities can enhance organizational performance and market position (Almrshed 2020). An example is Tesla, which demonstrates the importance of continuous innovation through its unique approach (Holmström et al. 2020). In the context of the simulation, as consumer preferences changed and new needs emerged, NOVA was limited to a portfolio of combustion vehicles and one hybrid model. Consequently, due to the lack of adoption of electric vehicles, the company's innovation department's R&D expenses increased drastically. Further details will be provided on the following section regarding the choice between hybrids and EV's, followed by an analysis of Strategic Innovation and Investment in NOVA's Electric Vehicle Portfolio.

### **1.3.1. The Choice Between Hybrids & Electric Vehicles**

While many competitors included hybrids in their portfolios, NOVA initially debated launching or maintaining a hybrid vehicle as a conservative approach to ease the transition to an all-electric lineup. However, after pre-simulation experimentation and a deeper analysis of market trends, NOVA decided to commit to a 100% electric portfolio. This choice was driven by the belief that electric vehicles are the future and align with NOVA's goal of achieving zero carbon emissions. Tesla, for example, focuses exclusively on electric vehicles to lead the industry's shift to cleaner transportation (Holmström et al. 2020).

### **1.3.2. Strategic Innovation and Investment in NOVA's Electric Vehicle Portfolio**

Early on, NOVA focused on strengthening its technological foundation, starting with a strategic investment in Sodium-Ion Batteries. This investment, made in Q4, was a crucial

move to position the company in the growing EV market. These batteries offered potential advantages in sustainability and a significant reduction in production costs (Hwang et al. 2017; Barker et al. 2013). In Q5, NOVA invested in Artificial Intelligence (AI) to elevate its vehicle standards by developing advanced autonomous driving features (Levels III and IV), which are crucial for market differentiation. AI-enhanced systems, such as advanced driver-assistance systems (ADAS), improve road safety, reduce driver distractions, and use predictive maintenance models to boost vehicle reliability (Jain et al. 2024). Simultaneously, in Q13, NOVA invested in developing Next-Generation E-Drive Modules, which provide a flexible, scalable platform for its electric vehicles, enabling compatibility with various vehicle types. As a consequence, in Q14, the company invested in the Expansion of the Charging Network to alleviate range anxiety among consumers and promote the transition from gasoline to electric vehicles. At the same time, NOVA invested in Vehicle-to-Vehicle (V2V) Communication technology to enhance road safety, reduce accident risks, and improve traffic efficiency, especially in urban areas.

Each investment was strategically planned over one to three quarters, allowing time for research, development, and integration, ensuring new launches aligned with market conditions and consumer expectations.

### **1.3.3. Cross-functional review of innovation**

In the automotive sector, effective innovation management requires a holistic, company-wide approach involving all departments and employees. This strategy integrates management style, resources, organizational structure, and knowledge management to enhance innovation capabilities (Smith et al. 2008). Cross-functional collaboration among R&D, production, marketing, and finance ensures that new technologies, like EV's, are developed efficiently and aligned with market demands.

## **1.4. Final Conclusions**

Over the six years of simulation, NOVA demonstrated its capacity for adaptation and growth in a highly competitive global automotive market. From the outset, the company recognized that its path to success relied on close collaboration between all departments, ensuring well-founded decisions aligned with its strategy of innovation and sustainability.

With the collaboration and effort of all departments, significant progress was achieved in areas such as sustainability (Fig.10), innovation, and corporate social responsibility. The Innovation Department was pivotal in developing new technologies that reduced CO2 emissions across all scopes (Fig. 11). Meanwhile, the Operations Department ensured the necessary production capacity to meet the increasing demand and invested in technologies that drastically cut fleet emissions (Fig. 12). The Marketing Department played a critical role in strategically positioning products in the market, adjusting prices and promotions based on supply and demand dynamics. Human Resources empowered employees to support the company's sustainable transformation and, the Finance Department secured the resources required to fund innovations and expansions, leading to a high Green Capex Ratio and a strong commitment to corporate social responsibility (Fig. 13).

Despite facing challenges such as poor inventory management, hesitation in product replacement, and high financial costs, NOVA achieved significant results in recent year (Fig.14), selling 3.27M electric vehicles (Fig. 15) and generating \$133.05M in revenue over these six years (Fig. 16).

With a fully electric portfolio and a strong commitment to sustainability, NOVA is well-positioned to face future challenges and ensure long-term success.

## **2. Personal Reflection**

### **Introduction – The Business in Practice Experience**

"Teamwork and collaboration are not just important but are the defining factors of an organization's competitive advantage and success. Without unity and commitment among team members, it is impossible to realize the full potential of any team and, consequently, the organization itself" (Katzenbach and Smith 1993).

The Business in Practice (BiP) program was an intense and transformative experience in every sense, marked by three intense and challenging weeks in which we acted as directors of a company in the automotive sector. In this way, I analyze my personal experience during this program through the reflection journal I maintained over these weeks of simulation. Self-reflection is an essential process that enhances self-awareness, problem-solving skills, and the ability to learn from experiences, which are crucial for personal and professional growth (Kross, Ong, and Ayduk 2023). I identified two critical incidents that significantly impacted my personal growth during the simulation. For each incident, I described the initial context, explained my personal reaction, and summarized the key lessons learned.

The first incident involved a lack of punctuality, both personally and within the team, which was initially dismissed as a minor issue. If not addressed early, such behavior can damage the perceptions of colleagues and supervisors, ultimately affecting long-term effectiveness and professional success. The second incident was the challenge of managing diverse personalities within the team.

I conclude with broader reflections on how these experiences will shape my future career. To support my reflection, I utilized the Insights Discovery® model to assess my character traits, helping me better understand myself and make a positive impact in the workplace. I found that I am primarily influenced by the Cool Blue energy, with a strong affinity for Earth Green, indicating a preference for precision, objectivity, and a reserved, observant nature.

Unlike my teammates, who had a stronger focus on specific energies, I uniquely aligned with Earth Green. These contrasting working styles and expectations, highlighted by the test, offered valuable insights into our team dynamics and guided my self-reflection (Fig. 17).

## **2.1. Critical Incident #1: Small Delays, Big Consequences**

### **2.1.1. The Event**

In the early days of the program, we had several meetings, both online and in person, to get to know each other, learn the platform, and plan our approach to decisions. Despite our diverse personalities and ages, the team quickly bonded, united by a shared goal of doing well and winning, even while everything was still in its initial, unrefined stage. We set rules to ensure a smooth three-week program but overlooked the importance of punctuality, leading to several members, including myself, being late for meetings. This issue seemed minor at first since it wasn't tied to any evaluation, but it later proved costly.

In the second week, we began a Sales workshop with a crucial role play offering three possible outcomes: winning the client, securing a pilot project, or losing the opportunity. Success could give us a significant advantage with an additional \$960M to \$1,920M in revenues and \$380M to \$768M in gross profit for the next year. The rules were clear: only 3 members are present, 5 minutes to meet with the client and, if there is any delay, the meeting is canceled. I volunteered for the role-play, despite my nerves about having never done anything like it before, and we spent the day prior preparing extensively. I was quite stressed but confident, I felt that with the two members who stayed with me, there was no way it could go wrong.

On the "big day," we had agreed to arrive ahead of time to prepare and minimize any waiting for the client. Worried about being late, I got there well before our scheduled time. As our turn approached, one team member showed up, which helped ease my anxiety a bit.

However, the third member was still missing, and despite several calls, he showed up calmly just one minute before the meeting. My frustration grew, realizing he had done in this crucial moment what I had done in less important meetings - arrived late. Rushing to the room, we found the client already doubtful. With the third member still coming down the corridor, the client's annoyance was evident, but he allowed us to start as soon as everyone was present. My nerves were high, I just wanted things to go well despite our shaky start. Unfortunately, the third member's computer was out of battery, and I had to use mine, which didn't have the presentation downloaded. In those tense, silent moments while I scrambled to open the file, I felt a wave of frustration and disappointment, realizing we were wasting our precious five minutes on technical issues. The presentation took place, but the client's initial skepticism remained. We failed to secure the opportunity, and as we left, it was evident that our performance had fallen short of expectations.

This experience underscored how even a seemingly minor issue, like punctuality, can have serious consequences, impacting not just individual performance but the team's overall potential and success.

### **2.1.2. Personal Response Analysis**

I find this critical event interesting because it was our first major setback as a team and highlighted a behavior, I hadn't realized could negatively impact us professionally. It revealed a problem that everyone in the team had and that we didn't consider as such. Although I was aware that in assessment situations, punctuality is fundamental, I don't control the behavior of others and the fact that we had never addressed this issue as a team gave rise to possible situations like this. I'm going to analyze my reaction in this context of teamwork, where I identify the factors for this trigger, the causes and the lessons I've learned, proposing future actions.

The incident began with team members, including myself, frequently arriving late to meetings, without discussing or addressing the issue. As someone who avoids confrontation and isn't direct about problems, I assumed everyone would naturally be more attentive during critical moments. Frustration grew when our lack of punctuality led to losing an opportunity, a situation that would be unacceptable in a professional context. Reflecting as a team, we realized that our behavior was influenced by each other; none of us made an effort to be on time, which became a habit. During the role-play, my anxiety and stress over the delay distracted me, preventing me from thinking clearly or acting professionally. I struggled to focus on alternatives or keep the client comfortable, and this nervousness likely affected the rest of the team, impacting our performance and trust in one another.

The client was immediately impatient with our approach and frustrated that we took up the five minutes he had allocated to open the presentation. I felt ashamed of my inability to communicate effectively and was overwhelmed by nervousness, which left me nearly speechless. Even when I answered a question, I stuttered and felt inadequate. I was surprised by how much this experience affected me. During the incident, my traits aligned with the Blue Energy profile were evident - I felt anxious, nervous, and overwhelmed, leading me to internalize frustration rather than take decisive action. When the meeting didn't start as planned, I became consumed by anxiety over our lateness and didn't think clearly about alternative solutions, such as using my computer immediately.

This tendency to overthink, common in Blue Energy (Fig.18), kept me from acting proactively. My proximity to Green Energy, which favors empathy and harmony, also contributed to the situation. I avoided confronting team members about their tardiness to maintain a cooperative atmosphere, which led to a lack of clear communication and assertiveness, ultimately affecting our performance. Even though the presentation's feedback

wasn't terrible, it highlighted how these tendencies can lead to missed opportunities and prevent effective teamwork.

### **2.1.3. Lesson Learned and Future Action**

#### **Overlooking the Small Can Cause the Big – The Importance of Addressing All Issues**

From this incident, I learned the importance of addressing all issues, no matter how minor they may seem. Our team's lack of attention to punctuality, initially dismissed as insignificant, led to a major setback during the first role-play exercise. We underestimated the impact of occasional delays, assuming that, since our meetings were informal and we were still getting to know each other, punctuality wasn't critical. However, this complacency resulted in a rushed and unprepared presentation, costing us an opportunity to gain an early advantage in the simulation.

Lack of punctuality in teamwork can lead to procrastination and hinder team functioning (Gafni and Goldstein 2020). In any professional setting, punctuality should be a given. Neglecting it can harm your reputation, effectiveness, and long-term success, and even risk losing clients who value their time and expect the same respect in return.

#### **Resilience in Adversity: Find Success Beyond Failure**

The setback during our role-playing exercise highlighted that the real threat wasn't the situation itself but our response to it. The stress was overwhelming, affecting our performance and decision-making. Managing stress is crucial for effective teamwork, as it significantly impacts team performance (Dijkstra et al. 2021; Weaver et al. 2001). Our failure to adapt quickly to unforeseen delays also demonstrated a need for greater flexibility, which is essential for turning challenges into growth opportunities. The ability to adapt is a key mental resource, especially for new employees facing unfamiliar environments (Nemeth 2016).

In a corporate environment, unexpected situations are common, and to prevent future stress from compromising our performance, I will incorporate stress management techniques and develop adaptability. Encouraging a mindset that embraces change will help us better handle adversity and turn it into a chance for growth.

## **2.2. Critical Incident #2: Different personalities, bring us different ways to stay**

### **2.2.1. The Event**

We found ourselves in a challenging situation almost two weeks into the BiP program. Our performance was worsening each quarter, and we couldn't understand why. One major issue was the management of car inventory days, which was completely out of control. As the marketing director, I had to monitor this critical factor closely, as my pricing recommendations were directly linked to it.

Most team members were experienced professionals with competitive red traits from the Color Insights test, while I, at 21, was the youngest with no work experience. This dynamic made me feel relieved to have knowledgeable colleagues, but I also worried they saw me as "useless." Given the inventory problem, I felt blamed for our difficulties, as some believed our pricing was too high, preventing cars from selling quickly. I started doubting my role, even though I carefully considered everyone's input when making decisions. One team member, in particular, seemed to hold me responsible, criticizing me for not being "dramatic" enough in my decisions to control inventory. Wanting to avoid conflict, I followed his advice, believing his experience made him right. However, our marketing costs rose, profit margins fell, and inventory days didn't improve, leaving me feeling disrespected and distrusted in my role. The team was no longer working cohesively, we were each trying to fix a problem without understanding its true cause.

Ultimately, we consulted one member of Industry Masters, who clarified that the root problem was opening too many factories without enough cars to supply them, leading to uncontrolled inventory days and "dead money." I felt relieved to learn it wasn't just my mistake, it was a collective oversight. The blame shifted from me, and we understood that the decision error involved multiple departments, not just mine.

### **2.2.2. Personal Response Analysis**

Due to the lack of understanding and teamwork, I felt it was crucial to highlight this critical incident. Pointing fingers without knowing the true cause of a problem or making hasty decisions without consensus creates a toxic environment and harms team performance. This phase felt particularly negative, as we seemed to undermine each other instead of working together towards solutions.

As someone with blue traits, I am deeply concerned with precision and competence in my work, often fearing that others, especially those more experienced, might doubt my abilities. While all decisions were made collectively, there was a lack of trust and respect for the role of each department head. We should have sought consensus, which did not happen, leaving me feeling undervalued and less competent than others. The colleague's behavior, marked by their Red personality traits, was imposing and controlling, leaving little room for consensus or dialogue. Their excessive competitiveness and refusal to consider other opinions created tension. Noticing this, I became reluctant to share my ideas, feeling underestimated and voiceless within the team.

### **2.2.3. Lesson Learned and Future Action**

**Respect and Be Respected: The golden rule for effective cooperation**

Respect is defined as valuing a person, accompanied by appropriate behavior and emotions (Woodruff 2019). The lack of respect and mutual understanding became a major obstacle for our team, affecting both individual performance and overall effectiveness. Learning from this experience is crucial for personal and professional growth, as it emphasizes the need to cultivate an environment of mutual respect and trust. To be respected, one must first respect others, and it's equally important to trust in the work and capabilities of colleagues. Trust is particularly crucial for young professionals to adapt, maintain professionalism, and establish ethical workplace relationships, especially at the early stages of their careers (Raatikainen et al. 2023).

In any work environment, respecting and trusting colleagues is fundamental. In our case, the pressure to improve led a team member to act disrespectfully, disregarding my opinions and imposing decisions without consensus. This undermined trust, reduced morale, and compromised team effectiveness. Feeling devalued and less competent, my performance suffered, and the team's cohesion weakened. Imposing solutions without seeking consensus created a power imbalance and overlooked the importance of trusting and respecting each member's role and skills.

### **Between Ambition and Collaboration: The Need for a Competitive Balance**

Competitiveness is often valued in the workplace as a driver of high performance, but it must be balanced to be effective. In this critical incident, it became evident that competitiveness should not be extreme or ignored, rather, it should allow team members to thrive while maintaining collaboration and mutual respect. Excessive competition can overly focus on performance goals, negatively affecting learning and growth within the team (Heidemeier and Bittner 2012).

In our case, one team member's excessive competitiveness led to conflict, disrupting collaboration and decision-making while lowering morale and productivity.

To ensure competitiveness is beneficial, it must balance ambition with collaboration, making all team members feel valued and aligned with common goals. While achieving this balance can be challenging (Murray 2012), fostering a workplace culture that values both individual contributions and team synergy can lead to more creative solutions and enhanced success in the global market (Gentleman-Ingersoll 1998)

### **Defend Your Opinion: Don't Let Others Silence You**

Our experience in the BiP program emphasized the importance of confidently expressing oneself, especially when interacting with more experienced colleagues. Confidence in voicing opinions is vital for effective team dynamics, fostering collaboration and innovation. Research shows that low self-confidence can hinder sharing ideas, negatively impacting team cohesion and creativity (Matulesy and Hikmah 2022; Nofembri et al. 2021). A "culture of voice," where all members feel empowered to speak up, is essential for organizational success, as it enhances contributions to collective goals (Burriss and Sohn 2021).

In our case, a power dynamic led me, the youngest team member, to feel pressured into silence, weakening our decision-making by excluding valuable perspectives. If I had felt more empowered, the outcome might have been different.

The Discovery Insights test revealed my introverted nature, making me less likely to challenge others, which, while maintaining harmony, can also lead to unproductive silence. It is essential for all team members to find ways to express their ideas constructively for a more effective team environment.

### **2.3. Final Considerations**

The critical incidents I experienced during the three weeks of the BiP program revealed important lessons about team dynamics, mutual respect and the importance of finding a balance between competitiveness and collaboration. The first incident showed how small mistakes, such as a lack of punctuality, can develop into major problems, affecting team performance and opportunities. It emphasized the importance of addressing even the smallest details. The second incident revealed the challenges of working with diverse personalities and taught me that, despite my natural tendency to avoid confrontation, it is crucial to express my opinions clearly and assertively, regardless of the pressure or power dynamics involved.

This reflection was further reinforced midway through the simulation, during the peer evaluation (Fig. 19), which showed that my self-assessment aligned with those of my team members, highlighting a sense of self-awareness. Understanding my strengths and areas for improvement became pivotal in recognizing that everything requires continuous effort (Kesby 2008). It is not about changing my inherent nature, but rather about consistently practicing small, meaningful improvements (Collins 2001).

Building on these lessons, I intend to apply what I have learned by promoting a collaborative team culture where all voices are heard and respected. I am committed to standing up for my opinions, balancing ambition and collaboration, and prioritizing mutual respect. I also recognize the importance of paying attention to the smallest details and being resilient in the face of adversity. In doing so, I hope to create an environment where everyone feels valued and motivated to contribute to our collective success.

## References

- Achinas, Spyridon, Vasileios Achinas, and Gerrit Jan Willem Euverink. 2019. "A Technological Overview of Biogas Production from Bio-Waste." *Sustainability*, 11(21): 5981. <https://doi.org/10.3390/su11215981>.
- Ahmed, Khalid, and Long Wei. 2012. "Adaptation as a Response to Climate Change: A Literature Review." MPRA Paper, no. 45024. Munich Personal RePEc Archive. <https://doi.org/10.2139/ssrn.2233070>.
- Almrshed, Ibrahim. 2020. "Innovation Capabilities and Organizational Performance." *Journal of Innovation Management*, 13(4): 116-129. <https://doi.org/10.24182/2073-9885-2020-13-4-116-129>.
- Ananda, Bima Rizky, et al. 2023. "Impact of Product Quality on Purchasing Decisions for Four-Wheeled Vehicles." *Southeast Journal of Research*, 6(1): 21-34. <https://doi.org/10.37481/sjr.v6i1.621>.
- Baik, Yeon, Russell Hensley, Patrick Hertzke, and Stefan Knupfer. 2019. "Making Electric Vehicles Profitable." McKinsey & Company. Accessed September 4, 2024. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/making-electric-vehicles-profitable>.
- Blake, David, Joanne Duncan, and Robyn Clark. 2003. "Managing Innovation: Rethinking the Role of Collaboration." *Strategy & Leadership*, 31(6): 27-33. <https://doi.org/10.1108/10878570310698359>.
- Burris, Ethan R., and Wonbin Sohn. 2021. "Creating a Culture of Voice." *Behavioral Science & Policy*, 7(1): 57-68. <https://doi.org/10.1177/237946152100700106>.
- Caruana, Robert, Janjaap Carrington, and Andreas Chatzidakis. 2016. "Beyond the Attitude-Behaviour Gap: Novel Perspectives in Consumer Ethics: Introduction to the Thematic Symposium." *Journal of Business Ethics*, 136(2): 215-218.

Collins, Jim. 2001. *Good to Great: Why Some Companies Make the Leap...And Others Don't*. New York: HarperCollins.

Crotty, Brent, Stefan Dominik, Emily Jones, and Michael Weiss. 2017. "The Business Model Canvas and Value Proposition Design: Methodological Essentials and a Case Study in the Commercial Aviation Industry." *International Journal of Transport Research*, 9(2): 45-59. <https://doi.org/10.1515/ijtr-2017-0005>.

Dalton, J. 2018. "The SWOT Analysis: A Key Tool for Strategic Planning." *Strategic Management Review*.

DeSarbo, Wayne S., Venkatraman, N., and Rajdeep Grewal. 2008. "Strategic Marketing Segmentation: Models and Analytical Approaches." In *Research Methodology in Strategy and Management*, edited by David J. Ketchen and Donald D. Bergh, 83-108. [https://doi.org/10.1108/S1548-6435\(2008\)0000005008](https://doi.org/10.1108/S1548-6435(2008)0000005008).

Dijkstra, Femke S., Peter G. Renden, Martijn Meeter, Linda J. Schoonmade, Ralf Krage, Hans van Schuppen, and Anne de la Croix. 2021. "Learning about Stress from Building, Drilling, and Flying: A Scoping Review on Team Performance and Stress in Non-Medical Fields." *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 29(52). <https://doi.org/10.1186/s13049-021-00865-7>.

Fan, J. 2022. "Media Influence on Consumer Behavior." *Advances in Economics, Business and Management Research*. <https://doi.org/10.2991/aebmr.k.220307.438>.

Fankhauser, Sam. 2016. "Adaptation to Climate Change." *Centre for Climate Change Economics and Policy Working Paper*, no. 287; *Grantham Research Institute on Climate Change and the Environment Working Paper*, no. 255. <https://doi.org/10.2139/ssrn.2869292>.

Fitri Handayani, et al. 2023. "The Importance of STP in Automotive Marketing." *Economic Journal*, 4(1): 1170. <https://doi.org/10.36312/ej.v4i1.1170>.

Fundo Ambiental. 2023. "Incentivo pela Introdução no Consumo de Veículos de Emissões Nulas (VEN 2023)." <https://www.fundoambiental.pt/apoios-2023/mitigacao-de-alteracoes-climaticas/incentivo-pela-introducao-no-consumo-de-veiculos-de-emissoes-nulas-ven-2023.aspx>.

Gafni, Ruti, and Anat Goldstein. 2020. "Effects of Multicultural Teamwork on Individual Procrastination." *Interdisciplinary Journal of e-Skills and Lifelong Learning*, 16: 219-220. <https://doi.org/10.28945/4617>.

Gangwar, Amit, and Mahendra Rao. 2020. "Pricing Strategies in Competitive Markets." *European International Journal of Multidisciplinary Research and Management Studies*, 4(4): 34. <https://doi.org/10.55640/eijmrms-04-04-34>.

Guadagni, Alice, and Fabio Pascucci. 2020. "Business Model Innovation: A Case Study in the Digital Age." In *Handbook of Research on Digital Innovation and Entrepreneurship*, edited by Marco Ciampi and Marko Rimoldi, 365-382. Florence: Firenze University Press. <https://doi.org/10.36253/978-88-5518-044-3.45>.

Hannappel, Kai. 2017. "Climate Change and Its Impact on the Automotive Industry." *AIP Conference Proceedings*, 1916(1): 020001. <https://doi.org/10.1063/1.4996530>.

Holström, Joachim, et al. 2020. "Lessons from Tesla's Approach to Innovation." *Harvard Business Review*. February 28, 2020. <https://hbr.org/2020/02/lessons-from-teslas-approach-to-innovation>.

Işoraitè, Margarita. 2016. "Marketing Mix Theoretical Aspects." *International Journal of Research - Granthaalayah*, 4(6): 25-37. <https://doi.org/10.29121/granthaalayah.v4.i6.2016.2633>.

Jain, Amit, Kamal Sharma, and Vishal Goyal. 2024. "A Comprehensive Analysis of AI/ML-Enabled Predictive Maintenance Modeling for Advanced Driver-Assistance Systems." *J. Electrical Systems*, 20(4s): 486-507.

Kesby, David. 2008. "Daily Actions to Improve Leadership." *Human Resource Management International Digest*, 16(4): 23-25.  
<https://doi.org/10.1108/09670730810848243>.

Kumar, V., et al. 2008. "The Power of Customer-Focused Sales Campaigns." *Journal of Marketing*, 72(5): 50-65. <https://doi.org/10.1509/jmkg.72.5.050>.

Lukin, Konstantin, Julia M. Sperling-Magro, and Peter Vanham. 2022. "The New Sustainability Mandate for Business Leaders." *Sustainability*, 14(7): 4000.  
<https://doi.org/10.3390/su14074000>.

Madsen, Henning, and Bjørn Grønseth. 2022. *Porter's Five Forces Model*. Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781800377486.five.forces.model>.

Martine Haas & Mark Mortensen (2016) *The Secrets of Great Teamwork*, Harvard business review, 94(6), 70-76

Matulesy, Angelina, and Nurul Hikmah. 2022. "Self-Efficacy and Student Performance in Learning." Atlantis Press. <https://doi.org/10.2991/assehr.k.220207.008>.

McKinsey & Company. 2016. "Disruptive Trends That Will Transform the Auto Industry." McKinsey & Company, January 2016. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/disruptive-trends-that-will-transform-the-auto-industry>.

McKinsey & Company. 2023. "Spotlight on 2023: The Trends Transforming Mobility." McKinsey & Company. [https://www.mckinsey.com/~/\\_media/mckinsey/industries/automotive%20and%20assembly/our%20insights/spotlight-on-2023-the-trends-transforming-mobility.pdf](https://www.mckinsey.com/~/_media/mckinsey/industries/automotive%20and%20assembly/our%20insights/spotlight-on-2023-the-trends-transforming-mobility.pdf).

Miln, Paul. 1970. "The Efficiency of Marketing." *Journal of Marketing Efficiency*, 22. <https://doi.org/10.1108/EB000919>.

Perkins, Donald N. S., and Johann Peter Murmann. 2018. "What Does the Success of Tesla Mean for the Future Dynamics in the Global Automobile Sector?" *Management and Organization Review*, 14(3): 471–482. <https://doi.org/10.1017/mor.2018.31>.

Pettinger, Richard. 1996. "Strategic Management: A New Perspective." In *The New Managerialism*, 45-68. London: Palgrave Macmillan. [https://doi.org/10.1007/978-1-349-24671-7\\_2](https://doi.org/10.1007/978-1-349-24671-7_2).

PwC. 2018. *Eascy – Five Trends Transforming the Automotive Industry*. PwC. [https://www.pwc.at/de/publikationen/branchen-und-wirtschaftsstudien/eascy-five-trends-transforming-the-automotive-industry\\_2018.pdf](https://www.pwc.at/de/publikationen/branchen-und-wirtschaftsstudien/eascy-five-trends-transforming-the-automotive-industry_2018.pdf).

Sharath Kumar, C.R., and Praveena, K.B. 2023. "SWOT Analysis: Applications and Methods." In *Handbook of Strategic Management Tools and Techniques*, 62. [https://doi.org/10.1007/978-1-4842-4206-3\\_62](https://doi.org/10.1007/978-1-4842-4206-3_62).

Simonazzi, Annamaria, Andrea Ginzburg, and Guglielmo Barone. 2020. "Electric Vehicles: A New Growth Path for Europe?" *INET Oxford Working Paper*, no. 141: 1–32. <https://doi.org/10.36687/inetwp141>.

Smita Uchil and Rashad Yazdanifard. 2014. "Globalization, Individualization, and Digitalization: Challenges in the Automotive Industry." *Journal of Business & Financial Affairs*, 3(1): 1-6. <https://doi.org/10.4172/2168-9601.1000112>.

Strenitzerová, Martina. 2005. "Strategic Management as a Tool of Economic Policy of Companies." *Communication Today*, 4: 62-65. <https://doi.org/10.26552/com.c.2005.4.62-65>.

Sudipta Debnath, Sandeepan Ghosh, and Tuhin Banerjee. 2021. "Drivers and Barriers to Electric Vehicle Adoption: A Comprehensive Review." *Renewable and Sustainable Energy Reviews*, 150: 111707. <https://doi.org/10.1016/j.rser.2021.111707>.

Tim O'Shannassy. 2016. "Strategic Intent: A Review of the Literature." *International Journal for Innovation Education and Research*, 3(6): 1-15. <https://doi.org/10.31686/IJIER.VOL3.ISS6.384>.

Upadhyay, A. 2024. "The Role of Advertising in Consumer Behavior." *International Journal of Social Research and Economic Management*. <https://doi.org/10.55041/ijsrem27952>.

UVE (União da Mobilidade Elétrica). 2023. "Incentivos Aquisição Veículos Elétricos." <https://www.uve.pt/page/incentivos-aquisicao-veiculos-eletricos/>.

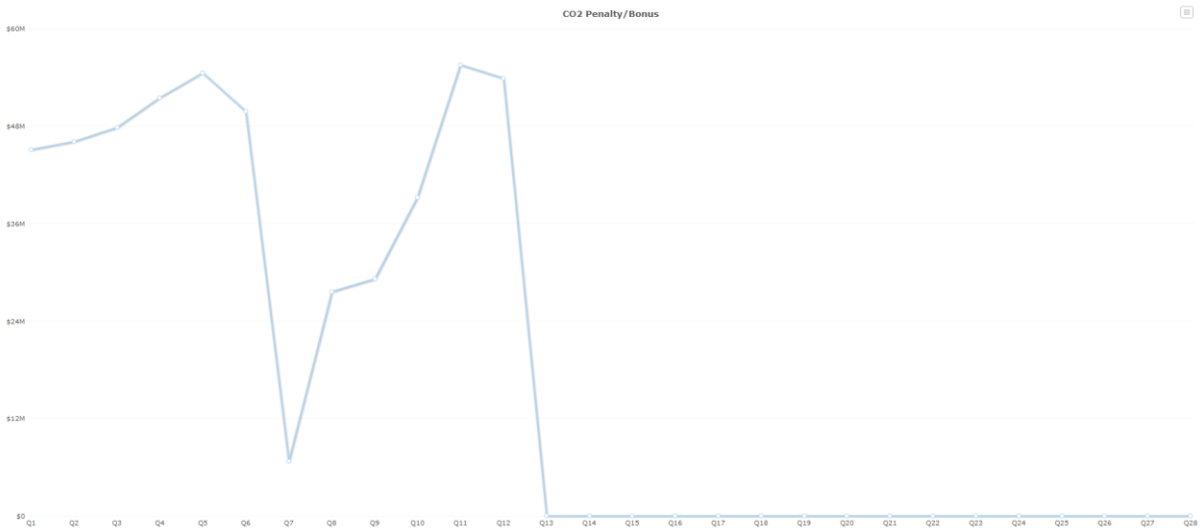
Vaz, Elvira, et al. 2017. "Sustainability and Innovation in the Automotive Industry." *Sustainability*, 9(6): 880. <https://doi.org/10.3390/SU9060880>.

Weaver, Sallie J., Eduardo Salas, and Melissa A. King. 2001. *Team Training in Health Care: A Review of Team Training in Health Care: Ten Questions Answered*. Washington, D.C.: American Psychological Association. <https://doi.org/10.1201/b12791-1.3>.

Wellings, Richard, Susan Morgan, and Michael Smith. 2021. "The Future of Electric Vehicles: Policy and Market Perspectives." *Vehicles*, 3(4): 51-69. <https://doi.org/10.3390/vehicles3040051>.

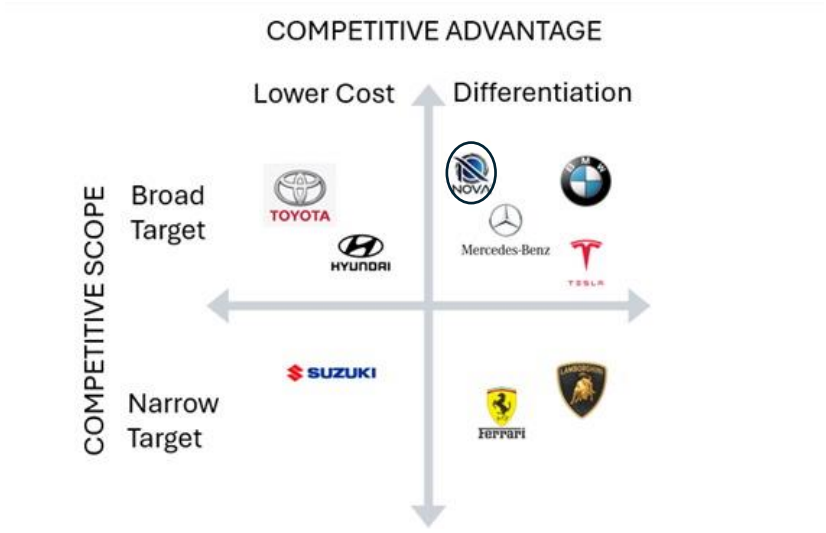
Woodruff, Paul. 2019. "Respect." In *The Wiley Blackwell Encyclopedia of Education*. <https://doi.org/10.1002/9781444367072.wbiee390.pub2>.

**Appendix**



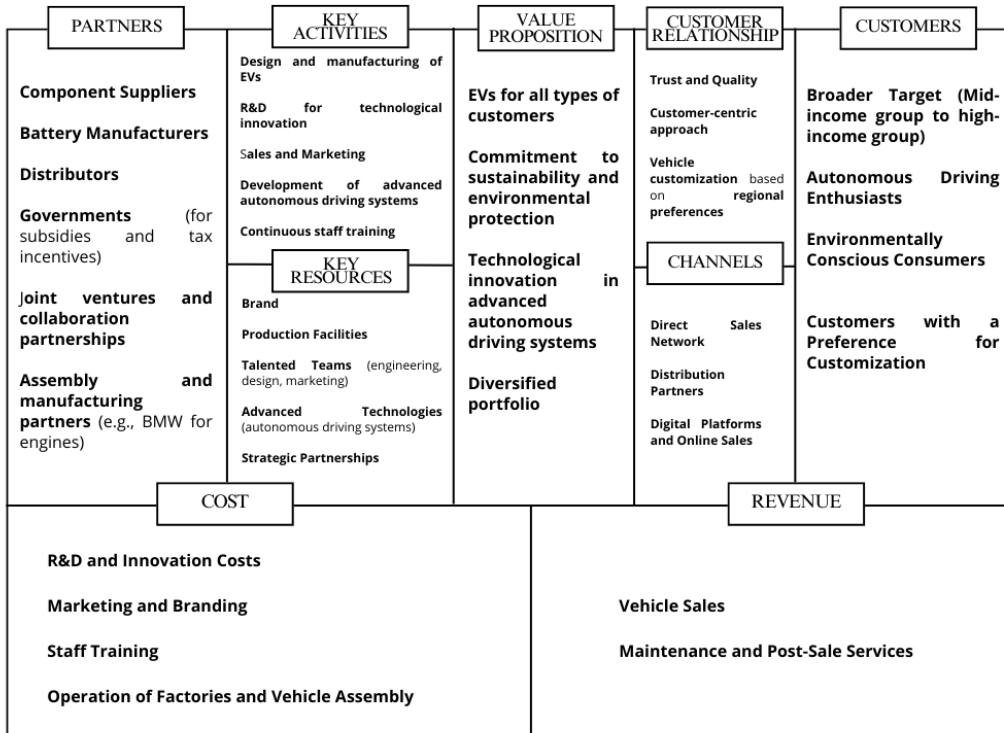
**Figure 1:** Trends in CO2 Penalty and Bonus Costs Over Time.

**Source:** BiP Industry Master’s Simulation. 2024.



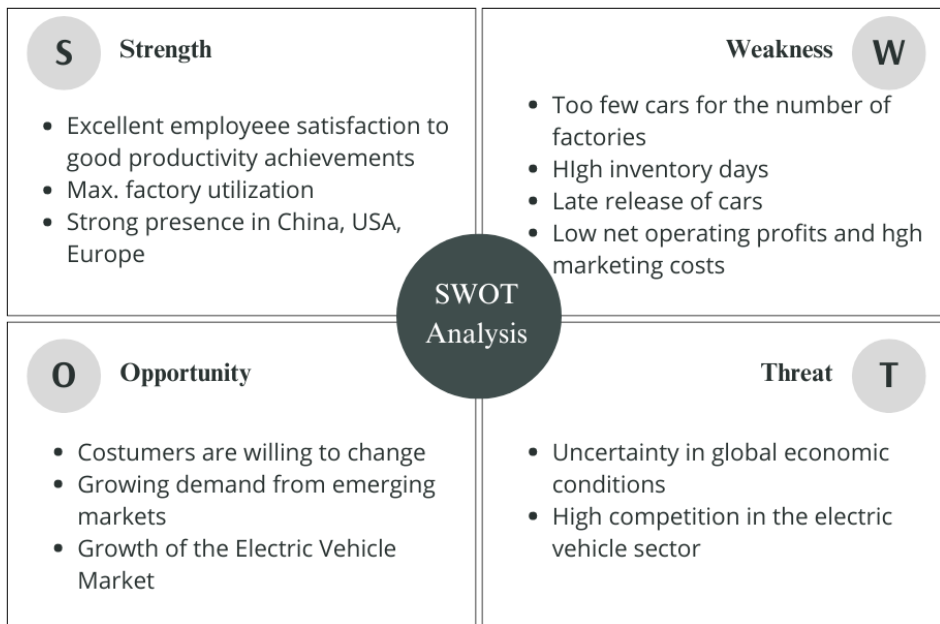
**Figure 2:** Strategic Positioning of Automotive Brands compared to NOVA in Terms of Competitive Advantage and Scope.

**Source:** Own Illustration. Based on Strategy Academic Session. 2024.



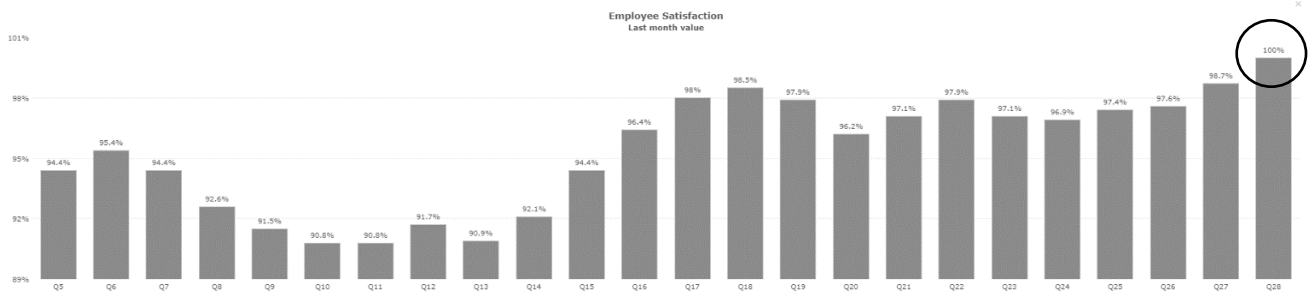
**Figure 3:** NOVA's Business Model Canva.

**Source:** Own Illustration. BiP Industry Master's Simulation. 2024.



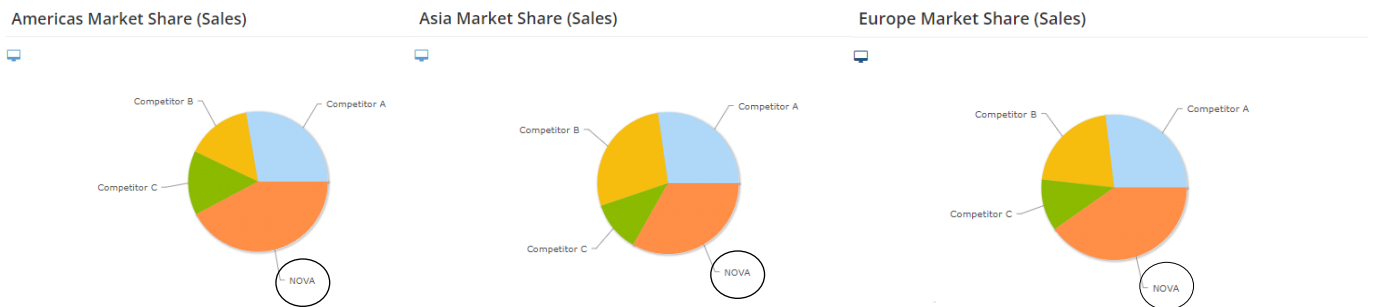
**Figure 4:** NOVA's SWOT Analysis.

**Source:** Own Illustration. BiP Industry Master's Simulation. 2024



**Figure 5:** Employee Satisfaction Levels Over Time.

**Source:** BiP Industry Master’s Simulation. 2024.



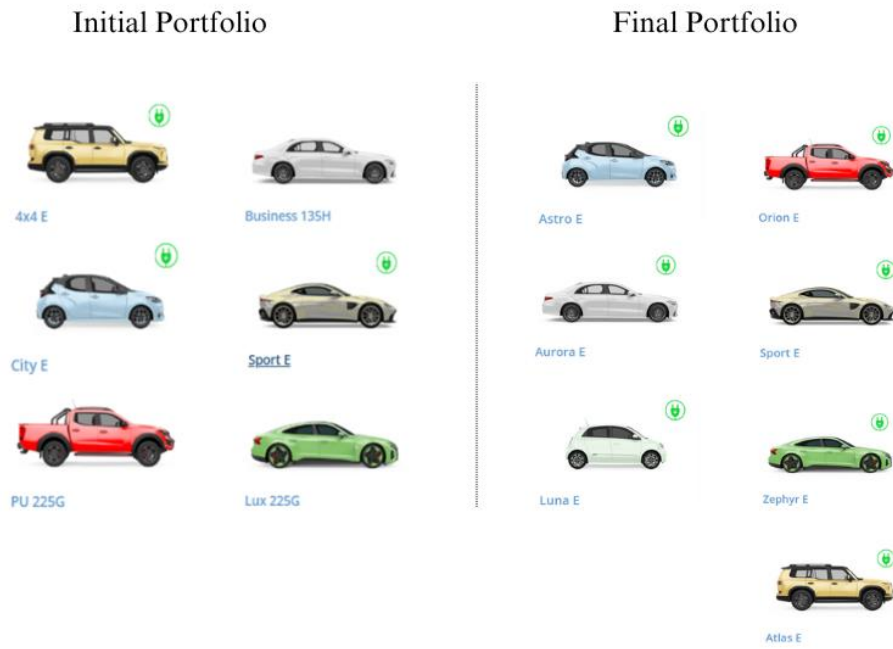
**Figure 6:** NOVA's Market Share Distribution Across Americas, Asia, and Europe.

**Source:** BiP Industry Master’s Simulation. 2024.

Consumer Preferences				Consumer Preferences				Consumer Preferences			
Location	Preference	Rating		Location	Preference	Rating		Location	Preference	Rating	
Americas	Battery Technology: Extended Sodium-ion (NA)	+++		Europe	Motor Type: Hybrid	+++		Asia	Autonomous Drive: Level IV	+++	
Americas	Autonomous Drive: Level IV	+++		Europe	Autonomous Drive: Level IV	+++		Asia	Autonomous Drive: Level III	++	
Americas	Engine: High	++		Europe	Battery Technology: Standard Sodium-ion (NA)	++		Asia	Autonomous Drive: Level II	++	
Americas	Autonomous Drive: Level III	++		Europe	Battery Technology: Extended Sodium-ion (NA)	++		Asia	Battery Technology: Extended Sodium-ion (NA)	++	
Americas	Autonomous Drive: Level II	++		Europe	Autonomous Drive: Level III	++		Asia	Motor Type: Diesel	++	
Americas	Motor Type: Hybrid	++		Europe	Autonomous Drive: Level II	++		Asia	Motor Type: Hybrid	++	
Americas	Motor Type: Diesel	++		Europe	Motor Type: Diesel	++		Asia	Battery Technology: Extended Li-ion	+	
Americas	Battery Technology: Standard Sodium-ion (NA)	+		Europe	Battery Technology: Extended Li-ion	+		Asia	Battery Technology: Standard Sodium-ion (NA)	+	

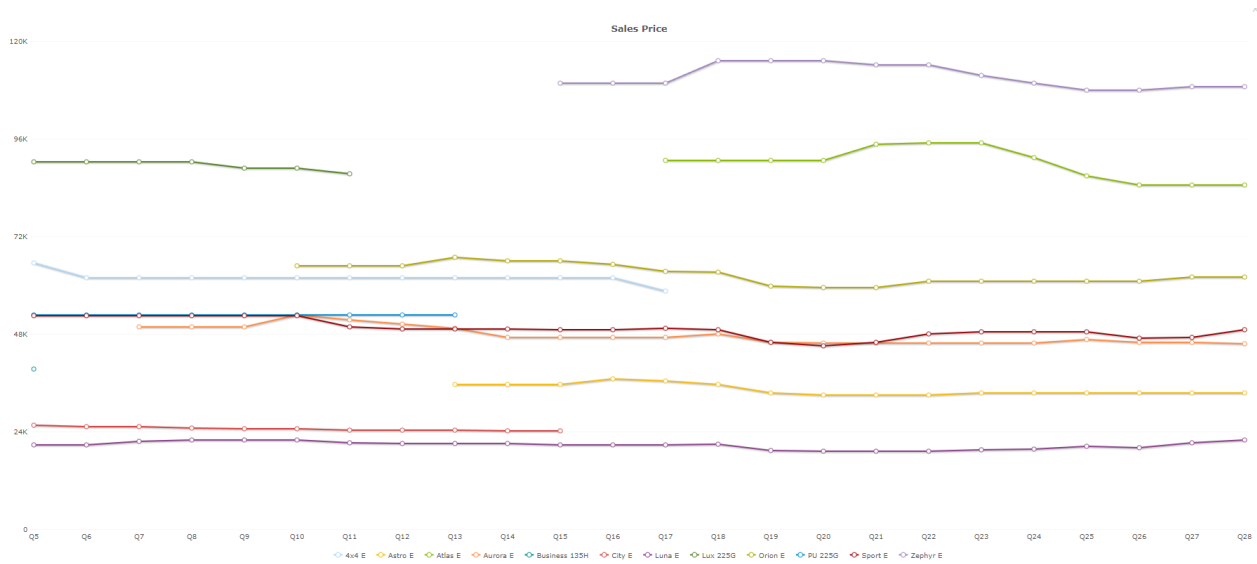
**Figure 7:** NOVA’s Consumer Preferences.

**Source:** BiP Industry Master’s Simulation. 2024.



**Figure 8:** Evolution of NOVA's Vehicle Portfolio: Initial vs. Final Models.

**Source:** BiP Industry Master's Simulation – NOVA Team. 2024.

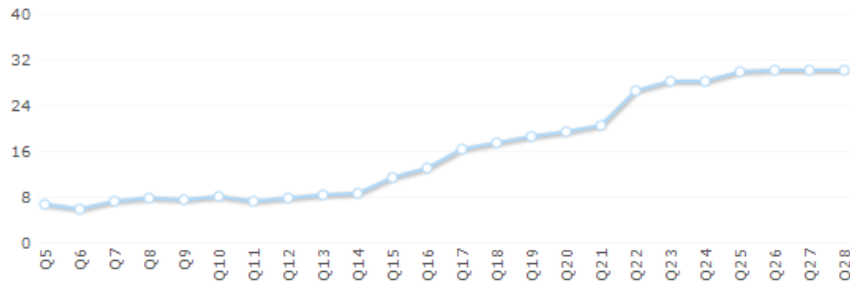


**Figure 9:** Price Adjustments and Trends Throughout the Simulation Period.

**Source:** BiP Industry Master's Simulation. 2024.

### Sustainability Skill Level

30.20

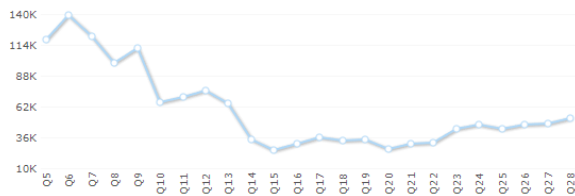


**Figure 10:** Growth in Sustainability Skill Level Over Time.

**Source:** BiP Industry Master’s Simulation. 2024

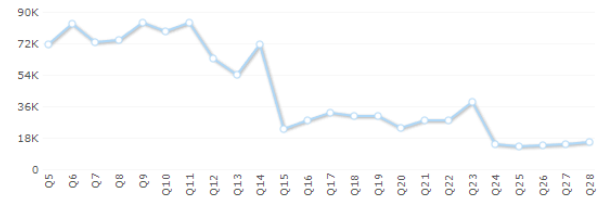
### CO2 in Production (Scope 1)

52,532 to



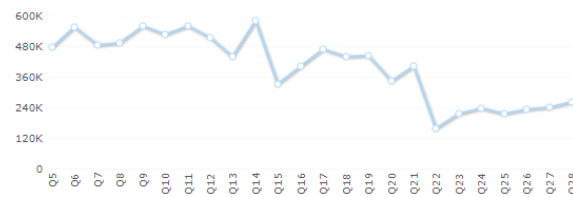
### CO2 in Energy (Scope 2)

15,760 to



### CO2 in Supply Chain (Scope 3)

262,662 to

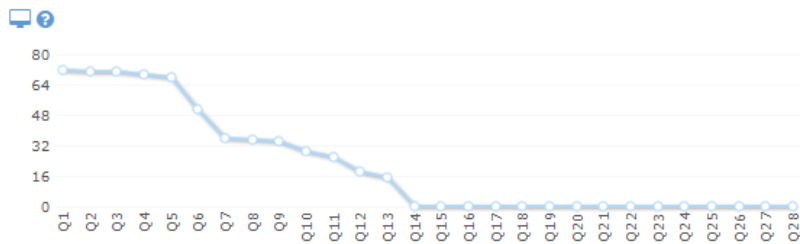


**Figure 11:** Reduction of CO2 Emissions Across Production, Energy, and Supply Chain – Scope 1,2, and 3.

**Source:** BiP Industry Master’s Simulation. 2024.

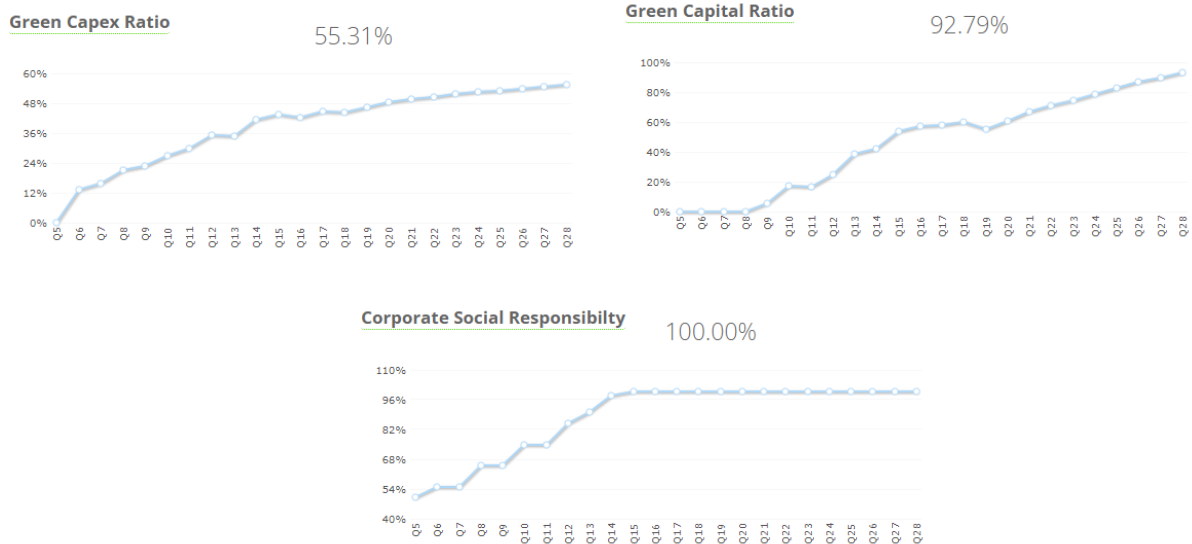
<b>CO2 Regulation</b>	<b>CO2 Allowance</b>	<b>CO2 Penalty Factor</b>	<b>CO2 Bonus Factor</b>
	47.50 g/mile	\$60	\$0

**CO2 Fleet Emissions (g/mile)**



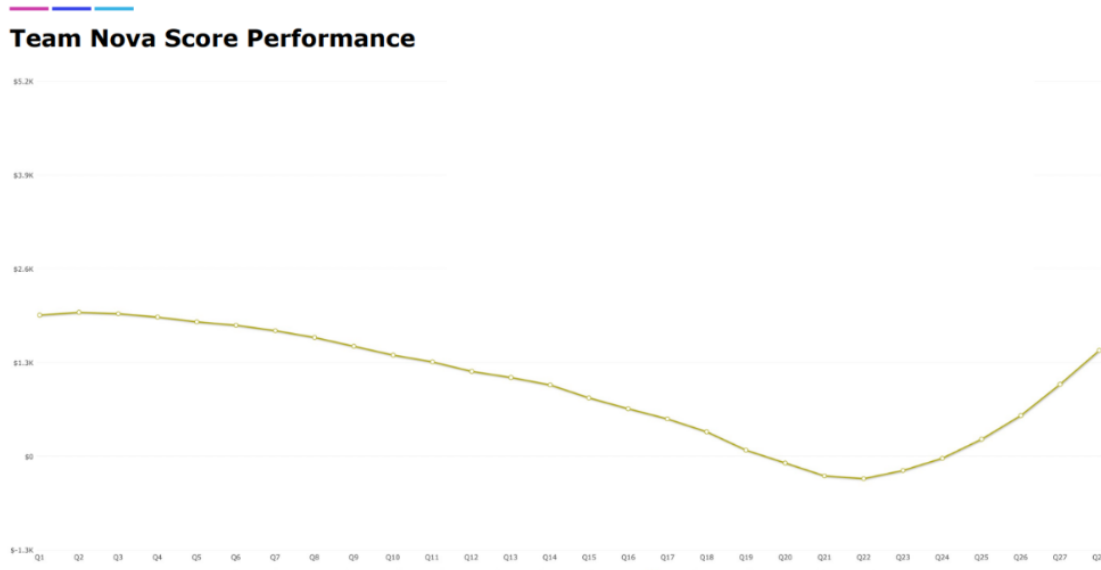
**Figure 12:** Reduction in CO2 Fleet Emissions Over Time and Regulatory Compliance.

**Source:** BiP Industry Master’s Simulation. 2024.



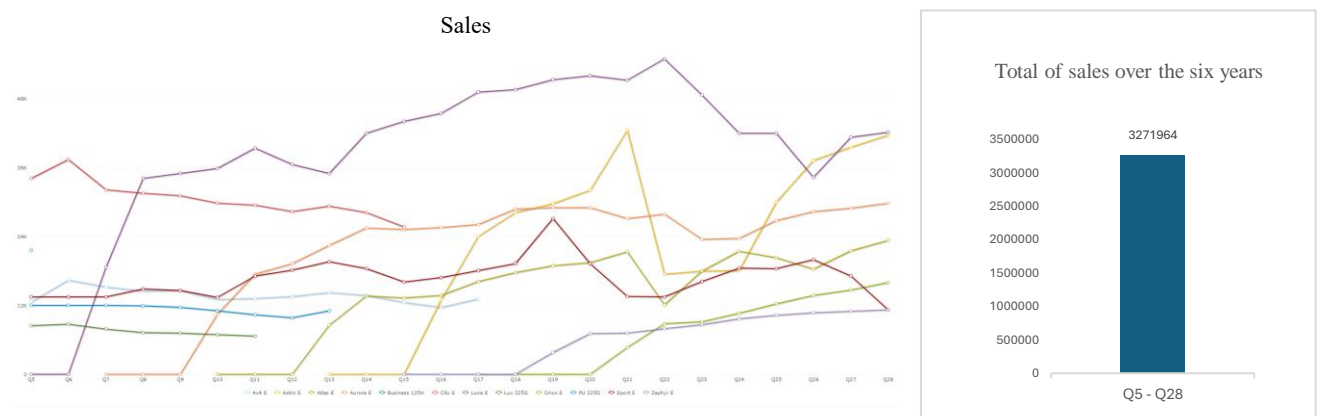
**Figure 13:** Progress in Green Investment and Corporate Social Responsibility Metrics Over Time.

**Source:** BiP Industry Master’s Simulation. 2024.



**Figure 14:** Team NOVA's overall score performance.

**Source:** BiP Industry Master's Simulation. 2024.



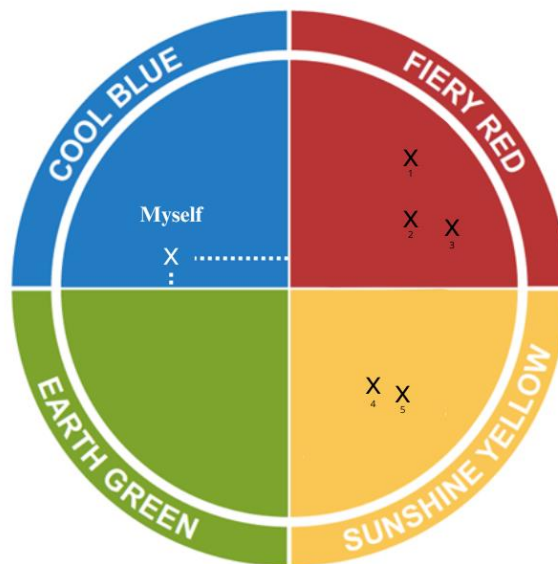
**Figure 15:** Sales Volume per Car Model by Quarter and Total Sales over the 6 years.

**Source:** BiP Industry Master's Simulation. 2024.



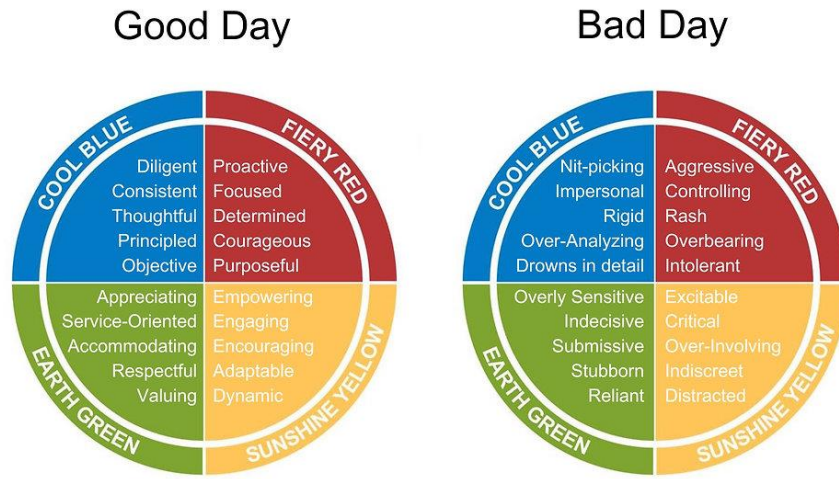
**Figure 16:** Quarterly Revenue Growth Over Time.

**Source:** BiP Industry Master’s Simulation. 2024.



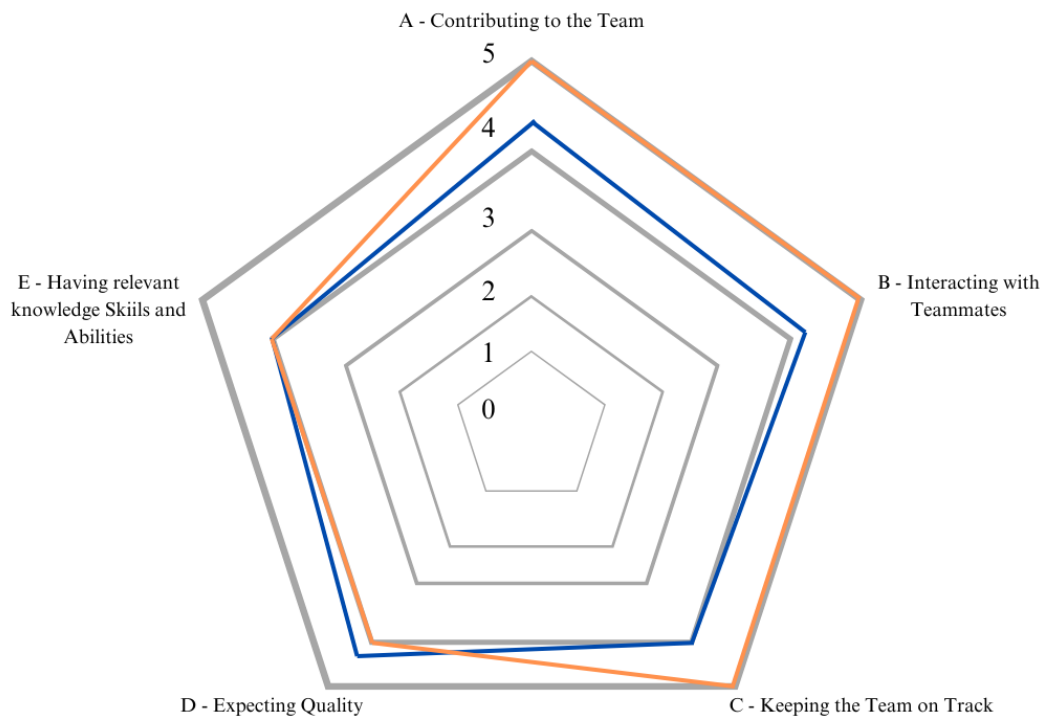
**Figure 17:** Representation of Relative Personality Scores of Team NOVA – My Position vs Team Members. Scores Obtained During Leadership Workshop of Business in Practice (BiP) by Miguel Fernandes.

**Source:** Own Illustration. Based on *Insights Discovery* personality test. 2024.



**Figure 18:** Characteristics of Dominant Colors on Good Days and Bad Days.

**Source:** Own Illustration. Based on *Insights Discovery* personality test. 2024.



**Figure 19:** Business in Practice - Peer & Self-Assessment. Self-assessment and Peer assessment were similar

**Source:** BiP Industry Master’s Simulation – Peer Feedback. 2024.