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BUSINESS IN PRACTICE

**CHANGE MANAGEMENT AND THE AUTOMOTIVE INDUSTRY - PAVING THE
ROAD TO ELETRIFICATION AND SELF-REFLECTION ON TEAM DYNAMICS**

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Abstract

The automotive industry is going through a complete transformation after more than a century of absolute dominance of Internal Combustion Engine Technology. The constant changes the industry now faces pressures Original Equipment Manufacturers to innovate every day to obtain a competitive advantage. This paper is focused on analyzing a three week change management gamified experience, containing a personal reflection on the dynamics encountered and a business review, focusing on the Strategy, Innovation and Operations functions of a car manufacturer over twenty-four decision-making rounds in the path to electrification and sustainability.

Keywords: Change Management; Self-Reflection; Business Simulation; Automotive Industry; Operations Management; Strategy; Innovation; Business in Practice; Sustainability; ESG; Cross-Functional Review; Gamified Learning; Team Dynamics

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1. Introduction

Change management can be defined as *“the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers”* (Todnem 2005).

The *Industry Master’s* gamified business simulation produces the opportunity to do a team-based deep-dive into a six-year change management experience in the automotive industry, broken down into twenty-four decision-making quarters, with the goal of guiding an Original Equipment Manufacturer called Beep through a fast-changing environment. For the context of this thesis, the two main components are broken down into two sections.

The first section is an analysis of the business through this six-year gamified period, understanding the cross-functional interactions between three different functions (Strategy, Innovation and Operations). Analyzing mistakes and comparing them with common pitfalls companies incur in change management experiences is crucial to more effectively identify similar situations.

Secondly, a self-reflection on this experience, focused on identifying two critical incidents that deeply affected the course of the simulation and the team dynamics. These incidents serve as fuel to understand improvement points to better develop interpersonal and leadership skills that will be crucial in a future professional career.

These two sections complement themselves in providing an overview of the two factors that lead companies to successfully go through organizational change: how leadership acts and coordinates to guide the collective and the importance to coordinate business functions strategic decisions to achieve a company’s long-term goals in a transformational journey.

This change management experience analysis also has a deep focus in sustainability practices development, which have a crucial role in the future of all industries, after the signing of the Paris Agreement in 2015 (United Nations 2015).

2. Firm Analysis

In the past decades, change management has been a hot topic. With the digital world and innovation happening faster and faster across all industries, companies with no choice but to adapt and constantly innovate to survive.

Beep is no different. Electric cars have been on the rise as in 2023 one in every car sold was electric with more than 40 million vehicles on the road (Connelly et al 2024). Beep could not fall behind this trend and put on motion a six-year strategy to convert to a fully electric portfolio. And so, a vision was put in place. “To revolutionize transportation with unparalleled innovation, exceptional performance and advanced sustainable electric vehicles, driving towards zero emissions for a cleaner, greener planet.” Beep set out to become 100% sustainable and to have offer the best technology that is continuously developed at affordable prices for the consumers, offering a business case similar to that of Toyota, having limited resources but limitless ambitions (Fane et al 2003).

After six years, Beep’s performance can be analyzed in achieving or not this vision. Strategy, Innovation and Operations, three functions of Porter’s value chain (Porter 1998) (*Fig. 1*) will be the areas on focus, as they are the best to perform a cross-functional analysis of the mistakes and strong points of the company over this period, at the same time it is possible to visualize how hard is to coordinate a multinational organization into a complete transformation of its values, products and operations.

This section will comprise a review of each function, with each having a comparison to real life examples of car manufacturers and a cross-functional analysis as a conclusion of that topic. Relevant data will be presented to support any argument on why outcomes happened. Mistakes will be as emphasized as right actions, because it is important to understand “do’s and don’ts” in the context of change management. To finalize, a short overall conclusion will be in place to wrap up the analysis into key takeaways from the business function reviews, as well as a small personal takeaway.

2.1. Strategy Review

2.1.1 Beep's Strategic Intent

Hambrick and Fredrickson strategy diamond (Hambrick and Fredrickson 2005) is the best way to capture Beep's strategic intent and compare it to the final picture and have a clear understanding of what was achieved and what was not. The diamond is illustrated in *Fig. 2* and is comprised of five dimensions: differentiators, arenas, staging, vehicles and economic logic.

Generally, our strategy differentiated from competitors by the fast pace on which Beep wanted to transform its portfolio into a 100% hybrid and electric car composition and the brand into the benchmark when it comes to sustainable operations. To achieve that, heavy investment fueled by our leading market share globally in combustion technology, serving as a cash cow. The vehicle to achieve that is precisely our R&D investments which will allow us to produce the most innovative products, tailored to each of our arenas (China, Europe and the United States). The intended staging would be done in three acts: the first investing very heavily in producing our new vehicle technologies while leveraging our strong position in combustion engine vehicles; the second is transforming our portfolio into a 100% green one, with the final act centered around investing heavily in more sustainable operations. All these will be tied together by an economic logic of offering a *differentiation*, according to Porter's generic strategies (Porter 1980).

2.1.2 External Analysis – PESTEL And Porter's Five Forces

The *PESTEL Analysis* (Aguilar 1967), illustrated in *Fig. 3*, framework offers a solution to structure the impact external forces have on an industry and company.

Starting with the Political and Economic side, trade wars between the USA and China intensified in Q6, as the American government imposed 100% tariffs on imported Chinese electric vehicles. The Chinese government replied with 25% tariffs on imported American vehicles in Q9. These trade wars made it essential for Beep to match the regions where models

were produced and sold, with Europe being the only region with more flexibility in terms of go-to market strategy. On another hand, the global economic recession, meant that underutilization of factories could be a huge problem due to rising staff costs, but Beep was not affected by this as from Q24 to Q28, almost maximum utilization was achieved (*Fig. 4*), but will be more dissected in the Operation's part of this section.

Regarding the Social and Technological dimensions, consumers are shifting from Internal Combustion Engine Vehicles (ICE) to EV's at a faster pace than ever as the cost-savings associated, prospects of greener urban centers and environmental incentives that governments are introducing are affecting and changing consumer's preferences (Hoeft 2021). On the other hand, the still underdeveloped infrastructure for EV adoption creates range anxiety, and how this issue is tackled is one of the key factors for manufacturers that intend to go full electric to survive. Furthermore, the introduction of a full electric portfolio opens up the possibility for manufacturers to develop new business models, such as a subscription model, which was adopted by Beep in Q16, which proved to be a success (more details on the Innovation review of this section).

On the Environmental and Legal dimensions of the framework, from Q4 onwards, the restrictions and penalties associated with selling combustion cars highlighted the need for the electrification of the portfolio, especially after the EU tightened restrictions and applied heavier penalties. With this in mind and anticipating new legislations such as the 2035 ban on combustion engine cars (European Parliament 2023), Beep decided to leverage the revenues from ICE's for a year, while accelerating the introduction of electric vehicles, from Q6 to Q11 to fully fuel the R&D expenditure for the new portfolio and business model (as seen in *Fig. 5* regarding CO² penalties/bonus chart). With the expectation of further incentives to go fully electric, Beep decided to be at the forefront and lead that transition, to guarantee a first-mover advantage against its competitors.

The *Porter's Five Forces* (Porter 2000), illustrated in *Fig. 6*, is an adequate framework to analyze industry conditions and potential. Starting with threat of new entrants, electric vehicles are intrinsically different to produce as they require less parts, multiple models can be produced with a single platform, and after-sales maintenance is drastically reduced (Doiron and Higgins 2019), making it easier for new competitors to enter a market that has been essentially dominated by few brands due to high capital requirements, being a *moderate threat*. For that reason, it was essential for Beep to invest in creating the capabilities to be a pioneer in the electrification of portfolios and ensure long-term dominance, which was achieved in this world simulation (*Fig. 7*). As threat of substitution and the bargaining powers of suppliers remain somewhat unchanged in this transition, buyers have more power than ever, as they demand greener and sustainable cars that mitigate range anxiety, at the same time they require adequate infrastructure to purchase EV's. These factors fuel increased rivalry in this industry transition, ensuring that manufacturers that are not aware of consumer trends and innovate more than possible new competitors would be left behind, making the last two forces a *high threat*.

2.1.3 Strategic Positioning

Arguably, it would make more sense to discuss an internal analysis of Beep before discussing its strategic positioning, but it is important to understand how the misalignment between the intended strategy and the one put into motion and how it affected the strengths and weaknesses of the company and its departments (notably, Innovation and Operations).

As mentioned previously, Beep aimed for a *differentiation* strategy. However, due to operational inefficiencies, which will be targeted further ahead, it fell more into a *cost leadership* that did not make sense according to the products in our portfolio, eroding Beep's margins until management finally became aware of what was happening and changed the operational strategy. The KPI's that shows the best picture is the evolution of Beep's EBIT margin (*Fig. 13*), that was drastically low compared to a normal *differentiation* strategy, which taking into account our

volume, proved to be one of driving factors in Beep's late blooming in this transition in terms Free Cash Flow, that were negative until the last quarters of the simulation, when the turning point was expected to be sooner (*Fig. 8*)

2.1.4 Internal Analysis – SWOT Analysis and VRIO Framework

Performing a SWOT analysis (*Fig. 9*) to highlight the internal context of Beep is vital and how it performed. The main *strengths* of Beep were definitely superior R&D capabilities, which allowed to completely transform the business model and portfolio in less than a year and were the main drivers of the superior market share achieved across all markets (52,5% in America, 51.9% in Europe and 46.9% in Asia), leveraging well the *opportunities* that arose from new technologies, new consumer preferences and demands, and also the growth in emerging markets, such as China. In terms of *weaknesses*, the mismatch between intended and actual strategies caused operational inefficiencies in terms of factory utilization and flow of the production strategy, meaning Beep could have reacted better to the *threat* of the tariff wars and to the tune up of its own portfolio. There was also the *threat* of not sustaining competitive advantages after a first mover's strategy, but it was well managed by the company (Robinson et al 1994)

The VRIO framework (Barney 1991) (*Fig. 10*) allows to determine which resources and capabilities were crucial to the success of Beep in this transition period. The global reach of Beep through its factories is a valuable resource and constitutes only a *competitive parity* in relation to its competitors. Beep's commitment to become more sustainable than any other car manufacturer, which can be seen in *Fig. 11* through its ESG report, constitutes a *temporary competitive advantage* as it is a hard and costly to imitate capability, but possible to do so in the long run. Beep sets itself apart from other competitors through its superior R&D and innovation department that created cars with superior technology (and better options for customers by introducing a subscription model and a charging network infrastructure) and its brand reputation,

that was built upon superior performance, and sustainable practices. The first of these *competitive advantages* was not leveraged as it should due to the mismatch in strategy that has been well documented and can be visualized in Value Added (*Fig. 12*), Revenue (*Fig. 13*) and Net Operating Profit (*Fig. 14*), that only started growing at the expected pace around Q20.

2.1.5 Comparison with Real Life Examples

Beep intended to follow Toyota's strategy and that is exactly what ended up creating a gap between intended and achieved strategy, as the performance and costs of the cars produced were incompatible with having a *cost leadership* strategy.

In the end, Beep had to pursue its own strategy, that was most closely linked to that of Tesla, by taking the opportunity to redevelop its business model and diversify its revenue streams (Chengchen 2022), by creating a charging and subscription business. Our Subscription revenue (*Fig. 15*) ended up accounting for almost \$5 billion, ensuring that Beep is not fully dependent on selling hardware, and giving the signal to competitors that the company wants to be a pioneer.

2.1.6 Cross-Functional Review of Strategy

The strategy defined by Beep made one thing clear. All departments would have to coordinate to make this actual experience of change management work. Innovation and Operations were the other departments chosen to be analyzed, because the new strategy of Beep demanded that Innovation created the right "ship", and that Operations steered it to the right destination. In that sense, analyzing the dynamics created by the difference in intended and actual strategy in these two departments is the key in understanding why, even though it was a successful one, it took more time than expected to succeed, as mentioned previously.

2.2. Innovation Review

Innovation is crucial in the growth, survival and success of organizations (Tohidi and Jabbari 2012). The strategy for Beep was outlined and for the first half of the simulation period, Innovation would be the main player to set the grounds for success. Original Equipment

Manufacturers' (OEM's) have been pushed into electrifying their portfolio due to the legal constraints that maintaining ICE's, such as the phasing out until 2035 put into motion by the European Union. However, more than the technology behind each car is at stake, as after car sales service account for more than 54% of OEM's profit (Eslava-Bautista et al 2020). As mentioned before, electric cars require less parts and less maintenance, while their focus shifts to software, endangering the *status quo* established until now. At the same time, opportunities in infrastructure for said electric vehicles, new trends such as Autonomous Driving and Transportation as a Service (TaaS) opens up a new horizon of possibilities for existing and potential new car manufacturers.

For this business function review, the electrification of the portfolio will be dissected first, and then business model innovations.

2.2.1 Business Model Innovation

“Business model innovation is the art of enhancing advantage and value creation by making simultaneous—and mutually supportive—changes both to an organization's value proposition to customers and to its underlying operating model” (Boston Consulting Group 2024). In fact, even if companies take on more risk, those that conduct an effective Business Model Innovation (BMI) are expected to outperform their competitors (Wirtz et al 2016).

Beep understood that to survive it had to do something different than its competitors and developed a charging station infrastructure that will replace the after sales services that constituted the majority of profits, while also adding a subscription revenue model (for results, refer back to *Fig.15*). As said previously, even if in different contexts this is comparable to Tesla's *Superchargers* that offer Tesla model owners. That inspiration is right behind the decision to pursue this avenue, given the success it has in real life, Beep's management decided that it would be the right call for the simulation world.

According to BCG's approach to Business Model Innovation, which can be seen in

Fig.16, Beep is pursuing an *adventurer's* approach (Boston Consulting Group 2024), as it is expanding into non-core business, but as an adjacent territory, while expecting breakout growth, which happened through the Subscription model.

2.2.2 Transforming a Portfolio in 6 Years

At the start of this change management journey, Beep had a portfolio that already had the presence of electric cars, but rapidly reaching maturity. After the first year, something was clear. Beep wanted to invest and launch cars that had superior technology, and that new cars should have in mind our long-term strategy.

The plan was set into motion and in the end, Beep ended up with a portfolio to fit in a *broad differentiation* strategy, by having one model of each type of car available, and to fit into each region's preferences in terms of the production strategy. However, the six-year process was not as smooth as it could have been, mostly due to a misunderstanding of the innovation/operations dynamics, but that will be analyzed more deeply in the cross-functional analysis of this departmental review.

As for this innovation plan, in hindsight, it can be broken into three phases. Unfortunately, these phases can now be seen only in hindsight, because they were not planned accordingly, and new car launches happened only when they were needed to replace models reaching maturity. This was a big Beep's mistake that handicapped results in the middle of this simulation due to the lack of planning that could have provided a steadier performance.

This first phase can be defined as the first main investments in new technology, like better sodium-ion batteries, as well as replacing the older models reaching maturity, especially the Business car segment. This Phase comprised Q4 to Q6. The second phase was when we invested fully into new trends like new driving e-modules and cyber security, while aiming at full electrification with the introduction of models to replace our last ICE cars. The zero-emission fleet was achieved in Q11, as can be seen in *Fig. 17*. This phase comprises Q7 to Q15. This was

the most chaotic phase as investments were made on a quarter-to-quarter basis instead of following a structured plan as said before. The final phase, that comprises the last three years of the simulation is where we launched our last models to fill in current gaps in the portfolio, and where Beep finally found balance between the intended and actual strategy, being the more stable period in Beep's change management experience.

2.2.3 Comparison with Real Life Examples

Apart from the similarities with Tesla, Beep's commitment to go full electric in the shortest amount of time possible resonates with Volvo's commitment to go full electric by 2030 (Volvo Cars Global Media Newsroom 2020). Beep achieved full electrification in less than 3 years, but in a simplified version of the real world, where the 10-year mark that Volvo proposed is a very ambitious plan, that other brands such as Mercedes-Benz have made and already withdrawn (Lyon 2024).

2.2.4 Cross-Functional Review of Innovation

As will be seen in the operations review of this section, the production strategy outlined suffered various setbacks. This left the innovation department hostage to what operations and marketing needed when it grew too much stock of one car, underutilizing factories or when cars reached peaked maturities, entering a decline in terms of growth or demand. Furthermore, the intended strategy was a *differentiation* one, but it was not well clarified if it was a *broad* or *focused* approach. In the end it turned out to be a *broad differentiation* strategy as Beep catered to almost all segments, tailoring the offer to each region as well. This was the main driver to the aforementioned fact that the innovation department was mostly reactive in phase two, which in turn, impacted Beep reaching the turning-point in terms of Free Cash Flows very late into the simulation.

On the most positive note, Beep understood well the external forces impacting the industry, and turned an opportunity into one of the company's biggest strengths, which is

innovating its own business model. Beep led the way into creating infrastructures that mitigated risks in the adoption of EV's, while offering customers new services, such as the Subscription model. This ensured that Beep is ready for the disruptive changes coming to the industry, preparing for the reduction of the main driver of profit in the industry, after-sales services.

2.3. Operations Review

After discussing the strategy defined at the beginning of the simulation, defining the goals for the six-year period Beep had ahead and the innovation department, that shaped said strategy into completely replacing its current portfolio for its new one and set out the path for a more sustainable business, to finish this section, the focus shall be the operations department.

In a very summarized manner, “*Operations is concerned with managing inputs (resources) through transformation processes to deliver outputs (service or products)*” (Rowbotham et al 2007). For Beep, the Operations department was the one tasked with going down the path laid out by Innovation, and making it as steady as possible. Due to the complexity of this change management initiative Beep was going through, besides completely re-inventing the production line that was set in place to accommodate the electrification of the company's portfolio, the department itself had to re-invent itself, by expanding producing capacity, by developing new skills among its employees to bring to life the company vision and to completely redesign its processes to be a pioneer in sustainable practices.

The operations business function review is broken into three parts: analyzing the evolution of utilization and the production strategy; analyzing capacity requirements and the decisions when and where to expand production facilities; finally, the investments made in turning Beep's operations as green as possible.

2.3.1 Underutilization as Beep's Biggest Weakness

As mentioned, several times in this section, the mismatch between the intended and actual strategy created a “*cascade*” effect that led to the creation of cars that then the production

strategy did not know how to leverage. The pursuit to create the best possible technology to every model created led to the need of applying the intended *broad differentiation* strategy and not a *cost leadership* one as our production strategy suggests. Applying an operational management framework such as the *4V's of Operations Management* (Basra 2024), it is very clear that Beep misunderstood its positioning in this framework, namely in the *Volume* and *Variation* dimensions.

Beep's cutting-edge technology led and high intended *Visibility*, due to the vision of leading the industry in pursuing the sustainability of Operations led Beep to create a portfolio that needed a low *Volume* in production, as the high *Volume* strategy that was actually implemented, especially in the Business line, led to a very high *Variation*, when the intended was actually the contrary, to mitigate the already extreme unit costs. The low factory utilization from Q8 to Q23 (refer back to *Fig. 4*) among the excess number of factories in comparison to the needs of Beep (to be analyzed further) led to higher COGS, which shrunk our margins (*Fig. 18*), being this the main reason for Beep to overcome the *Valley of Death* (Gbadegeshin 2022) in terms of FCF until later on this six-year period.

To further aggravate Beep's production problems, and another input to the high *Variation* of Operations, was the lack of planning and understanding of the own portfolio, that led to the overstock of some models (especially the Business Line), limiting the flexibility and changing capacity of the production lines. Nonetheless, Beep's management turned it around Q23, finally understanding its positioning within its operations management scope. This turn around can be seen in Factory Utilization, that was always above 90% from Q24 to Q28, EBIT Margin that grew around 65% from Q22 to Q28 (just a year and a half, refer back to *Fig. 18*) and was a vital part of finally realizing the sought *differentiation* strategy, and Return on Net Assets (*Fig. 19*) that grew around 108% from Q22 to Q28, and is intrinsically tied to the improvement in Factory Utilization. It is also worth noticing that from Q23 to Q28 was the only

period with no changes in the production line and the best results appeared.

2.3.2 Beep's (Overly) Ambitious Expansion

Another important mistake to point out that limited Beep's choices until the later stages of the simulation was the expansion of production capacity. In Q4, Beep had ten factories scattered around three regions: four factories in Europe (one under construction), three in China and three in the United States. During the six-year period, Beep invested in two more factories: firstly, one in the United States (which opened in Q13), followed by one in Europe (that started operating in Q17).

These investments had one clear idea: increase production capacity to create economies of scale in the new models for which we forecasted a much higher demand than it ended up existing. Again, due to a misunderstanding of the product portfolio, Beep ended up trying to produce the B2 model first and after the B3 (from the Business line) in three factories in Europe, and instead of Economies of Scale, Beep had empty factories in some occasions due to production numbers being far over that of sales, skyrocketing Days of Inventory, which ended up being the reason for shrunk margins. These facts were an important input to the high *Variation* of the production strategy.

2.3.3 The Road to Sustainable Operations

Beep's commitment to more sustainable operations from the get-go was an important factor behind the investment budgeting. Beep aimed at completely mitigating its Scope 1, 2 and 3 emissions (Deloitte 2021). Regarding Scope 1 emissions (directly from production), Beep invested water consumption and waste reduction, as well as an ISO certification. Sourcing energy from green solutions was also a key to this transformation, by installing energy management and efficient systems as well as generating power through new solar panels. Finally, Beep was also committed to creating a more sustainable supply chain, by embracing the concept of *eco-effectiveness* (Hermann et al 2015). It is not about just reducing emissions, but

actually trying to promote better practices. With this in mind, Beep installed policies, such as battery recycling, to promote a circular economy within the industry.

Beep effectively reduced emissions in Scope 1 (*Fig. 20*) and 2 (*Fig. 21*). Regarding Scope 3, due to investments only being made towards the end of the six-year period and the increased production volume compared to Q4, this emission only started decreasing around Q23 (*Fig. 22*).

2.3.4 Comparison with Real Life Examples

Looking again at the *4V's of Operations Management*, Beep clearly tries to mimic Tesla in terms of Visibility by trying to create a very strong brand presence among its customers, that resonates current trends like adding a purpose of “saving the planet” through this change management initiative (Denning 2023). The emphasis on communicating Beep’s innovations in terms of technology, as well as new services for customers, such as the creation of a charging station network and the subscription model that tries to enhance the customer experience, by integrating a downstream function of the value chain.

2.3.5 Cross-Functional Review of Operations

After outlining how strategy and innovation impacted operations and vice versa, it is time to discuss how operations impacted all the other departments. The constant change described in the production lines also affected the workforce, that due to constant layoffs and recruitment increased costs due to the investment necessary on training to constantly adapt to the very dynamic environment Beep created (Grzegorzek 2023). Marketing was also impacted as recurrent promotional deals had to be made across the six-year periods to ensure stock was sold, which does not fit well with the over-arching strategy of exclusive and a cutting-edge technology brand.

Overall, Operations had the biggest impact in the other departments, causing them to become much more reactive than was desired and was the biggest contributor to the instability

the company felt in the mid-point of the simulation.

2.4 Final Remarks on the Cross-Functional Business Review

Overall, Beep ended up being the perfect example of change management experience. To completely understand these business function reviews, reading them with the second section of a self-reflection is crucial to shed some light on some inefficiencies of Beep. The first factor to analyze in failures in change management strategies is how leadership transformed itself as well (Song 2009). Due to the recent forming of the Beep management team, that was put to the test to such a challenging task, dysfunctions in the transformational leadership style caused decisions and implementation to not be as smooth as intended.

Nonetheless, weighting all mistakes and positive actions, Beep was successful in what it set out to do, by completely electrifying its portfolio, innovate the business model, and become more sustainable while adding value to its shareholders in this six-year period.

In this business simulation concept, Beep can also be analyzed as simplified, but very useful case study in common pitfalls companies suffer during these sorts of experiments, being on the people side or strategic one.

At the beginning Beep set out to imitate Toyota. However, it actually became close to Tesla in many dimensions, and sharing similar initiatives started by Mercedes and Volvo. And on a personal note, that is the biggest lesson I will take from this experience. To completely understand where one stands is the first step in achieving success. This is true for collective individuals, especially for companies that are starting a change management experience. Nonetheless, it also stands as a powerful lesson for any individual to guide their personal growth and career path.

This experience ends with Beep outside the top 10 of the *Industry Master's* simulation leaderboard (*Fig. 23*), but it was certainly a success in its proposed objectives, enabling personal and team development.

3. Reflection on Personal Impact on the Team

Understanding what induces one's actions is key to better collaborating in teams, an ever-essential skill that is increasing in demand. In a time where teams are more diverse than ever, dynamics change from team to team and digital technologies play a huge role, this collaboration is becoming more challenging (Haas and Mortensen 2016). On the other hand, understanding what induces the actions of oneself can be even more challenging and produces a tremendous potential for personal growth and improvement in performance, especially in a collaborative environment, as application of self-reflection leads to higher effectiveness and professional development (Nottingham 2002).

Business in Practice allowed for an environment where mistakes were bound to happen (and encouraged) and where conflicts were easily predicted, due to the diverse nature of the team and the highly collaborative environment. This pace urged me to record a daily journal to identify key incidents that, in hindsight, will help me to be a better professional and team player. The two events chosen to dissect and that most impacted my development are separate but showcase the inefficiency that some actions have in producing a better outcome for the team. The first incident involves the client acquisition pitch, where overconfidence in my abilities aligned with a lack of acknowledging the need to ask for help resulted in a sub-optimal result for the team, with the responsibility of that outcome lying on my shoulders. I also dive deep on how to cope with harsh feedback. The second one, more related to the team decision structure led to decisions on which some team members were left in the dark and could not plan accordingly, leading to an unclear strategy and, again, sub-optimal results during the mid-point of the simulation. As an aid to perhaps understand better my actions and where do they come from, the *Insights Discovery*® personality test framework was a tremendous help, and where my personality deemed to be a mix between fiery red and sunshine yellow, making me competitive and demanding, but also sociable, dynamic and enthusiastic (*Fig. 24*).

3.1. Critical Incident #1 – Overconfidence Leads to Sub-Optimal Results

3.1.1. Context

Coming to the second week of the program, everyone was excited to be starting the simulation and put to practice any sort of strategy and plans drawn up in the first week. It was with great shock and excitement that we discovered that prior to the first-year simulation, there would be a sales pitch to acquire a company that could generate up to \$1,970M in sales to our company ahead of year 2. This would be a great booster and kick-starter for a change management approach to a car company that would require full electrification and sustainability investments.

As such, as a team we understood the assignment we had in hands and wanted to perform well. However, only three group members could participate in the pitch, and out of those, only one could actually pitch. Due to my personality in comparison to my other colleagues (*Fig. 25*), I was the chosen one to pitch. I was immediately engaged and motivated to be responsible for this, but at the same time with fear of letting down my own team.

I always felt confident in my abilities, and there is evidence that this confidence can improve the results of a team (Gervais & Goldstein 2003). I always thought of this personal trait as something that could be beneficial to every team I was a part of. I said to everyone “I got this”. I wrote my own speech. I practiced on my own and had a day to do so. I was extremely confident that my enthusiastic and demanding personality would conquer the client and the extra revenue and profit, so I did not practice as much as I should. Evidently, the next morning, it felt like I could not remember anything whatsoever. I had entered a tradeoff where I distorted my ability to be realistic in the amount of preparation needed for this task and lost the motivational factor of confidence (Russo & Schoemaker 1992) and even before the start of the pitch I felt incompetent. The words were not flowing as they should be due to the anxiety, and I could not react to the negative body language of the client towards our try to convince him.

The end result was not that bad, as we acquired half of the customer's potential, but it felt short, and the responsibility fell almost solely on my shoulders.

3.1.2. Reflection on the Incident

My colleague's reaction to my underperformance was "softer" than expected. I believe this to have been in such a way since we were still in the "forming" stage (Tuckman 1965) as a team, where we were still becoming acquainted with each other and testing boundaries in terms of interpersonal relationships. Nonetheless, the failure on this pitch still led to my feeling of deep irresponsibility on how to prepare my work and on letting others down. This led me to do a deep dive into the root of this behavior to better understand how to improve in the future. Furthermore, I received very harsh feedback that was not aligned with the outcome. We got the mid-point of the reward, but the feedback made me feel like we did not deserve anything. In this sense, this pitch also helped me in trying to understand feedback in a neutral and helpful manner instead of a personal attack.

3.1.3. Overconfidence Resulted in Lack of Commitment

Being in the position of pitching for an entire team to try and capture an outcome that can change six whole years of planning positively should ultimately incite the highest level of commitment. However, the more I think about it, the more it seems that my overconfidence put me in a state of low commitment as I thought nothing could go wrong.

Going beyond falling short in the outcome, I could have been the sole creator of a dysfunction within a team. Lack of commitment is driven by two factors: uncertainty and the need for consensus (Joosr 2015). I could have created the feeling in my colleagues that my performance was an uncertainty after that point. That could have killed us from the start. Fortunately, as a team, I took the opportunity to discuss how everyone felt about this outcome and my performance to try and avoid conflict and set up bases of working for the future. I anticipated that in such a multicultural team, with a language barrier along the different reactions

each individual has, this could be a source of a long-term problem (Toegel & Barsoux 2016). We set out in creating processes to make sure even when we depend on the performance of a single individual, this is mitigated by being sure in the preparation of an important project or any major decisions regarding the simulation. The biggest lesson I took is that I could amend my wrongdoings by at least creating the foundations for something like this to not happen again in the team.

3.1.4. Dealing with Harsh Feedback

Moving into the second part of the incident, I took the feedback I received very personally. “Lack of Human Touch”, “Stiff”, “Did not understand clients concerns”. I felt this was very harsh feedback and immediately tainted my ambitions regarding our next goals. As a young professional, this feedback signaled to me that my commitment was very below standard, and this could have affected deeply the motivation for the rest of the program (Fishbach et al 2010). However, it actually triggered something in me that allowed me to put in more effort into the program due to the negative nature of the feedback (Belschak & Hartog 2009). After this, and because I felt constructive feedback would be more helpful towards my teammates instead of a very harsh and destructive one, that is what I tried to implement whenever I had the chance to give it to a colleague

3.1.5. Forward Looking Actions

For my future development I will approach each situation still with confidence in my abilities as this is an important trait of leaders as it is a pre-requisite to drive change (Axelrod 2016). Nonetheless, a pinch of salt needs to be taken regarding the perception of my own abilities to avoid committing the same mistake repeatedly, while fomenting better and less dysfunctional teams.

Regarding dealing with feedback, I became more proficient in using harsh feedback to fuel my effort, but from my understanding and with the wish of being a future leader, I will

always try to structure it in a more constructive way to improve motivation and morale of any team. I will always strive to be a part of a good environment and not a toxic one. Fortunately, I think I was successful in that endeavor as from the peer assessment results, my colleagues believed I interacted and contributed in a very positive manner, as well as my ability to keep the team on track was valued.

3.2. Critical Incident #2 – Decisions are Intertwined, not Separate and They Take Time

3.2.1. Context

Being a part of a new and multicultural team is a hard experience to adapt to, even more in such a fast-paced environment in the context of change management. It takes time to build innovative teams that are fully effective. The building blocks of any team in the context of change and innovation require time for the team members to learn how to work together, for everyone to have a better self-understanding and for member diversity to exist (Super 2020). The diversity existed already, but the team and individual learning took more time than expected (more on this model on *Fig. 26*)

On the personal level, the team worked perfectly, I can say that true bonds were formed across the three weeks of the program. However, on the performing side, it took four years of the simulation for the decision-making to work properly. And it all came to a sense of miscommunication and lack of planning. Decisions should have been made in an intertwined manner, but instead our trust in each other enabled us to just make decisions individually (regarding department), instead of discussing any impact it could have on the decisions of other departments, and I was a main driver of this problem.

There were several moments where this was particularly visible, and for different reasons. I will dissect two and then the moment we actually understood what should have been in place from the get-go in order to get better results and climb up the ranks of the simulation. The first moment relates more to fractured decisions where my departments decisions impacted negatively the performance of others, due to a bias where because me and my co-director of

Operations thought a decision was the right thing to do for our scope, we forgot that Human Resources had to plan around that. The second moment is tied to the lack of motivation felt after the lack of results that blocked us from collective decision making.

2.2.2. One Department Needs All Others

With the second week came the time to make decisions and also how to deal to (expected) dysfunctional team dynamics. Operations and Human Resources were tied together as departments, and their interface can be depicted in *Fig. 27* (Boudreau et al 2003). Whatever decisions me and my co-director (of Operations) made, would affect the planning of our Human Resources counterpart.

My fiery red personality (refer back to *Fig. 24*) as described before leads me to be determined, but also can mean I am rash in the decision-making process. As operations was a department in which the outcomes of its decisions were very hard to predict, I felt like we could change every quarter the configuration of the production line to better suit our needs. However, for a full year, we forgot that our changes in configuration led to our Human Resources counterpart having a job of just reacting to our changes instead of collaborating with us to set a long-term plan. His more calm and less impactful personality on the group dynamic led me to overlook the importance of collaborating to achieve better long-term results.

This all came to an abrupt stop when our Human Resources colleague finally had enough and asked me and my co-director to take accountability for the trouble he was having. At first, I felt that this was an unfair accusation, because I thought my decisions were right and they made sense. However, I overlooked the fact that my decisions could have been right (which in hindsight were not) but damaged the company's performance more than helped due to the fact that workforce hirings and firings resulted in more losses than whatever we could have gained from our operational decisions. If at first, I could have had a more bitter reaction, I understood what was wrong with my actions. I reached out to my colleague and apologized for the lack of

consideration I had for his work. The next step was to decide and agree on a better decision-making process, which we did. From then onwards, the Operations department communicated the planned changes to Human Resources before committing, instead of committing and then informing them. I soon discovered the importance of cross-functional decision making and immediately started thinking how easy is for teams and companies to fall apart due to these dysfunctions.

3.2.3. Lack of Motivation Kills Communication and Performance

After three of simulation done, the performance of my team's company was lacking in quality, in contrast to our peers. We lacked understanding of what was driving our simulation KPI's down and that brought the motivation of our team down. After solving our inter-departmental communication issues, I was sure we were going on the right path, but that was not the case. And with lack of understanding came a sense of impotence. And with that, was just a small step into making irrational choices. The lack of motivation to continue also came along, which can be linked to the general pessimistic mood and the fact that, even if our time was coming to an end, we were still a team in the early stages of its life (Knight 2015).

I for all felt the most de-motivated. I am a very confident person backed up by my fiery red personality as described many times before, but not understanding why the right inputs created the poor outputs in the context of the simulation put me in a position where I felt I could make random decisions without any reasoning behind it and they could work better than the previous ones. This was sort of borderline "desperation". In parallel to a real business environment, as my motivation was gone, so was my satisfaction and my productivity would go along (Varma 2017). From that moment on, and for the next year of simulation I closed in my own shell and stopped adding new ideas and contributing to the discussion. I let myself under the shadow of my co-director and stopped communicating. We had a plan, but I did not want to follow it anymore. I distrusted our decisions. And even if I was going more "under the radar",

this undermined our efficiency in decision making and made our progress in terms of team dynamics go a step back when we were more than halfway into the program. I again contributed to separate decisions without considering that these needed to be coordinated to achieve the goals of the whole team. Furthermore, I was also overlooking the time that it takes for a plan to create results, in the search for short-term ones, which is something I would need to develop to be a better professional.

3.2.4. Rome was Not Built in One Day

Building up on the problem of not being patient for a plan to create results, it is important to reflect not only on how poor behaviors can affect my professional and personal experiences, but also on how realizing what has been done well to keep in mind for future reference and mitigate the impact of future mistakes.

Good results as a team started coming late, but they appeared nonetheless and with great force, but because we managed to stick to a general plan, even if it was something I was not being the biggest contributor to. However, it made me realize that I should not guess myself and should trust a plan that had solid foundations and strong reasoning behind it. Great things take time to form, and I should trust more my abilities. Obviously, I am still a young professional with very little experience, but this simulation allowed me to understand much better how to work in a team and how to react to poor results.

In the end, we still underperformed, but it was great to see that we drew up an idea at the beginning and it came to form, even if later and with a lower positive magnitude than expected. I learned to trust more my judgment and how to react to situations like this, which for sure will be a big part of my future. On the other hand, I also learned how coordinated cross-functional team decisions should be and the importance of it, and how to contribute in a positive way and not be a deadweight that drags a team performance. Improving my communication is something I will work on with much more attention in the future, as a teamwork environment will always

be present in my professional life.

3.3. Final Considerations and Key Takeaways

“Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential” (Bennis 1989). This quote was shared in the Leading Yourself Session of the program and I think it sums up perfectly my personal experience in Business in Practice, but I want to break this statement exactly as Bennis wanted. Looking at each argument of the function that is leadership.

Firstly, to know myself. I first looked at the *Insights Discovery*® personality framework was a waste of time. However, it allowed to understand that my fiery red personality associated with the overconfidence I tend to put in my abilities lead me to be rash and inefficient, causing harm to the team I was a part of, as evidenced by the first critical incident analyzed. Beyond that critical incident and my conclusions, I learned that to pause, reflect and improve these behaviors is key in becoming a better professional, friend, leader and person. The act of self-reflection is something that I will practice more often to achieve that.

Secondly, to communicate better. Good leaders are associated with quality in their communication (Flauto 1999). As evidenced by the second incident, I have a lot to improve regarding my communication with other colleagues. Leaders need to be effective communicators and as future leader, or at least, hopefully, this is crucial characteristic that I will need to improve. The third argument of the function, trust was broken by this lack of effective communication.

Concluding, these incidents and the reflections that came with them will help me take effective action in becoming a leader in the future, as the fast-paced nature of Business in Practice gave me a taste of what I should be looking forward to improving and what mechanisms can I build to better identify personal development opportunities.

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5. Appendix



Figure 1: Porter's Value Chain

Source: MindTools Blog, <https://www.mindtools.com/ajhsltf/porters-value-chain>, based on Porter, Michael E. "Competitive advantage: creating and sustaining superior performance: with a new introduction.", 1998.

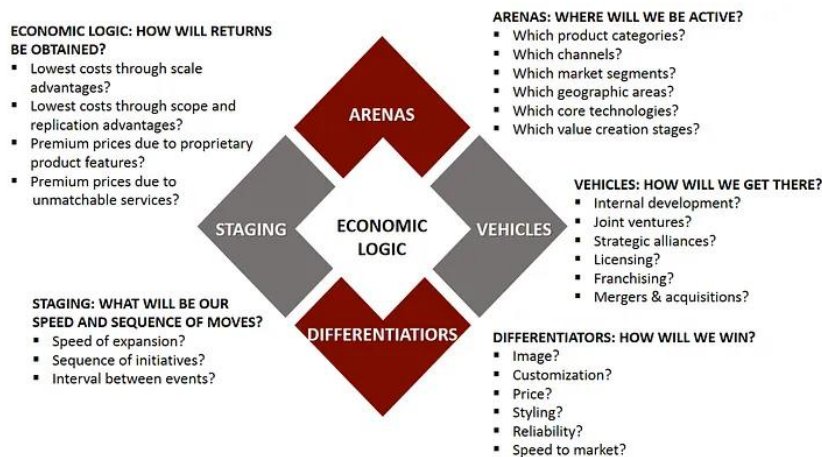


Figure 2: Hambrick and Fredrickson's Strategic Diamond

Source: Hambrick, Donald C., and James W. Fredrickson. "Are you sure you have a strategy?" 2005

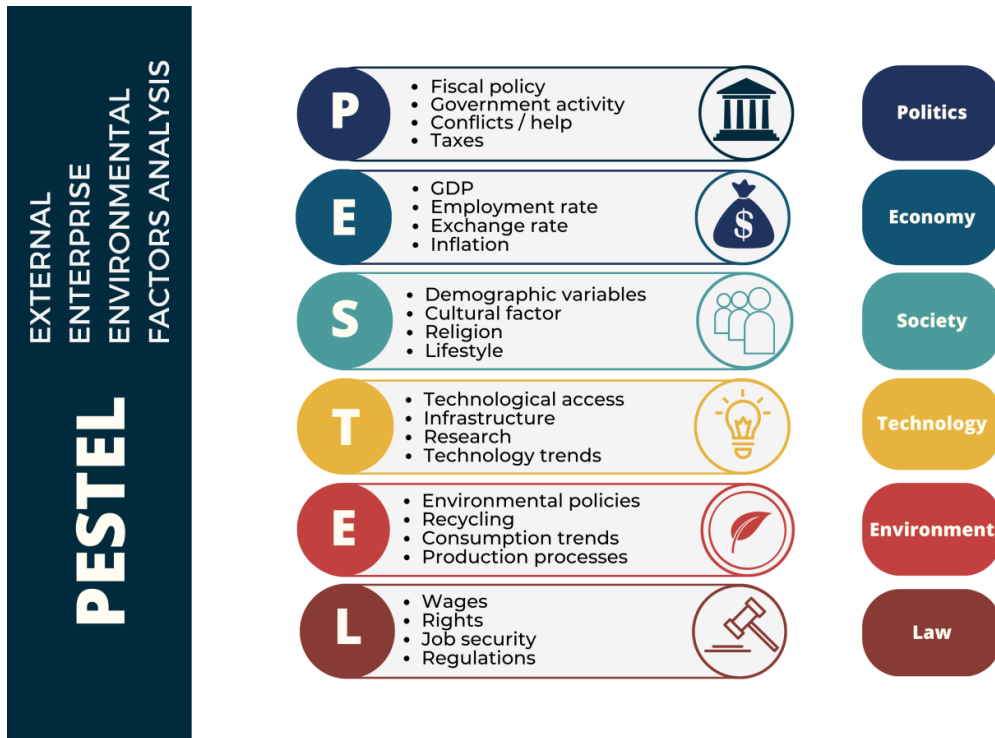


Figure 3: PESTEL Framework

Source: LinkedIn, <https://www.linkedin.com/pulse/what-why-how-pestel-analysis-addon-skills/>, based on Aguilar, Francis. “Scanning the Business Environment.” Macmillan. 1967.

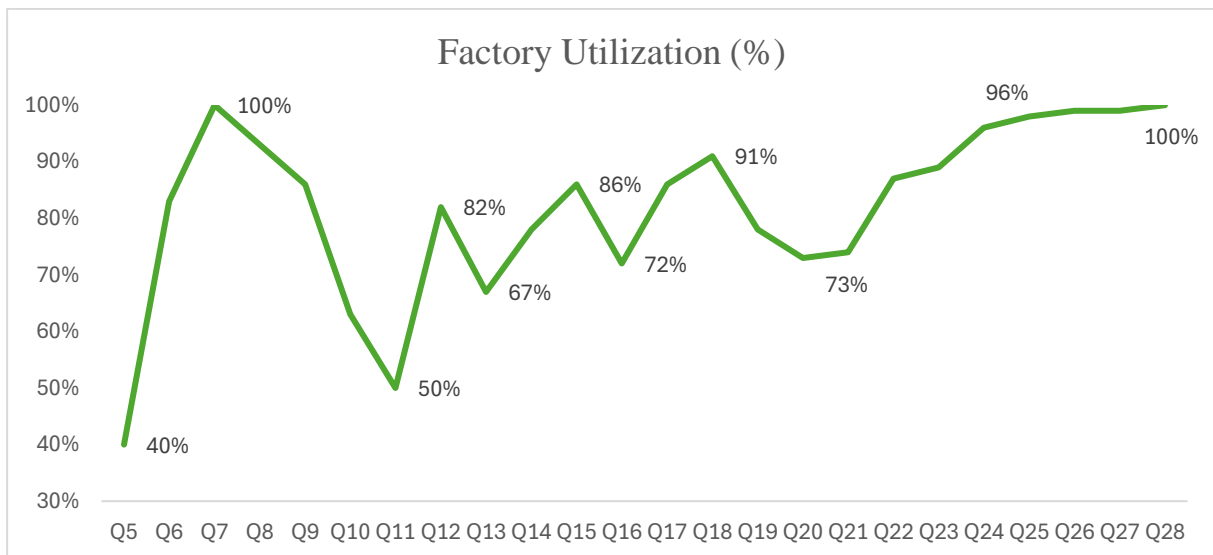


Figure 4: Factory Utilization Evolution (%)

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

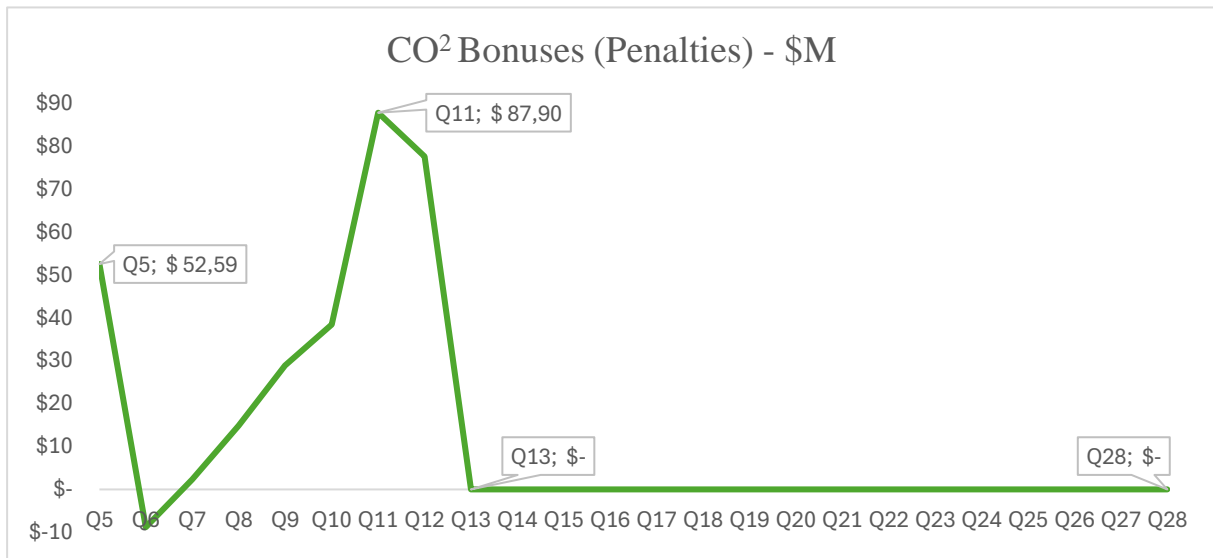


Figure 5: CO² Bonuses/Penalties

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

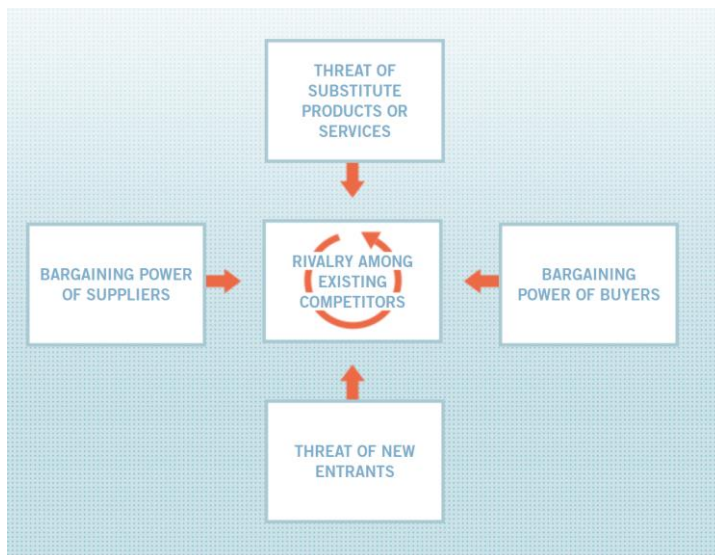


Figure 6: Porter's Five Forces

Source: Harvard Business Review, <https://www.isc.hbs.edu/strategy/business-strategy/Pages/the-five-forces.aspx>

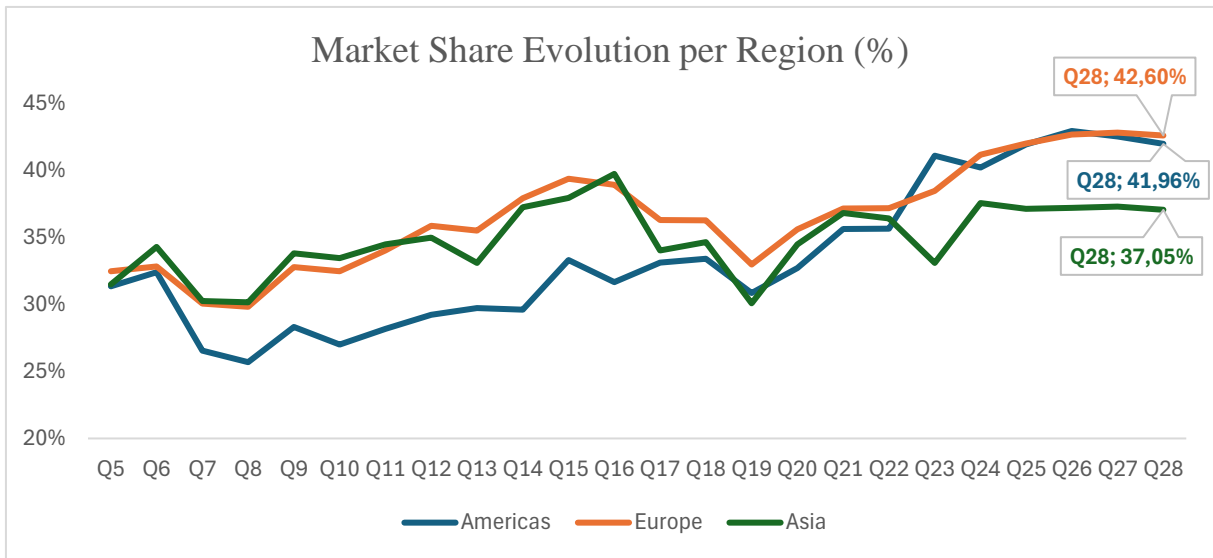


Figure 7: Market Share Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

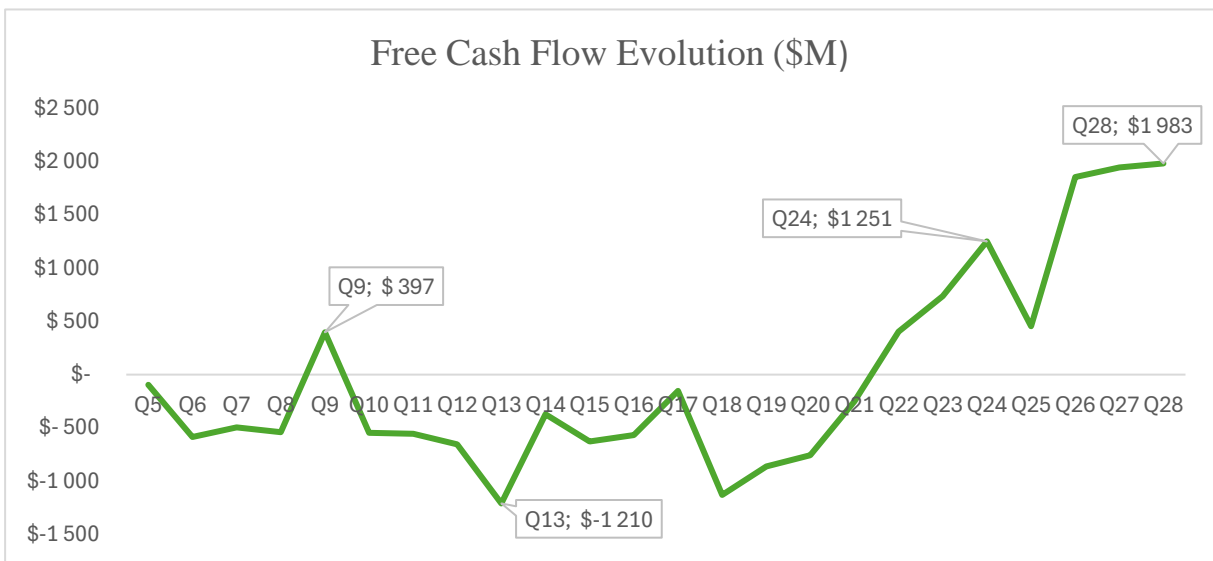


Figure 8: Free Cash Flow Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024



Figure 9: SWOT Analysis Framework

Source: WordStream, <https://www.wordstream.com/blog/ws/2017/12/20/swot-analysis>

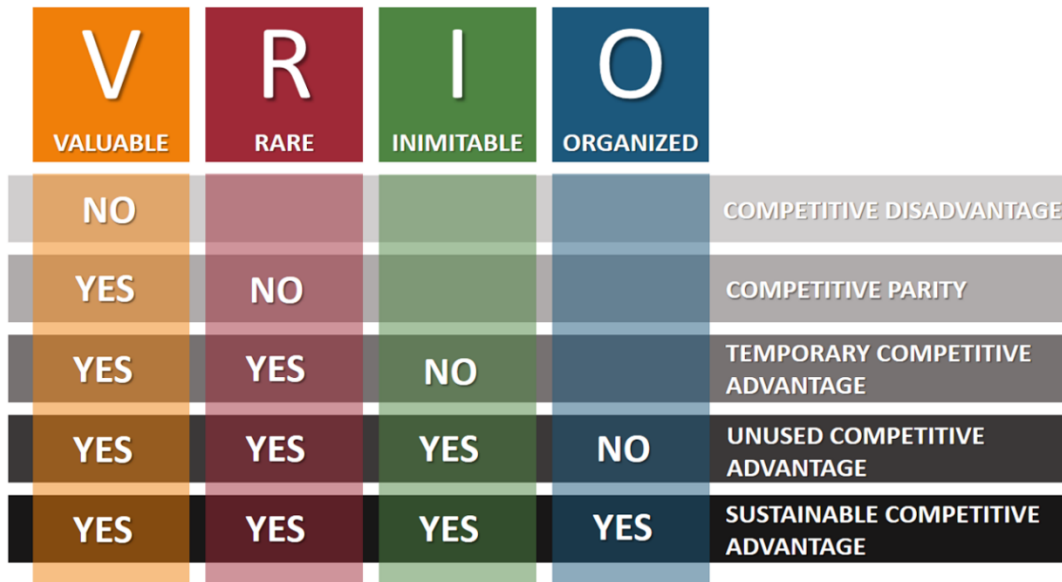
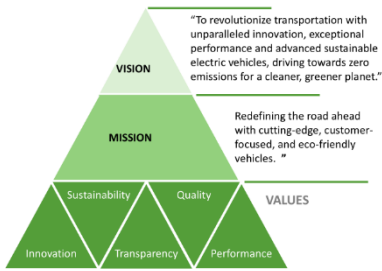


Figure 10: VRIO Framework

Source: Business 2 You, <https://www.business-to-you.com/vrio-from-firm-resources-to-competitive-advantage/>, based on Barney, Jay. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17, no. 1 (March 1, 1991): 99–120. <https://doi.org/10.1177/014920639101700108>.



Overarching Strategy:

BEEP saw the complete electrification of its product range as the most important lever for achieving net climate neutrality across all stages of the value chain, as 72% of total CO2 emissions are caused during the actual usage phase of ICEVs.

Innovation

- Early adoption of a fully electric vehicle product line to eliminate CO2 fleet emissions
- Focusing investments on the transformation of the industry with over \$1.6 Billion invested in building and expanding charging networks

Marketing

- Creating a responsible and sustainable Brand Image
- Shifting towards an E-Commerce Platform to reduce paper waste
- Promoting the entire vehicle life cycle to prevent premature disposal

HR

- Sustainable policy investments to align the knowledge our company's employees with our vision
- Hiring and training of employees to the drive expansion interdepartmental sustainable investments.

Operations

- Investing in completely redefining the production process to reduce our direct CO2 emissions
- Investments to have green sources of power, shifting away from fossil fuels
- Stopped production of combustion cars in the first year

Finance

- BEEP has successfully transitioned to net EV production in two years, leading to the opportunity to execute our strategy of maximizing Green Capital expenditures and issuing Green Bonds.

BEEP HAS BEEN INVESTING IN AN IMPACTFUL SHIFT IN THE PRODUCTION PROCESS

Scope 1 – A More Sustainable Production Line

Water Consumption Reduction

Water is a key resource for humanity and BEEP is focused on minimizing the usage in the production process.

We invested heavily in water efficient equipment, while we are committed to be pioneers in water management systems technology. This has resulted in a significant reduction in water usage.

\$200 million dollar investment in Q8

Waste Reduction

BEEP wants to be at forefront of the efforts in reducing environmental impacts and we have done just that by investing in waste reduction and recycling programs.

We also partner with municipalities and involve our employees in helping the local community through volunteer programs.

\$400 million dollar investment in Q13

ISO14001 / EMAS Certificate

BEEP wants to comply to the highest standards and to be held accountable in its efforts of reducing environmental impact.

We now hold ISO14001 and EMAS certifications which validate our efforts and adherence to sustainable practices and guarantee that we will keep improving to meet these standards.

\$500 million dollar investment in Q19

CO2 in Production

66% Reduction of CO₂ emission related to the Production Process

21% Increase in revenue since Q8

Next Steps

Our work towards a more sustainable future is not complete:

- We target having an ISO14064 in two years (to provide a standard reporting of our GHG emissions)
- Improve our contribution to the targets of SDG 12 and 13 related to production and climate action

ENSURING OUR POWER COMES FROM GREEN SOURCES BECAME AN URGENT PRIORITY

Scope 2 - Prioritization of Decarbonization Measures

1. Avoid

Effective and sustainable CO2 avoidance, e.g. by energy efficiency

Energy Efficiency Investment

- Reduced GHG emissions, other pollutants and water consumption
- Reduced electricity costs, created jobs and helped stabilize electricity prices and volatility

Energy Management System

A System of computer-based tools used by operators of electrical supply networks to monitor, control and optimize the performance of the generation or transmission network. It can also be used in microgrids.

2. Reduce

Switching to renewable energy sources in all steps of the value chain

Installed Solar Panels

- Solar energy systems cause no air pollution or greenhouse gases
- Help to reduce energy costs and surplus electricity can be sold

CO2 in Energy

Next Steps

Our work towards a more sustainable future is not complete:

- We target having an ISO50001 certification in two years, that will validate even further our efforts to be more energy efficient and commit not just to produce more efficiently, but also to source our energy in a similar manner
- We commit to keep developing technology that will help the industry achieve the SGD 7 proposed targets regarding affordable and clean energy

BEEP WILL SHIFT ITS INVESTMENT FOCUS INTO DECARBONIZING ITS SUPPLY CHAIN



Scope 3 – Sustainability of Downstream and Upstream Processes



We source responsibly in accordance with the Organization for Economic Co-operation and Development (OECD) Responsible Business Conduct Framework, the OECD Due Diligence Guidance for Responsible Mineral Supply Chains and the United Nations Guiding Principles on Business and Human Rights (UNGPs).

Offsetting carbon emissions throughout our supply chain will be a main focus of BEEP regarding sustainability investments in the next two years, as we have the objective of fully decarbonizing it.



We invest in **compensation programs** that enable us to **offset the CO2 emissions** caused by our suppliers.

These initiatives enable us to invest in environmental projects around the world, particularly in developing countries, to reduce future emissions.

By **selecting and working closely with sustainable suppliers**, we aim to achieve a significant multiplier effect that amplifies the impact of our efforts throughout the supply chain.

Our goal is to build a **resilient, sustainable supply chain** that supports our **long-term vision of achieving net zero emissions** and promoting positive environmental change on a global scale.

The **batteries** used in electric vehicles contain valuable materials such as lithium, cobalt and nickel, which **can be recovered and reused**.

By **investing in battery recycling initiatives**, we aim to handle used batteries responsibly, minimize the environmental impact and reduce our dependence on raw materials.

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5

BEEP HAS BEEN HIRING AND DEVELOPING ITS EMPLOYEES TO ALIGN WITH ITS VISION

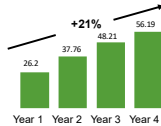


Develop and Retain Top Management Talent to Drive Sustainable, Efficient, High Quality Electric Vehicle Production

19.13 %
Sustainability skills
3rd
best developed skill at BEEP

Sustainability is one of the most advanced skills in our company. As a large industry, we have a significant responsibility for the environment. That's why we invest in creating sustainable policies and continuously train our employees on sustainable practices.

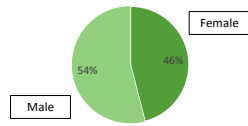
Revenue CAGR since Y1



Diversity
Management team
24
People

Our commitment is to maintaining a balanced mix of cultures and genders, fostering a comprehensive and sustainable ecosystem for the long term. Our next priority will be ensuring our management team maintains a balanced blend of innovative younger talent and seasoned experts.

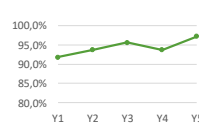
Employee Gender % in year 5



134,368
Employees
97.2%
Satisfaction

We aim to hire individuals with the skills required to develop sustainable and innovative products. At BEEP, we ensure that people are compensated adequately to maximize their satisfaction and efficiency. Our focus is on maintaining a salary range that minimizes disparities among managers.

Employees satisfaction %



ESG Reporting | BEEP | 2024

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BEEP'S GREEN CAPEX INCREASED BY MORE THAN 60% BETWEEN 2024 AND 2028



Sustainable KPI's and BEEP's Ambitious Sustainability goals

Green CAPEX

- Successfully advancing towards redefining the road ahead with cutting-edge, customer-focused, and eco-friendly vehicles, Beep shifted its business from a pure combustion car player to a pure EVs manufacturing company in two years. This shift towards EVs led to a sharp increase in green capital expenditures to finance the innovation, development and launch of new EVs.
- The commitment of Beep to be a leader in sustainability is reflected through a drastic improvement of its Green Capex Ratio (52.28% in 2028).

Green Financing

- Beep dedication to align with a Net Zero scenario is shown by accelerating the adoption of EVs through green financing with a subscription model that offers a 60 months term contract with 3.99% interest. This initiative allow customers to buy a car on credit and democratize the access to EVs.

Green Bonds

- Green Capital Ratio** (60.62% in 2028) for a total Green Capex cumulated of \$12.128M in 2028. Beep's target is to reach 65% and 75% respectively in 2030.

CO2 Penalty

- Beep's initial portfolio was mainly composed of combustion cars and suffered from a **CO2 penalty** (47.5g/mile) during the first two years accounting for a cumulative penalty of \$503M. However, as Beep transitioned to a full EVs portfolio, the penalty stopped at the end of the second year.

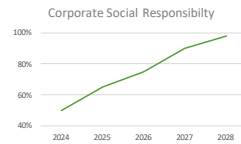
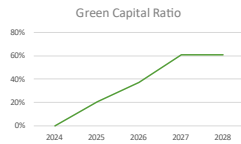
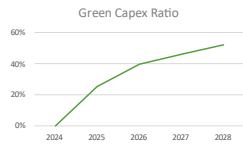
Corporate Social Responsibility

- Our company increased its **CSR Ratio** from **50% to 98%** over five years. Following GRI and SASB standards, we regularly publish sustainability reports, including ESG financial indicators.

- Investment decisions incorporate ESG criteria to minimize risks and maximize socio-environmental benefits. Integrating ESG principles across operations enhances financial performance and contributes significantly to sustainable development.

Paris Climate Agreement:

- As a player in the automotive industry, BEEP supports the Beep has been very proactive and demonstrated concrete efforts to respect its pledge to reach Net Zero by 2050. Beep discontinued all its combustion vehicles in less than 2 years and successfully shifted towards a fully electric portfolio.



ESG Reporting | BEEP | 2024

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Figure 11: Beep's ESG report

Source: Report produced by Team 13

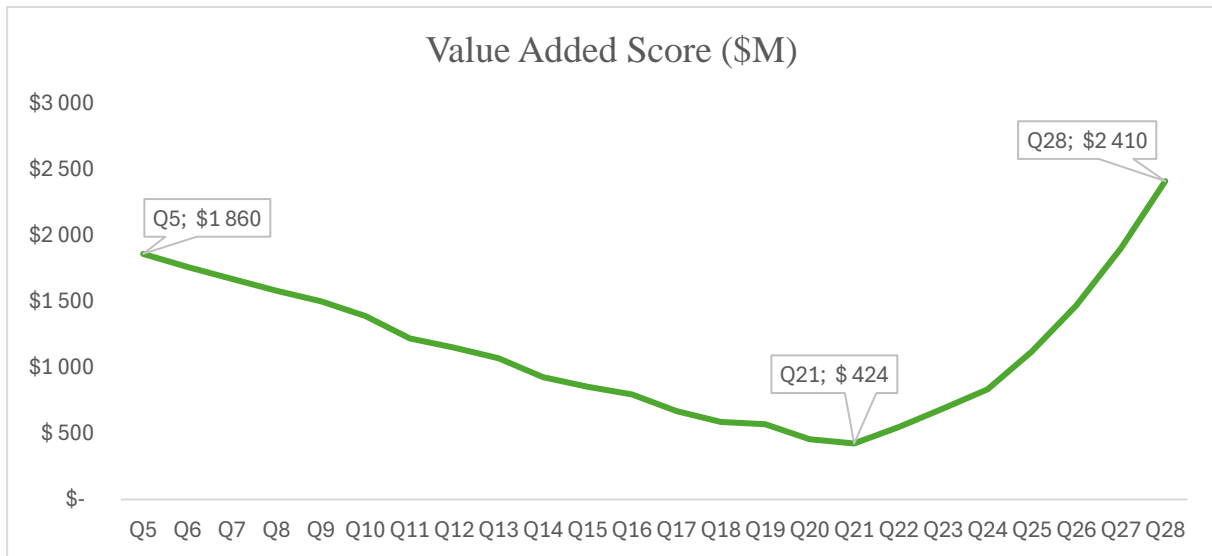


Figure 12: Value Added Score Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

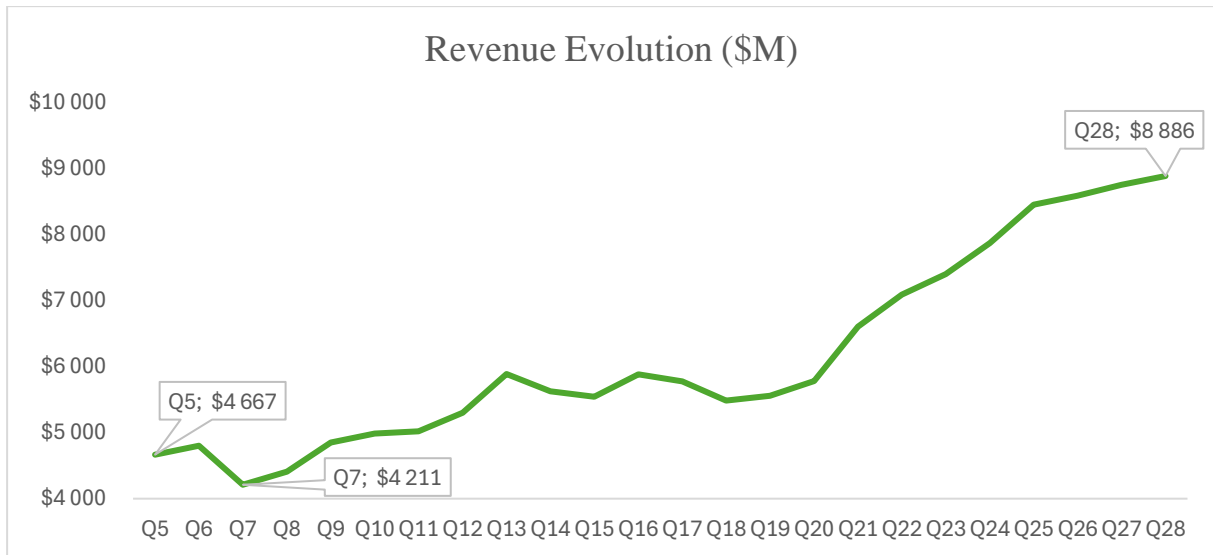


Figure 13: Revenue Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

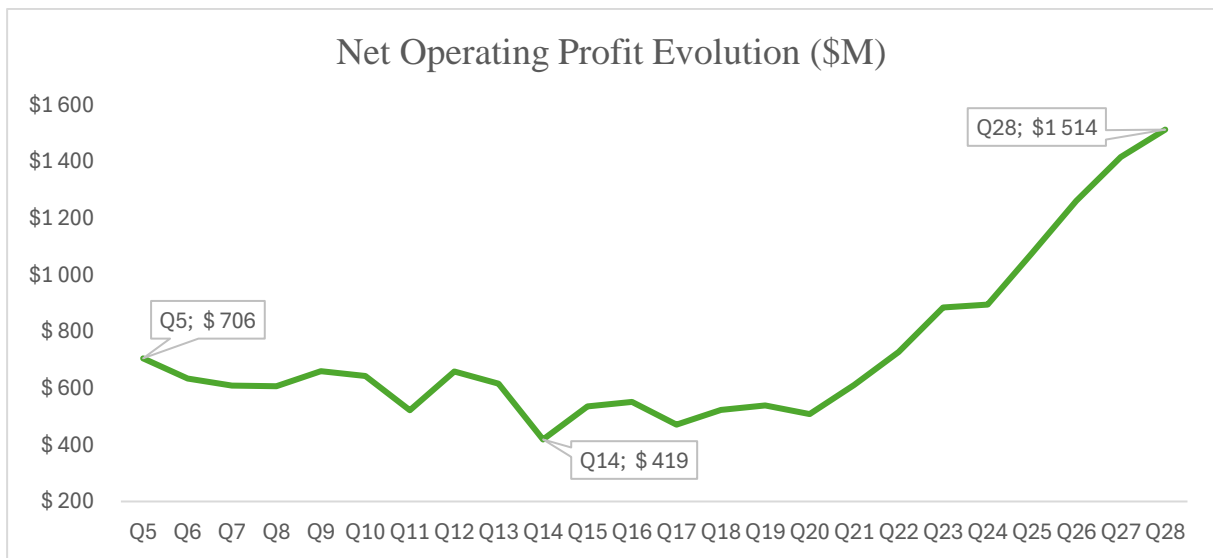


Figure 14: Net Operating Profit Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

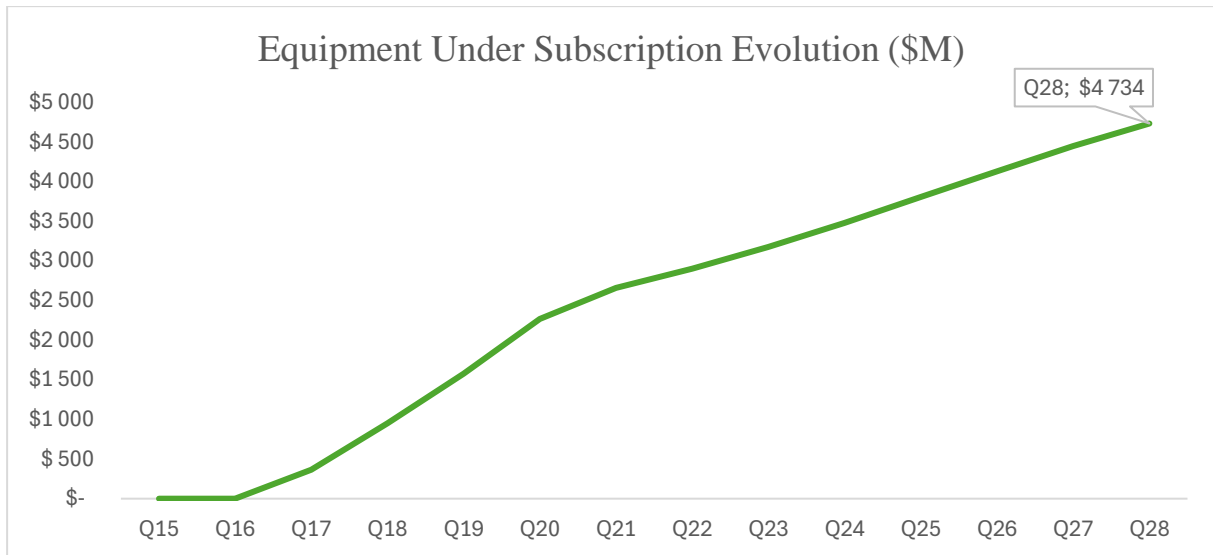
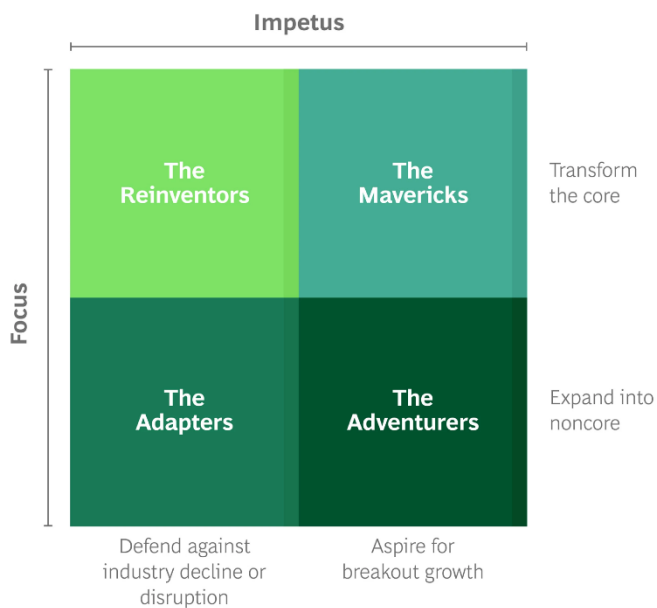


Figure 15: Equipment Under Subscription Evolution

Source: Data retrieved from Business in Practice *Industry Master’s Simulation*. 2024



Source: BCG Analysis.

Figure 16: BCG Matrix for Business Model Innovation

Source: Boston Consulting Group. “Business Model Innovation,” 2024. <https://www.bcg.com/capabilities/innovation-strategy-delivery/business-model-innovation>.

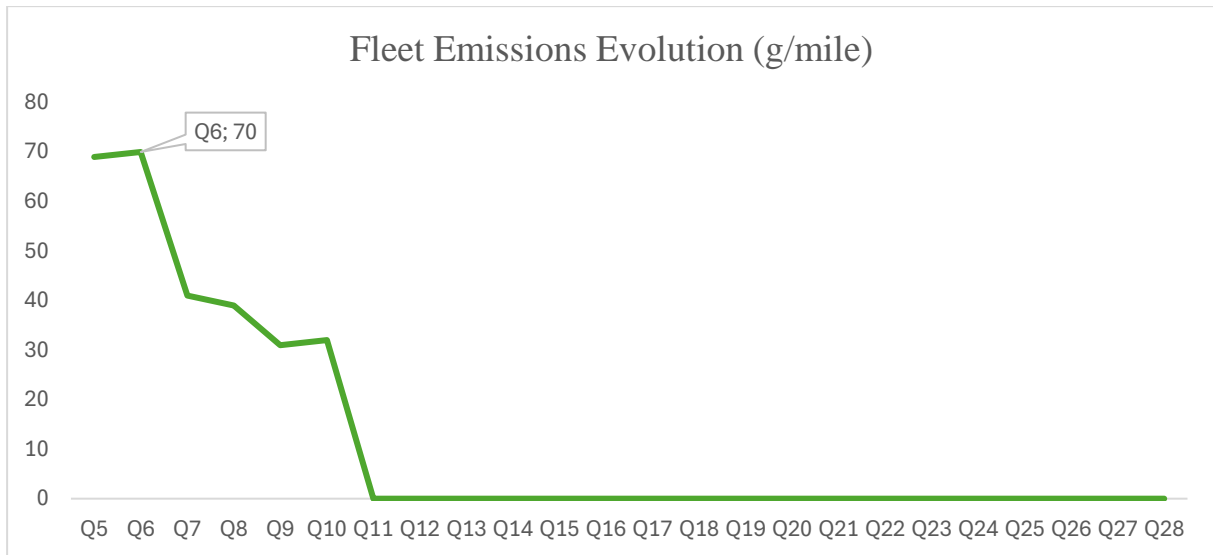


Figure 17: Fleet Emissions Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

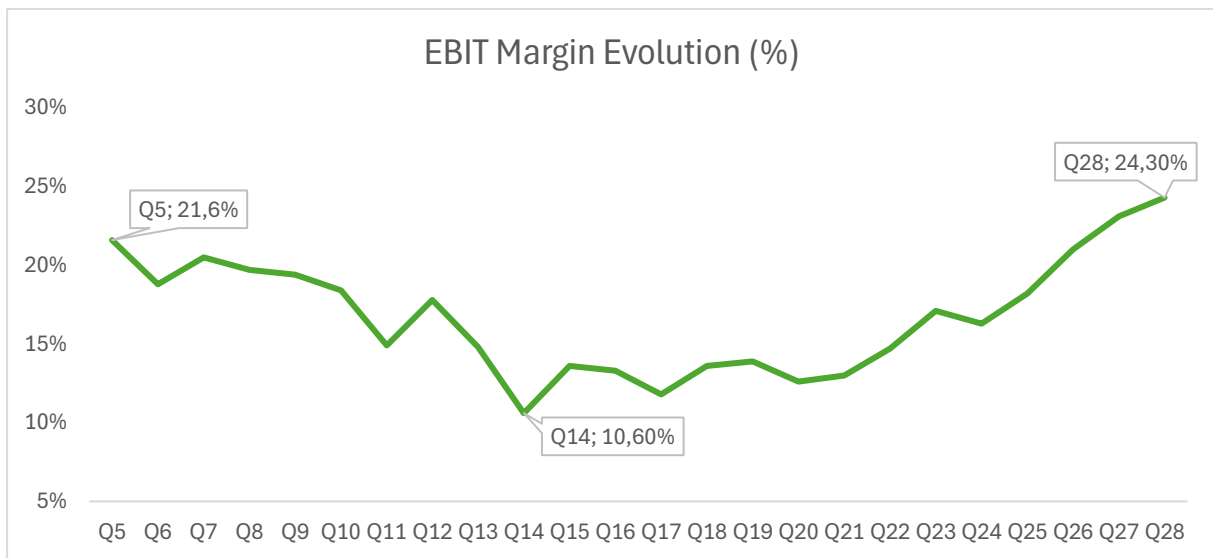


Figure 18: EBIT margins Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

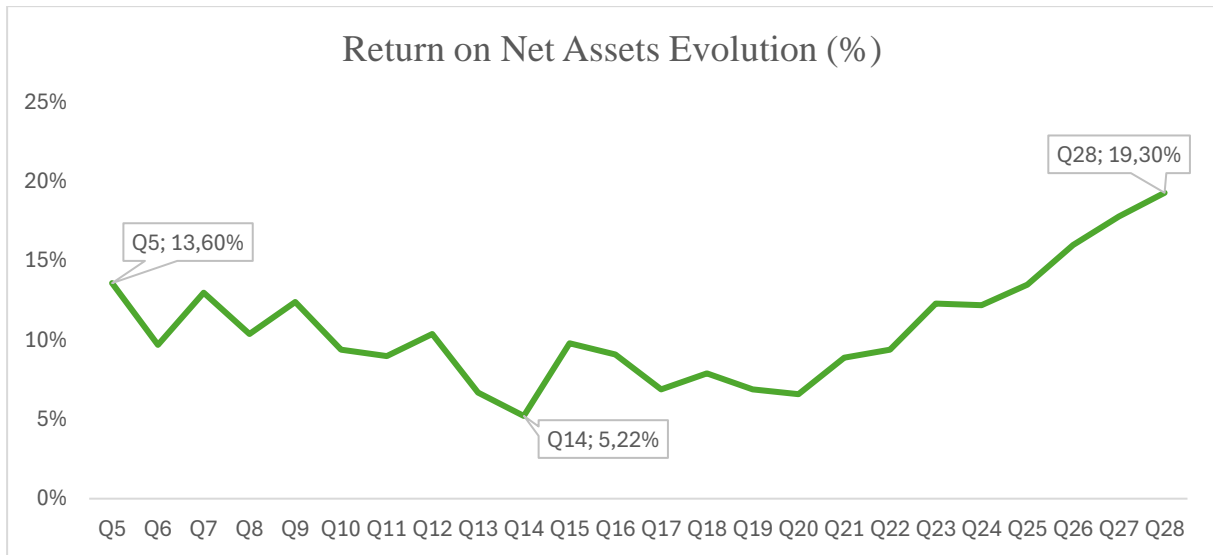


Figure 19: Return on Net Assets

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

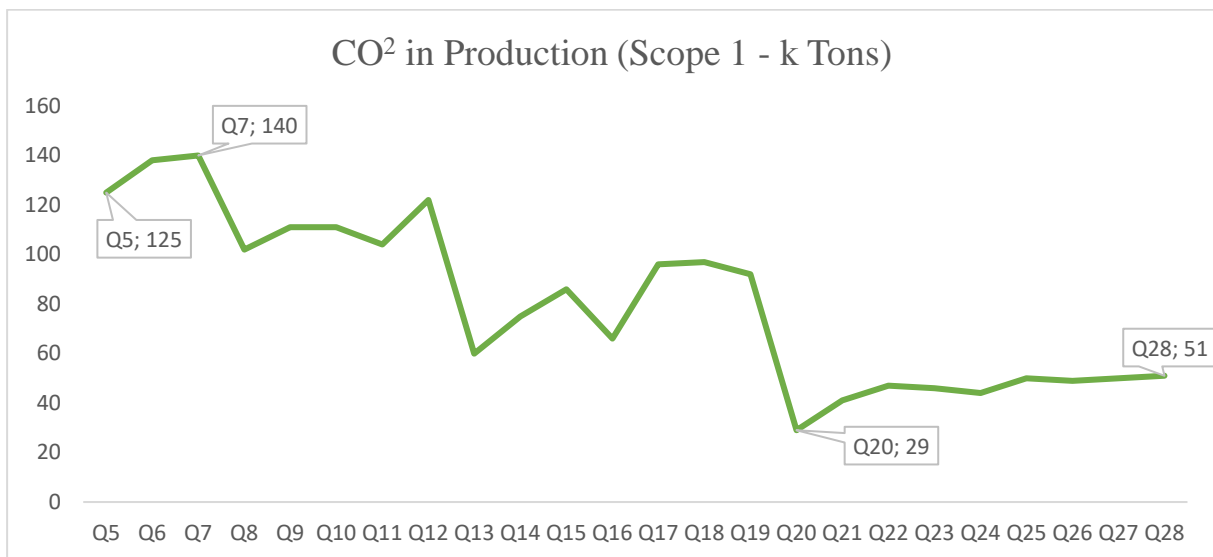


Figure 20: Scope 1 Emissions Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

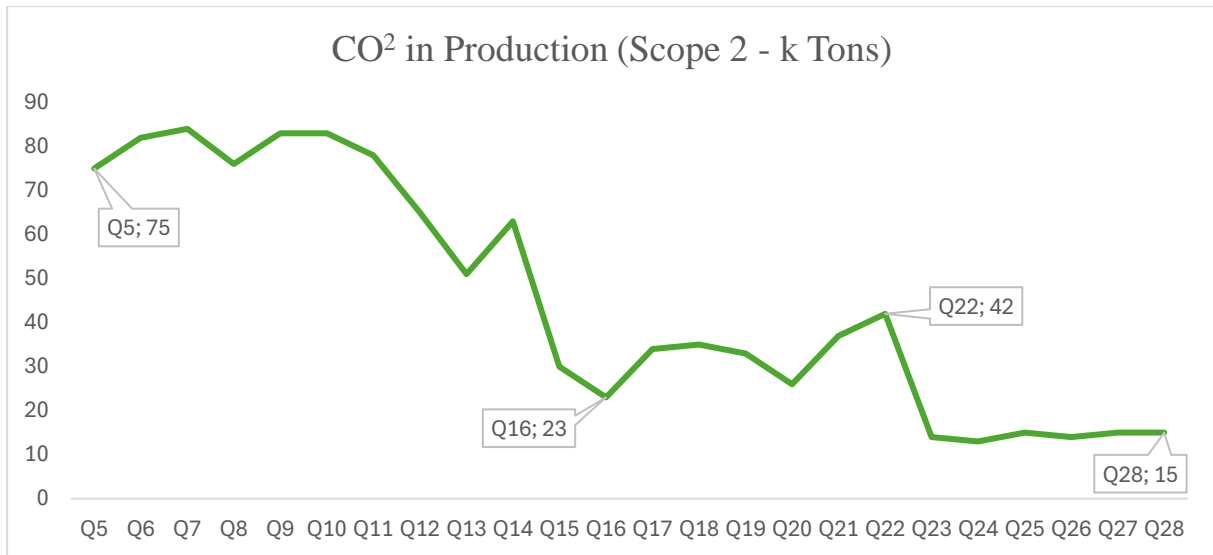


Figure 21: Scope 2 Emissions Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

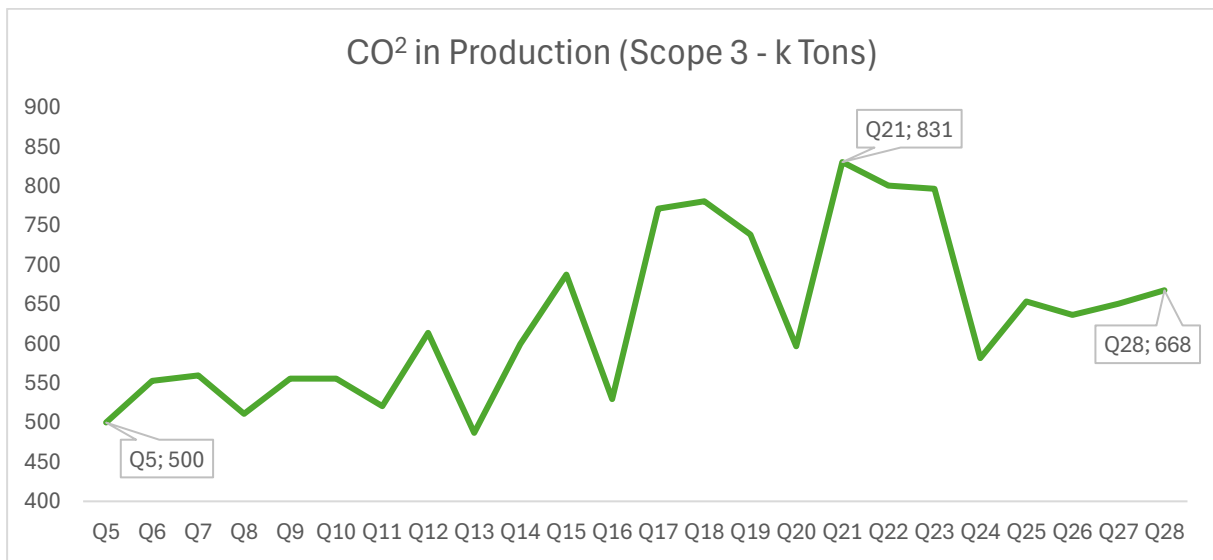


Figure 22: Scope 3 Emissions Evolution

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

Nova SBE - BiP 2024 - KPI: Value Added (M\$)

NOVA MSP - Course #14103

1.	4,421.70	EVOWAY (Team 14103 9) [Round 1/1, tick 84]
2.	4,210.30	eMoTioN (Team 14103 6) [Round 1/1, tick 84]
3.	4,154.40	ECO MOTION (Team 14103 8) [Round 1/1, tick 84]
4.	3,905.70	VOLTIX (Team 14103 1) [Round 1/1, tick 84]
5.	3,791.50	PROXiMA (Team 14103 2) [Round 1/1, tick 84]
6.	3,713.10	VECTOR (Team 14103 5) [Round 1/1, tick 84]
7.	3,676.20	VALUE DRiVE (Team 14103 10) [Round 1/1, tick 84]
8.	3,332.50	MUDANCA (Team 14103 4) [Round 1/1, tick 84]
9.	3,118.40	GRiZZLY (Team 14103 7) [Round 1/1, tick 84]
10.	2,602.30	EVON (Team 14103 12) [Round 1/1, tick 84]

Figure 23: Business in Practice Final Leaderboard

Source: Data retrieved from Business in Practice *Industry Master's Simulation*. 2024

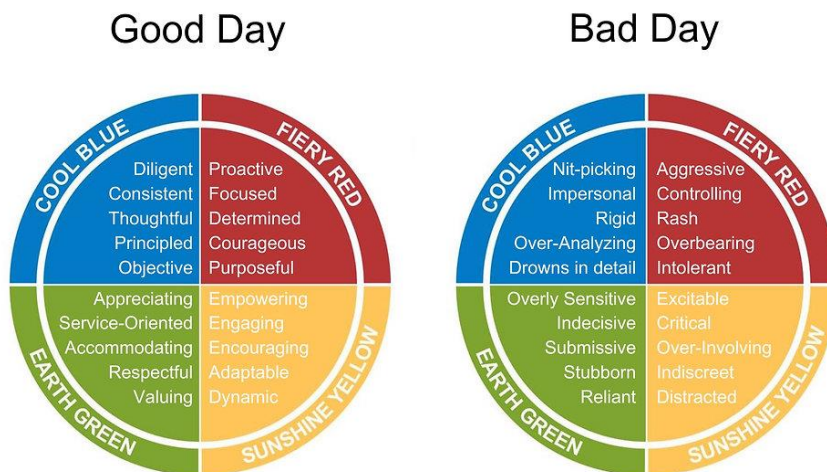


Figure 24: Different personalities and characteristics based on *Insights Discovery®* personality test.

Source: Wayfinders Leadership Blog, <https://www.wayfindersleadership.com>

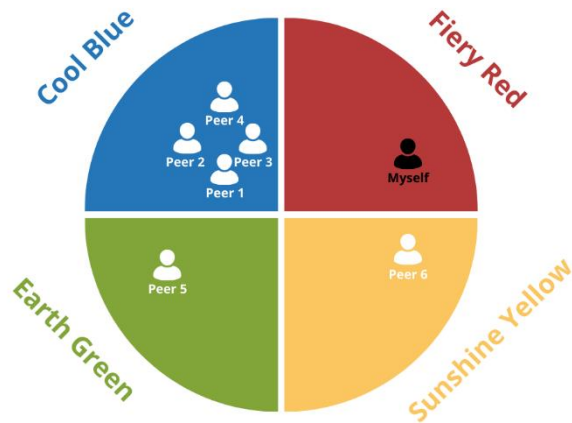


Figure 25: Personalities comparison based on Insights Discovery® personality test

Source: Own Illustration

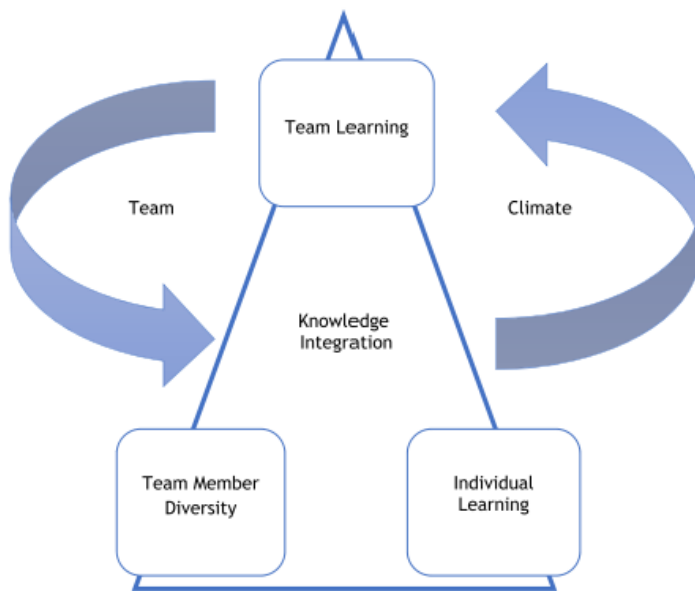


Figure 26: Building Blocks of Team Innovation

Source: Super, Janice Francis. “Building innovative teams: Leadership strategies across the various stages of team development.” 2020

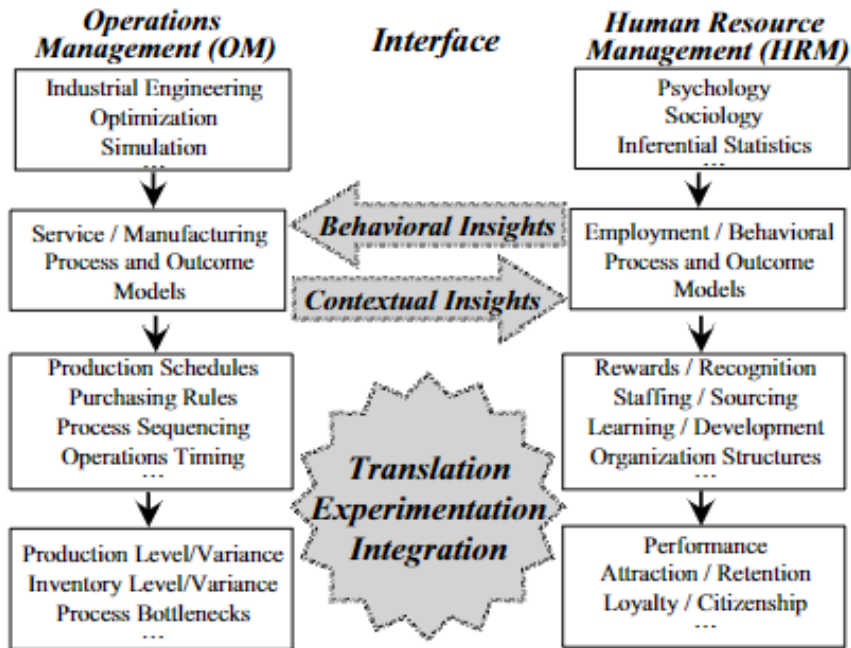


Figure 27: The interface between Operations Management and Human Resources

Source: Boudreau, John, Wallace Hopp, John O. McClain, and L. Joseph Thomas. "On the Interface Between Operations and Human Resources Management." 2003.