

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

BUSINESS IN PRACTICE

**HOW IS BUSINESS PERFORMANCE RELATED TO AN INDIVIDUAL'S
KNOWLEDGE, SKILLS, AND ABILITIES?**

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Abstract

This dissertation is composed of two sessions: academic discussion based on company performance and personal reflection based on individual performance. The first session focuses on the three key business functions, assessing how the participants' actions altered the behavior of the company, and identifying the academic justification for their choices. In the second, personal performance is assessed at the team level alongside the peer evaluation, and any potential improvements are noted in the course of action that will be taken moving forward.

Keywords

Business in Practice; Working in team; Automotive Industry; Strategy; Operations; Finance; Team failures; Cross-functional management; Reflective Practice

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Session One: Company Analysis

The automotive industry faces disruptive challenges due to environmental issues

Given that climate change is one of the biggest global concerns, either the government, consumers, or investors have adopted decision-making based on sustainability. As a result, more pressure has been placed on various industries, particularly the automotive industry, through changes in consumer preferences and tighter regulations governing carbon emissions. Constant technological innovation is demanded to enable companies to meet customer demand, adopt more sustainable policies, and make environmental strategic investment decisions.

The firm's performance is evaluated through value added

During the simulation, the board of directors is invited to make decisions throughout the time horizon of six years, starting by the end of quarter 4. The company's ultimate goal as a profit-seeking enterprise, is to achieve the maximum value added, or generate the highest operating profit at the lowest cost associated with the debt capital used, aside from the aforementioned social interest which necessitates the firm to get a higher sustainability skill level.

Zen Motors aims to become the first mover in this game and lead the market shift

Zen Motors, a carmaker with its headquarters in Portugal, has created and marketed cars all over the world, mostly in China, Europe, and the US. The company's goal was to redefine the future of mobility through sustainable innovation and lead the auto industry's change; as a result, it appears to have come to represent future automobiles and green mobility. Internally, the company was divided into five main divisions: operations, marketing, innovation, human resources, and finance. Aligned with a common Strategy division, the company as a whole has the same mission and vision: be the first to market with a particular type of electric car packed with cutting-edge, innovative, and safe features. All of the divisions are important for a company's growth and performance, but for the purposes of this work project, just three—Strategy, Operation, and Finance—will be covered in detail.

The Strategy analysis will briefly outline how Zen Motors formulates, implements, assesses, and adjusts its corporate strategy, as well as the primary challenges faced and how they were resolved. The Operation session will demonstrate how the Four V's framework affects operational positioning and techniques for operational improvement. The financial analysis will concentrate on the company's WACC and the instruments used to attain the minimum WACC.

Strategy gives insights for future action and defines indicators for performance tracking

Theoretically, there is no clear definition for strategy as it might be anything that provides a direction for the firm's future and could be revised over time depending on the external and internal environment. Consequently, the essence of strategy is choosing what not to do, according to Michael Porter (1996). In addition, the so-called 5 Ps of Strategy also tries to provide some viewpoints on the concept of strategy, stating that understanding how strategy can be viewed as a plan, as a ploy, as a position, as a pattern, and as a perspective is important. Each of these five ways of thinking about strategy is necessary for understanding what strategy is, but none of them alone is sufficient to master the concept. (Edwards, Ketchen and Short, 2014). Additionally, given the growing interest in corporate social responsibility (CSR), the business should take its ethical and philanthropic responsibilities into account.

In the case of Zen Motors, the company started with a scan through SWOT analysis (App.1). As a result, the firm recognized the possibility of launching an electric vehicle within 3 quarters and a massive investment opportunity in research and development, which will not only eliminate the threat of non-profitable old car models, diversify the company's product portfolio, and meet future customer demand: A range of electric cars had been positioned among the top 5 preferred car models (App.2).

Based on the previous statements, the company gained aspiration and stated the purpose as 'Redefine the future of mobility through sustainable innovation, making transportation cleaner and greener for a better world, and the vision as 'A world where green mobility is the standard

and sustainable transportation options, specifically electric vehicles, are adopted in every community.' (App.3). Furthermore, the strategic diamond (App.4) is vital for positioning comprehension by responding to some qualitative questions such as: Where to play? How to get there? What make you differ from others? Sequence of moves? How to obtain results? In summary, Zen Motors sought to become the first company with a 100% E-car portfolio by making significant investments in the short term, enabling a higher degree of sustainability and innovative technological advancement, and launching the most qualified E-cars on the market. More concretely, launching two electric vehicles in 3 quarters and investing in all current investment opportunities.

Once the strategy is formulated, the company should specify performance measures and referents to understand how well organization is doing to reach its vision, mission, and goals. This is because assessing organizational performance is a vital aspect of strategic management (Edwards, Ketchen and Short, 2014). Zen Motors deployed a variety of metrics for each area, for example, factory efficiency for Operation, WACC for Finance, and value added for the overall company. Regarding the performance referent, the benchmark chosen includes companies A, B, and C as key competitors (with direct information in simulation) and the remainder of the company (with information accessible on the highscores website). Besides, the company used the triple bottom line framework to not only focus on economic profit but also promote social and environmental sustainability (indicators such as diversity ratio, sustainability skill level, etc.), i.e., emphasize the three Ps of people (making sure that the actions of the organization are socially responsible), the planet (making sure organizations act in a way that promotes environmental sustainability), and traditional organization profits (Edwards, Ketchen and Short, 2014).

Considering that the strategic-management process is dynamic and continuous (David, 2011), after strategy implementation, the corporation had hardly worked with diligence on measures

previously defined. During this process, some drawbacks of strategy showed up, and necessary adjustments to company strategy were made.

In the first place, the strategy assumed no car would be launched until the E-drive module had been completed since the only car that would be produced was the E-car. With this strategy, a significant increase in penalties was seen in the first six quarters, rising from a cumulative penalty of 1160 M\$ in Q5 to 2258 M\$ in Q10 (App.5). This huge penalization is precisely due to the presence of five outdated car models with above-average CO₂ allowances (95 g/mile until quarter 14 and 70 g/mile forward) that can only be substituted in Q10 when the first two electric cars are available in the market (App.6). Fortunately, the strategy paid off when the government announced the subsidization of companies whose cars sold had fewer CO₂ emissions than the average allowed since Q16.

Later, the business also found that despite the significant investment made (high value of Net Assets (App.7) compared to rivals), revenues had not increased. Statistically, the revenue had climbed 45% from Q4 to Q15 while the net assets had increased 65% during this period (App.8 and 9), indicating that the growth in revenue is insufficient to offset the increase in net assets. The market's demand for and response to our products are the primary causes of these issues. While Zen Model was trying to lead the market's preference, only a portion of the market reacted accordingly, even with the maximum marketing expenses, since not all people had the means to purchase those expensive automobile models. Additionally, excessive attention paid to the profit margin together neglecting the impact of a lack of market demand for this special automobile, played a damaging role in operational decisions about the number of factories employed for car model manufacturing.

Under the Sim Clinic's advice and the principle that Strategic positions can be based on customers' needs, customers' accessibility, or the variety of a company's products or services (Porter, 1996), the board of directors readjusts the company's strategy, switching from the

production of the most differentiated and innovative cars (i.e., high-end cars) to a two-target consumer segmentation strategy. Thereby, during the third year, the firm introduced two additional low-end vehicles with the purpose of satisfying the increasing consumer demand for budget cars and optimizing factory efficiency.

The outputs of strategy reformulation are quite positive (App.8). From Q5 to Q23, the revenue half doubled with an increase of 29% in the Net Assets (return on Net Assets from 8.9% in Q13 to 28.6% in Q28, App.9), demonstrating the need for a firm to nurture a clear vision and mission and then systematically formulate, implement, and evaluate strategies along with assimilation of relevant data and make beneficial decisions for the firm and have several competitive advantages over the competitors (David, David and David, 2020).

Ultimately, the fact that the simulation time horizon is only 6 years contributes to Zen Motors reluctance to make further investments. As a result, the company starts to cut back on investments after year four to make up for the heavy initial investment (which led to relative higher Net Assets than competitors), in line with the company's strategy statement. By doing so, the business lost competitive advantages over its peers and generated revenue behind the benchmark in the last year (App.10 and 11). In conclusion, product portfolios should always be updated to capture client attention and potential shifts, and companies must be flexible to respond rapidly to competitive and market changes (Porter, 1996).

Learning from failures, in the long term, Zen Motors should continue to invest in R&D to be better prepared for the four disruptive technology-driven trends in the automotive sector: diverse mobility, autonomous driving, electrification, and connectivity (Gao, Kaas, Mohr and Wee, 2016). Zen Motors should also resist the temptation to create blue oceans, the untapped markets that rivals haven't yet entered. The blue oceans strategy is essential for company future development as the competition in existing industries is getting fiercer. According to Kim and Mauborgne (2015), the existing contracted market will not be sufficient to sustain high

performance. Companies need to go beyond competing. To seize new profit and growth opportunities, they also need to create blue oceans. The Ford Model T, a car model debuted in 1908 that made the automobile affordable for the public market, is one of the most well-known blue oceans strategic maneuvers in the automotive industry. Reacting to this move, sales of the Model T exploded. Ford's market share surged from 9 percent in 1908 to 61 percent in 1921.

Operation is at the forefront to address a variety of company problems

Broadly speaking, operations and supply chain management underlie all departments and functions in a business (Krajewsk, Malhotra and Ritzman, 2016) and consist by a set of activities that creates value in the form of goods and services by transforming inputs into outputs (Heizer, Render and Munson, 2020). Thus, a good understanding of Operations is vital for explaining company performance, principally for companies in the manufacturing industry, which is the case of Zen Motors.

Operation is a complex process that requires 3 types of management: Process, Customer Demand, and Supply Chain Management. While the first one concerns the quantity and quality of each production line, customer demand management helps the company maintain efficient resource allocation by forecasting market demand and managing inventories. Supply chain management works as a tool for cost reduction through location strategy and sustainability promotion by choosing sustainable suppliers.

Similar to most businesses, before taking any operation decision, Zen Motors was tempted to examine all of their operational traits according to the four V's framework, compare them to the intended positioning, and then implement the potential operation management method. The first and second V refer to Volume and Variety of output, which relate to how much production of a specific product is required to satisfy its overall demand in the market and the variety of goods/services to be produced and sold to customers (Guest, 2021). These two Vs, which have a negative correlation and work in tandem, give the company insights into the markets and

enable it to choose between cost leadership and distinctiveness as its next approach. The third indication of the framework, variation in demand, describes how much the level of demand changes over time due to external factors, thus helping to determine how inventories should be managed. The last one is the visibility of the production, which indicates how distant the customer is from the production process.

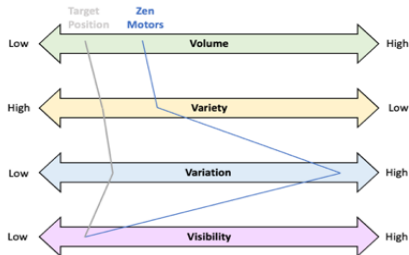


Figure 1: Zen Motors' four V's framework in Q4

Based on the four V's framework, the critical point for Zen Motors operational improvement should be the divergence in Variance and Volume factors (thus, in Variety). The demand for the current product portfolio is expected to

experience a large fluctuation due to shifting consumer preferences, as government-favored E-cars may replace existing conventional automobiles in demand. While from Zen Motors perspective, its vehicles should be irreplaceable (low variance) because of their high quality, inventiveness, and service specialization. In that sense, in order to achieve uniqueness in the upcoming car launch, the operation director coordinated with the innovation department to make significant investments in research and development.

The primary cause of Volume disparity is the product portfolio's incompatibility with the long-term strategy: Zen Motor wants to develop into a more distinctive and innovative automaker, whose product portfolio is diversified but low-demand. However, since investing in new technologies and automobile models takes time to complete, this transformation should take a while. Comparing its product position with the existing production capability, a top emphasis should be placed on the short-term problem of overproduction. In quarter 4, only two car models out of a total of five sought high production capability (expressed by the minimum days in inventory (DOI) of 30 days). The rest of the production lines faced a growing risk of overproducing and overstocking due to the low volume required. In other words, Zen Motors is struggling with process management because its product line typically sees low demand

despite having a large production capacity (7 factories currently open throughout the world, plus 2 more in the next two quarters). There are two options on the table: one is to introduce a new car model to fill those empty factories; however, this may not be the best solution in the short term as it requires two quarters to commercialize the new car and would contradict the company's corporate strategy. Thus, the only viable option is the second one: remap the manufacturing capacity by stopping production of Biz 135D (because of its high DOI of 134 days) and expanding that of Air 135G, whose DOI is only 30 days.

A location approach was also used by Zen Motors for supply chain management. Once it was unable to identify potential supplier locations, operations and marketing directors mapped out various product lines based on market preference research. Given that the compact class was the most popular in China and that shifting the manufacturing wouldn't necessarily be advantageous since transferring a business may be extremely expensive and comes with a considerable risk of inconveniencing customers and riding out supply-side influences, City 75G continued to be made in China. According to market research (App.2), Air 135G ranks at 6th position and 2nd in Europe and the US, respectively. While it is not possible to be manufacture in the US due to the capacity shortage, Europe represents a safe area where tariffs are stable. This strategic move was crucial for solving the inventory challenges. Biz 135D's DOI had decreased from 134 to 62 within one quarter (App.12). In real life, this kind of strategy should be vital for company growth and should be taken with caution because location decisions, once taken, are difficult to undo and it usually has an effect on an operation's costs as well as its ability to serve its customers (and therefore its revenues) (Slack, Jones and Johnston, 2013). At Singur, in the Indian state of West Bengal, Tata had intended to manufacture the "1 lakh" car, which may have been the most affordable vehicle ever. However, the corporation is unable to establish their facility in that state peacefully due to the inadequate government expropriation statute. As a result, the business was forced to close its current facility and relocate to another

state, which resulted in unforeseen expenses as well as production delays and missed deadlines.

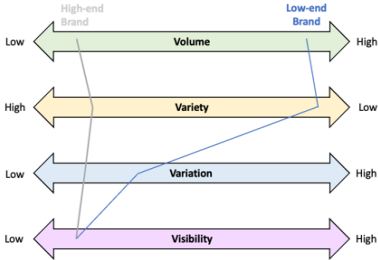


Figure 2: Zen Motors' four V's framework in Q28

Together with strategy reformulation, the four Vs framework was updated and implemented separately for two brands. By the end of year 6, high-end car brand managed low volume and high diversity, in line with its

brand positioning; the opposite holds true for low-end car brand. The decision made based on the four V's framework had a positive impact on inventory management, which enabled the company to adopt lean manufacturing since quarter 25 (none of the car models got a DOI higher than 50 days (App.12) while maintaining factory utilization at 100% (App.13). This is a production management method developed based on the Toyota Production System (TPS) and Just-in-Time (JIT) technique (Heizer, Render, and Munson, 2017), that assumes the company's primary goal as maximizing value to the customer through continuous improvement and elimination of waste (overproduction, overstock, and overprocessing) (Womack, Jones, and Roos, 2007). Lean management is recognized as a future trend by Zen Motors, as empirical evidence shows that firms that carry leaner inventories perform better throughout the business cycle and are less affected by variability in the economy than less lean firms (Gokarn, 2010). Recognizing the company's responsibility for solving sustainability issues and knowing that the supply chain accounts for 80% of a company's greenhouse gas emissions in most consumer-goods categories (Bové and Swartz, 2016), apart from production-level investment in waste reduction, Zen Motors had invested around 600 M\$ in supply chain improvement, including energy investment and a sustainable supplier program (App.14), trying to offset direct and indirect emissions in the long term (App.15).

Finance should focus on the optimal capital structure as a tool to lower the cost of capital

Apart from the Chief Operating Officer, the Chief Financial Officer (CFO), another member of the C-suite, had also been employed in a key position for company growth since people in this

role have significant input in the company's investments, capital structure, and how the company manages its income and expenses, assisting the CEO with forecasting, cost-benefit analysis, and obtaining funding for various initiatives (Grant, 2023). More specifically, there are two kinds of decisions waiting to be resolved for the CFO: investment and financing.

The finance department only accepts investment requests from other divisions if the respective asset generates a higher return than the minimum acceptable hurdle rate (i.e., opportunity cost of capital). The most popular model used to estimate the profitability of an investment is the Net Present Value (NPV) since it helps to estimate if a project's predicted financial return will be more than the current investment, indicating that the project is worthwhile (Archer and Ghasemzadeh, 1999). Mathematically, a project's net present value is the sum of the present values of all its cash flows, including inflows and outflows, discounted at a rate that reflects the risk of the project (A. Arshad, 2012). From a financial perspective of NPV analysis, the concept of time value is critical, as there is always an opportunity cost and risk associated with receiving money later. The opportunity cost is the highest possible return generated if the money delayed was invested in other projects (including inflation). While the term risk refers to the probability of losing principals because of a potential future occurrence, such as an economic crisis. However, there is a lack of information from investment during the simulation because the majority of the impact is indirect and unable to be expressed as an exact quantitative gain in revenue. Therefore, the focus of this work project will be on financing decisions.

Funds can be raised in 3 ways: retained earnings, debt, and equity. The first, often known as internal financing, refers to the cumulative profit that the business had made over time. Debt and equity are forms of external financing that call for interest rates and dividends payment in exchange for the money provided. That is, when a company raises money from investors, those investors forgo the opportunity to invest that money elsewhere. In economics terms, there is an opportunity cost to those who buy a company's bonds or stock (Dahlquist and Knight, 2022).

Bank debt and green bonds are the two types of debt that are present in the simulation. The cost of debt for green bonds is more advantageous because it is always 3% regardless of how low the company's credit rating is, in contrast to bank financing which has an interest rate based on the credit rating. It should be noted that this competitive fund has a credit limit that may only be increased when a green bond qualified investment is made, meaning that the credit limit of this subsidized financing instrument increases whenever you incur capex on green investments. In addition to their economic benefit, they are massively adopted by companies due to their signaling effect: having a higher amount of green bonds in your pocket means a high level of sustainability. Because of this, Zen Motors also extensively uses green bonds, often exceeding 50% of the entire debt (App.16).

Like most businesses, Zen Motors had multiple sources of capital, with debt being the most prevalent (App.17). It occurs because CFOs approximate the optimal capital structure, which has the lowest weighted average cost of capital (WACC). Typically, Trade-off Theory is applied to figure out the optimal capital structure. As the firm increases debt and increases the value of the tax benefit of debt, it also increases the probability of facing financial distress. The magnitude of the costs of financial distress increases as the debt level of the company rises. To some degree, these costs offset the benefit of the interest tax shield. The optimal debt level occurs at the point at which the value of the firm (Value of the firm= Unlevered value + Interest tax shield – financial distress) is maximized (Dahlquist and Knight, 2022). For simplicity, the financial distress cost had been incorporated into the higher return requested by equityholders during the simulation. Thus, CFOs are only required to figure out the correct debt ratio where the WACC equation $\frac{D}{D+E} * r_d * (1 - t) + \frac{E}{D+E} * r_e$ yields the lowest result. Due to the absence of information on the cost of debt and equity, Zen Motors assumed an optimal capital structure of 50% debt ratio, derived from the current debt ratio of BMW car manufacturers (48.86%).

Besides, Zen Motors had aligned their financing strategy with Pecking Order Theory while

maintaining an optimal capital structure. According to the Pecking Order Theory, internal financing is preferable to external one as it reveals least amount of information (ICAI, 2017). However, cash from operations is not always enough to cover the huge investment needed (net income of 1706 M\$ is lower than total investment of 4145 M\$ in the first year, App.18). Zen Motors employed debt as a source of funding in the absence of retained earnings (asked for a total debt of 3269 M\$, with 54% equal to the green debt, App.19). Apart of the pecking order theory, Zen Motors had not adopted equity insurance as an alternative strategy because of a lower debt ratio (approximately 47%) compared to the ideal one. Issuing shares will only push up the value of equity, decreasing the debt ratio even more, which is not a desired situation. Additionally, the equity market is not at favorable timing (share price decreased from 353.56 in Q1 to 205.1 in Q10, App.20).

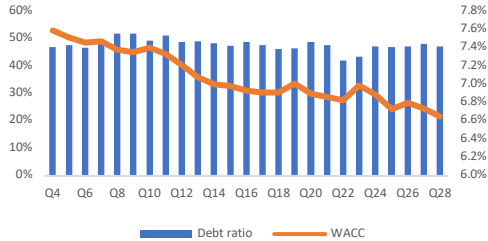


Figure 3: Debt ratio & WACC

The cash needed can be fully funded by retained earnings and debt until quarter 12. However, when a wave of debt repayment, significant operational cash requirements, and dividend payments all occurred at

once, more funds was required. To ensure that the company’s credit rating did not fall below the target level (a credit rating of A), Zen Motors issued equity for the first time, which decreased the debt ratio from 50.05% to 48.74%. With ongoing challenging operational cash needs and undelayed car launches, CFOs decided to issue shares again in the next quarter, which led to a redution in the debt ratio of 1,79%. Ideally, no further megacephalic debt repayment or investment would be required in the following quarter. Thus, no more equity needed to be issued, and the share price has increased since then. By quarter 18, Zen Motors stopped major investment activities according to the strategy and cash available without financing quickly outpaced investment needs (App.21). With this extra free cash, Zen Motors decided to buy back shares as the share price is expected to increase in the future and share payback will push up

the debt ratio to the optimal level, therefore diminishing the WACC. However, CFOs miscalculated the number of times they could repurchase shares. No additional shares may be purchased after four consecutive share repurchases, which causes the cash surplus situation to recur. According to Business Growth Fund (2022), managing debt through debt refinancing is an important part of running a company. The key is to ensure your debt level is sustainable and appropriate for your business, while confirming that your borrowing is arranged on the best terms available in the market. Zen Motors ultimately opted to pursue debt refinancing by canceling the previous loan in order to improve its credit score and then applying for debt with a reduced interest rate. As a consequence, the cost of bank debt decreased from 4.85% to 4.75%, resulting in a WACC of 6.89% in Q24. While excess cash was presented on the firm's balance sheet, Zen Motors continued to request lower-interest debt in the ensuing quarters. The firm's willingness to adhere to the ideal capital structure was the primary justification for this. Another argument is that the simulation is unrealistic due to its time horizon being shorter than the actual organization's lifespan. For example, throughout the simulation, multiple investments may be purposefully halted since there is not enough time to make those investments pay off. In real life, as long as a firm lasts longer than six years, investing in new projects always plays a role in company growth. Nevertheless, the inaccurate estimate of the number of share repurchases and the investment strategy limited further decreases in WACC, pointing it at a minimum of 6.74% with a debt ratio of 47.3%.

The company with high overall performance assists in cross-functional collaboration

From contingency perspective, organizational performance is dependent on the “fit” between an organization's strategy, structure, and environment (Preston, 1977). A corporation is like a human being, where strategy works as the brain and different departments as the arms and legs. That is, strategy emits a command that the rest of the organization should align with. Thus, throughout the simulation, all board members were fully committed to the corporate strategy.

For instance, the operation department had developed an operational strategy within the corporate one, aiming to achieve 100% electrification as quickly as possible (which corresponds to innovative value) while minimizing the adverse environmental impact through waste reduction, responsible energy use, and sustainable supplier choice (which stands for sustainability value). The finance department had aligned perfectly with the company's sustainability growth by approving investment in sustainability, applying the green bond as the first tool of external financing, and enabling green financing for customers.

Ensuring that all division behavior conforms to the strategy is important but not sufficient to deliver cross-functional management. Today the most promising innovation and business opportunities require collaboration among functions, offices, and organizations. To realize them, companies must break down silos and get people working together across boundaries (Edmondson, Jang, and Casciaro, 2019). A boundless environment should be guaranteed where each department can communicate and cooperate freely. For example, directors of operations must travel with directors of finance to negotiate and prioritize investments, discuss potential increases in efficiencies with suppliers and partners, and decide on the continuity of the car line according to the overall contribution.

Companies can embrace resplendent future by learning from mistakes

In conclusion, a clear vision and mission should be set to embed better company growth since they promote structural integration of the company and provide insight for strategy formulation. Strategic management is a continuous process where constant scanning, monitoring, forecasting, and assessing of the external and internal environment needs to be implemented with the purpose of readjusting the strategy accordingly. From the operational management perspective, the decision should be taken based on both the corporate strategy and the operating position of the product portfolio, taking customer demand into consideration. On the financial side, the equilibrium position between debt and equity is a key element for WACC minimization. In a

nutshell, having performed poorly in the past is not problematic. By maintaining a proactive posture, taking corrective action plans, and learning from mistakes, the company can survive just as Zen Motors did (App.22).

Session Two: Personal Reflection

During this session, the focus shifts from corporate performance to personal performance. Instead of going straight to the point, some backgrounds are shared to be contextualized. Firstly, the program in which I participated, Business in Practice (BiP), is an intensive and immersive three-week program that combines academic study with real-world application. In essence, several teams are invited to assume responsibility for running an automotive firm for six years, making decisions as a board of directors on 5 critical functions. For the subsequent session, it is crucial to understand how the team affects the performance of the business. Like Parker (1998) said, "The world of organizations is shifting individualism is out and collectivism is in, power is out, empowerment is in". Team has usually occupied a key position for organizational success as teamwork provides vast amounts of knowledge and information, cultural differences each of these building a culture of teamwork and the skill to make the valuable solutions of the problems (Mangi, Kanasro, Burdi and Rahman, 2015). Additionally, a recent article by Hadley and Mortensen (2022) claimed that teams are worth the investment, even today, when collaboration requires an increased cost and has a reduced benefit. Based on what was mentioned before, the success of a program is greatly influenced by the effectiveness of teamwork, and an individual's performance can only be evaluated in terms of their personal contribution to the team.

Two incidents are exemplified to analyze individual performance. Lencioni (2015) identified 5 interconnected dysfunctions in teams: absence of trust, lack of conflict, lack of commitment, avoiding accountability, and inattention to results. These five dysfunctions were used to explain the first occurrence, together with possible individual and collective solutions for improvement. The second explores the relevance of an integrated perspective on teamwork and offers

solutions for its absence. Besides, auto-assessment and peer feedback are used to analyze how much each member personally contributes. The disparities in the scores are contrasted, the cause of the divergence is investigated, and methods for bridging the gap are discussed.

A well-managed conflict is key to improve team performance

The first incidence occurs when the first sales pitch is delivered at the beginning of the program. Practically speaking, this is officially the first assignment that requires teamwork, as the prior day's exclusive emphasis was on academic knowledge and simple simulation exercises. Moreover, theoretical learning is demanding, leaving people physically and mentally exhausted while also indirectly boosting individualism. That is, rather than accepting the role of a team member, participants operate under the student model. Despite certain teambuilding activities that had developed internally, the group environment is relatively laid back, no one paid attention to simulation result (common objective) as it doesn't count for final grade. This dysfunction is fatal, since when people prioritize their own status, they stop caring about the success of the team or organization and are only members because the group has some sort of prestige (Patrick Lencioni, 2015). As a result, people were unwilling to commit to the group and recused themselves from taking responsibility. Even though this negative emotion only happens in one individual, because people tend to behave consistently, it spreads like a disease and can affect the entire team. For people who are more focused on getting results, by involving themselves in this virose environment, they get frustrated, opting to leave the team or join it. This is exactly what takes place at Zen Motors. Numerous discussions were held to get everything ready for the sales pitch, but none were recorded, and nobody stepped forward to take charge of the project's direction. In other words, the brainstorming process is done at random. No one cares what its final output is. Some novel ideas had emerged after several rounds of discussion, but they were not in agreement. A couple minutes later, the team was still in discussion. Finally, a person who is result-oriented broke the impasse, asked to follow a structured plan, and wrote

down the keywords. Personally, I attempted to steer the discussion during this process. But since I am a blue-colour person (an introverted and thinking personality) and have never assumed a formal leadership position, I am not experienced in leading groups, principally ones where everyone has their own opinion. Thus, the discussion spirals out of control again. The project guidelines are mainly defined before the next session starts under leadership. However, it had never been concluded. Although one of the team members had made efforts to meet up, the responsible individuals, who will act as the company's representatives in roleplay and have volunteered to prepare a paper presentation, had rejected the suggestion, while the rest had agreed to assist whenever needed in the evening. There was no news flew that evening. Like some team members, I interpreted it as a sign that everything was on schedule. The team gets into trouble on the day of roleplay when they have to print deliveries in a rush due to an ambiguous job assignment. Besides, there are two distinct people's renditions of the presentation. So, duplicate work had been involved, and there was the risk of presenting a work that was not consented unanimously since not everyone had the chance to read this 'midnight project'. Another team member (result-oriented people) felt frustrated since she had completed the project in the early morning and had arrived at the university at 8 a.m. to wait for representatives to arrive and show presentation slides, but nobody had shown up, and her dedication was not appreciated. Conflict broke out as a result of the mounting tensions, and I found myself in this predicament when I got to the group room. After a long time of reflection and discussion, each member voiced their thoughts while respecting others' opinions. We recognized the mistakes made and arranged an action plan based on a range of principles to improve team dynamics. Concerning commitment issues, Zen Motors lacked two types of commitment: organizational and individual commitment. Organizational commitment is the measure of strength of the employee's identification with the goals and values of the organization (Mowday et al., 1982). In the case of Zen Motors, the group member partially disagrees with the program manager's

decision to not account for simulation performance in the thesis grading system. According to Fornes and Rocco (2004), individual commitment measures the strength of the employee's identification with the values of other individuals and peers within the organization (team commitment) and their work (job commitment) and careers (career commitment). In Zen Motors, some team members' behavior and values collide with those of others (objective vs. feeling-oriented people). Affective commitment is created as a remedy. We tried to think of the program as a tempting treasure trove where we might learn about the business across functional lines. In fact, BiP is a valuable and unique experience that we had get the chance to fully appreciate later. Additionally, periodic alignment audits are carried out. People are free to express their opinions, and peer feedback is constantly given to check not only individual performance but also inclusiveness and caring. The action plan also advocates shared leadership within the team, allowing for the growth of a more integrated team. Shared leadership is the process where team members each play a role in the collective leadership of team tasks and requires greater team member engagement and group interaction, which leads to team members building more cohesive interpersonal relationships and working together more closely (Newman and Ford, 2020). To avoid endless discussion, a framework is elaborated. By modeling the discussion, everyone on the team gets oriented and feels comfortable disrupting others when the conversation goes in the wrong direction. Moreover, effective communication's importance is recognized, as without it, there is not only duplicate work and misinterpretation but also breakdowns and unengaged employees or leaders if they don't feel valued and respected (Keates, 2018). Effective communication is achieved by using the five Cs: clear, concise, curious, compelling, and compassionate. In sum, communicate the issue directly without misinterpreting or reacting emotionally, judgmentally, or defensively and keep requests direct, simple and to the point (Keates, 2018). Compelling communication is achieved through the ability to understand the audience, meet their expectations, and articulate a point of view in a manner that

resonates with them. For that reason, active listening should be employed during the conversation. An active listening is a process of acquiring which is more than just hearing the words someone is saying, but rather understanding the context in which those words are shared, along with other verbal and nonverbal cues, such as voice inflection, tone, facial expressions, and body language (Westover, 2020). Some key actions of active listening are not giving advice before you fully understand the question, speaking without judgement, showing empathy by put yourself into their shoes, rephrase and paraphrase to show you got what other means, and ask questions to encourage your client to elaborate on their thoughts and feelings (Fernandes, 2023). Equally important to listening, good body language has gained increasing importance in transmitting messages, as nonverbal cues can have between 65 and 93 percent more impact than the spoken word (Emerson, 2021). For example, nodding, facing the client, and maintaining a positive body posture are signs that you are engaged and interested in the topic in discussion. Ultimately, effective communication may require some preparation: roleplaying, researching information to support an argument, and brainstorming with potential questions.

I do believe that this dilemma occurs frequently in the BiP program and in future employment, and I felt disappointed with how I handled it. I consider myself an objective person who aims to achieve excellent results in any assignment I take on. I did, however, lose my personality during the conflict. A feeling of fatigue and lack of devotion in the early stages can serve as an excuse for not being willing to commit, but in reality, the main justification is the sensation of conformity with group members, which makes one feel influenced by the majority. Furthermore, the play had been made worse by the introversive perosinality, lack of leadership expertise, and failure experience in leadership. I had only made a minimal effort to lead the conversation when I smelled conflict and had given up when no one stood with me. Learning from it, I should feel more motivated and confident to face leadership challenges, even when rejections or ignorances are present, since no one is born with these skills; they are also learned through failures. Besides,

effective communication and active listening skills should be developed as means to integrate into others' conversations and make others pay attention to what you say. A constant evaluation and reflection on self-behavior should be undertaken as they offer opportunities to identify weaknesses and create corrective action plans. To conclude, being courageous and practicing self-criticism will definitely help me become a good team member as well as an excellent leader.

Doing well within your responsibilities is not enough to cope with all business problems

The second incident concerns a lack of coordination across operations, marketing, and finance in the simulation. There was limited interaction between the financial and operational departments in the first three simulation rounds since the board of directors has been focused on solving the operation dilemma while being oblivious to the financial ramifications, vice-versa. This pattern potentially results in the posterior financial issue of a decline in return on net assets from 13.8% (Q5) to 8.5% (Q16) (App.9). The overproduction resulted from inadequate factory allocation (producing without considering demand) was offset by high marketing costs, leading to a low profit margin and thereby poor cash generation capability. Even though the event refers to an operational issue, I am also inevitably accountable for the failure as Finance director. Three factors contribute to incidents: the prioritizing of one's own tasks, time constraints, and a lack of communication due to physical distance and the absence of a common channel.

Finance-related challenges had been addressed in the first place because of their great exposure and easy accessibility. When using the finance director credential, the screen shows all the information required to solve financial problems but restricts access to possible data that could be utilized to answer operational queries. Besides, a high level of confidence is shown in the teammates' problem-solving skills, which is the key for team success according to the research conducted by Morrisette and Kisamore (2020). Furthermore, limited responsibility thought had been developed as a result of an integral company overview's lack; that is, people only care about duties allocated to their positions and ignore the work of others whose performance may

indirectly affect their own or the firm's performance. Theoretically, every single person in a company is a valuable piece of the chain. If they do their part wrong, the entire chain feels the effect. That chain is in a circle that goes round and round, with no beginning and no end. Every person matters and is equally important to the overall functions done in a company. No one person is insignificant or small in the process. Everyone needs each other (Anderson, 2013). The same applies for the job position. The entire company will get into trouble if any one function does not perform well. Precisely, operations and finance are two sides of the same coin: operations management sets the backbone of financial performance, and corporate finance supports real investment in operations (Zhao and Huchermeier,2018). The complete absence of its interconnection makes the finance team difficult in forecasting revenue and creating budget planning, and brings the operation division into trouble in the short term due to no profitability. The second component of failure, limited time, includes both simulation and preparation time. The six sessions that made up the simulation represented six years of decisions. Each round is composed of 4 quarter decisions and lasts 3 hours in total, i.e., only 45 minutes per quarter. Within this framework, each department is required to analyze the situation, discuss it internally, register the variation from one quarter to another, meet other departments' requests, and take decisions as a board of directors. Thus, not all topics will be discussed in public. Usually, you are obligated to make judgments independently with the goal of avoiding making decisions at the eleventh hour since other department directors are equally busy and unable to provide adequate assistance. As a way to solve the issues, I prepared several works in advance, including a dashboard where fewer inputs are needed since all indicators can be calculated using formulas, a defined working strategy, and a budget plan with anticipation of investments needed and potential operating cash flow. However, the situation is exactly as what said by Sidhu (2012), when you're under pressure and in the thick of it, there often isn't time to immerse yourself in all this analysis. Even if there was, chances are that your environment is changing so fast that

this approach is not helpful. More techniques are needed. For example, leaving 10 minutes for group discussion, even when time is tight, will not only inform your teammate about what your department is doing but also create innovative solutions. As a cornerstone, the team needs to make sure that all group members understand what the aim is and set clear boundaries about which elements are fixed and not up for discussion, and those that the team can be creative with (Sidhu, 2012). The benefit of making decisions with a team was also evidenced by Maciejovsky, Sutter, Budescu, and Bernau (2013), who stated, “Our analysis rules out the possibility that the superiority of the teams is due to their size or extra information, and an analysis of the content of the within-group interactions suggests that many teams engage in the strategic elimination of incorrect solutions”. Using tiny steps and learning from feedback is another strategy used. More simply, rather than deciding to make major large scale changes, take smaller steps which lead you in that overall direction but give you the opportunity to learn from feedback along the way, so you can refine your ideas (Sidhu, 2012). Our company's behavior fully illustrated the advantages of using such techniques. During the simulation, my finance buddy and I committed an incredibly stupid mistake: we believed that there was no benefit to repaying loans early because all remaining interest expenses and the cancellation fee should be paid. Exactly for that reason, rather than canceling the existing loan, we favor buying back shares. Once we announced our decision during our 10-minute discussion, one of our teammates questioned why we hadn't opted to cancel loans. We explained the reasoning present in session, together with the disadvantage of paying back early based on our assumption. She agreed with our logic but argued that paying back early would be desirable since the rest of the interest is not due. In fact, she is right, and I am convinced. However, I advised limiting experimentation to one current loan and documenting the cash variation from the starting stage to the after-decision position in order to prevent irreversible loss to the organization. Only after confirming the true effect of loan cancellation will we make a bigger move.

Communication failure is a major contributor to underperformance, on par with other issues. Ineffective communication had been largely caused by both distance and working techniques. When we arranged seats, our department wanted both departments (Operations and Innovation) to be aside from us to facilitate communication because of their impact on finance. However, it can only be accomplished partially since the marketing division also needs to be heavily involved. A higher priority is given to marketing, so our only option is to choose to work with just one department. We chose innovation since it requires more money to implement and has a bigger impact on cash flow. As a consequence, the finance department is far away from operations, making it challenging to catch the full picture of their actions. A shared dashboard is developed as a solution. However, the result is unsatisfactory. Departments rarely introduce input because of time restrictions. To improve it, I changed the dashboard outline into a more customized model during free time, allowing the cross-functional dashboard page to be linked to the Finance one. Since then, data from the finance department has been freely accessible to other departments, but the finance team is still unable to visualize others activity. Despite several requests for operation feedback, our department was unable to obtain a complete picture of the circumstances. I immediately began to reflect and discovered that management students do not use Excel as their custom tool; they prefer to do analysis based on screenshots. Taking into consideration that behaviour will always be a function both of the individual and of the cultural context (Tjosvold and Leung, 2003), I adopted my behavior according to the way they worked: always with their screenshot Excel document opened and asking for updates in case of absence. Finding the right approach has made tracking operational performance much simpler. Learning from this incident, I went back and checked with every department after recognizing the error. A potential HR issue is identified: some managers' salaries registered an unbelievable high Compa ratio (40% above the media payroll), and a proposal to not implement the average increase had been made to avoid a potential imbalance in salary payments.

Peer assessment is a critical tool that can be used to determine how a person performs

Along with academic accomplishment and soft skills in teamwork, successful professional development requires regular self-evaluation and peer criticism to pinpoint areas for improvement. Such an opportunity is also offered by the BiP program; that is, a self-evaluation and peer assessment have been delivered during the simulation.

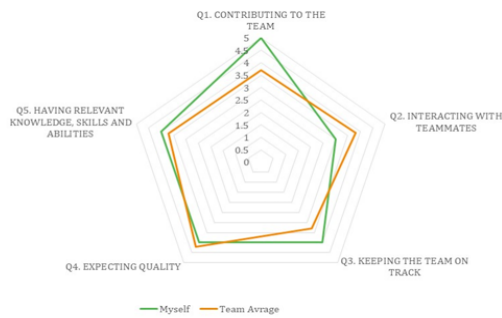


Figure 4: Self-assessment & Peer evaluation

Individual performance is rated on a scale of 0 to 5, with 5 representing the highest score, for each of the five questions on the questionnaire. The most significant divergence is revealed in the dimension of team contribution. I understand the assessment's foundation as the primary factor for disparity. Peers had graded conduct based on whole program performance, whereas I had done so for simulation behavior. Besides, I highly valued my efforts to improve the financial analysis interface, which are not apparent to peers as no importance is placed given that they do not master neither Excel nor Finance concepts. Following the difference noted in questions 2 and 3, it is possible that this discrepancy is due to the different interpretations of "interact" and "keep on track". Higher value is put on question 3 since I tried to guarantee department status quo, ensure that all department had finished their decision-making each round, and attempt to bring the group back when the conversation got off track. The remaining two questions demonstrated insignificant variation, meaning that a correct position statement is made from these scopes.

Overall, I should engage actively in group discussion by employing the methods mentioned before, be transparent with the group to demonstrate commitment to the team, be mindful of the impact of other team members' attitudes and behaviors and be open to receiving and acknowledging negative feedback as positive feedback since constructive criticism provides valuable insights into areas that require improvement and helps us become better team members.

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Appendix

Appendix 1 – SWOT Analysis

SWOT Analysis

Strengths

- Vehicle lines that are popular and selling well (<60 days of inventory)
- Initial stages of investment in electric vehicle are expected to bring revenue growth in the short term
- Excellent employee relations leading to good productivity achievements

Weaknesses

- The product portfolio consists exclusively of conventional vehicles
- Three vehicle lines with >60 days of inventory need management attention in operations and marketing
- A restructuring of the business in the short term may be required

Opportunities

- Electromobility is the future! E-Drive modules can be used in 3 quarters
- Green investments that can be financed with green bonds are available
- New product offerings with up-to-date technology
- Expansion of factories are possible
- The stock market appears receptive to a share issuance
- The market responds well to marketing spend

Threats

- Older model lines are a drain on resources
- Expensive debt due to current credit rating and access to new borrowing
- Increasing competition in the electric vehicles market
- Continuing aggressive government regulations that threaten profitability
- Volatility in the cost of raw materials

Appendix 2 – Market Research

Product Ratings

Americas

Preferences

1	Conventional Car - Type: SUV
2	Conventional Car - Type: Convertible
3	Conventional Car - Type: Luxury Class
4	Electric Car - Type: Convertible Electric Class
5	Electric Car - Type: Executive Electric Class
6	Electric Car - Type: Luxury Electric Class
7	Electric Car - Type: SUV Electric Class
8	Conventional Car - Type: Compact Class
9	Conventional Car - Type: Executive Class
10	Electric Car - Type: Compact Electric Class

Europe

Preferences

1	Conventional Car - Type: Executive Class
2	Conventional Car - Type: Compact Class
3	Conventional Car - Type: SUV
4	Electric Car - Type: Compact Electric Class
5	Electric Car - Type: Convertible Electric Class
6	Conventional Car - Type: Convertible
7	Conventional Car - Type: Luxury Class
8	Electric Car - Type: Executive Electric Class
9	Electric Car - Type: Luxury Electric Class
10	Electric Car - Type: SUV Electric Class

Asia

Preferences

1	Conventional Car - Type: Compact Class
2	Conventional Car - Type: Executive Class
3	Conventional Car - Type: SUV
4	Electric Car - Type: Compact Electric Class
5	Electric Car - Type: Convertible Electric Class
6	Conventional Car - Type: Convertible
7	Conventional Car - Type: Luxury Class
8	Electric Car - Type: Executive Electric Class
9	Electric Car - Type: Luxury Electric Class
10	Electric Car - Type: SUV Electric Class

Appendix 3 – Zen Motors’ Purpose, Vision & Values

PURPOSE, VISION & VALUES

PURPOSE:

Redefine the future of mobility through sustainable innovation, making transportation cleaner and greener for a better world

OUR VISION:

A world where green mobility is the standard and sustainable transportation options, specifically electric vehicles are adopted in every community.

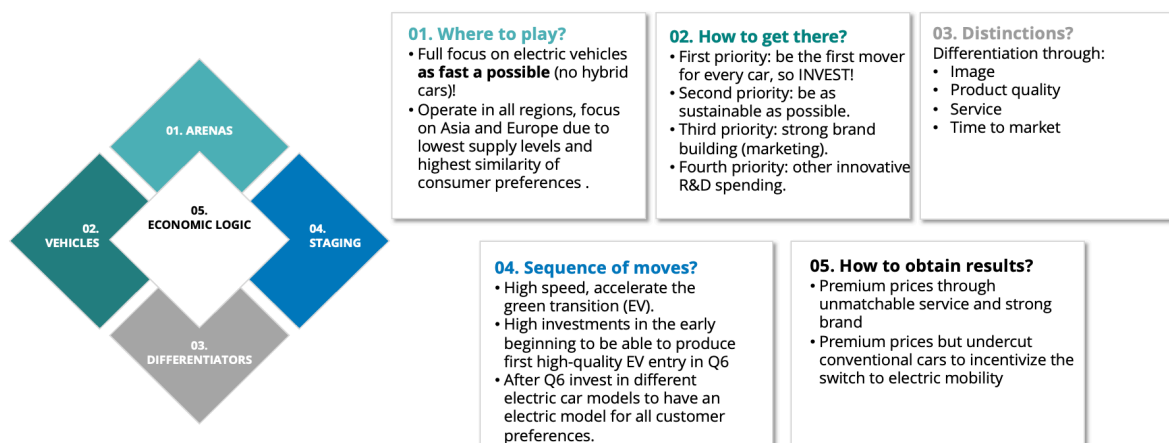
OUR VALUES:

- Innovation & Visions
- Customer-Centricity & Experience
- Social, Environmental & Financial Sustainability
- Integrity & Transparency

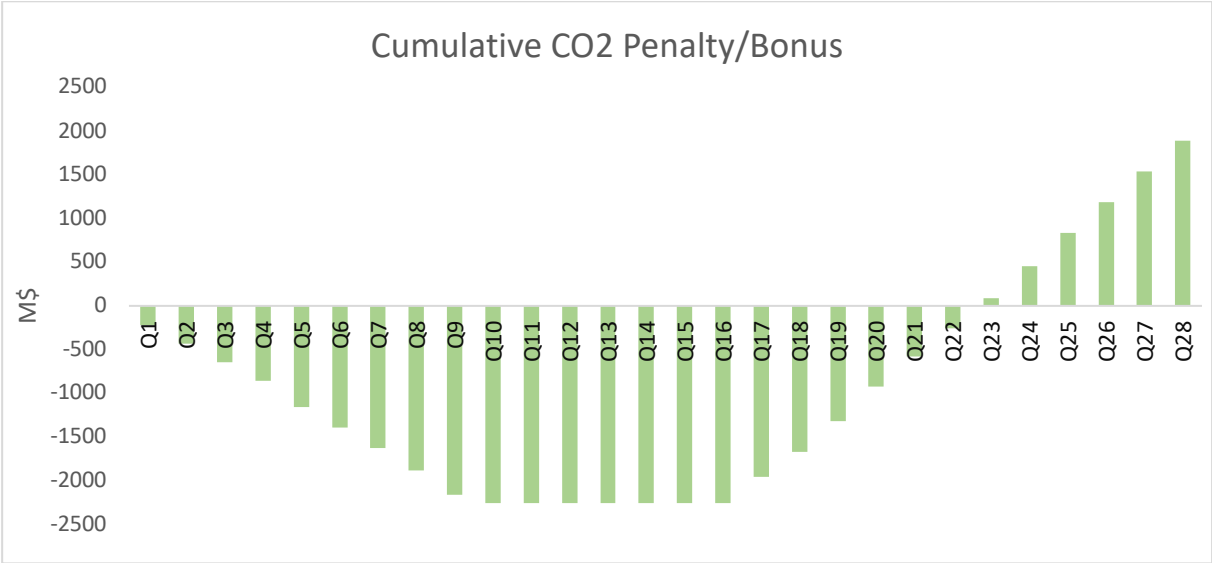
OBJECTIVES:

Be the first one to be on the market with a specific type of electric car packed with safe, innovative and high-quality features. After launching the cars, we want to remain at the forefront of EV's by continuing to improve all characteristics of the cars for the next 6 years.

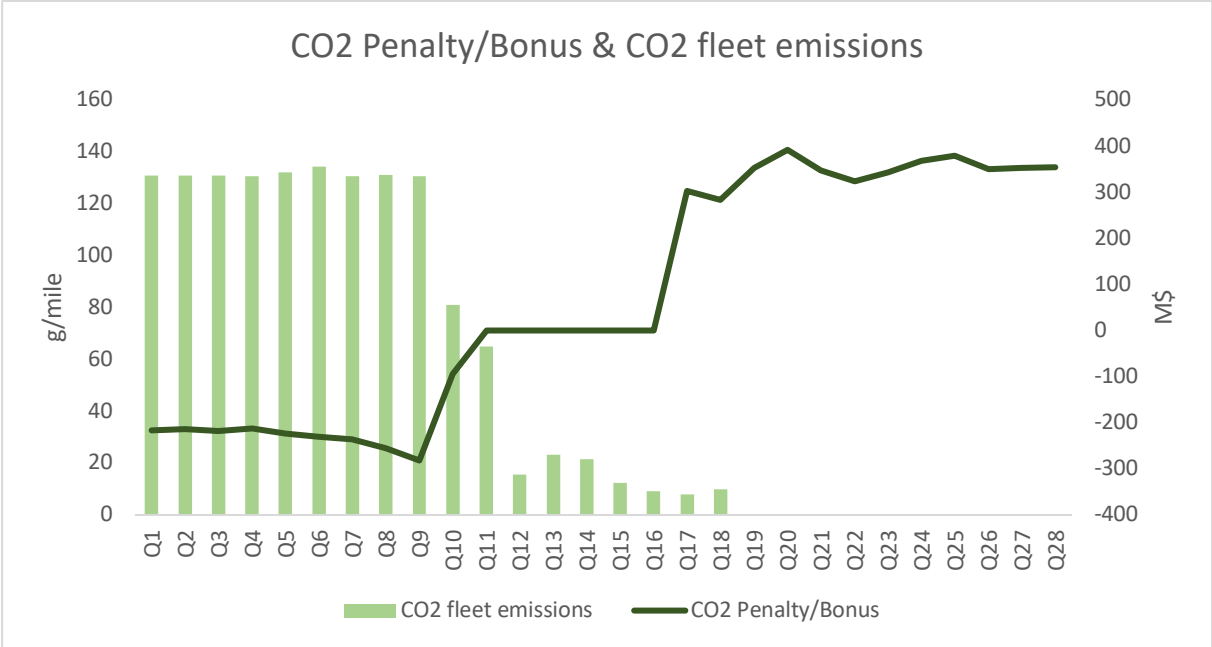
Appendix 4 – Strategic Diamond



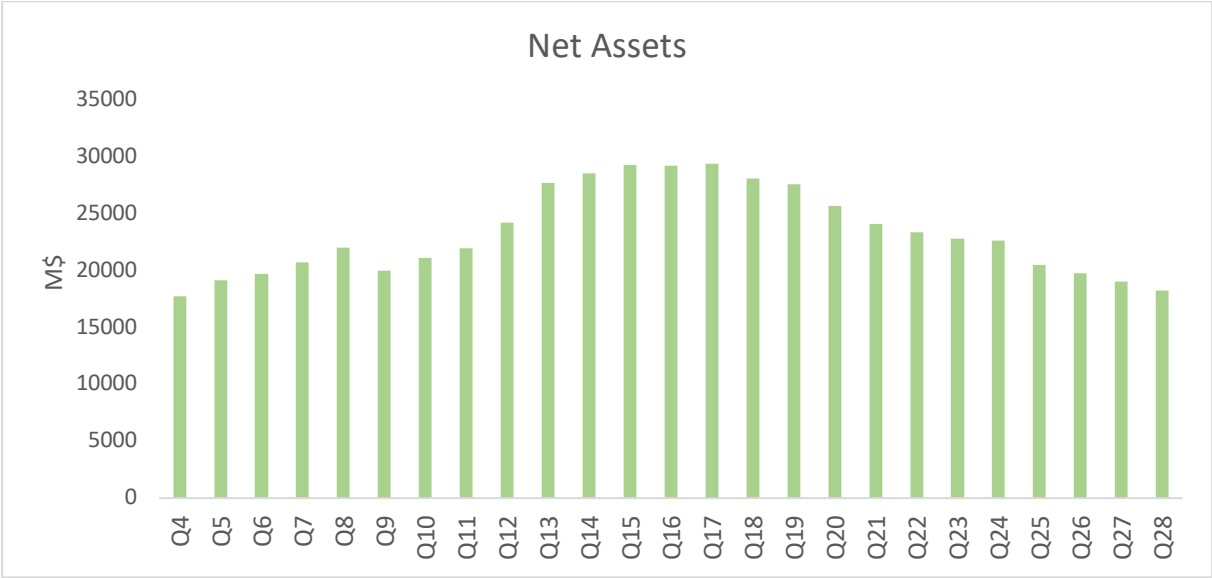
Appendix 5 – Cumulative CO2 Penalty/Bonus



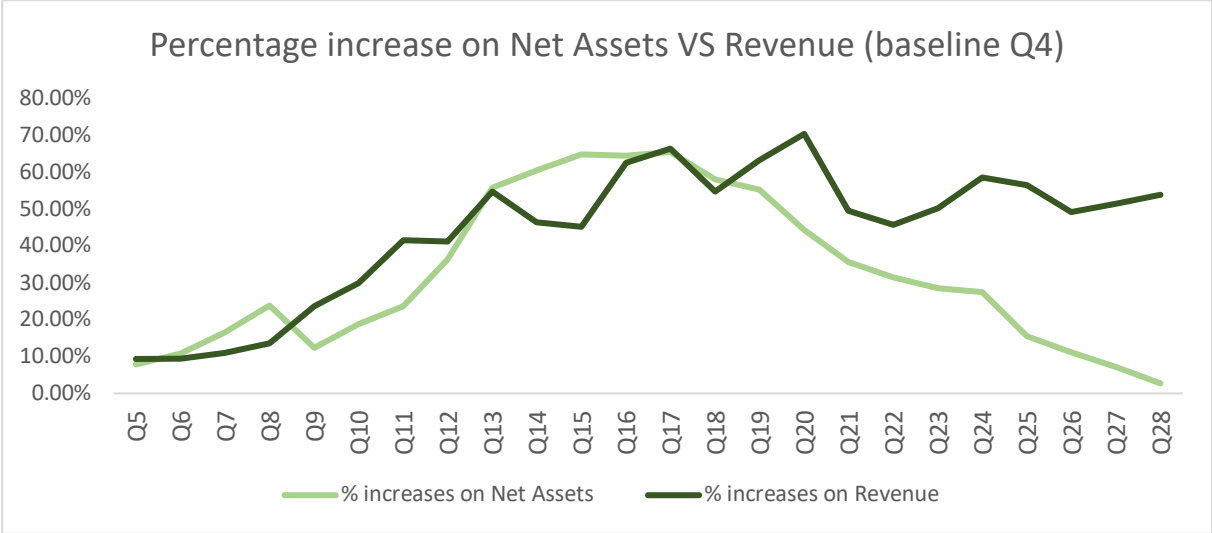
Appendix 6 – CO2 Penalty/Bonus & CO2 Fleet emissions



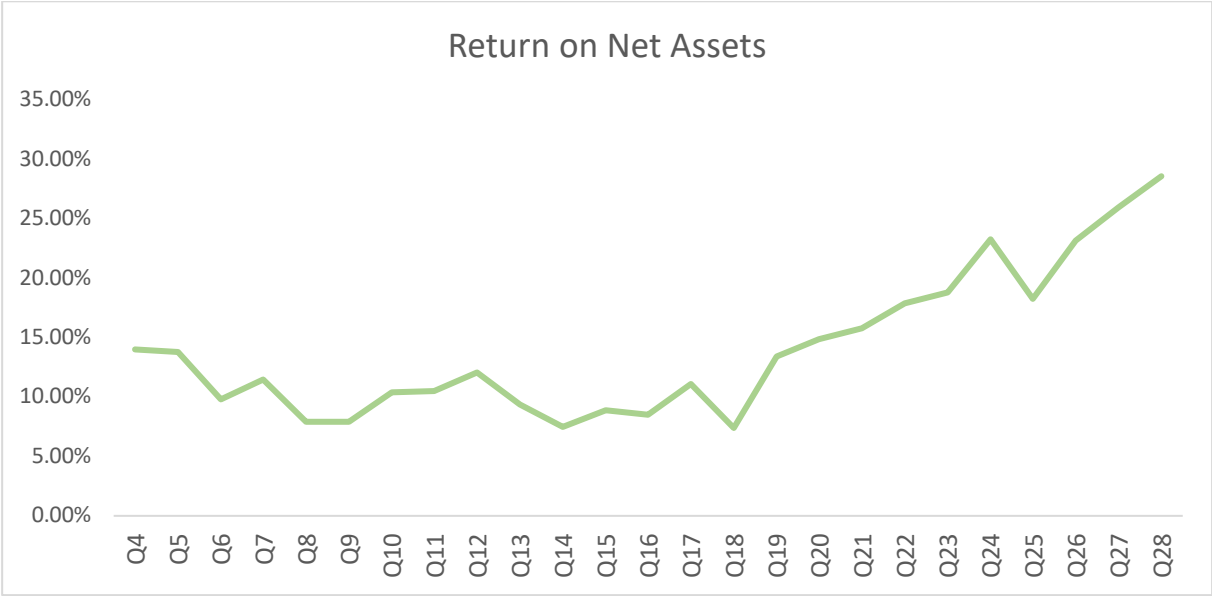
Appendix 7 – Net Assets



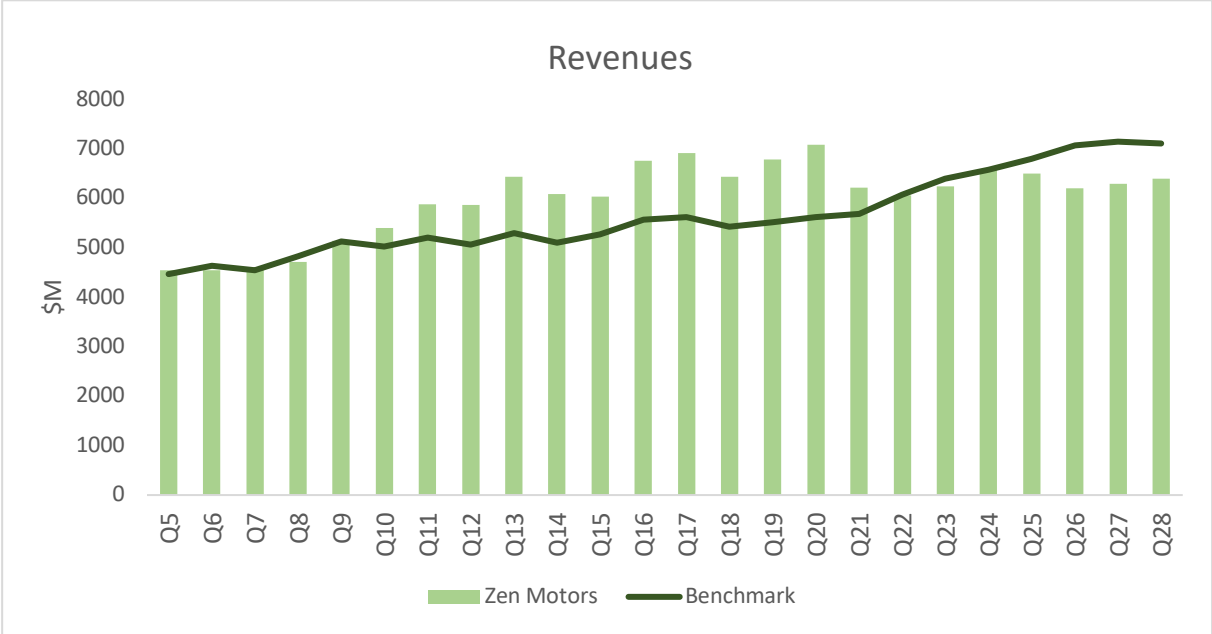
Appendix 8 – Percentage increase on Net Assets VS Revenue



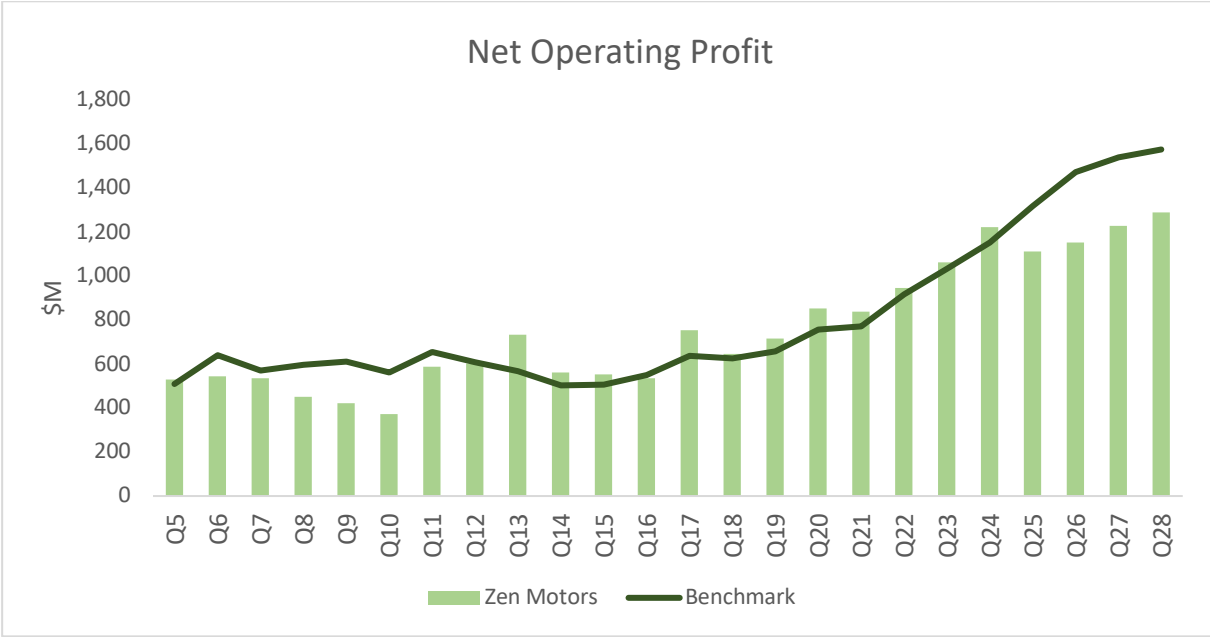
Appendix 9 – Return on Net Assets



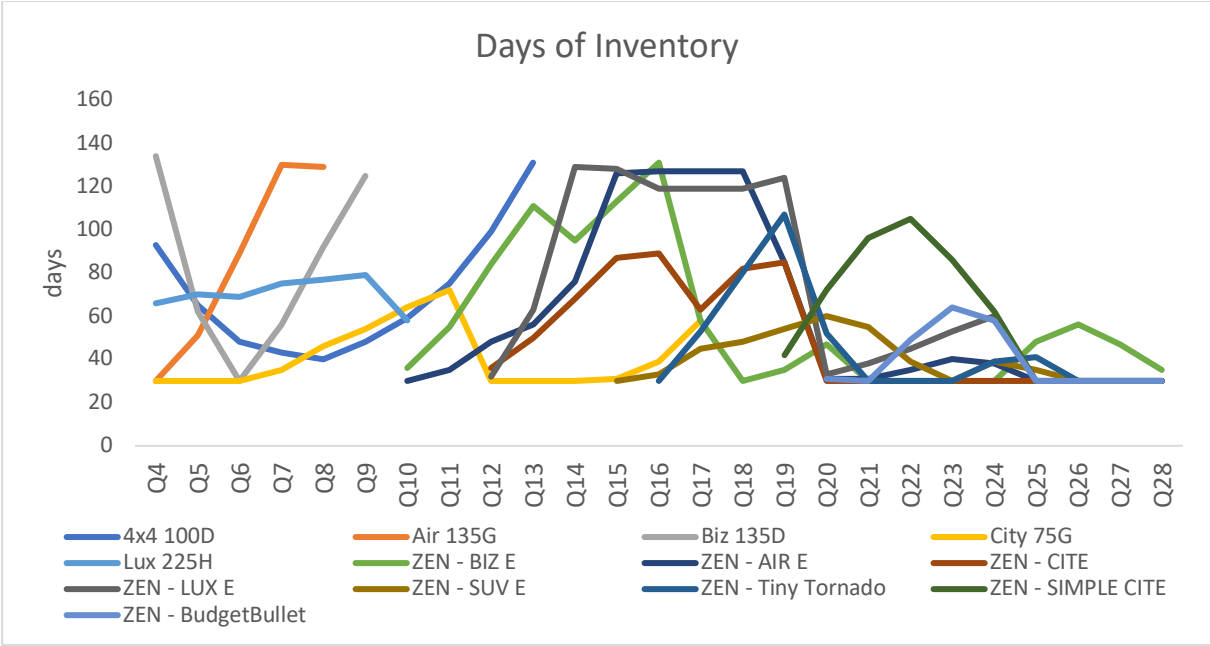
Appendix 10 – Zen Motors’ Revenue compared to the benchmark



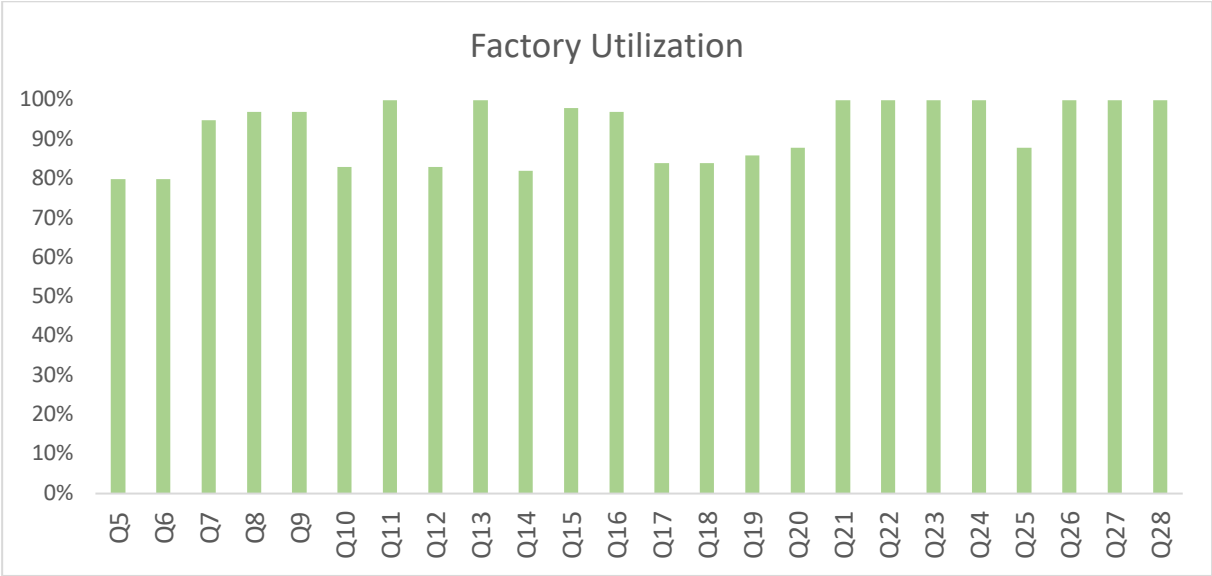
Appendix 11 – Zen Motors’ Net Operating Profit compared to the benchmark



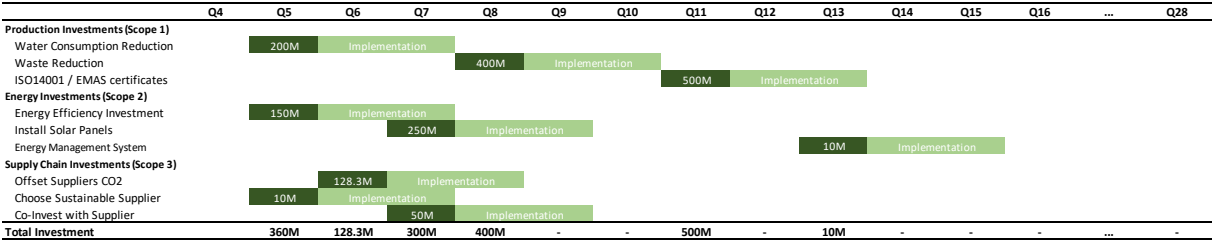
Appendix 12 – Days of Inventory (DOI)



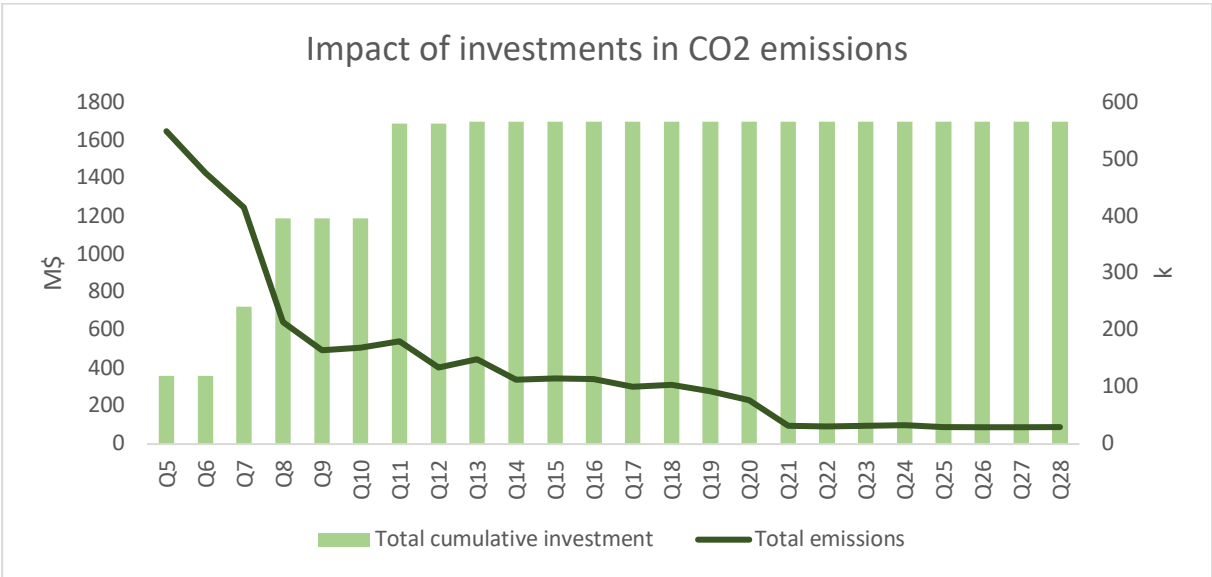
Appendix 13 – Factory Utilization



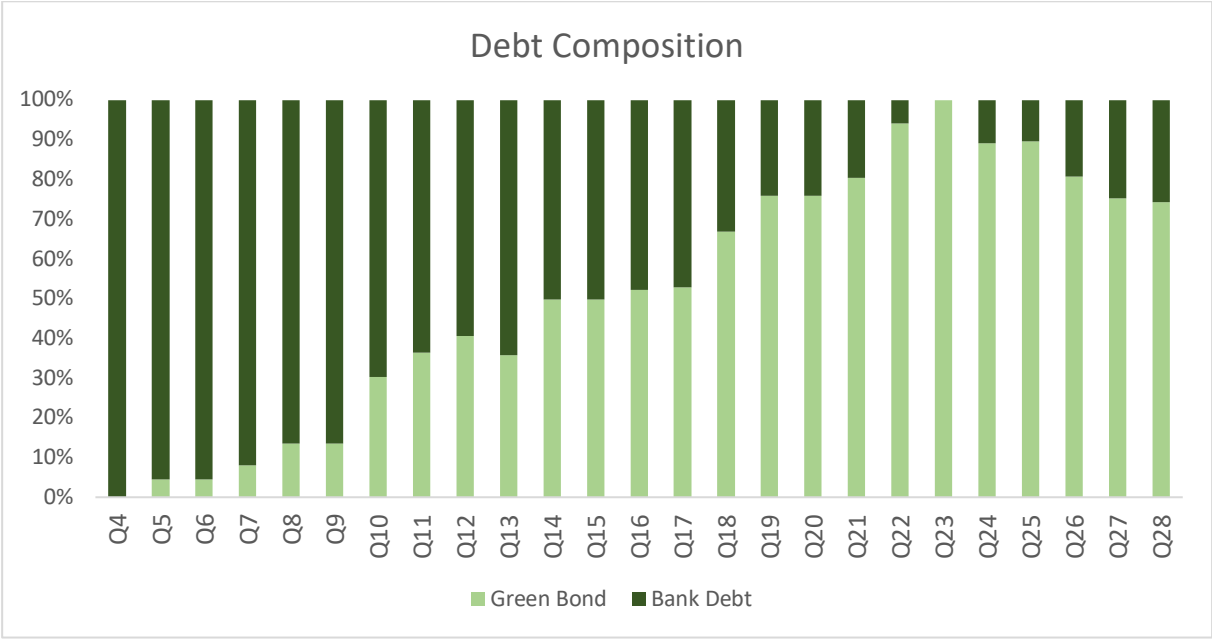
Appendix 14 –Operations Investment Program



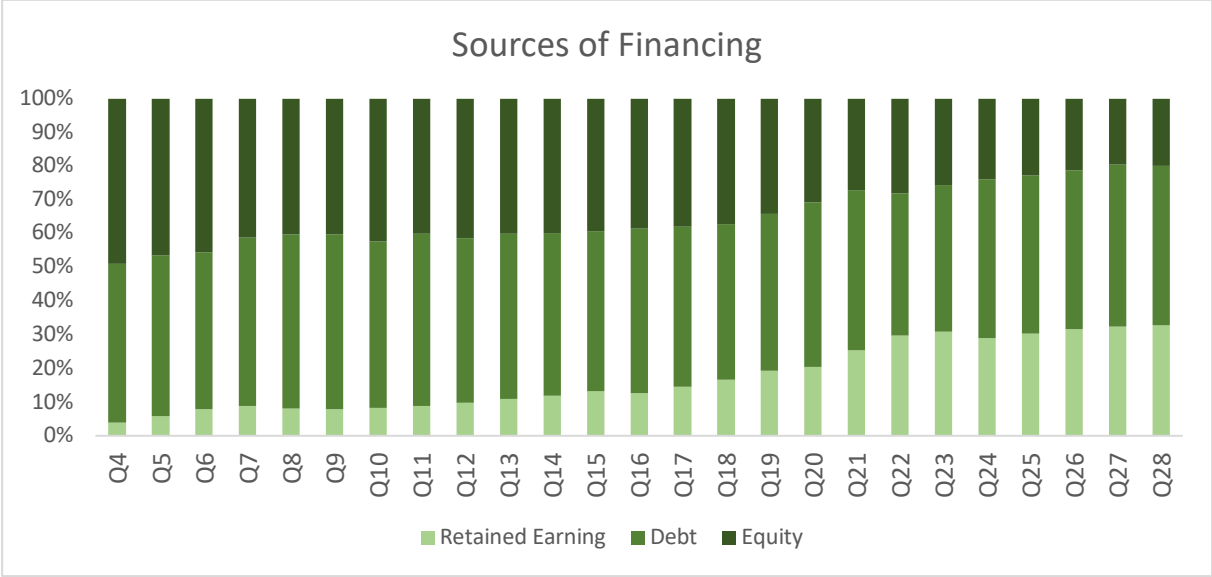
Appendix 15 – Impact of Investments in CO2 emissions



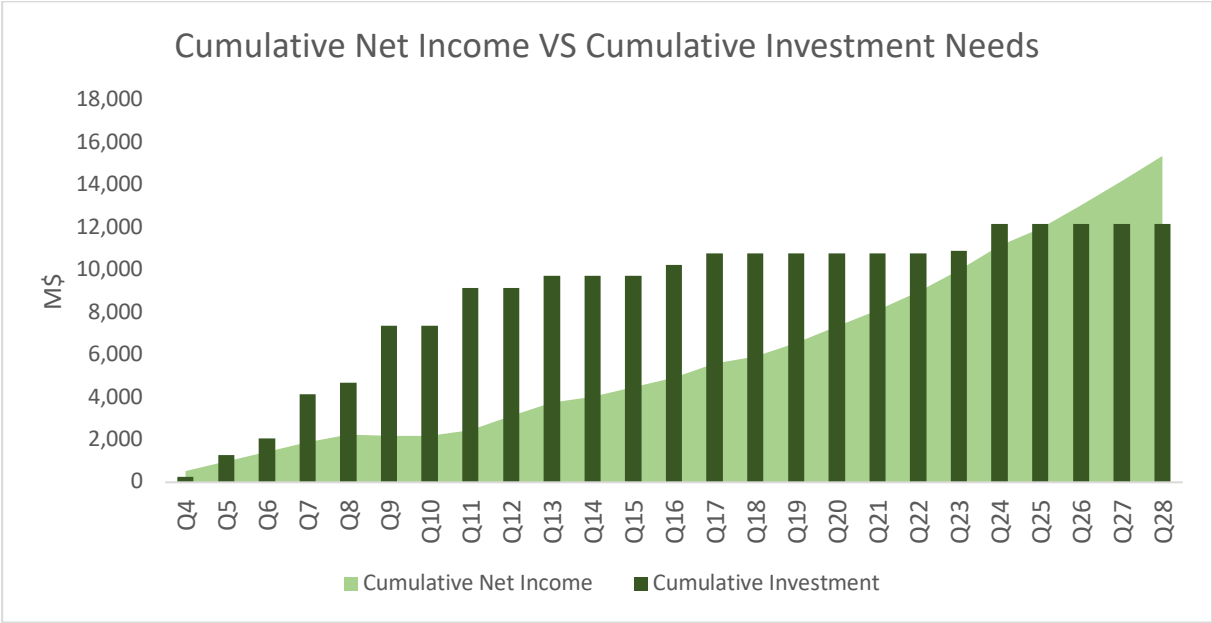
Appendix 16 – Debt Composition



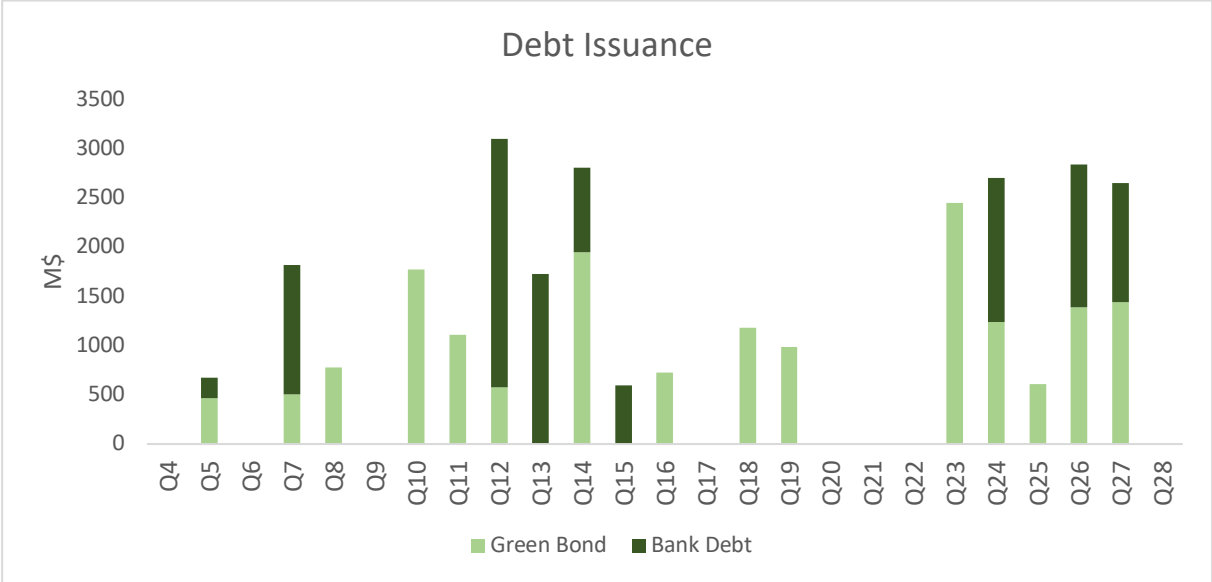
Appendix 17 – Sources of Financing



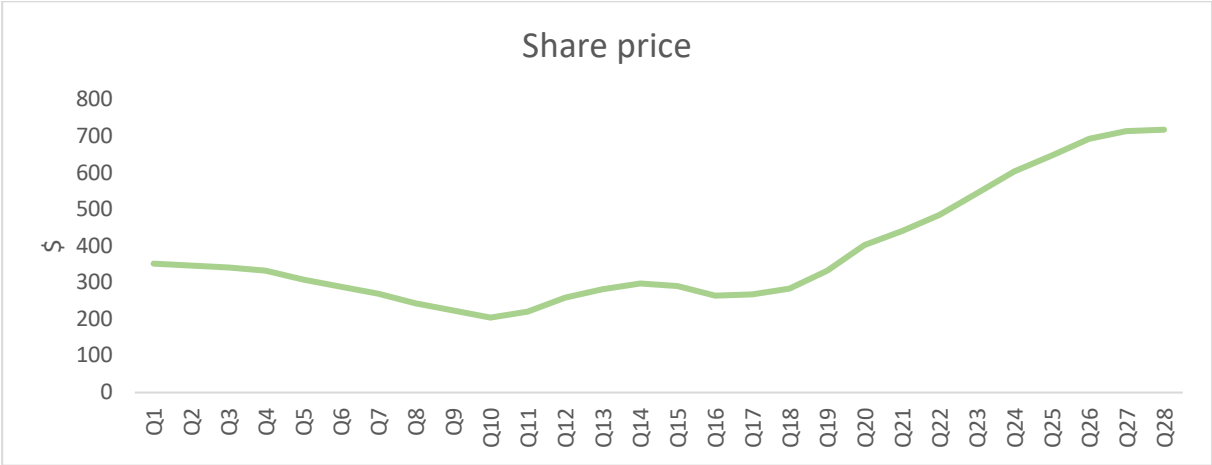
Appendix 18 – Cumulative Net Income VS Cumulative Investment Needs



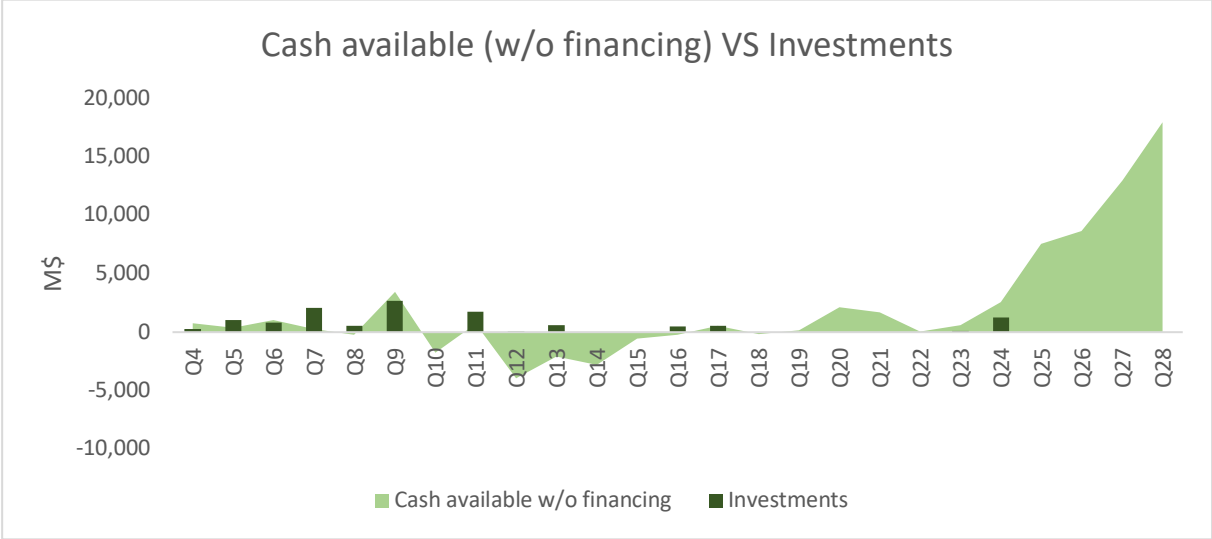
Appendix 19 – Debt Issuance



Appendix 20 – Share Price



Appendix 21 – Cash available without financing VS Investments



Appendix 22 – Value Added

