TARGET SETTING FOR OPERATIONAL PERFORMANCE IMPROVEMENTS - STUDY CASE -

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ABSTRACT

Improving operational performance is grounded in setting the desired targets for operative and eventually financial performance. When additional ethical targets are involved, target setting for sustainability goals must extend beyond the boundary of the firm. This case study on a sound system producer takes students through a usual process of implementing operational measures and targets in a Balanced Scorecard (BSC), and gauging its impact on different measures of income. In addition, they need to analyze a code of conduct that plays a pivotal role in choosing a new house bank that will support hem in further enacting their business plans. Opinions voiced in this case carry no judgement, but are intended to spark classroom discussion.

Keywords: *Value-based management; code of conduct; ethics; teaching notes.*

1. INTRODUCTION

Sound Technology Corporation (STC) manufactures sound systems for home use. Its production is highly automated, and fixed costs in this industry are relatively high. Its product market is quite competitive since its products are easily comparable to the ones from the competition. Price pressure is high is this context. At the same time, STC has to provide a respectable product quality in order to be considered by customers in the market. Currently, a considerable percentage of STC's production output is defective in some way.

2. BALANCED SCORECARD (APPROX. 40 MINUTES)

Chris leads the business development department of STC. He gets the task from the board to improve quality while managing costs. Chris decides to implement a Balanced Scorecard (BSC) to do so. He assumes that trained and empowered employees will reduce the number of defect products. He also talks to the management accountants over lunch and collects some data they had readily available (yield of production; on time deliveries [OTDs]; diverse earnings measures). Chris drafts a BSC and gets his staff involved to work on the targets he listed. The results after the first year are shown below (action plans are not displayed):

Objectives	Measures	Target performance	Actual performance
Perspective: Financial			
Increase shareholder value *(operating income [OI])*	OI from productivity [EUR]	5,200,000	4,755,360
	OI from growth [EUR]	5,000,000	4,212,125
Perspective: Customers			
Boost market share	Market share [%]	3.0%	1.2%
Perspective: Internal processes			
Lower number of defective products	Yield [%]	95%	97%
Lower delivery time	On-time-delivery (OTD) [days]	17	12
Perspective: Learning & growth			
Develop process skills	Employees trained in process and quality management [%]	67%	73%
Upgrade IT systems	Real-time-feedback in processes [%]	50%	78%

Required:

1) Elaborate how successful was STC in executing its strategy.

2) Discuss how insightful STC's BSC is to understand why targets have (not) been met.

3) Suggest changes/additions to the perspectives of the BSC.

3. VALUE-BASED MANAGEMENT (APPROX. 40 MINUTES)

STC uses operating income as a measure of financial performance. The company would like to get alternative perspectives on its value creation, specifically on its individual divisions. STC has the following financial data available for its Bluetooth division. STC defines investment in this division as total assets, and income as operating income.

Position	Value [EUR / %]
Revenues	6,000,000
Operating income	1,500,000
Total assets	10,000,000
Current liabilities	2,000,000
Debt	2,400,000
Common equity (book value)	3,000,000
Common equity (market value)	3,600,000
Required rate of return	7.0%
Cost of debt capital	4.0%
Cost of equity capital	11.0%
Tax rate	30.0%

Required:

4) Calculate the net income.

5) Calculate the Return on Investment.

6) Calculate the Residual Income.

7) Calculate the Economic Value Added (EVA), and show all calculation steps for its components.

8) Explain the differences in STC's net income, residual income and EVA, and argue which you consider the most realistic representation of performance.

9) Chris is intrigued by EVA and wants to use it as a KPI to compensate the managers of STC's profit centers. Explain why this is not a good idea.

4. CODE OF CONDUCT (APPROX. 40 MINUTES)

SCT would like to work with a finance partner who supports their quest for long-term value creation and who cares about sustainability in finance. One component of sustainable finance is a code of conduct that guides ethical behavior and ensures appropriate reporting mechanisms. Therefore, SCT will analyze the code of conduct of possible business partners. One of the banks SCT considers is JPMorgan Chase & Co who provides its code of conduct on its website. Please refer to https://www.jpmorganchase.com/about/governance/code-of-conduct.

Required:

10) Please elaborate—without referring to the example at hand—which established, coherent framework you would use to assess a code of conduct.

11) Analyze the code of conduct at hand accordingly *(hint: refer to the chapter numbers in the code to back up your argumentation)*.

5. DISCUSSION OF THE CASE

Suggested solutions are numbered in the same order as the questions.

SOLUTION 1 (APPROX. 10 MINUTES)

An obvious approach to discussing strategy execution would be by monitoring achievements of targets.

Students should evaluate the achievements of targets: STC has by far exceeded its target in the learning perspective, and has made substantial progress in the process perspective. Yet, STC has underperformed its targets in the perspectives of customers and financial performance. Students may conclude that the strategy execution is incomplete.

SOLUTION 2 (APPROX. 15 MINUTES)

[Students might choose to place some of these issues into the next answer]. STC's BSC provides limited insight why the strategy has not been fully executed. Some of the problems stem from its design.

- Chris has not derived strategic objectives from the strategy of STC.
- Chris needs to develop the key performance indicators (KPIs) specifically for the strategic objectives. Empirically, it is not a good approach to collect popular KPIs randomly from accounting reports.
- Chris has not developed a strategy map that show the cause-and-effect-relationships between operations and strategy. His approach to (probably correctly) make some assumptions about training

and quality are not systematic enough. They might overlook important factors or misinterpret the relationship between them.

- The main problem students must address is the output and the cost structure that need alignment before the profitability increases: At the moment, STC uses much of its capacity to re-work defect products. As defects decrease, capacity becomes available. STC needs to decide if they want to sell idle equipment and lay off employees, or if they want to fill the idle capacity with extra orders. If so, Chris needs to add and operationalize strategic objectives that would help capturing a greater market share.

Other problems stem from the process of <u>implementation</u>. These are not crucial but may be discussed for extra credit:

- Generally, it is not a good idea to introduce a BSC without buy-in from top management, as it will not extend to performance reviews and will thus not alter the behavior of many employees.

- Likewise, it would have been advisable to develop the BSC across departments in order to better reflect the value creation process.

- The BSC is also not thought for projects but as a holistic management control system.

Overall, students should conclude that the BSC should be revised according to the proper implementation steps.

SOLUTION 3 (APPROX. 15 MINUTES)

First, students should notice that many of the indicators are lagging indicators. Second, the number of indicators is low; suggestions for a BSC generally involve 4-5 KPIs per perspective to enact the balanced view on performance. Students should mention these <u>two</u> aspects, and then elaborate by offering <u>two</u> fitting examples for changes in perspectives, strategic objectives, and KPIs. For instance:

- The customer perspective does not yet include the view of customers on STC, e.g. their satisfaction with the product, its price, or on STC's competition.

- The process perspective concentrates on the production process. Sourcing, functional excellence, sales, and strength of distributer networks are not included. Beyond this, the BSC does not seem to link great performance of employees to a visible incentive system.

- The learning perspective reflects only selected skills of the employees, i.e., IT; process and quality management. Chris could add further KPIs, such as cross-functional learning, or start managing employee satisfaction.

SOLUTION 4 (APPROX. 6 MINUTES)

Net income = (Operating income – Interests *[tax deductible!]*) – Taxes
= [1,500,000 EUR – 2,400,000 EUR x 4%] x [1-30%] = 982,800 EUR

SOLUTION 5 (APPROX. 6 MINUTES)

ROI = Op. Income / Assets = 1,500,000 EUR / 10,000,000 EUR = 15%

SOLUTION 6 (APPROX. 6 MINUTES)

Residual income = Op. Income – Required income = 1.5 mEUR – 10 mEUR x 7% = 0.8 mEUR

SOLUTION 7 (APPROX. 10 MINUTES)

NOPAT (Net operating profit after taxes) = Operating income × (1 – Tax rate)
NOPAT = 1.5 mEUR x (1-30%) = 1.05 mEUR

After-tax cost of debt = Cost of debt capital x (1 – Tax rate) = 4% x (1-30%) = 2.8%
Weighted-average cost of capital = (After-tax cost of debt capital x market value of debt + Cost of equity capital x market value of Equity) / Market value of debt and equity capital
= (2.8% x 2.4 mEUR + 11% x 3.6 mEUR) / 6 mEUR = 7.72%

EVA = NOPAT – WACC x (Total assets – Current liabilities)
= 1.05 mEUR – 7.72% x (10 mEUR – 2 mEUR) = 432,400 EUR

SOLUTION 8 (APPROX. 6 MINUTES)

Operating Income does not consider the amount of assets necessary to generate profit. Thereby, it is the least realistic measure of performance. Compared to RI, EVA subtracts current liabilities from total assets and thereby accounts only for the assets needed to enact the business model. EVA treats these short-term liabilities as free funds that are not essential to generating income. Therefore, students may conclude that EVA constitutes a more realistic assessment.

SOLUTION 9 (APPROX. 6 MINUTES)

Managers running profit centers are not able to influence the investments in these centers – otherwise they should be correctly classified as investment centers. EVA deducts the cost of investment from profits. Thereby, managers would face a capital charge that they cannot control. Likely, this leads to frustration or windfall profits. As a result, the bonuses for the managers would be rather random and not induce behavior that aligns with STC's overall goals.

SOLUTION 10 (APPROX. 10 MINUTES)

The students should start by introducing their analytical framework they would apply, irrespective of the case at hand. This ensures that students not simple quote the text and leave it to the reader if they consider this quote/issue relevant for a state-of-the-art code of conduct. A framework also supports students by identifying gaps in the code of conduct that would need further elaboration. A suitable framework is presented by Atkinson et al. (2011). It involves asking the following questions: Does the organization… [1] …state its values in practical terms?; [2] …state the ethical responsibilities of employees, and are these reflected in performance reviews?; [3] …provide proof of training for employees in ethical issues?; [4] state the consequences of violation?; [5] …list procedures how violations are dealt with?; [6] …show where employees would get support?; [7] …guarantee confidentiality?; [8] …shield 'whistle blowers' from reprisals?; [9] …mention internal audit mechanisms?

SOLUTION 11 (APPROX. 30 MINUTES)

A possible solution could be to go through the chosen framework and, first, cite the part of the code of conduct that shows alignment. Second, students could argue where they see room for improvement. Third, they should make an overall judgement if the case company would deem the bank a fit from the code of conduct perspective. The [bracket numbering] corresponds to the framework shown above, the (parantheses numbering) corresponds to the chapter in the code of conduct.

<u>Alignment</u> (examples): [1] Yes, in (ch. 1.1 "Our Ethics" and ch. 3.1) honesty, integrity, accountability, diversity, and inclusion.[2] Partly. Ethical responsibilities are outlined in (ch. 1.3.1. "manager responsibilities"). [3] Yes, the document itself provides guidelines that could count as training. E.g., (ch. 1.2 "Compliance with the Law and Firm Policies) outlines that local law overrides firm policy, and that rules of the business unit specify general policies. [4a] Yes, (ch. 1.3): "Action may be taken against employees who violate the Code, up to and including termination of employment." [4b] Yes, there are

several specific examples (ch. 2.1.3 on “gifts”) and practical application (“Practice box”). [4c] Yes, (ch. 1.4) outlines whom to contact: manager, Compliance Officer, Global Security, Human Resources, or a third party hotline. [4d] Yes, (ch. 1.4.1) promises confidential treatment of reporting code violations. [5] Yes, (ch. 1.4.1 “Our Commitment to Non-Retaliation”) [6] (ch 1.4) provides an additional way of communicating for unethical behavior *within* the control system.

Improvements (examples): [1] values could be stated in practical terms. As it stands, they are just listed. [2] The code of conduct does not specify if or how compliance it part of the regular performance review of employees and managers.

Conclusion: Overall, students may conclude that the provided code of conduct is largely in alignment with the presented framework. SCT could discuss open issues relating to sustainable finance in a personal meeting with the bank.

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