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STRATEGIC PERFORMANCE MEASUREMENT OF SUPPLIERS AT HTC

I. Introduction

HTC is a Taiwanese manufacturer of consumer electronics. The case considers five HTC battery suppliers, whose performances are assessed based on scorecard criteria: quality (35%), cost (30%), delivery (20%), technology (8%), and service (7%). Each supplier has their unique set of problems. This case report will advise HTC on how to allocate the next quarter's orders among the suppliers, and what actions to take with suppliers receiving grades lower than A (this corresponds to a score lower than 85% in the scorecard system).

II. Next quarter's order allocation among the five suppliers for the same coponent

In order to choose the best strategy for HTC, the relationship between the firm and its battery suppliers is analyzed based on Kraljic's matrix (See *Appendix 1*). This matrix is relevant in this case because of three reasons: (1) batteries are tangible goods; (2) procurement system at HTC is traditional, which is indicated through its supplier selection and management process; (3) rivalry between suppliers is high as buyers including HTC constantly benchmark them against each other (Hughes and Ertel, 2016). According to Kraljic's matrix, battery components are identified as non-critical items. Firstly, it is stated in the case that there are several suppliers of batteries in China and Taiwan, meaning the availability of batteries is high. As of Q1/2010, HTC accounted for 4.8% of the smartphone market share, implying the volume of batteries purchased by HTC is low compared to other manufacturers and vendors. In terms of uncertainty, supply uncertainty is low because there are several suppliers within close distance. Meanwhile, demand uncertainty is high as HTC was not able to predict market demand accurately. Therefore, 'Responsive' supply chain is a suitable strategy for HTC.

Firstly, responsive supply chain allows HTC to keep inventory level low, improving its flexibility. Secondly, HTC could leverage the built-to-order model on suppliers to keep up with new battery feature upgrades. Additionally, HTC could work towards 'Leverage' relationships with its suppliers, meaning there are possibilities of dropping suppliers who do not comply with HTC standards. The new order allocation for the next quarter (See *Appendix 2*) is driven by four criteria: (1) HTC's supplier scorecards and their performance trends over the last quarter; (2) impacts of current issues that suppliers are facing on the five categories in the scorecard; (3) non-critical item and responsive supply chain strategy; (4) HTC's focus on building a long-term relationship with competitive suppliers who can collaborate to develop HTC's product roadmap.

Regarding supplier analysis, Supplier A is HTC's primary supplier with consistent A grade performance on all five categories and has contributed to HTC's new smartphone products and designs

for over seven years. Given HTC's projected strong demand over battery supply which was specifically running short and its long-term stable relationship with Supplier A, HTC should increase current order allocation from Supplier A by 10%.

Besides, Supplier B had the steepest quality performance decline of 3.5 points (See *Appendix 3*). It has financial issues due to large legal scandal and unethical practices that violate HTC's supplier code of conduct (2018). Given the limited information, it is hard to predict the outcome of the scandal and supplier's future prospects. Thus, to reduce major supply risks, HTC should cease purchasing from Supplier B until its name is cleared.

Supplier C's introduction of new technology had been reflected in improved quality and reasonable increased cost. Such cost can be reduced with the economy of scale or by decreasing overhead expenses incurred on the battery components. Besides, its declined delivery performance is mainly due to its newly outsourced delivery services and can be improved by optimizing its delivery routes/ schedules. Thus, HTC could increase orders from Supplier C by 5% while having it on the watchlist for Q2/2010.

Meanwhile, Supplier D's unstable quality performance and decreasing delivery performance implies their struggling to keep up with HTC's requirements while undergoing organizational restructure to run as an independent firm. However, Supplier D's parent company has maintained a strategic relationship with HTC for three years. Therefore, HTC should decrease half of its orders from Supplier D to take a load off from this supplier until it has everything organized and increase orders from Supplier E in the meantime instead.

Lastly, although Supplier E is a new supplier which started at a lower performance level in all areas, it has the sharpest steady improvement in quality and cost, and its scorecard increased by 4.7 points in total (See *Appendix 3 & 4)*. It is a rising star in the sector and has great potential to quickly become HTC's high-performing supplier given its strong management support and financial backing from the large conglomerate. Thus, HTC should work more closely with Supplier E and give this supplier an additional 5% of the total orders.

III. Implications for suppliers receiving grades lower than A

Apart from Supplier A, the other four suppliers are receiving grades lower than A (See *Appendix 4*). Our overall proposition for HTC is to keep working with Suppliers C, D, and E while ceasing purchases from Supplier B. Depending on which area needs improvement, HTC should take different approaches with the suppliers. The following suggestions on how to act with suppliers receiving grades lower than A are categorized based on HTC's scorecard model. While the suggestions are practical, they are fairly

generic. This limitation is largely due to the lack of specific information on how each performance category is measured within the case itself.

A. Quality performance

Product quality is crucial for every company since it affects the company's profitability, the level of customer satisfaction, and the level of industry standard satisfaction. In this case, there is great uncertainty with Supplier B due to their legal scandal and financial issues that decrease their quality performance. Thus, HTC should stop ordering from them in the short term, especially as previously quality was at higher levels (Quigley et al., 2018).

B. Cost performance

As HTC's profit margins are affected by product cost, improving cost performance is crucial for HTC's operation. To reduce cost and improve the suppliers' production process quality, one solution is to pool orders to Supplier C with other companies (Mustafee, Bae, Lazarova-Molnar, Rabe, Szabo, Haas, & Son, 2019). Not only so, HTC may also want to consider specifying the purchasing prices to its suppliers within a given range to help stabilize quality. To lower process costs, HTC could also cooperate with the Supplier C to improve the project process, to prevent product defects, and to train their staffs (Zhu, Zhang, & Tsung, 2007)

C. Delivery performance

Stabilizing the delivery performance of suppliers is crucial to HTC's operations. Delivery performance affects the timeline on which HTC can assemble products and deliver them to customers. The case provides very little information on how delivery performance is measured, yet HTC's philosophy to delivery time is: "If you commit, then you must deliver". One suggestion is to measure the On-Time Delivery/Order-to-Delivery (OTD) in the next-quarter and have weekly meetings with suppliers C, D and E on their current status and gain an understanding towards the issues they may be facing regarding the fulfillment of delivery times. One factor contributing to weak delivery performance may be HTC's low inventory levels. While suppliers are required to maintain capacity for orders, they may not be fulfilled by HTC. Significant and quick changes in demand forecasts may affect suppliers' ability to react to the needs of HTC - this could be improved by embedding analytics solutions or redesigning supplier processes (Deloitte, 2021). HTC should also consider factors outside the suppliers' direct control such as the delivery schedules of 3PL service providers.

D. Technology performance

Co-creating new technology is crucial for innovation and future performance of HTC, especially with the forecasted increase in demand for mobile devices. Research has found that knowledge-sharing routines have a significant positive effect on product innovation in a buyer-supplier relationship, while

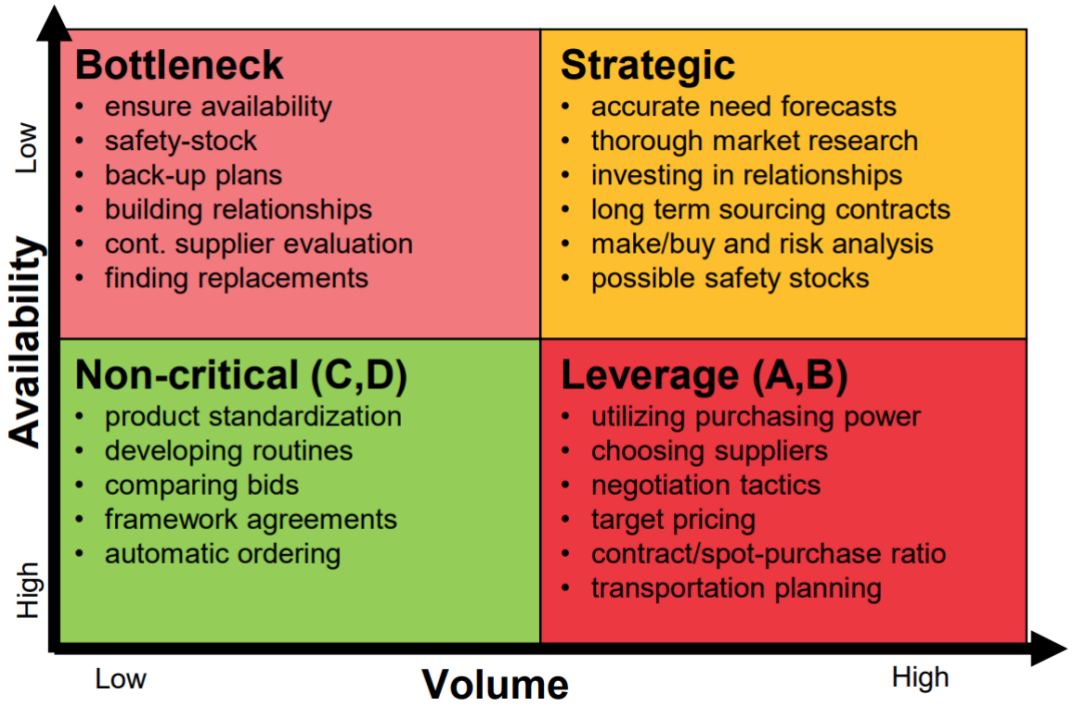
an increase in investments or other resources was found to not benefit innovation performance (Jon et al., 2016). Thus, it is suggested that HTC keeps building stronger relationships through long-term collaboration and knowledge sharing with suppliers D and E, in a similar manner that has been done with Supplier A. One way of building stronger relationships and knowledge-sharing routines would be to establish supplier development programs, which can be highly successful when the industries between the buyer and supplier are not vastly different (Langfield-Smith & Greenwood, 1998). Supplier development programs can include HTC sharing knowledge on production processes or providing the suppliers with additional training on technology. HTC can sign non-disclosure agreements with their suppliers to protect the shared information. It is suggested that this route is especially considered with Supplier E who has large growth potential.

E. Service performance

Service performance is important as it measures how well the suppliers are meeting HTC's specifications (Kohtamaki et al., 2015). Overall, all of HTC's battery suppliers have either maintained or improved their service performance in the last quarter, indicating that HTC is communicating well with its suppliers. Although the newest supplier E has the lowest C grade among all suppliers, it is assumed that service performance would increase as its relationship with HTC become stronger. While the responsibility of improving service performance mainly falls on the suppliers, there are many ways that HTC can facilitate receiving better service. For instance, HTC can clearly communicate their needs to Supplier E on product quality or delivery time Although HTC leaves room for flexibility in the contracts, which is good for the buyer, but this can create a sense of ambiguity on the supplier side. Currently, suppliers are expected to take corrective action responses to issues within 24 hours and communicate closely with HTC. Thus, the more specific HTC is, the better the suppliers will be able to service them. Thus, HTC should have more clear and specific contracts that give the suppliers a good expectation and standard for operating with the company. Moreover, HTC should also establish and maintain service level agreements (SLA) to specify the minimum levels of service requirements for suppliers.

IV. Appendices

Appendix 1. Kraljic's matrix (Lecture 2, Procurement and Strategic Sourcing, Kauppi, 2022)



Appendix 2. Summary of Order Allocation for Each Supplier

Unit: % of HTC's total orders	**Current Allocation in Q1/2010**	**New Allocation in upcoming Q2/2010**	**Changes in Allocation**
Supplier A	50%	60%	+10%
Suplier B	20%	0%	-20%
Supplier C	15%	20%	+5%
Supplier D	10%	5%	-5%
Supplier E	5%	15%	+10%
Total Allocation	100%	100%	0%

Data source: Team's analysis and calculations from extracted data points in Exhibit 6 of the case study

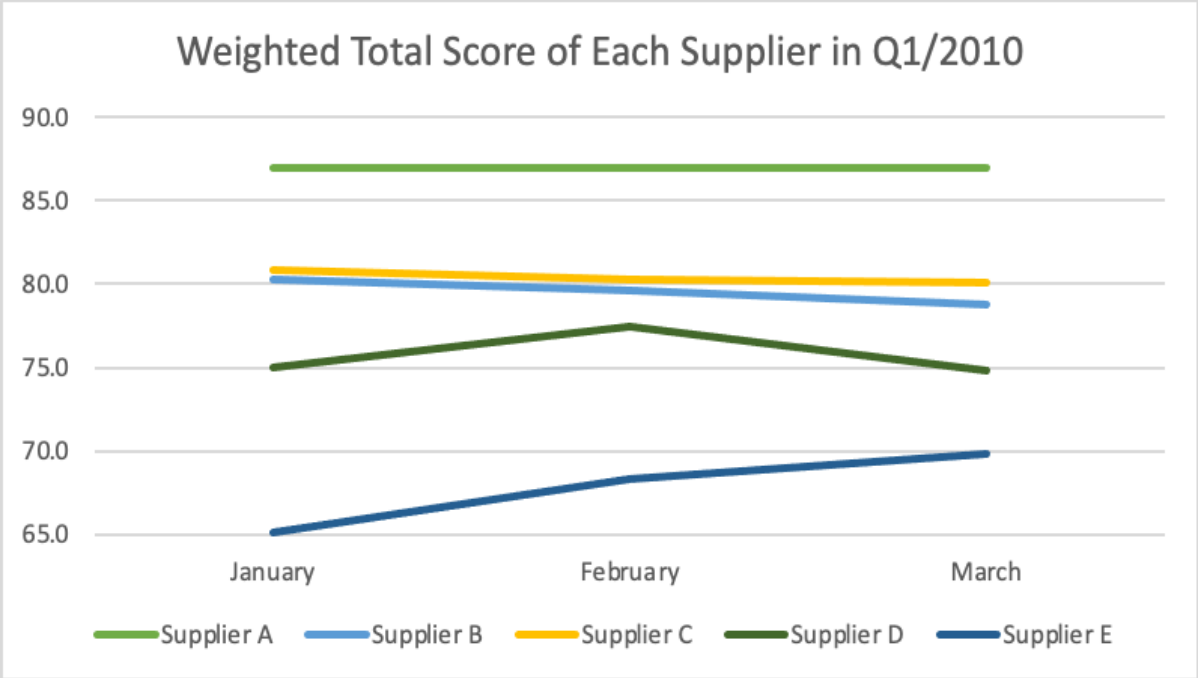
Appendix 3. Changes in Score in Suppliers' Scorecards from January to March 2010

	Supplier A	**Supplier B**	**Supplier C**	**Supplier D**	**Supplier E**
Quality (35%)	0.0	-3.5	+3.5	+1.8	+1.7
Cost (30%)	0.0	0.0	-3.0	0.0	+3.0
Delivery (20%)	0.0	+2.0	-2.0	-2.0	0.0
Technology (8%)	0.0	0.0	+0.4	0.0	0.0
Service (7%)	0.0	0.0	+0.4	0.0	0.0
Total Weighted Score	**0.0**	**-1.5**	**-0.7**	**-0.2**	**+4.7**

Data source: Team's calculations from extracted data points in Exhibit 6 of the case study

Appendix 4. Weighted total score (out of 100) of suppliers in Q1/2010

	Performance Grade	**January**	**February**	**March**
Supplier A	A	87.0	87.0	87.0
Supplier B	B	80.3	79.6	78.8
Supplier C	B	80.8	80.3	80.1
Supplier D	B	75.0	77.5	74.8
Supplier E	C	65.1	68.3	69.8



Data source: Extracted data points from Exhibit 6 of the case study.

V. References

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VI. Reflection of group work process

A. Project Plan

Our group consists of one Finnish member and three Vietnamese members. We have had two meetings to discuss our opinions on the case, task divisions, and team norms. The Zoom meeting room and the shared Google Drive folder will work as formal workspaces whereas the Telegram group chat will be our informal communication channel. We use English as our only communication language at all times to ensure an inclusive group work experience. Our tasks are divided based on our preferences and field of experience on the key areas of our case analysis. All members are to submit their parts to the working document before the internal deadline (1PM Sunday, 23rd January 2021) for final peer review to make neccessary correction and ensure the progress of our project before the submission deadline.

B. Roles and Responsibilities

Member	Roles	Working parts
Thao Nguyen	Student consultant	Q1. Applications of Theories and Kaljic's Matrix
Phuong Nguyen	Student consultant	Q1. Suppliers Analysis and Order Allocations
Eveliina Autio	Student consultant	Q2C, D. Delivery and Technology Performance
Huyen Pham	Student consultant	Q2A, B, E. Quality, Cost, and Service Performance