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POON
Poon Kam Kai Series

NEALE G O'CONNOR
SHANNON ANDERSON
ANNE WU

STRATEGIC PERFORMANCE MEASUREMENT OF SUPPLIERS AT HTC

Since 1997, HTC (formerly High Tech Computer) Corporation had been manufacturing smartphones and personal digital assistants ("PDAs") as an original design manufacturer ("ODM") for mobile operator brands, including Orange, T-Mobile, Sprint, Cingular, Verizon, and NTT DoCoMo.[1] More recently, with its shift to own-brand manufacturing, HTC had built its reputation as one of the top five global brands in smartphones. By 2009, HTC had sales of NT$144 billion (equivalent to US$4.5 billion).[2] It was ranked fourth in the first quarter of 2010 in market share by shipments [see **Exhibit 1**].

To serve its global customer base, HTC had built a network of close relationships with component suppliers around the world. There were approximately 250 to 300 components in each smartphone, and HTC needed to manage over 1,000 suppliers. Selecting and monitoring a large network of suppliers required a well developed management programme. HTC's scorecard system had played a key role in helping HTC's supplier management team select and monitor its suppliers.

On the first day of July 2010, K.H. Tung (KH), head of global supply chain management at HTC, was meeting with his team of engineers at his Taoyuan office in Taipei, Taiwan and evaluating scorecard reports done on five routine component suppliers of batteries for the first and second quarters of 2010. Because the company was expecting strong demand over supply in the third quarter of 2010 and this component was in particularly short supply, KH needed to decide quickly how to allocate the next quarter's orders among these five suppliers so that customer orders could be met with consistent quality and timeliness.

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[1] An ODM was a company that designed and manufactured a product specified and eventually branded by a customer for sale. Such companies allowed customers to manufacture products without having to engage in the organisation or running of a factory. See: Wikipedia (2010) "Original Design Manufacturer", http://en.wikipedia.org/wiki/Original_design_manufacturer (accessed 13 November 2010).

[2] US$1 = NT$32.(November 2010).

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The Smartphone Industry

The smartphone industry, also known as the converged mobile device industry, in which HTC had been a player since 1997, produced mobile communication devices with: 1) operating systems running as platforms; 2) the ability to handle multiple applications simultaneously; 3) the ability to install and remove third-party software; and 4) extensible memory through external flash memory.[3] Smartphones facilitated voice communications and primarily targeted customers seeking phones that doubled as multimedia devices with functions for music, photos, gaming, text messaging, email and web browsing.[4]

With an increasing number of businesses and consumers adopting mobiles with advanced features, smartphone shipments continued to grow in many regions. Email was one of the major drivers of growth in converged mobile services. With the prices for data usage falling, demand for data was increasing, making it more attractive for both business users and consumers to use mobile devices with email and browser functions. IDC, one of the industry's leading market data analysis companies, forecasted that overall mobile phone shipments would grow at a cumulative annual growth rate ("CAGR") of 6.6% between 2009 and 2014, while the sub-sector of smartphones would grow at 20.4% to reach 439 million unit per year. Smartphone shipments were expected to reach 28.2% of total mobile phone shipments by 2014, up from 15.3% in 2009 [see **Exhibit 2**].

Within the smartphone industry, there were many large players dominating each part of the value chain [see **Exhibit 3**]. There were between 250 and 300 components in a smartphone—key examples of which were CPUs, display screens and memory chips—and Texas Instruments, Infineon and Qualcomm dominated these spaces. These semiconductor suppliers and other component suppliers supplied their products to original equipment manufacturers ("OEMs") and ODMs, an area dominated by Nokia, Apple, Motorola, RIM and HTC. These players would then sell their products to wireless operators around the world such as AT&T, Vodafone, Orange and Cingular with either their own brand names (in the case of OEMs) or brands owned by the operators (in the case of ODMs).

Smartphones had a very short product lifecycle, with operators demanding a new generation of products every 12 to 18 months.

Operating System

All smartphones needed to be backed by an operating system. There were many operating systems in the market for manufacturers to choose from. The top operating systems used by smartphones were Google's Android, RIM's Blackberry OS, Apple's iOS, Symbian and Microsoft's Windows Mobile. HTC's product portfolio included both Android and Windows Mobile. According to IDC, the Symbian operating system had a 44.9% market share worldwide in terms of shipments by operating system, ranking number one in 2009. Symbian's partnership with Nokia was one of the main reasons Symbian had held its top ranking. Windows Mobile was ranked number four with a 9.4% market share in 2009 and was expected to maintain this position throughout IDC's forecast period, until 2014. Even though Android was only ranked number six, with a 4.1% market share in 2009, it was expected to grow the fastest among the top 10 smartphone operating systems, with 65.4% CAGR between 2009 and 2014, climbing to number two in market share by 2014 [See **Exhibit 4**].

[3] IDC (7 May 2010) "Worldwide Converged Mobile Device (Smartphone) Market Grows 56.7% Year Over Year in First Quarter of 2010, Says IDC", Press Release, http:// www.idc.com (accessed November 13, 2010)
[4] Chan, W.B.K. (2007) "High Tech Computer: Initiating at Buy (1H), $650 Target Price; Worst Case Already Discounted", Citigroup.

HTC

Since 1997, HTC had been manufacturing smartphones and PDAs as an ODM for mobile operator brands including Orange, T-Mobile, Sprint, Cingular, Verizon, and NTT DoCoMo. The company had started as an ODM designing and building innovative PDAs.[5] These PDAs used Microsoft's Windows Mobile operating system exclusively. HTC had worked closely with Microsoft ever since its inception, producing Windows Mobile PDAs for such companies as Compaq, Dell and Hewlett-Packard.

In 1999, HTC started designing its first touch-screen smartphone, and when it shipped in 2002 it was the first colour touch-screen smartphone in the industry. HTC initially made smartphones based exclusively on Microsoft's Windows Mobile software and sold them as operator-branded devices in the market. In 2006, HTC became an OEM when it started selling its products under its own brand name, hTc. Geographically, Europe and North America were the two major regions for HTC, with its shares in Asia increasing gradually. Over the years, HTC had established many key relationships with its customers, including the leading five mobile operators in Europe, the top four in the US and many fast-growing Asian operators.[6] Since 2009, with the emergence of other operating systems, it had begun shifting its focus to devices based on Google's Android operating system, given not only its increasing market penetration but also better customisation capabilities and lower cost than other operating systems.

In recent years, responding to the rapid growth of the smartphone market, HTC had been shifting its focus to smartphone design and production. HTC essentially became a pure smartphone player. Its key competitors were mainly large OEMs such as Nokia, Apple, Motorola and RIM, who produced smartphones in addition to other mobile devices.

Supplier Management

> *We do not consider short term suppliers. We want suppliers who not only provide product with competitive cost, but also have the capability to develop the component to match with our demand in the future. We consider supplier who has the capability to develop together with us with our product roadmap.*
>
> - HTC Vendor Management Team[7]

HTC had over 1,000 suppliers, and managing them was critical to ensuring that HTC's products met customer requirements through continuous innovation. HTC's supplier management involved four different teams. The sourcing team was responsible for searching for new suppliers that might qualify to become HTC's long-term suppliers. The component team was responsible for evaluating whether a supplier could provide the appropriate parts for HTC's various product models and monitored suppliers' consistency in production once they were selected. The R&D team focused on evaluating suppliers' capabilities to provide appropriate product designs. The quality assurance team conducted rigorous testing to ensure such aspects as the quality, consistency and efficiency of suppliers. Collectively, these four groups were called the Vendor Management Team.

Supplier management was divided into two areas: supplier selection and supplier monitoring. HTC had strategic suppliers that supplied key components such as integrated circuits, memory chips and display screens. Each of these key components usually had only one or

[5] PDAs differed from smartphones in that PDAs mainly focused on business users, offering such functions as email, scheduling and data processing.
[6] For details, see HTC's website: www.htc.com
[7] Company interview on October 21, 2009.

two suppliers who dominated the space. However, because a smartphone had over 250 routine components, suppliers of such components made up the vast majority of HTC's suppliers. Some routine components had as many as five suppliers. The supplier selection and monitoring process applied mainly to the management of these routine component suppliers. HTC was very strategic when it came to looking for a new supplier [see **Exhibit 5**].

Supplier Selection

The first step of supplier selection was the identification of potential suppliers by the sourcing team. According to KH, when the team was sourcing, engineers were judged based on a three-year product roadmap and specific requirements demanded by the market in the future, not just the current year's product.

Once there was a list of candidates, members from procurement, quality and engineering, R&D, and component engineering would conduct an audit of each candidate's quality system, manufacturing process, financial situation, and manufacturing capability and capacity. If a candidate passed the audit, then members from the engineering team, which included the quality assurance team and component engineering team, would ask the candidate to submit sample products for quality, reliability and safety testing.

The final step in supplier selection was to enter into a contractual agreement with the selected supplier. The contract would indicate HTC's forecast of orders needed, though such an amount would not be set definitively because HTC would not want to be 100% committed to a particular amount in the event of a sudden drop in market demand. If demand was more than what HTC had ordered, then HTC would push suppliers to deliver more or find new suppliers to fill the gap. Similarly, HTC did not specify any prices for orders in its contracts. This was to maintain flexibility for HTC to ask suppliers to reduce their production or materials costs as it deemed appropriate. According to KH: "In case I have an issue with high material cost, I would tell a supplier to reduce its cost because all the customers are complaining. Therefore, such supplier will cut its material cost and overhead expenses. It will come back to us with a 13% reduction. So normally we do not specify the volume, the pricing and some of the term conditions in the contract to retain flexibility."[8] One item that was specified in the contract was the delivery date. Suppliers had to deliver the products on the exact date specified in their contracts. "If you commit then you must deliver," said KH. HTC had been maintaining suppliers on a long-term contractual basis. There were virtually no short-term suppliers under HTC's management.

Supplier Monitoring with a Scorecard

> *If some of the suppliers receive an excellent or perfect score—we may consider offering them another allocation of the order. For example, we have a product that requires 100,000 pieces every month. We have two suppliers. One supplier has performed extremely well. We may consider sourcing 80% from this supplier. The other one underperformed. I will give them 20%. If the underperformed one improves in the next quarter, then I will adjust this allocation again.*
>
> - HTC Vendor Management Team[9]

The second area of supplier management was the continuous monitoring of suppliers' performance. Once suppliers started delivering, the component team would visit these suppliers every month or two. The team would monitor the consistency of process parameters,

[8] Ibid.
[9] Ibid.

components and materials used. More importantly, KH and his team used a scorecard system to evaluate all suppliers on a quarterly basis using five categories of performance measurement: technology, quality, response, delivery and cost (collectively known as the TQRDC index). Quality was the most important metric, accounting for 35% of the total score. Cost, at 30% of the total, was the second most important. HTC continuously asked suppliers to reduce the costs of various components. Delivery, technology and response made up 20%, 8% and 7% of the total, respectively. HTC used scorecard results to make decisions on future order allocation. "In reality, we look at each product's special needs to choose its suppliers. It is not always necessary that higher score gets larger amount of order,"[10] said KH. HTC would also offer help to suppliers to improve their performance in terms of these dimensions.

Scorecard data were collected monthly. Then, every quarter, the supplier management team would hold a business review meeting to look at the trends of the past three months to determine whether to put a supplier on a watch list (in which case they might work with the supplier if the supplier was deemed important) or cease purchasing from the supplier.

Problem Solving

> *If there is a problem, HTC may come to our place two to three times a day. There is not only audit, but also a lot of discussion, especially on those new components. We need to revise those new components and improve them.*
>
> - Supplier to HTC[11]

HTC and its suppliers maintained very close communications. If there were issues regarding a component, suppliers would "invite application engineering to visit to find whether it is related to their process or related to their component or delivery," according to KH.[12] Suppliers were usually expected to respond to and resolve issues within 24 hours. HTC called this "corrective action response" ("CAR"). CAR was an essential component of the TQRDC scorecard index. In addition to quick response in solving problems (measured under the response category of the scorecard system), suppliers were expected to share product component roadmap information with HTC if they forecasted some new component designs for the coming year or two. Such sharing was helpful for HTC in doing its own forecasts.

Product Roadmap Forecast

> *Demand forecast is one of the major challenges in supplier management, especially in consumer electric industry. Improve forecast capability and increase common parts in design phase would be helpful for supplier management.*
>
> - HTC Vendor Management Team[13]

According to KH, even though "sometimes it is very difficult to predict volume that can be sold in the market"[14] HTC conveyed its forecasts to its suppliers so that they could plan ahead. For example, some of the driver integrated circuit suppliers asked HTC for its forecast of 2011 capacity during the first half of 2010. HTC had maintained good communication with them on the forecast request. One of the suppliers to HTC commented, "Normally HTC has a

[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.

yearly forecast. Then HTC may revise them from time to time. But it is just a reference. HTC requires us to keep the capacity, but won't guarantee full orders for that capacity."[15]

HTC needed to consider other factors aside from the scorecard system in managing suppliers. For example, the need to keep inventory levels low, which reduced carrying and redundancy costs, meant that HTC needed to have very good relationships with its suppliers so that it could call on them for quick delivery. According to KH, "Sometimes in a critical situation, we may change the allocation in the next month. But we will consider the inventory level before we do that. We will consider the long term relationship to keep our inventory level low. Not just the allocation."

In summary, HTC's supplier management process required heavy involvement of the teams in both supplier selection and monitoring. The scorecard system provided a good platform for the teams to measure suppliers' performance in various areas on a regular basis. The top management of HTC was also strongly committed to supplier management and met with key suppliers on a regular basis.

Issues Surrounding the Scorecard

> *In the case where one supplier's score is much lower than others, we will request them to review. If they can not improve in three months, we will consider recommend our engineers not to select this supplier in the future.*
>
> - HTC Vendor Management Team[16]

As smartphones increased in size and number of functions over the years, their battery usage requirements also increased. A battery's lifecycle, usage capacity and power management capability had become key focuses among battery suppliers. Each phone battery cost around US$5 to US$6, approximately 3% of a smartphone's total bill of materials.[17] Almost all the batteries used by Taiwan smartphone producers were supplied by Taiwanese battery producers, according to a report done by the Market Intelligence & Consulting Institute, based in Taipei.[18] Main battery suppliers included Phihong, DynaPack, Simplo and Celxpert [see **Exhibit 3**].

There were five different combined scores for the five different suppliers KH and his team were evaluating. Each supplier had a different size and market share, as well as its own type of relationship and issues, if any, with HTC. Supplier A performed well in almost every category, with an overall grade A (scoring at least 85), and had received consistent scores in the previous three months. Suppliers B, C and D had received B grades, scoring between 70 and 85. Supplier B had declined in quality performance but improved in delivery performance over the previous three months. Supplier C had improved in quality performance but declined in cost and delivery performance during the same period. Supplier D had unstable quality performance and declining delivery performance. Finally, Supplier E had scored a C grade, with scores of 70 and below [see **Exhibit 6** and **Exhibit 7**].

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[15] Interview with supplier on October 21, 2009

[16] Company interview on October 21, 2009.

[17] A bill of materials was a list (along with quantities and descriptions) of all raw materials, parts, intermediates, sub-assemblies, etc., required to construct, overhaul or repair something. See: Business Dictionary (2010) "Bill of Materials (BOM)", *www.businessdictionary.com*. (accessed 13 November 2010).

[18] 产业情报研究所（7 月 2010 年） "台湾智慧型行动电话产业零组件供应商来源分析" (于 2010 年 11 月 13 日登陆). [MIC Advisory and Intelligence Service Program (July 2010) "Taiwan Smartphone Industry Component Suppliers Analysis" (accessed November 13, 2010).]

KH and his team needed to make two decisions: 1) how to allocate the next quarter's orders among these five suppliers for the same component; and 2) what to do with suppliers receiving grades lower than A—whether to drop them or help them to improve to grade A. Their decisions for each supplier would be based not only on each one's performance measurements, but also considerations beyond what the scorecard had captured.

EXHIBIT 1: TOP FIVE SMARTPHONE VENDORS' SHIPMENTS AND MARKET SHARE Q1 2010

(Units in Millions)

Vendor	1Q10 Volumes	1Q10 Market Share	1Q09 Volumes	1Q09 Market Share
1 Nokia	21.5	39.3%	13.7	39.3%
2 Research in Motion (RIM)	10.6	19.4%	7.3	20.9%
3 Apple	8.8	16.1%	3.8	10.9%
4 HTC	2.6	4.8%	1.5	4.3%
5 Motorola	2.3	4.2%	1.2	3.4%
Others	8.9	16.2%	7.2	21.2%
Total	**54.7**	**100.0%**	**34.7**	**100.0%**

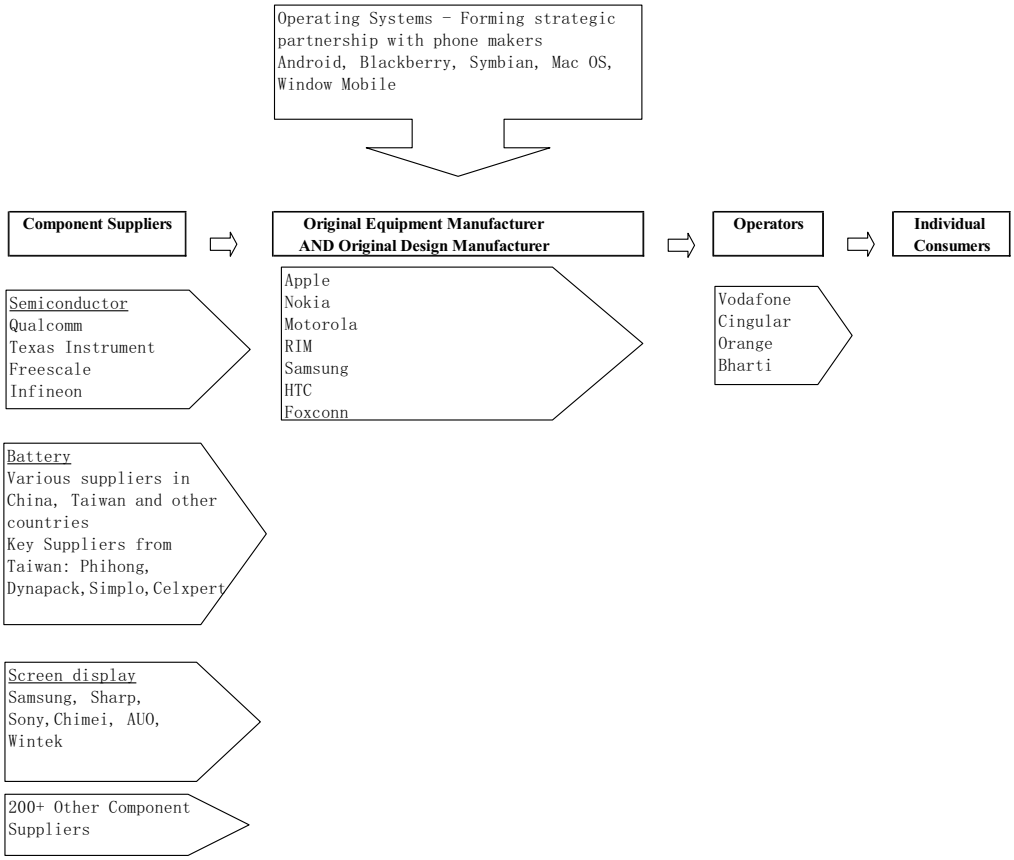
Source: IDC (May 2010) "Worldwide Quarterly Mobile Phone Tracker", http:// www.idc.com (accessed November 13, 2010).

EXHIBIT 2: WORLDWIDE MOBILE PHONE AND SMARTPHONE SHIPMENTS 2009–2014 (000)

	2009	2010	2011	2012	2013	2014	Cumulative Annual Growth Rate (09-14)
Mobile Phone	1,133,185.2	1,258,129.5	1,371,220.4	1,433,730.0	1,498,477.0	1,557,857.2	6.6%
Converged mobile device	173,472.6	226,759.0	277,223.6	332,916.4	385,676.3	439,353.5	20.4%
Share of total mobile phone (%)	15.3%	18.0%	20.2%	23.2%	25.7%	28.2%	

Source: IDC (March 2010) "Worldwide Converged Mobile Device 2010–2014 Forecast and Analysis", http://www.idc.com (accessed November 13, 2010)

EXHIBIT 3: SIMPLIFIED SMARTPHONE INDUSTRY VALUE CHAIN



Source: 产业情报研究所（7 月 2010 年）“台湾智慧型行动电话产业零组件供应商来源分析”(于 2010 年 11 月 13 日登陆). **[MIC Advisory and Intelligence Service Program (July 2010) “Taiwan Smartphone Industry Component Suppliers Analysis” (accessed on November 13, 2010).]**

EXHIBIT 4: WORLDWIDE SMARTPHONE SHIPMENTS BY OPERATING SYSTEM 2009-2014

Shipments (million)							**2009-2014**
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**CAGR (%)**
Android	7.1	28.6	42.5	57.6	71.5	87.3	65.4%
Blackberry	34.5	42.0	49.8	58.4	65.7	72.1	15.9%
Linux	10.5	8.4	7.9	7.8	8.0	8.1	-5.1%
Mac OS X	25.1	32.3	36.7	42.6	47.5	51.8	15.6%
Maemo/Meego	0.1	0.7	2.1	3.7	5.7	7.9	165.1%
Palm OS	0.5	0.1	0.0	0.0	0.0	0.0	0.0%
Symbian	78.0	89.0	101.4	117.9	134.4	151.5	14.2%
webOS	1.6	3.4	4.3	5.0	6.0	6.7	33.8%
Windows Mobile	16.3	22.2	32.6	40.1	47.1	54.0	27.0%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Total	**173.5**	**226.8**	**277.2**	**332.9**	**385.7**	**439.4**	20.4%
Growth		*30.7%*	*22.3%*	*20.1%*	*15.8%*	*13.9%*	

Operating system mix (%)

	2009	**2010**	**2011**	**2012**	**2013**	**2014**
Android	4.1	12.6	15.3	17.3	18.5	19.9
Blackberry	19.9	18.5	18.0	17.5	17.0	16.4
Linux	6.0	3.7	2.8	2.3	2.1	1.8
Mac OS X	14.5	14.3	13.2	12.8	12.3	11.8
Maemo/Meego	0.0	0.3	0.8	1.1	1.5	1.8
Palm OS	0.3	0.0	0.0	0.0	0.0	0.0
Symbian	44.9	39.3	36.6	35.4	34.8	34.5
webOS	0.9	1.5	1.5	1.5	1.6	1.5
Windows Mobile	9.4	9.8	11.8	12.0	12.2	12.3
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**99.9**	**100.0**	**100.0**

Source: IDC (March 2010) "Worldwide Converged Mobile Device 2010–2014 Forecast and Analysis", http://www.idc.com (accessed November 13, 2010).

EXHIBIT 5: SUPPLIER SELECTION AND MANAGEMENT PROCESS AT HTC

Supplier Selection and Management Process at HTC

Step 1	**Supplier Selection**	**Teams Involved**
a	Source potential supplier	Sourcing department
b	Conduct supplier audit of:quality system, manufacturing process, financial situation and manufacturing capability/capacity	Members from Procurement, Quality & Engineering, R&D, Component Engineering
c	Provide sample to conduct quality and reliability (including safety) tests	Engineering team (including the product assurance team)
d	Develop contract agreement	
Step 2	**Supplier Monitoring**	**Teams Involved**
a	Visit suppliers every month or every other month to monitor consistency in process prarameters and materials used	Component team
b	Scorecard system for regular evaluation	All teams
c	Convey forecasts	All teams
d	Control inventory costs	All teams
e	Determine allocation of orders based on scorecard performance	All teams

Source: Company interview on October 21, 2009.

EXHIBIT 6: SAMPLE SCORECARD FROM HTC

Scorecard Weighting (%) at HTC

Grade A — **Supplier A**

		January		February		March	
		Score	Weighted	Score	Weighted	Score	Weighted
Quality	35%	88	30.8	88	30.8	88	30.8
Cost	30%	88	26.4	88	26.4	88	26.4
Delivery	20%	85	17	85	17	85	17
Technology	8%	85	6.8	85	6.8	85	6.8
Service	7%	85	5.95	85	5.95	85	5.95
Total	100%		87.0		87.0		87.0

Grade B — **Supplier B**

		January		February		March	
		Score	Weighted	Score	Weighted	Score	Weighted
Quality	35%	80	28.0	75	26.3	70	24.5
Cost	30%	85	25.5	85	25.5	85	25.5
Delivery	20%	70	14.0	75	15.0	80	16.0
Technology	8%	85	6.8	85	6.8	85	6.8
Service	7%	85	6.0	85	6.0	85	6.0
Total	100%		80.3		79.5		78.8

Grade B — **Supplier C**

		January		February		March	
		Score	Weighted	Score	Weighted	Score	Weighted
Quality	35%	75	26.3	80	28.0	85	29.8
Cost	30%	85	25.5	80	24.0	75	22.5
Delivery	20%	85	17.0	80	16.0	75	15.0
Technology	8%	80	6.4	82	6.6	85	6.8
Service	7%	80	5.6	82	5.7	85	6.0
Total	100%		80.8		80.3		80.0

Grade B — **Supplier D**

		January		February		March	
		Score	Weighted	Score	Weighted	Score	Weighted
Quality	35%	70	24.5	80	28.0	75	26.3
Cost	30%	80	24.0	80	24.0	80	24.0
Delivery	20%	80	16.0	75	15.0	70	14.0
Technology	8%	70	5.6	70	5.6	70	5.6
Service	7%	70	4.9	70	4.9	70	4.9
Total	100%		75.0		77.5		74.8

Grade C — **Supplier E**

		January		February		March	
		Score	Weighted	Score	Weighted	Score	Weighted
Quality	35%	65	22.8	70	24.5	70	24.5
Cost	30%	65	19.5	70	21.0	75	22.5
Delivery	20%	65	13.0	65	13.0	65	13.0
Technology	8%	65	5.2	65	5.2	65	5.2
Service	7%	65	4.6	65	4.6	65	4.6
Total	100%		65.0		68.3		69.8

EXHIBIT 7: BRIEF DESCRIPTION OF SUPPLIERS A TO E

Supplier A

Supplier A had maintained a close relationship with HTC for over seven years. It was one of HTC's longest-serving suppliers of this particular component. Over the years, Supplier A had worked closely with HTC to develop new designs and products for HTC's various smartphone models. It was also one of the five largest manufacturers in its sector. Approximately 50% of HTC's batteries were supplied by A.

Supplier B

Supplier B had started its relationship with HTC three years before. Its scorecard performance had been quite consistent. It had been fulfilling approximately 20% of HTC's overall battery orders. However, over the previous six months, B had started having financial problems resulting from a large legal scandal and overspending on construction of a new factory. It had been cutting costs by firing workers at the factory, particularly those with higher salaries who had been working there for a long time.

Supplier C

Supplier C had started its relationship with HTC one and a half years back. Its scorecard performance had been gradually improving since joining HTC's supplier list. Its share of HTC's orders had increased from 5% at the beginning to approximately 15%. In the previous six months, C had introduced a new technology to its manufacturing lines which helped to improve quality. However, costs had also increased. HTC and C had been working together to solve the problem. As a step to cut costs, C recently cut its delivery team and outsourced product delivery to an outside firm.

Supplier D

Supplier D had a three-year relationship with HTC and had performed consistently. It had been supplying about 10% of HTC's batteries. In the previous six months, Supplier D was spun off from its parent company, which had maintained a strategic relationship with HTC since its inception. The spin-off meant that D had to restructure and reshuffle its organisation to run as an independent company.

Supplier E

Supplier E had just started its relationship with HTC in the previous six months. Its performance was similar to that of other suppliers who had started around the same time, with much more improvement needed. E was a rising star in this sector, with strong financial backing from a large conglomerate that had promised to commit a good management team and resources to help E grow. E had been given 5% of HTC's total battery orders thus far.

Note: scorecard examples are much more simplified than actual scorecard records.
Note: Grading system at HTC: A = score of 85 and above; B = score between 70 and 85; C = score below 70. A very good supplier score is 85 or above (i.e. A). Cut off for dropping supplier is continually below 70. But it depends in part on HTC's need for capacity. In terms of the individual items, the critical dimensions include supplier capacity, quality and cost.