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Strong 2007 Growth for Top 25 Outsourcing Providers

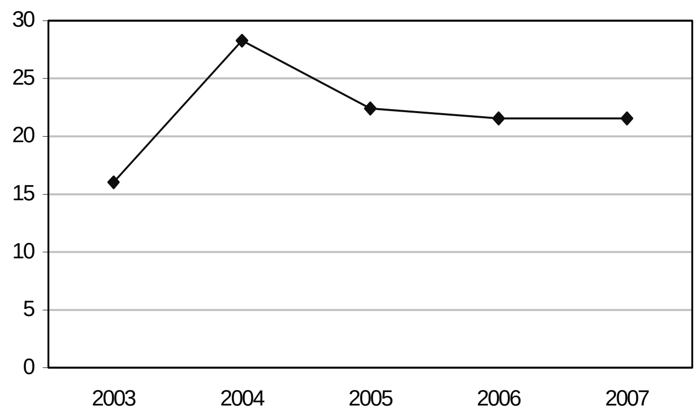
As a group, the 25 largest outsourcing providers in 2007 exhibited two qualities that often do not mix – massive revenue and robust growth. In 2007, the Top 25 outsourcing providers, as identified by *MMI*, accounted for $229.2 billion in revenue, yet they combined for growth of 21.5%. Although this growth is a composite of many parts, it still reflects the underlying power of outsourcing.

Indeed, Top 25 growth rates over the last three years have been nearly immune to the law of large numbers, which says that as sales go up, growth rates must eventually start to drop. The 21.5% growth of the 2007 Top 25 essentially matched the 2006 group's increase of 21.6%. What's more, the 2007 rate was less than one percentage point below the 2005 growth of 22.4% for the Top 25 of that year.

Looking back over the past five years, one does find variation in Top 25 growth rates, as shown in Chart 1. Still, the 2007 rate of 21.5% is consistent with the five-year average of 22.0% for Top 25 growth rates.

Making the Top 25 became somewhat easier in 2007, due to the removal of two larger players from the list. Anyone not in a coma last year realizes that **Solectron** came off the list because it was acquired by **Flextronics** in 2007. In addition, *MMI* reclassified **Lite-On Technology** as a component supplier, which disqualified Lite-On from the 2007 group. A third company on the 2006 list, **Nam Tai Electronics**, failed to qualify with enough revenue for 2007. It took a minimum of $813 million in sales to make the 2007 edition of the Top 25. The 2007 cutoff was $57 million below the 2006 minimum of $870 million.

Chart 1: Top 25 Growth Rates (%)



In contrast, the barrier to entering the top ten outsourcing providers went up by some $160 million. The top ten cutoff was $8.07 billion for 2007 compared with $7.91 billion for 2006.

Within the top ten, there were some changes in the order versus 2006. In first place, **Hon Hai Precision Industry** retained a commanding lead over the rest of the field. Flextronics kept second position, while **Quanta Computer** moved up one spot to third, displacing **Asustek Computer**, which dropped to fourth. **Compal Electronics** held on to fifth place. **Jabil Circuit** and **Sanmina-SCI** advanced one position to sixth and seventh respectively. Ranked eighth was **Wistron**, which rose by five slots from the year before, the biggest move of any company previously listed. **TPV Technology** climbed two positions in the standings to ninth,

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while **Celestica** dropped by one position to tenth.

Three companies made the Top 25 for the first time. They are digital camera ODM **Ability Enterprise** (Taiwan) and EMS providers **Zollner Elektronik** (Germany) and **SIIX** (Japan).

The Top 25 list for 2007 appears in Table 1 at right. Companies were ranked based on calendar 2007 revenue. The list consists of 13 EMS providers and 12 ODMs, as classified by *MMI*. A company was categorized based on which model, EMS or ODM, supplied the company's primary source of revenue or was estimated as such.

Together, the 12 ODMs grew their sales at a rate that was 5.9 percentage points higher than the 2007 growth of the 13 EMS providers. ODM growth was 24.8% compared with an EMS increase of 18.9% (see Chart 2 on p. 3). Similarly, the growth differential for the 2006 Top 25 was 4.9% percentage points in favor of the ODM group (May 2007, p. 3). Based on this data, the ODM model continues to be the superior growth engine.

That is now the view of market research firm **Technology Forecasters**. Its estimate of an average five-year growth rate for the ODM sector increased to 18.5% from 11.9% released in September 2007. At the same time, the firm lowered its forecasted EMS growth rate to 11.2% from 13%.

Two Top 25 companies, **Innolux Display** and **Quanta Computer**, grew their sales (in NT and US$) by more than 40%. Both of these companies are ODMs. On the other hand, ODMs also registered the greatest sales declines. **Inventec Appliances** and **Compal Communications** both experienced double-digit decreases.

Despite a higher ODM growth rate, EMS providers continued to represent a majority of Top 25 sales with a 55.6% share (Chart 3, p. 3). Sales of the 13 EMS providers in the Top 25 amounted to $127.5 billion out of a total of $229.2 billion.

EMS providers owe their majority share to Hon Hai, whose consolidated sales totaled $51.8 billion in 2007. Hon Hai's sales growth of 28%, expressed in U.S. dollars, exceeded the Top 25 aggregate rate of 21.5%, but fell short of its 2006 growth of 38%. Hon Hai would have posted a higher

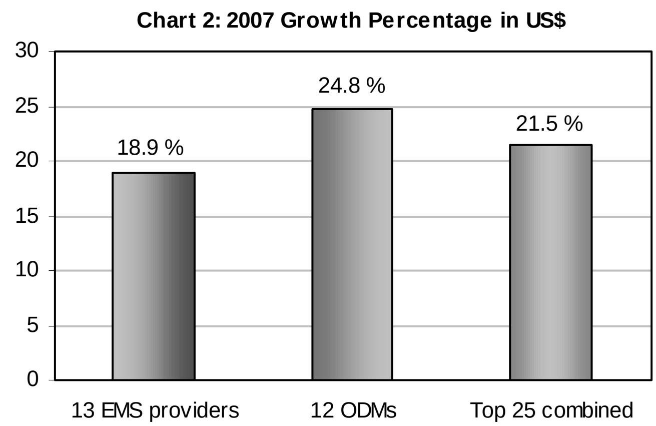
Table 1: Top 25 Providers in Outsourcing for 2007

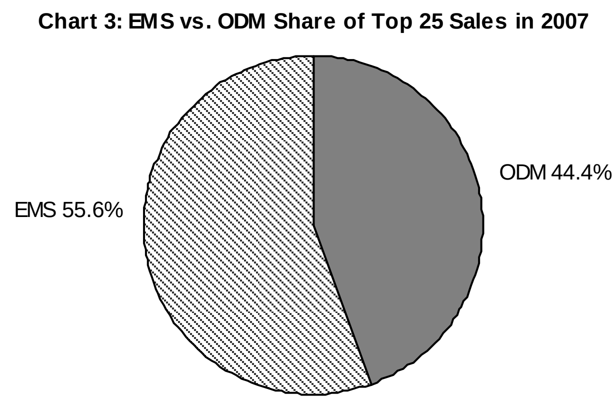
Organization	Headquarters	Sales calendar 2007 (M US$)	2007 rank by total sales	2006 rank	Sales calendar 2006 (M US$)	Sales growth '06-'07 (%)	Primary business model
Hon Hai Precision Industry	Tucheng City, Taiwan	51,828	1	1	40,619	28	EMS/OBM/ODM
Flextronics	Singapore	24,460	2	2	17,708	38	EMS/ODM
Quanta Computer	Tao Yuan Shien, Taiwan	23,665	3	4	16,541	43	ODM
Asustek Computer	Taipei, Taiwan	22,993	4	3	17,235	33	ODM/OBM/EMS
Compal Electronics	Taipei, Taiwan	15,167	5	5	11,764	29	ODM
Jabil Circuit	St. Petersburg, FL	12,435	6	7	11,085	12	EMS
Sanmina-SCI	San Jose, CA	10,138	7	8	10,872	-7	EMS
Wistron	Hsinchu, Taiwan	8,729	8	13	6,800	28	ODM/EMS
TPV Technology	Taipei, Taiwan	8,455	9	11	7,176	18	ODM/OBM
Celestica	Toronto, Canada	8,070	10	9	8,812	-8	EMS
Inventec	Taipei, Taiwan	7,984	11	10	7,908	1	ODM
Elcoteq	Luxembourg	5,543	12	14	5,375	3	EMS
Innolux Display	Miao-Li, Taiwan	4,784	13	16	3,251	47	ODM
New Kinpo Group	Taipei, Taiwan	4,200	14	15	3,300	27	EMS/ODM
Benchmark Electronics	Angleton, TX	2,916	15	18	2,907	flat	EMS
Inventec Appliances	Taipei, Taiwan	2,820	16	17	3,236	-13	ODM/OBM
MiTAC International	Hsin-Chu Hsien, Taiwan	2,746	17	19	2,821	-3	ODM/OBM
Venture	Singapore	2,569	18	21	1,966	31	EMS/ODM
USI (Universal Scientific Industrial)	Nantou, Taiwan	1,984	19	23	1,636	21	EMS/ODM
FIC Global	Taipei, Taiwan	1,771	20	22	1,739	2	ODM
Plexus	Neenah, WI	1,624	21	24	1,513	7	EMS
Compal Communications	Taipei, Taiwan	1,482	22	20	2,205	-33	ODM
Ability Enterprise	Taipei, Taiwan	1,102	23	new	793	39	ODM
Zollner Elektronik	Zandt, Germany	899	24	new	744	21	EMS
SIIX	Osaka, Japan	813	25	new	652	25	EMS
Total/avg.		**229,178**			**188,659**	**21.5**	

Companies with multiple businesses were classified as EMS or ODM as indicated by the first acronym in the business model description. Some currency conversions, when necessary, were done using average annual exchange rates from the US Federal Reserve.

Table 2: Components of Hon Hai's Sales

Sales component	Sales calendar 2007 (M US$)	Sales calendar 2006 (M US$)	Sales growth '06-'07 (%)
Hon Hai non-consolidated	37,611	27,914	35
Foxconn International Holdings	10,732	10,381	3
Other units	3,485	2,324	50
Hon Hai consolidated	51,828	40,619	28

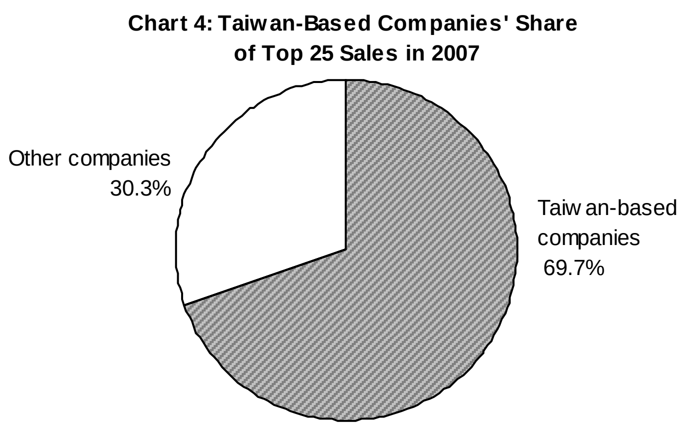


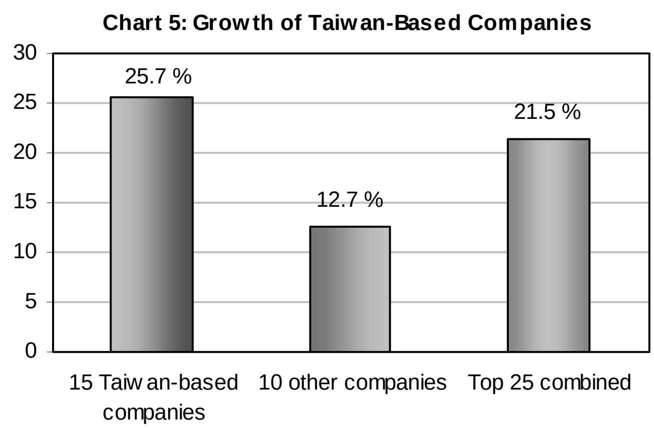


2007 growth were it not for the performance of its handset subsidiary, **Foxconn International Holdings**, whose sales increased just 3% last year. See Table 2 on p. 2. If one assumes the outsourcing space was worth about $270 billion in 2007, then Hon Hai's sales represented 19% of that market.

Out of the Top 25, 15 companies are Taiwan-based. Last year, these companies accounted for sales of $159.7 billion, or 69.7% of the Top 25 total (Chart 4 below). As has been stated here before, Taiwan's predominant role in the outsourcing space primarily stems from the rapid growth of the Taiwan-controlled ODM business as well as the rise of Taiwan-based Hon Hai. The Taiwan-based companies increased their market share in 2007, as they collectively outgrew the other companies on the list by 13 percentage points (Chart 5 below).

Editor's note: At least five companies in the Top 25 produce their own brands in addition to manufacturing for others. Unfortunately, these companies do not break out their sales from own-brand manufacturing (OBM). To some degree, Top 25 sales and growth figures have been influenced by OBM revenue, which cannot be separated from outsourcing revenue in these cases. Still, *MMI* believes that OBM represents a minority of total sales in most if not all of these cases.





Q1 Growth Defies U.S. Economy

Despite the troubles of the U.S. economy, a group of 22 large companies in the outsourcing space generated aggregate growth in Q1 of 26.1% year over year (Table 1). Revenue of the group's 12 EMS providers and ten ODMs totaled $46.2 billion in the quarter.

Only three percentage points separated growth of the ODMs from that of the EMS providers. Together, the ten ODMs increased their sales by 28.0%, while the 12 EMS providers boosted their revenue by 25.0%.

On the EMS side, seven U.S.-traded providers collectively grew revenue by 25.7% from the year-earlier period. But this rate owed its double

Table 1: Q1 Revenue by Outsourcing Groups in M US$

EMS Group	No. of cos.	Q1 '08 revenue	Q1 '07 revenue	% chg.
Listed outside U.S.	5	12,940	10,415	24.2
U.S.-listed	7	15,770	12,546	25.7
Combined EMS	12	28,710	22,961	25.0
ODM Group	10	17,490	13,668	28.0
Total/avg.	**22**	**46,200**	**36,629**	**26.1**

digits to **Flextronics'** Q1 growth of 66.3% (Table 2 below). Without Flextronics, the U.S.-listed providers would have combined for a measly increase of 1.6% in the first quarter. Three out of the seven U.S.-listed providers recorded GAAP net losses in the quarter.

Flextronics posted the largest net loss, $92.8 million, which dragged the collective bottom line for the seven EMS providers into negative territory (Table 2). However, Flextronics' GAAP net loss included pretax restructuring and other charges of about $233 million, primarily related to the restructuring and integration activities associated with its **Solectron** acquisi-

Table 2: Q1 2008 GAAP Results for Seven Large EMS Providers, U.S.-Traded (M US$ or %)

Company (in order of Q1 sales)	Q1 '08 sales	Q4 '07 sales	Qtr.-qtr. chg.	Q1 '07 sales	Yr.-yr. chg.	Q1 '08 gross profit	Q1 '08 gross marg.	Q1 '07 gross profit	Q1 '07 gross marg.	Q1 '08 oper. Inc.	Q1 '08 oper. marg.	Q1' 07 oper. inc.	Q1 '07 oper. marg.	Q1 '08 net inc.	Q4 '07 net inc.	Q1 '07 net inc.
Flextronics	7,775.4	9,068.7	-14.3	4,676.8	66.3	263.9	3.4	225.5	4.8	(47.1)*	-0.6	63.3*	1.4	(92.8)	(774.4)	120.7
Jabil	3,058.6	3,367.9	-9.2	2,934.9	4.2	187.9	6.1	171.5	5.8	1.6	0.1	36.7	1.3	(24.0)	62.0	13.9
Celestica	1,835.7	2,210.5	-17.0	1,842.3	-0.4	115.0	6.3	78.6	4.3	41.2	2.2	(9.0)	-0.5	29.8	(11.7)	(34.3)
Sanmina-SCI**	1,817.4	1,792.7	1.4	1,788.0	1.6	124.6	6.9	113.5	6.3	(8.6)	-0.5	(3.6)	-0.2	(24.4)	7.9	(26.1)
Benchmark	684.3	734.5	-6.8	752.5	-9.1	45.2	6.6	54.5	7.2	21.5	3.1	27.4	3.6	22.6	20.9	24.5
Plexus	451.0	458.3	-1.6	360.2	25.2	51.6	11.4	31.6	8.8	27.6	6.1	10.7	3.0	22.1	27.3	10.2
Nam Tai	147.1	186.9	-21.3	191.6	-23.2	19.5	13.3	17.2	9.0	7.8	5.3	7.2	3.8	28.4	9.6	8.4
Total/avg.	**15,769.5**	**17,819.5**	**-11.5**	**12,546.3**	**25.7**	**807.7**	**5.1**	**692.4**	**5.5**	**44.0**	**0.3**	**132.7**	**1.1**	**(38.3)**	**(658.4)**	**117.3**

*Intangible amortization was subtracted from reported operating income. **Company's net income includes discontinued operations of PC business.

Table 3: Q1 2008 Results for Five Large EMS Providers Traded Outside the U.S.

Company	Home base	Currency	Q1 '08 sales	Q1 '07 sales	% chg.	Q1 '08 net inc.	Q1 '07 net inc.	% chg.	Q1 '08 sales (M US$)	Q1 '07 sales (M US$)	% chg.	Q1 '08 net inc. (M US$)	Q1'07 net inc. (M US$)
Hon Hai*	Taiwan	M NT$	301,803	245,605	22.9	16,074	15,628	2.9	9,576	7,462	28.3	510	475
Elcoteq	Luxembourg	M euros	908.7	952.5	-4.6	(11.6)	(46.9)	NA	1,363	1,248	9.2	(17)	(61)
Cal-Comp**	Thailand	M baht	23,413	21,227	10.3	617	710	-13.1	756	626	20.8	20	21
Venture	Singapore	K S$	939,137	968,901	-3.1	56,334	70,713	-20.3	667	633	5.4	40	46
USI	Taiwan	M NT$	18,206	14,704	23.8	607	511	18.7	578	447	29.3	19	16
Total									**12,940**	**10,415**	**24.2**	**572**	**496**

Currencies were converted to US$ by using 3-month averages of monthly 2007 and 2008 data from the U.S. Federal Reserve.
*Sales are non-consolidated. **Largest member of New Kinpo Group.

Table 4: Q1 2008 Results for Ten Large Taiwan-Based ODMs

Company	Q1 '08 sales (M NT$)	Q1 '07 sales (M NT$)	% chg.	Q1 '08 oper. marg.	Q1 '07 oper. marg.	Q1 '08 net. inc. (M NT$)	Q1 '07 net. inc. (M NT$)	Q1 '08 sales (M US$)	Q1 '07 sales (M US$)	% chg.	Q1 '08 net. inc. (M US$)	Q1 '07 net. inc. (M US$)
Quanta	197,742	143,232	38.1	1.8	1.5	4,003	3,402	6,274	4,351	44.2	127	103
Compal	101,641	96,980	4.8	2.7	3.4	3,209	2,601	3,225	2,946	9.5	102	79
Wistron	85,319	51,597	65.4	1.6	2.5	1,677	1,096	2,707	1,568	72.7	53	33
Inventec	66,024	58,175	13.5	1.9	2.0	511	1,626	2,095	1,767	18.5	16	49
Innolux	41,370	29,831	38.7	7.9	4.9	3,307	1,036	1,313	906	44.8	105	31
Inventec Appliances	17,532	14,305	22.6	2.7	0.1	520	557	556	435	28.0	16	17
MiTAC	15,132	17,898	-15.5	3.4	4.9	718	1,042	480	544	-11.7	23	32
Compal Communications	9,518	15,314	-37.8	1.1	5.5	379	1,241	302	465	-35.1	12	38
FIC Global	9,515	15,680	-39.3	-4.8	-2.0	(160)	(239)	302	476	-36.6	(5)	(7)
Ability Enterprise	7,430	6,887	7.9	4.6	7.5	313	473	236	209	12.7	10	14
Total/avg.	**551,223**	**449,899**	**22.5**	**2.4**	**2.5**	**14,477**	**12,835**	**17,490**	**13,668**	**28.0**	**459**	**390**

Currency was converted to US$ by using 3-month averages of monthly 2007 and 2008 data from the U.S. Federal Reserve.
All sales are non-consolidated except those of FIC Global.

Table 5: Q1 2008 GAAP Results for Five Smaller EMS Providers, U.S.-Traded (M US$ or %)

Company (in order of Q1 sales)	Q1 '08 sales	Q4 '07 sales	Qtr.-qtr. chg.	Q1 '07 sales	Yr.-yr. chg.	Q1 '08 gross profit	Q1 '08 gross marg.	Q1 '07 gross profit	Q1 '07 gross marg.	Q1 '08 oper. Inc.	Q1 '08 oper. marg.	Q1' 07 oper. inc.	Q1 '07 oper. marg.	Q1 '08 net inc.	Q4 '07 net inc.	Q1 '07 net inc.
LaBarge	75.4	67.1	12.4	59.6	26.5	15.0	19.9	11.0	18.5	7.3	9.7	4.2	7.0	4.3	3.4	2.8
Sparton	58.1	55.0	5.6	47.7	21.8	4.6	7.9	0.7	1.5	(0.4)	-0.7	(3.7)	-7.8	0.6	(1.9)	(2.3)
SMTC	55.1	66.8	-17.5	69.5	-20.7	4.4	8.0	6.5	9.4	1.4	2.5	2.9	4.2	0.4	1.0	2.8
Key Tronic	51.5	50.8	1.4	47.2	9.1	4.2	8.2	3.7	7.8	1.5	2.9	1.1	2.3	1.2	1.6	0.7
Nortech	31.2	29.3	6.5	28.0	11.4	4.8	15.4	3.6	12.9	1.2	3.8	0.7	2.3	0.6	0.5	0.3
Total/avg.	**271.3**	**269.0**	**0.9**	**252.0**	**7.7**	**33.0**	**12.2**	**25.5**	**10.1**	**11.0**	**4.0**	**5.2**	**2.0**	**7.1**	**4.6**	**4.3**

tion. Non-GAAP net income, from which Flextronics excludes these charges and other items such as stock-based compensation and intangible amortization, amounted to $214.5 million, up 76% year over year. Non-GAAP EPS rose by 30% from a year earlier. (Results of some other U.S.-listed providers were briefly discussed in last month's edition on pages 5-6.)

While the group gross margin of the U.S.-traded providers in Q1 came to 5.1%, a drop of 40 basis points from a year earlier, gross profit of these providers still improved by 16.7% (Table 2, p. 4).

Five providers traded outside the U.S. increased their combined Q1 sales expressed in U.S. dollars by 24.2% from a year earlier (Table 3, p. 4). Largely responsible for this growth was **Hon Hai Precision Industry**, whose non-consolidated Q1 sales grew by 28.3% in U.S. dollars or 22.9% in NT dollars.

For companies that report results in non-U.S. currencies, Q1 growth rates increased when sales were converted to U.S. dollars. *MMI's* method is to use an average exchange rate pegged to each reporting period. (See March, p. 1-2.) A weaker U.S. dollar in Q1 2008 versus a year ago meant that the dollar value of sales would increase over Q1 2007. Although this method might seem to artificially inflate growth rates of non-U.S. listed companies, manufacturing contracts are often drawn up in U.S. dollars. So when these providers are paid in U.S. dollars of declining value, they actually give up some revenue growth when their sales are converted into their reporting currency. On the other hand, if a provider mainly does business in euros, for example, then this method would inflate its growth rate.

Although the ten ODMs in this analysis grew their aggregate Q1 sales in U.S. dollars by 28.0% year over year (22.5% in NT dollars), individual performance on the top line varied greatly. **Wistron** had by far the highest growth rate at 72.7% in U.S. dollars (65.4% in NT dollars). Yet three ODMs experienced double-digit sales declines in the quarter from a year ago, and two of them saw revenue drop by over 30% (Table 4, p. 4). Compared with Q1 2007, overall operating income went up by 22.3% in U.S. dollars (17.1% in NT dollars), not far behind sales growth.

Conspicuously absent from this ODM group is **Asustek Computer**. At the start of this year, Asustek spun off its outsourcing business into two companies. Since its own-brand activities remained under the Asustek name, *MMI* believes that the company's non-consolidated sales, the only revenue metric available for Q1 comparison, now correspond to own-brand sales.

While the Taiwan Stock Exchange began this year to require companies to report consolidated Q1 sales, only two Taiwan-based companies in this analysis, **FIC Global** and **USI,** provided consolidated Q1 2007 sales that would enable comparison. Hence, with the exception of these two companies, results from Taiwanese companies in this analysis are based on non-consolidated revenue.

Another Taiwan-based company left off the ODM list is **Qisda**, which was created last year when **BenQ** separated its ODM/EMS operations from its own-brand business. BenQ spun off its own-brand business under the BenQ name, and the remaining ODM/EMS operations were renamed Qisda. With consolidated Q1 sales of some $1.3 billion, Qisda is a major player in the outsourcing space and an ODM/EMS provider that bears watching. However, for this analysis *MMI* was unable to perform an apples-to-apples comparison of non-consolidated Q1 sales in 2008 against those in 2007.

MMI also tracks the performance of other EMS providers. Tabulated here are the results of five smaller providers traded in the U.S. (Table 5 above).

Flextronics To Boost First-Half Growth of U.S.-Traded Group

Based on *MMI's* estimates of first-half 2008 sales for the six largest EMS providers that are publicly traded in the U.S., these companies will together grow their revenue by a projected 26.1% in the first half (see table, p. 6). This aggregate growth would seem to be an encouraging sign for the EMS business. That is, except for one thing. The estimated increase is largely the product of a single company, **Flextronics**.

Without Flextronics' revenue contribution, projected first-half sales of the other five providers in the U.S.-traded group would rise by a combined 2.6%. *MMI* estimates that Flextronics' first-half revenue will climb by 63.1%, a growth rate made possible by the company's 2007 acquisition of **Solectron**. Flextronics' first-half sales are projected at $16.03 billion, or 50% of the U.S.-traded group's $31.89 billion in estimated revenue for the period.

Q2 Guidance and First-Half 2008 Revenue Estimates for Six Large U.S.-Traded Providers
(sales in B$ except as noted)

Company	Q1 '08 sales	Q2 guidance	Q2 midpoint	Q1-2 '08 estimated sales	Q1-2 '07 sales	% estimated growth	Q1 EPS Non-GAAP* $	Q2 Guidance Non-GAAP* $
Flextronics	7.78	8.0 - 8.5	8.25	16.03	9.83	63.1	0.26	0.27 - 0.29
Jabil	3.06	3.05 - 3.15	3.10	6.16	5.94	3.7	0.20	0.18 - 0.22
Celestica	1.84	1.8 - 2.0	1.9	3.74	3.78	-1.1	0.15	0.13 - 0.19
Sanmina-SCI	1.82	1.775 - 1.875	1.825	3.65	3.48	4.7	0.03**	0.03 - 0.05**
Benchmark	684 M	715 - 750 M	733 M	1.42	1.51	-6.0	0.34	0.35 - 0.41
Plexus	451 M	430 - 450 M	440 M	0.89	0.74	20.3	0.48	0.36 - 0.41
Total/avg.				**31.89**	**25.28**	**26.1**		

First-half 2008 estimates equal Q1 actual sales plus midpoint of Q2 guidance.
*Non-GAAP EPS may not be comparable from company to company. **For continuing operations.

Only one other provider in the group, **Plexus**, is expected to have a double-digit growth rate for the first half.

The order of companies in the U.S.-traded group, and by extension the top ten, is far from decided this year. In 2007, **Sanmina-SCI** was the third largest provider in the group and fourth among top-ten companies. This year, the company has lost the revenue of its PC business, which is being sold and thus becomes a discontinued operation. Losing that revenue puts Sanmina-SCI and **Celestica** in competition for third position in the group, with Celestica taking a slight lead in the first half according to *MMI's* estimates (table).

To obtain these first-half estimates for 2008, *MMI* added a provider's Q1 sales and the midpoint of its sales guidance for Q2.

Also tabulated here is non-GAAP EPS guidance for Q2. For Flextronics and **Benchmark Electronics**, guidance implies that non-GAAP EPS will increase from Q1 to Q2, while **Plexus'** outlook calls for a sequential decline in EPS. In the case of Sanmina-SCI, non-GAAP EPS for continuing operations will stay flat or increase if guidance proves true.

News

HP and Hon Hai Partner in Russia

HP and **Hon Hai Precision Industry** (Tucheng City, Taiwan) have broken ground for the construction of a 32,000-m^2 plant that will produce HP PCs in St. Petersburg, Russia. The new facility is connected with a joint-venture agreement to invest $50 million in Russia.

Last year, two Russian news sources reported that Hon Hai planned to fund a new facility to be built in or near St. Petersburg and that the plant would assemble PCs for HP (Aug. 2007, p. 2).

HP intends to be a major PC customer of the new plant and expects to ship up to 40,000 consumer and commercial desktop PCs per month from the facility into the Russian market.

Hon Hai expects that in the future the new facility will serve other customers as well.

The new PC operation is part of HP's strategy to respond to increasing customer demand in fast-growing regions of the world. The St. Petersburg facility will complement a new HP-owned operation in India, as well as Hon Hai facilities serving HP in the Czech Republic and Brazil.

Russian authorities reportedly stymie Flextronics deal

While Hon Hai moves forward with its plans to enter Russia, **Flextronics'** way into the country has reportedly been blocked, at least for now. According to Russian business daily *Vedomosti*, Russia's competition authorities this month refused to approve Flextronics' proposed acquisition of **Elcoteq's** subsidiary in St. Petersburg (Feb., p. 7). The Russian daily reported that the reason for this action was Flextronics' failure "to present data about its beneficiaries." (The report appeared on the website of the *St. Petersburg Times.)*

*New business…***Software Radio Technology** (Bath, UK), has chosen Flextronics (Singapore) as contract manufacturer of an OEM white-label handset for the professional mobile radio market. SRT develops wireless technology and product solutions for homeland security communication and maritime identification and tracking. Also, Flextronics is building a portable worker lift for **JLG Industries** (McConnellsburg, PA). Flextronics CEO Mike McNamara told analysts last month that this product is an example of the company's diversification into the industrial market and the utilization of its vertical capabilities in metal and plastics. Automotive is another segment from which Flextronics is seeking diversification. The company is participating in the development of a transmission for a hybrid electric vehicle being created by **Motive Industries** (Calgary, Canada), according to a report on *Popular Mechanics'* website. The report identifies Flextronics as the supplier of software controls for the transmission….**EMC** (Hopkinton, MA) has established a manufacturing presence in Brazil through the Brazilian operations of **Celestica** (Toronto, Canada). Initial manufacturing efforts will focus on EMC's CLARiiON family of networked storage systems. EMC stated that this new endeavor will allow the company to deliver systems to Brazilian customers faster and at a lower cost….**Thales Rail Signaling Solutions** has selected **SMTC** (Toronto, Canada) to manufacture various rack and enclosure systems and provide PCBA services for Thales' automated communications-based train control systems for urban transport. SMTC will manufacture rack and enclosure products in Franklin, MA, while PCBA will be done in its Markham, Ontario, facility. In addition, SMTC will perform full product manufacturing for **Mediatrix Telecom's** complete line of VoIP access devices and gateways. Volume production will take place at SMTC's facility in Chihuahua, Mexico. Mediatrix (Sherbrooke, Quebec, Canada) is a division of **Media5 Corporation**….Under a new manufacturing agreement, **Western Electronics** (Meridian, ID) will help with base level assembly of **Plasmon's** GX and G chassis for its line of archival storage libraries. Plasmon selected Western Electronics as one of its manufacturing partners following an evaluation of Colorado-based EMS providers. Western has an operation in Westminster, CO, and Plasmon's U.S. headquarters are located in Broomfield, CO….**Northrop Grumman** has awarded **LaBarge** (St. Louis, MO) a $12-million contract to provide electronic subsystems for an airborne surveillance radar system used military aircraft with airborne early warning and control (AEW&C) platforms. Secondly, LaBarge has secured a $1.6-million contract from **Lockheed Martin's** Radar Systems line of business to supply PCB assemblies for a new mobile, multi-mission radar system capable of medium-range air surveillance. Under a third new contract, LaBarge will produce complex cable assemblies for the Rolling Airframe Missile launcher, part of a ship-defense system. The multiyear contract from **Raytheon Missile Systems** has an anticipated value of $4.5 million through 2011….**JBM Electronics** (St. Louis, MO) has outsourced manufacturing of a compact wireless router to EMS provider **Bantam Electronics** (Austin, TX).

*Deal done…*Flextronics has completed its acquisition of **CEAG's FRIWO Mobile Power** (FMP) business unit, which makes power supplies and chargers for mobile telephones (Feb., p. 6). Now part of Flextronics' power supply division, the acquisition adds about 18,000 employees and 700,000 ft^2 of manufacturing capacity in China. The purchase price is around 56 million euros, subject to adjustment based on the FMP unit's closing balance sheet.

*Some company news…***Foxconn Technology Group**, anchored by Hon Hai Precision Industry, has invested in **Infinia** (Kennewick, WA), developer of a system that converts concentrated solar energy into electricity. Acting as lead investor, Foxconn along with a second party provided $7 million of additional financing. Foxconn will also work with Infinia, according to a statement from company. "We believe Infinia's Solar System product represents the future of solar energy technology," said Dr. Chen, Foxconn's chief technology officer. "The ability to mass manufacture such an efficient solar product for commercial development will change the way global power companies and solar developers implement energy solutions." The Infinia system couples a free-piston Stirling engine with a dish-style solar concentrator to produce 3 kW of AC power....Top 50 EMS provider **TT electronics** (Weybridge, UK) has formed an integrated manufacturing services division, combining five EMS businesses under a single umbrella. They are located in Perry, OH, USA; Rogerstone and Aylesbury, UK; Suzhou City, China; and Kuantan, Malaysia. This move creates the world's largest UK-owned EMS organization. The new division offers 460,000 ft^2 of manufacturing resources with over 1,500 staff….In 2005, EMS provider **Micro Dynamics** (Eden Prairie, MN) merged with **Logic Product Development** (Minneapolis, MN), a product development firm. Now the combined company is offering all of its services under the name **Logic**. Its EMS business unit is now called **Logic Electronic Manufacturing Services**. Three other units provide design services, embedded product solutions and industrial design respectively.

*People on the move…*Flextronics CFO Thomas Smach is resigning from his position effective June 30. According to a statement from the company, he is leaving to pursue other interests outside the company. Paul Read, who most recently served as executive VP of finance for Flextronics worldwide operations, will become the new CFO. Read, who has spent 13 years at Flextronics, was the lead executive responsible for the integration of the **Solectron** acquisition….LaBarge has appointed Doug Shifflett as director of corporate quality, a new position. Shifflett, who has 20 years of quality management experience in electronics manufacturing, joins LaBarge from **Applied Materials**, where he most recently served as senior supplier quality engineering manager.

ODM a Better Model?

The ODM sector's growth in recent years has been a bitter pill to swallow for some in the EMS industry. If the EMS business had a good year, the ODM sector would put up even better growth, sometimes much better. In our cover story this month, ODMs in our Top 25 outsourcing providers collectively outgrew EMS providers in the group by 5.9 percentage points last year. Although the ODM model has a history of generating higher growth than shown by the EMS business, and at least one forecasting firm now predicts that this advantage will continue, *MMI* believes that risk will increase in the ODM approach going forward. To boil this ODM risk down to a few words, it's a lack of diversification.

But, say skeptics, ODMs have become successful, not despite, but because of their focus on a few product areas. As the outsourcing world knows, ODMs control something like 90% of the world's notebook production. By far the largest contributor to ODM sector growth has been notebook business. Still, now that ODMs have achieved nearly full penetration of that market, they must rely on end market growth to propel their notebook revenue. So far, this dependence has not been a drawback. World demand for notebooks has been robust as a shift from desktop to laptop computing has taken place. According to market research firm **IDC**, shipments of portable computers increased by 33.8% in 2007.

However, IDC foresees declining annual growth rates for portables. In 2010, for example, shipment growth will drop below 20% to 16.1%, predicts IDC, and that figure does not necessarily equate to notebook sales growth, which could be lower depending on ASPs. At the same time, notebook manufacturers will fight for more share of the low-cost consumer segment, likely putting more pricing pressure on their ODM suppliers. Notebook OEMs have been known to switch suppliers for the next model, and ODMs are well aware of this. Notebook business is not what an EMS provider would call "sticky."

What's more, notebook ODMs will face new competition. **Flextronics** is entering the notebook ODM arena through its acquisition of **Arima** assets. In addition, published reports say **Hon Hai Precision Industry** (aka Foxconn) will throw its hat into the notebook ring or has already done so. Lower projected growth rates, the likelihood of more pricing pressure, the possibility of customer defection, and new competition are all risk factors to ODMs depending on notebook business.

Diversification also applies to manufacturing. ODMs typically rely on an Asia-centric manufacturing network, whereas global EMS providers offer low-cost manufacturing but with a more regional approach, which is less risky when carbon emissions and rising logistics costs are factored in.

Lack of diversification has been an asset for ODMs; in the future it could turn into a liability.

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