Thailand PC market : Present and Future

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The information provided in this report is the result of a continuos effort by IDC to research the PC market in the region. Both primary as well as secondary sources of information were tapped on a frequent basis during year and the first quarter of 1995 to generate this report.

Terms and Definitions

Personal Computers are general purpose, single user, commodity microprocessor based machines that are capable of being attached to peripheral devices. PCs are configured systems that can be programmed in any high-level language. Board level products are excluded from the definition of PCs. For microprocessor-based systems that can support more than one user, IDC based the distinction between small-scale system and PC on the system's most common configuration. If a system is designed as a server or is multiprocessor-base, it is calcified as a small system. In this study IDC has considered three form factors under PCs-desktops, PC servers and portables.

Form factors

- *Desktops* are commodity chip-based systems designed ground up as desktops. They typically run DOS and Windows operating systems, and cost less than US$ 7,000. The price can go up in the case of exceptionally high-end configurations.

- *Portable* computers can be easily distinguished by their physical dimensions and weight. Notebook computers, sub-notebooks, and laptops are considered as portable computers. Portables are battery powered and can be plugged in to the AC socket through and adapter. They come with rechargeable battery packs, or batteries that can be trickle charged. Other than that they can be configured just like the desktops.

- *PC Servers* are defined as commodity chip-based systems which are designed from the ground up as servers such as Compaq's Prosignia series, Dell's Power Edge Series, HP's NetServer, and IBM's PS/2 Server. This does not include systems which are normally used as desktop PCs, but are being used as servers by organizations. Also excluded are multiprocessor servers which are considered by IDC under the small-scale systems category. PC servers usually run Windows, Windows NT, and PC NOS, but not Unix

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Unit shipments are new PCs delivered for remuneration by a vendor to end users, either directly, or through OEMs and channel partners, in a given calendar year. Intra-channel shipments are not considered to avoid double counting.

Value of shipments is the average price paid initially by the end-user for new systems shipped. It should also be kept in mind that the value of shipments does not equate directly to manufacturer's revenues. The values recorded in different local currencies are converted to the US dollar. The exchange rate (s) used to arrive at the dollar values of PC shipments in this report were middle rates recorded in the calendar year 1995. The exchange rate (s) is mentioned in the section dealing with economic outlook earlier in the report.

Methodology

The following section outlines the major techniques used for IDC's shipment, installed base, and forecast work regarding PCs. The actual methodology employed may vary between countries. All research in this report is based on the latest available information.

Vendor Interviews

In-depth interviews with suppliers are a key part of the research process. All know hardware manufacturers are contacted and asked for input on current-year shipments and installed bases.

Over the years, IDC has built up excellent relationships with most of the major suppliers, and the input we get is generally substantial. Normally, some level of sales activity is provided, and often complete records are made available.

In addition, throughout the year IDC regularly meets with many of the major suppliers, and during such exchanges our data is often used and examined.

A second source of supplier information comes from the peripheral and software communities. These companies are also interviewed as part of our research in those areas, and since many of these companies are suppliers to system manufacturers, they often have a very good sense of system shipment rates, and can be a valuable source of market data.

Public Information

Whether through the press, annual reports, speeches, product announcements, or other industry forums, a great deal of market data makes its way into the public domain. In such cases, once a figure is leaked, be it intentionally or not, vendors tend to feel obligated to verify the number as well as clear up any definition questions. This informal process often is of significant help in certain data-validation efforts.

In sum, our historical shipment and installed base work is a multifaceted approach designed to create as much triangulation as possible We believe that such processes are essentially self-reinforcing; i.e., vendor supplied data helps verify database completion ratios, and financial information helps verify vendor claims.

Thailand PC Market in 1995

Thailand PC market in 1995 amounted to 269,994 units valued at US$ 568.14 million. It comprised of 90.27 % desktop, 7.30 % portable and 2.43 % PC server in terms of unit shipments, with the value of 85.71 %, 8.22% and 6.07 %, respectively. A total of 269,994 PCs sold in 1995 was a 42.33% increase from the 189,698 PCs sold in 1994. The total value of shipments was US$ 568.14 million or increased 62.66 % from US$ 349.27 million of 1994

The overall market size increased from the previous year because many vendors cut their prices. The price drop included Pentium-based PCs which positioned as entry-level systems. Computer companies offered special promotions on PCs. For example, Busicom Computer offered customers a 24 month installment plan on Compaq and Packard Bell PCs as well as TwinHead notebook computer. Modernform OA also promoted IBM Aptiva with free 26 CD titles. The end-users considered warranty, support and product quality when they bought computer products.

The top five vendors accounted for 50.62 % of total market by unit shipments. In terms of value shipments, they made up 50.88 %. They are Compaq, Acer, IBM, Laser, Digital and Mitac, respectively.

Compaq's unit shipments comprised of 89.25% desktops, 6.98% portable and 3.77% PC servers. The breakup between these form factors in terms of value was 81.76%, 7.35%, and 10.89%, respectively.

Acer's unit shipments comprised of 98.40% desktops, 0.89% portable and 0.71% PC servers. The breakup between these form factors in terms of value was 97.11%, 0.65%, and 0.94%, respectively.

IBM's unit shipments comprised of 90.66% desktops, 5.43% portable and 3.91% PC servers. The breakup between these form factors in terms of value was 82.61%, 8.23%, and 9.16%, respectively.

Laser's unit shipments comprised of 98.78% desktops and 1.22% portable. The breakup between these form factors in terms of value was 98.70% and 1.30%, respectively.

Digital's unit shipments comprised of 92.68 % desktops, 1.45% portable and 5.86 % PC servers. The breakup between these form factors in terms of value was 88.46%, 1.78%, and 9.76%, respectively.

Mitac's unit shipments comprised of 88.03% desktops, 2.67% portable and 0.70% PC servers. The breakup between these form factors in terms of value was 86.72 %, 12.10% and 1.18%, respectively.

Desktop PC Market

Highlight

Thailand Desktop PC Market for 1995 stood at 243,712 units and a value of US$ 486.95 million. The market grew 90.27 % in units shipments and 85.71 % in value over the previous year. The top five vendors accounted for 57.41 % of the unit market share and 53.12 % in terms of value. Most of the top five vendors shipped desktop systems with Intel processors followed by AMD and Cyrix.

The top vendors were Compaq, Acer and IBM representing 36% of unit and 38% of value shipments in 1995 for Desktop PC Market.

Portable PC Market

Highlight

The portable PC market accounted for 19,717 units with a value of US$ 46.69 million. It shared 7.30 % and 8.22 % in units and value shipments in 1995. The portable PC market grew 47.69% in units and 31.15 % in value shipments in the total PC market. This growth is quite high compared with less than 20 % in 1994. The major reason is the variety of products broadened by the release of many products in this category, such as those of Toshiba, Compaq and Hewlett-Packard. Many vendors tried to come into the portable PC market such as Digital, TwinHead and Mitac.

As a result of advances in communication, display, semiconductor, storage, and battery technology, the utility of portable computer is quickly expanding and attracting a wider variety of customers. The portable arena is also benefiting from the competitiveness and advances in workgroup, remote-access, electronic-mail software, on-line services and networks.

The top vendors were Toshiba, Compaq and NEC representing 33% of unit and 38% of value shipments in 1995 for Portable PC Market.

PC Servers Market

Highlight

Thailand's PC Server market last year comprised of 6,565 units and was worth US$ 34.50 million. It accounted for 2.43% and 6.07 % in unit and value shipments. Value shipments grew by more than 120 %. The PC Server market was the fastest growing segment of the PC market because many vendors focused on this market such as Compaq, IBM and Digital. This results from increased price performance and downsizing which lead to the introduction of new more powerful, faster and cheaper PCs running on Pentium base. This helps PCs capture an increasing share from the workstation server market. All shipments by PC Server vendors were based on Intel processor.

PC Servers, the top vendors were Compaq, IBM and Digital representing 35% of unit and 57% of value shipments in 1995.

Market Forecast

PC Market Forecast

- The CAGR is 26.47% in unit shipments and 24.44% in value shipments.
- Unit growth rate will reach its highest point in 1996 at 30.78 percent. In the next few years the growth rate of unit shipments will diminish slightly.
- The value growth rate will decrease throughout the next five years.

IDC expects a rapid move to high-end PCs across the forecast period, 1996-2000. Models will contain high-end processors such as the Pentium Pro and Power PC because of the decreased price of high-end processor, the booming of the Internet and multimedia, as well as the widespread popularity of PC LANs.

Table 1 Thailand PC Units and Value Shipments Market Forecast, 1995-2000

	Unit Shipments		Value Shipments (US$M)	
	Units	% change	Value	% change
1995	269,994		568.14	
1996	353,092	30.78	740.07	30.26
1997	459,490	30.13	956.05	29.18
1998	583,140	26.91	1,190.17	24.49
1999	723,375	24.05	1,432.50	20.36
2000	873,480	20.75	1,695.52	18.36
CAGR	26.47%		24.44%	

Desktop Market Forecast

- The unit growth rate of desktop market will decline throughout the next five years. The growth rate will reach the highest in 1996 at 30.14 percent.

- The value growth rate will decline slightly each year. The vendors will add features and solution to increase the profit margin.

- The CAGR in unit shipments of desktop is 25.54 percent. The value CAGR is 22.95 percent.

- IDC expects that there are continuing growth in this form factors due to the penetration of desktop PCs into the home for education and entertainment, which is the result of the popularity in the Internet and multimedia.

Table 2 Thailand Desktop PC Units and Value Shipments Market Forecast, 1995-2000

	Unit Shipments		Value Shipments (US$M)	
	Units	% change	Value	% change
1995	243,712		486.95	
1996	317,169	30.14	631.17	29.62
1997	408,000	28.64	795.60	26.05
1998	514,450	26.09	977.46	22.86
1999	634,200	23.28	1,166.93	19.38
2000	759,980	19.83	1,367.96	17.23
CAGR	25.54%		22.95%	

Portable Market Forecast

- The unit growth rate for portables in Thailand will follow much the same trend as the other form factors in this market. The growth rate of unit shipments will decline throughout the next five years, but will reach its peak in 1996 at 35.42 percent.

- Value growth rate will endure fluctuating market growth percentages with the highest growth occurring during 1996 with 31.53 percent.

- The CAGR is 30.87 percent in unit shipment terms and 27.52 percent in terms of value shipments in Thailand.

- The portable market are expected to grow faster than the desktop PC market because the portable continue to become lighter, slimmer, more versatile, and more attractive to executive and business users. In addition, the mobile computing and digital wireless communications will continue to grow because of the chronic Thailand traffic and the need of on-time information.

Table 3 Thailand Portable PC Units and Value Shipments Market Forecast, 1995-2000

	Unit Shipments		Value Shipments (US$M)	
	Units	% change	Value	% change
1995	19,717		46.69	
1996	26,700	35.42	61.41	31.53
1997	35,690	33.67	80.66	31.35
1998	46,690	30.82	102.72	27.35
1999	60,175	28.88	126.37	23.02
2000	75,700	25.80	157.46	24.60
CAGR	30.87%		27.52%	

PC Server Market Forecast

- The CAGR in unit terms of PC Server is 41.92 percent and 37.59 percent in terms of value.

- In 1996, the growth rate in unit shipments is 40.49 percent and 37.68 percent in terms of value shipments in Thailand. The growth rate will be the highest in 1997 with 71.31 percent unit shipments or 67.98 percent value shipments in the same year because major vendors such as Compaq, Acer, IBM and Digital try to penetrate this segment. They will promote their PC server products heavily. Many organizations want high performance PCs to collect data thus they can efficiently compete with other companies in this globalization edge. In addition, the performance of PC Server will continue to increase and be able to powerfully compete with workstations.

- IDC expects this market is still to grow rapidly due to the growth of PC LANs and the increase of PC server price performance. The PC Server will use advanced multitasking operating systems such as WindowNT, Netware and OS/2.

Table 4 Thailand PC Server Units and Value Shipments Market Forecast, 1995-2000

	Unit Shipments		Value Shipments (US$M)	
	Units	% change	Value	% change
1995	6,565		34.50	
1996	9,223	40.49	47.50	37.68
1997	15,800	71.31	79.79	67.98
1998	22,000	39.24	110.00	37.86
1999	29,000	31.82	139.20	26.55
2000	37,800	30.34	170.10	22.20
CAGR	41.92%		37.59%	

Market Forecast by Processor

- Intel-based PCs are still popular in Thailand PC Market.

- In 1995, 80486-based became the accepted entry level for many organization. Nevertheless, the retarding growth of 80486-based will be seen in 1996. The 80486-based is expected to be progressively replaced by the Pentium-based.

- The volume of Pentium-based has increased from the end of 1995 because its price has dropped. Pentium-based PCs become more demanded in order to support to the operation systems, OS/2 Warp and Windows 95 and to respond to the booming multimedia and Internet applications. In addition, many major vendors support Pentium-based processor.

- Pentium Pro is expected to be employed for compute-intensive client/server, workgroup computing and network multimedia applications.

- Motorola 68040-based PCs will remain important for Apple. However, Apple started to move to Power PC processor in 1995. Pricing, particularly for the entry-level Macintoshes which are expected to be sold in consumer channels, will be an important determinant of the total volume of Motorola-based PCs to be shipped.

- IDC expects that higher processor models such as Pentium will dominate the PC market. Presently, it is the adaptive period where the new technology is entering and being developed to suit users.