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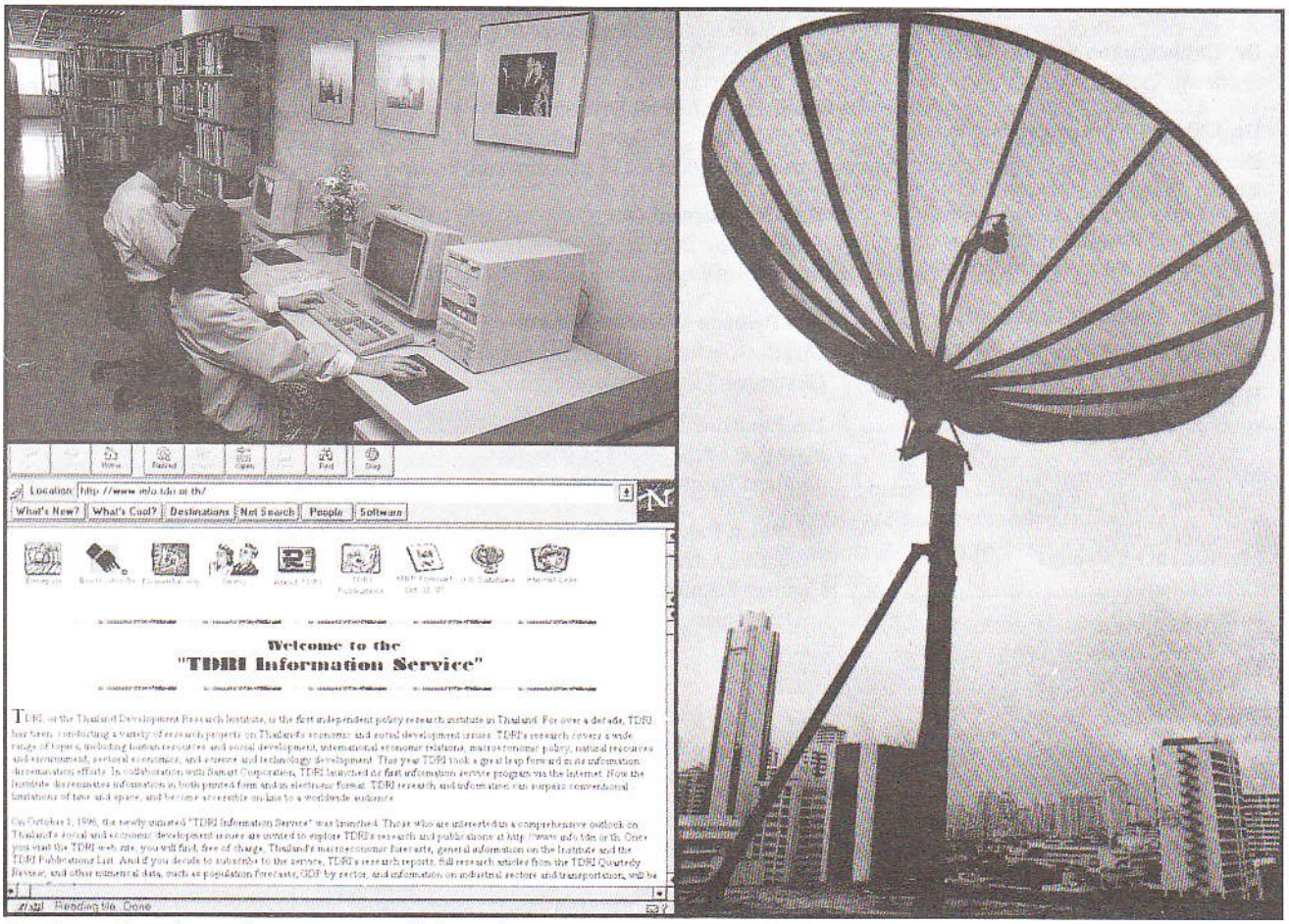

In the wake of rapid expansion of the information sector worldwide, what are the growth opportunities of Thailand's major telecommunication services? (See related article on page 3).

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Telecommunications: Future Growth Opportunities – Promising Areas of Expansion in Thailand*

Sumeth Vongpanitlerd**

Under normal circumstances, the task of predicting what lies ahead in telecommunications has never been an easy one. N-ISDN is one good example. At this time when the pace of technology and market development worldwide has never been so furious, allied with the current economic uncertainty, the task is made doubly difficult.

This paper shall attempt to present an analysis of likely growth opportunities in a number of major telecom services, namely fixed telephone lines, cellular phones, long distance and international traffic, cable television, as well as data communications, especially the internet. In order to lay the groundwork for the above analysis, a brief account of some important trends and implications in terms of recent technology advances and developments in the Thai market will be given first.

SETTING THE SCENE

In the foreseeable future, technology and deregulation will continue to drive the development of the telecommunications market worldwide. Thailand is no exception.

The Technology Factor

On the technological front, the twin pillars of changes—*digitization* and *miniaturization*—continue to provide the main driving force for rapid advancement in telecommunications and the computer industry.

Characteristics of the *miniaturization trend* are an *increase in capacity, shrinkage in size, reduction in costs*, and *enhancement in capability and performance*. This trend is most visible in the field of *microelectronics* in the form of *microchip* or *integrated circuits* (IC) that replace hundreds of millions of individual electronic components. The trend can also be seen in the development of *optical fibers*, which will become the *broadband transmission highway* (information super-highway) of the future, replacing metal-cable networks, or even threatening the satellite technology of today.

While the *shift from analog to digital technology* (or digitization) of telecommunications systems—ranging from customer premise equipment (CPE) to transmission and switching—not only exploits the profound individual benefits offered by the advances in microelectronics and optical fibers technology, above all it allows the integration of computer systems into telecommunications networks with consequences never before dreamed of.

Indeed, through digitization and the injection of intelligence into telecommunications networks and CPE, the networks have been transformed beyond recognition, with rapid and substantial improvement in the capability, functionality, quality, efficiency, and variety of telecommunications and information services. This results in increasingly lower prices, better quality and services to customers, higher and higher demand and usage. Since the beginning of the 1990s, this has caused unmatched overall growth of the world's information sector at about twice the world GDP growth rate.

The Regulatory and Business Paradigm Shift

These shifts have come about not only through rapid advances in technology, but also because the cost of implementing a given function in hardware (equipment) has fallen. Simultaneously, the sophistication and capability available for a given unit cost has increased greatly, culminating in many well known trends, with more in the pipeline. These include:

- The tearing down of barriers, physical and non-physical,
- The breaking down of the natural monopoly argument,

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- The "Death of Distance," and soon, the "Death of the Minute,"
- The demand of consumers, particularly large global as well as local business users, for deregulation and competition,
- The privatization of traditional state-owned Public Telecom Operators (PTOs),
- The blurring of services and markets,
- The emergence of the internet and e-commerce,
- The rapid rise and growth in data over voice, and finally,
- The convergence of technology and markets into one single network of networks in the 21st century.

On the other hand, driven by fast-paced technology development, deregulation will undoubtedly open up vast growth potential and opportunities for both incumbent and new entrants. At the same time, changes create an about-turn from a natural monopoly to a new business paradigm in which:

- There is an increasing separation of embedded intelligence from the switch and decentralizing of network and operation intelligence,
- There will be market fragmentation into network (infrastructure) wholesale and retail segments, rather than on the traditional basis of products or services segmentation,
- Customer needs rather than network capabilities will drive applications and services,
- New niches will open for large, medium and even small-sized operators and service providers,
- Networks, better able to handle data traffic, not voice, will be the key to exploiting business growth,
- There will be greater technology risks for network operators.

The paradigm shift therefore poses as many threats as it presents growth opportunities to PTOs, making market reform and the necessary transformation of existing PTOs in many countries, including Thailand, a very difficult task. *And obviously, any attempt to predict the future of a sector such as this one, is a very risky proposition.*

The problem is bound to be compounded by the uncertainties triggered by the "Tomyam Kung Disease" (economic crisis) beginning in July 1997, which quickly spread to many other emerging economies around the world, and which has no end in sight.

THE BIG PICTURE IN THAILAND

Market Structure

Legally, the telecom market in Thailand remains a monopoly in which there is segmentation in basic telephony between two state-owned enterprises (SOEs). The Telephone Organization of Thailand (TOT) is the sole operator for the domestic market (including neighboring countries with common borders), while the Communications Authority of Thailand (CAT) has the right to all international services, including internet. Both, however, have the right to provide many value-added services (so-called related business segments), such as paging, cellular, and very small aperture terminals (VSATs). The right to satellite orbits and service remains with the Ministry of Transport and Communications (MOTC), which also oversees frequency management and allocation through the Post and Telegraph Department (PTD).

Saddled with inadequate human and financial resources, in the mid 1980s, the monopolies could not provide adequate basic fixed-line services, with waiting lists of up to eight years on average to have a phone line installed. The Government consequently saw fit to relax its tight control and private sector participation was allowed in the late 1980s through a build-transfer-operate (BTO) scheme of privatization in an effort to circumvent the lengthy and complicated process of revising a number of related laws.

Role of the Private Sector

The BTO move opened a floodgate of private sector investments, resulting in a dramatic expansion in telecom infrastructure and services never before seen. Some 30 concessions were given, mostly by the TOT and the CAT, as well as the PTD and MOTC, to a number of local large companies. Many formed joint ventures with foreign telecom companies, such as NTT, Nynex and Singapore Telecom.

This important change of policy largely removed the pressure to meet the country's needs for fixed and mobile telephones as it underwent a considerable industrial structural change from an agricultural-based economy toward a manufacturing and service-based economy in the mid 1980s. Rightly or wrongly, the country was able to achieve double-digit GDP growth rates over three consecutive years at the turn of the decade, and registered an average of about 8 percent growth up to 1996.

Under the TOT's concessions to TelecomAsia Co., Ltd. (TA) and Thai Telephone and Telecommunication Co., Ltd. (TT&T) to install 3 million phone lines beginning in 1993—later increased to 4.1 million lines—the number of lines almost tripled in six years. From about 2.5 million lines or a teledensity of 4.3 per 100 population in 1993, the figure jumped to 7.1 million lines, representing the current teledensity of 11.6 per 100 population.

The rise in the supply of cellular phones is even more dramatic. With the service introduction in 1986 by the TOT and in 1987 by the CAT, there were a mere 100,000 subscribers by 1989. But with the entry of Advanced Info Service Co., Ltd. (AIS) in 1990, and Total Access Communications Co., Ltd. in 1991, the number of cellular phone subscribers has shot up to some 2.2 millions at present, a 20-fold rise in under a decade, representing a penetration rate of about 3.67 per 100 population.

Table 1 lists major services and infrastructure providers through BTO arrangement by the private sector in Thailand, while Table 2 provides some important country and market indicators.

Table 1 Major Private Sector Investments in the Thai Telecom Market

Company	Service	Remarks
Acumen	VSAT satellite	Data communication provider
Advance Info Services	Cellular	Operator NMT 900, GSM 900
AIS	Cardphone	Public cardphone operator
Bangkok Elec. Appliance	Paging (Worldpage)	Paging service provider
Comlink	Fiber optic cable	Along railway tracks
Compunet	VSAT satellite	Data communication provider
CS Communication (CSC)	Mobile satellite service	51:49 joint venture between Shinawatra Satellite and CAT
Hutchison Telecom	Paging (Pagephone)	Paging service provider
International Engineering	Cellular	Cellular mobile service provider (1800 digital)
Jasmine International	Submarine fiber optic	Transmission operator
Lenso Paging	Paging	Paging service provider
Line Technology	Videotex	Subsidiary of TA
Matrix	Paging (Easycall)	Paging service provider
Pacific Telesis	Paging (Packlink, Percom)	Paging service provider
Radiophone	Trunk mobile	Specific user group
Samart	VSAT cellular	Data communication provider
Shinawatra Computer	CT2 (Fonepoint), data communication	Cordless and data communication provider
Shinawatra Data (Datanet)	Data communication	Data communication provider
Shinawatra Paging	Paging (Phonelink)	Singapore Telecom Stake 20%
Shinawatra Satellite	Satellite	Operator of Thaicom satellite
TelecomAsia (TA)	Mainline concession	Nynex 13% stake, 2.6 million lines concession in Bangkok
Thai Satellite Corp.	Iridium gateway operator in Thailand	Ucom and Motorola group
Thai Telephone and Telecommunication (TT&T)	Mainline concession	NTT 18% stake, 1.5 million lines concession in provinces
Thaisky Com	VSAT satellite	Data communication provider
Total Access Communications	Cellular	Operator of AMP 800 B, Worldphone 800 and 1800 digital
Universal Cable TV Network (UTV)	Cable television	Joint venture involves the Mass Communication Organization of Thailand, TOT and Telecom Holding Co.

Table 2 Some Basic Country and Market Indicators for Thailand

	1991	1992	1993	1994	1995	1996	1997
Population (m)	56.60	57.30	58.00	58.70	59.40	60.00	60.60
No. of Main Lines (m)	1.87	2.17	2.65	3.50	4.38	6.64	6.90
Main Line Penetration (%)	3.30	3.80	4.60	6.00	7.40	11.10	11.40
% digitization	70	75	79	83	87	89	NA
No. of Lines Connected (m)	1.55	1.79	2.21	2.75	3.48	4.20	4.83
Waiting List for Main Lines	1.35	1.64	1.89	1.62	1.16	0.85	0.72
No. of Cellular Subscribers (m)	0.14	0.25	0.44	0.81	1.10	1.80	2.20
Cellular Penetration (%)	0.30	0.40	0.80	1.40	1.90	3.00	3.67

Note: NA = not available.

Sources: ITU, TOT, TDRI.

Sector Reform in the Making

The Thai Government has set in motion a master plan and timetables to reform the Thai telecom sector. There is no denying that the main driving force is the commitment made to the World Trade Organization (WTO) to open the Thai market fully by the year 2006—a move triggered by and a consequence of the globalization phenomenon sweeping the world.

The current Telecom Master Plan envisages the following important changes and goals:

- By 1 October 1999, the Thai telecom market is to be open to local competition. Licenses will be issued to the TOT, the CAT and a number of new carriers with majority Thai shareholders.
- An independent and self-financing regulatory authority will be responsible for the administration of the New Telecommunication Act, licensing, codes of practice, interconnection issues, and consumer interest protection, etc.
- The conversion of concession agreements into equity, debt or an asset transfer is to be completed by 31 March 1999.
- The corporatization is set for no later than January 1999 and the privatization of the TOT and the CAT through a process of placement to (most likely foreign) strategic partners with up to 25 percent share-holding by April 1999, a private placement by October 1999, and floating of shares in the local and foreign stock markets at a later suitable date. Eventually, the government will become a minority shareholder in the privatized TOT and CAT.
- Finally, the full liberalization of the telecom market where all qualifiers, local and foreign, are allowed to enter and exit the market at will on an equal basis, will commence on 1 January 2006.

It is expected that *competition at all levels,* from *network, resale,* to *retail,* if properly promoted and efficiently regulated, will surely benefit consumers of telecommunication services where there will be *greater variety* of product offerings, *choice* of providers, *better product* and *service quality*, and *lower prices*.

All of this, if realized as planned, will expand the market in ways never before possible. Simply put, there will be no shortage of *growth opportunities in all areas for current and future network and service operators*.

IS THERE LIFE AFTER THE EXPLOSIVE FIXED-LINES GROWTH?

Even before the currency crisis finally surfaced in mid-1997, and which triggered the economic downturn across much of Asia, trouble signs were evident in the financial states of both TT&T and TA. The crisis just made matters worse.

With half TA's lines (about 1.3 million) unsold in the Bangkok Metropolitan Area, and about one-third of the 1.5 million lines TT&T has built in major town centers across the country waiting to be connected, it is only natural to ask if Thailand is facing a surplus in fixed-line telephones.

Certainly, it would take at least several years to connect the above-mentioned excess capacity of 2 million lines. But that does not mean there is an overall excess of fixed-line supply over demand for the entire country. Far from it, there is currently an unmet demand for fixed lines of 726,000 lines, of which more than 681,000 lines are from residents in provincial areas, according to the current waiting list (Table 3). The TOT is busy fulfilling this demand through its 800,000 million line infrastructure building program.

Table 3 Waiting List for Fixed-Line Service

Year	Bangkok	The Rest of The Country	The Whole Country
1986	298,318	54,910	353,228
1987	279,960	38,439	318,419
1988	346,219	56,857	403,076
1989	477,941	107,559	585,500
1990	800,062	216,566	1,016,628
1991	1,028,212	315,994	1,344,206
1992	1,189,374	450,199	1,639,573
1993	1,293,297	597,639	1,890,956
1994	963,988	651,281	1,615,269
1995	474,780	685,849	1,160,629
1996	220,516	633,821	854,337
1997	43,879	681,549	725,428

Source: TOT.

It is obvious that Thailand has the rare distinction of having a substantial excess and a considerable shortage of fixed-line supply simultaneously, all because of wrong business decisions made by private investors, and the failure of policy and regulatory controls on the part of the policy makers and SOEs concerned.

While the waiting list of Table 3 shows only an unmet demand of 44,000 lines in Bangkok, and 682,000 lines for the rest of the country, the actual unmet demand is anybody's guess, but certainly it is much more. The reason is clear. The existing telephone network (except rural public phones) has yet to cover two-thirds of the country in area, and some 60 percent or more of the population is still without telephone services. The waiting list represents largely the demand for service within the area covered by the existing network.

According to the forecasts by the TOT (1998) and the Thailand Development Research Institute—TDRI (1997 prior to the economic meltdown) in Table 4, it is likely that the country will need to install between 5 to 7.5 million additional lines over the next eight years, the majority of which should come from the presently unserved provincial areas.

There are a number of reasons that lead to the belief that there are plenty of growth opportunities presented by much more additional fixed-line demand throughout Thailand.

The demand forecasts in Table 4 make use of traditional modeling techniques based on historical growth patterns linked to the economic and demographic data of a particular country. But in the face of likely immense changes following future market reforms, regulatory changes, and the great leap forward in technology advances in recent times, coupled with the unavoidable business paradigm change, there will certainly be great potential for additional telephone lines for both the incumbents and new entrants to exploit. Not least of which is the second-line market, in addition to the many first-time phone users, those seeking to access the internet, to surfing the World Wide Web, and to be part of the global e-commerce, a subject to be touched upon subsequently.

TALK WILL BE CHEAP AND PLENTIFUL

With the market liberalization toward the end of 1999, it can be expected that telephone calls, especially domestic long-distance and overseas calls, will become much cheaper and far more affordable in line with plunging cost trends around the world.

Currently, domestic long-distance call rates range from three to 18 baht a minute (day-rate), while international calls range from 30 baht a minute (to HK, Singapore), 37 baht a minute (to North America), to 42 baht a minute (to the UK, for example).

The telecom cost structure has undergone dramatic reductions in recent years. These cost reductions tend to be passed on to end users in countries where there is effective competition in the market. For example, while British Telecom's (BT) quality of service improved considerably between 1986-1993, there was an overall price reduction in real term of over 30 percent. Similarly, in Japan, domestic long-distance calls were reduced by 55 percent and international calls by 61 percent during 1985-1994. New Zealand experienced a reduction of 46 percent in long-distance calls during 1986-1993, and the US a reduction of 40 percent during 1984-1989.

Table 4 Demand Estimates for Fixed-Line Services in Thailand

TOT Projection	1998	1999	2000	2001	2002	2003	2004	2005	2006
BKK (m)									
- Normal Growth	4.59	5.00	5.42	5.83	6.30	6.78	7.25	7.73	8.20
- Revised Growth	3.21	3.46	3.73	4.02	4.33	4.66	5.05	5.43	5.81
The Rest of Country (m)									
- Normal Growth	3.93	4.48	5.09	5.78	6.51	7.30	8.13	9.03	10.00
- Revised Growth	3.47	3.96	4.50	5.11	5.75	6.43	7.14	7.91	8.75
The Whole Country (m)									
- Normal Growth	8.52	9.48	10.51	11.61	12.81	14.08	15.38	16.75	18.20
- Revised Growth	6.68	7.42	8.23	9.12	10.08	11.10	12.19	13.34	14.56
TDRI Projection									
BKK (m)									
- Normal Growth	3.25	3.50	3.76	4.05	4.35	4.67	5.03	5.40	5.80
The Rest of Country (m)									
- Normal Growth	4.43	4.78	5.16	5.55	5.99	6.44	6.93	7.47	8.04
The Whole Country (m)									
- Normal Growth	7.68	8.28	8.92	9.60	10.34	11.11	11.93	12.87	13.84

Sources: TOT (1998), TDRI (1997).

In 1996, AT&T announced a residential rate of 15 cents per minute irrespective of distance (flat-rate) within mainland USA. Earlier in 1998, Qwest set a rate of 6.5 cents a minute flat-rate charge. Other long-distance providers in the US are set to follow with even lower prices in the near future. Such is the awesome power of progress in technology and competition. With falling prices and shrinking profit margins, usage and market sizes, however, shoot up exponentially.

In Thailand, the use of domestic long-distance calls grew strongly in the first half of the 1990s, ranging from 20 percent to 35 percent despite comparatively high charging rates. The growth slowed down markedly in 1996 to 7.7 percent, and even suffered a negative growth of 1.4 percent in 1997, caused mainly by the economic crisis beginning in July of that year. However, there were other factors at play. It is undeniable that many calls were taken from fixed-line networks by cellular networks as the prices of handsets dropped. On top of that, in order to sign up new subscribers, cellular operators offered attractive calling plans with free minutes and/or hefty price reductions in a market where there already existed a distorted pricing structure in which long-distance rates charged by cellular phones are cheaper than fixed-line calls.

Thus, if one takes into account both fixed and mobile networks, the total growth in the numbers and minutes of long-distance calls should be much stronger, especially after the market opening expected in 1999, which promises to bring down fixed-call prices substantially in line with costs.

Likewise, outgoing international calls also show a strong though declining growth trend, due perhaps to competition from callbacks (which are bound to channel an unknown amount of calls from the CAT). For example, between 1990 and 1995, the number of outgoing calls grew with a compound annual growth rate (CAGR) of 21.3 percent from 25.5 to 66.94 million calls, while the minutes of calls increased 18.34 percent from 95.6 to 221.9 million minutes, according to the International Telecommunication Union (ITU). Future competition will definitely bring prices down and usage up, including reducing the revenue lost to overseas callback operators.

THE WIRELESS PHONE MARKET KEEPS MARCHING ON

If past experiences of the more matured wireless communications in other countries are any indication, it is almost certain that there will be even stronger growth in the combined cellular and personal communications service (PCS) market well into the next decade.

At the end of 1996, there were about 35 million wireless users in Europe, representing a 53 percent increase over 1995. Total penetration across Europe saw a 50 percent growth from 6 percent in 1995 to 9 percent in 1996, the highest penetration being among Scandinavians (between 25% to 30%), the UK and Italy (around 11.5%), the lowest being France (4.3%).

In the US at the end of 1996, there were some 45 million subscribers, up from about 36 million at the end of 1995, representing a 30 percent growth, and a penetration rate of about 16.5 percent in 1996. According to Goldman Sachs, penetration will reach 27 percent by 2000, and 33 percent by 2005 at a CAGR of over 14 percent.

Indeed, growth in subscribers worldwide in the 1990s has been remarkable, increasing from 11 million to more than 120 million between January 1991 and September 1996 (Table 7). It is believed that further significant growth potential in the worldwide wireless phone market will push total subscribers to some 312 million by 2000. Most of the growth will come from countries with very low penetration. Thailand is expected to be one of these.

Between 1991 and 1997, the Thai cellular market grew from 0.14 million to about 2.2 million at a CAGR of 58.3 percent. It stands above the global growth between 1990–1996 at 49.9 percent, but below Asia Pacific's 67.9 percent. Cellular penetration in Thailand rose from 0.3 per 100 population to 3.66 at the end of 1997.

Table 5 Number of Domestic Long-distance Calls (Fixed-line Service)

	1991	1992	1993	1994	1995	1996	1997
Million Calls (Fixed-line)	227.8	295.3	387.1	524.1	629.3	677.7	668.0
Growth Rate (%)	24.1	29.6	31.1	35.4	20.1	7.7	(1.4)

Source: TOT.

Table 6 Number of Outgoing International Calls (All Services)

	1991	1992	1993	1994	1995	1996	1997
Million Calls	32.24	40.21	47.40	56.61	66.94	76.66	86.07
Growth Rate (%)	26.4	24.7	17.9	19.4	18.3	14.5	12.3

Source: CAT.

Table 7 Global Cellular Growth 1990-1996

Subscribers (m)	1990	1991	1992	1993	1994	1995	1996E	CAGR (%)
W. Europe	3.43	4.31	5.97	8.77	14.20	22.86	35.00	47.3
Eastern & Central Europe	0.00	0.01	0.04	0.11	0.33	0.65	1.30	162.2
North America	5.87	8.35	11.93	17.34	24.87	36.72	45.00	40.4
Asia Pacific	1.65	2.68	4.23	5.68	9.88	21.43	37.00	67.9
Middle East & Africa	0.10	0.14	0.16	0.27	0.69	1.31	2.50	72.2
Latin America	0.16	0.22	0.39	1.08	2.16	3.38	6.00	83.0
Indian Sub-continent	0.00	0.01	0.01	0.02	0.03	0.11	0.55	132.3
Total	11.21	15.71	22.74	33.29	52.18	86.46	127.35	49.9

Note: E = estimate.

Sources: US Office of Telecommunications, ING Barings.

Assuming a conservative goal of reaching a penetration of 10 per 100 population by 2014, at a level for Singapore, New Zealand, or the UK in 1995, the forecast given in Table 8 shows that cellular subscribers in Thailand should grow from about 2.5 million in 1998 to about 6 million in 2008, representing a CAGR of just over 9 percent or a net gain in subscribers of some 350,000 a year.

However, an even higher growth should not be ruled out in the face of pending market liberalization and further introduction of new PCS services in the near future. For example, before the current crisis in Asia, ITU projected a CAGR of nearly 30 percent for Thailand between 1996 and 2000 when the total cellular market is expected to reach the 5 million mark.

CABLE TV AND DBS: AN UNCERTAIN FUTURE AHEAD

This is one area of the Thai telecom market where the prospect for growth is very much in doubt. The outcome will hinge ultimately on the quality and cost of programming, and of course, on prices of services.

Currently, the estimated total number of cable TV and direct broadcast satellite (DBS) subscribers lies between 300,000 to 350,000. Nearly all the market share belongs to the United Broadcasting Corporation PCL. (UBC), a recent merger of UTV, a cable operator covering Bangkok, and the International Broadcasting Corporation PCL. (IBC), a nationwide provider based on wireless multichannel multipoint distribution system (MMDS) and DBS technology.

The major barrier to market growth is the limitation of programming to suit local consumers. To begin with, only a meager number of Thais can read English, an even smaller number can understand spoken English.

In addition, distinctly different needs and cultural differences exist between the West and Thais in terms of entertainment, news, and educational programs. The costs of producing Thai programs tailored for local consumption would be prohibitively high based on current penetration of 0.5 per 100 population, compared with over 23 televisions per 100 in 1997.

In addition, growth prospects are not good, at least for some time, in view of the economic situation and the near market monopoly condition of today.

BRIGHT PROSPECTS FOR INTERNET AND E-COMMERCE WAITING FOR TAKE-OFF

Imagine that only less than 3 years ago, there were 3 million internet users worldwide. Today, the total has soared past 120 million, a 40-fold increase with no sign of a slow down. By 2000, it could surpass the one billion mark.

ITU has predicted that annual global telecom services will exceed the US$1 trillion mark by 2001, from about US$726 billion in 1997, or nearly twice the 1994 total of US$513 billion. The rapid rise in revenue came amid drastic falls in service charges brought about by technology changes and competition in more and more countries. It can only mean that traffic (or usage) must have increased even more rapidly. The shining star is of course, the rise in "data" traffic over "voice."

Many people have predicted world data traffic will exceed voice traffic soon. In the US, it is projected that US firms will spend some $150 billion in 2001 in telecom services (from $90 billion in 1997) of which 80 percent will be data traffic. And the driving force behind this is the need for businesses to slash their time to market in order to stay competitive.

Businesses around the world are beginning to see the need to wire themselves up electronically into one digital supply chain using the internet and intranet to link their customers, factories, warehouses, supplies vendors, and so on. In the present globalization context, *fast response time is now more important than low labor costs*. Many big account customers are not just demanding "just-in-time delivery," but "inventory-handling" as well.

Table 8 Demand Forecast for Cellular Subscribers in Thailand

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Million subscribers	2.48	2.83	3.22	3.61	45.02	4.41	4.78	5.14	5.45	5.72	5.92
CAGR (1998-2008)	9.1%										

Source: TOT (1998).

In short, firms around the globe must embrace e-commerce or risk going out of business.

For now, major use of e-commerce (hence major creators of data traffic) comes nearly exclusively from business to business or corporate transactions. But with anywhere, anytime communication that enables buyers to easily and quickly search for and compare products and prices, data traffic is bound to explode sooner or later.

Therefore the use of e-commerce will spread from corporate to consumers worldwide. For now, buying and selling over the internet is only beginning to be felt in:

- Personal finances, like banking, insurance, stock trading,
- Travelling, like ticketing, seat reservation, hotel booking,
- Shopping for products and services, like cars, books, music CDs, computer hardware and software, flowers, pizza etc.,
- Online auctions and exchanges for such things as energy supplies (gas and electricity), long-distance phone minutes, etc., in addition to a vast range of traditional items sold by auction houses.

Once Asia, including Thailand, is well on the road to recovery, there will surely be huge opportunities for networking equipment, software, consulting services, and of course, data communication services.

To meet future business and consumer needs in fast emerging e-commerce activities, not only will there be huge demand to access the internet and the World Wide Web, a lot of business opportunities will be created for telecom operators (both network and service providers) in the form of:

- Increase in traffic (usage) revenues,
- Second telephone lines for consumers,
- Additional lines for (800) free-phone services for business,
- Leased line for corporate intranet.

This can only be good news for all future telecom investors and service operators anywhere, Thailand included. Thus, there are many good reasons on account of future competition and the take off in data traffic growth to conclude that the expected growth in the fixed and mobile telephone demand forecast given earlier could well be far too conservative after all.

Women's Political Participation in Thailand *

Orapin Sopchokchai **

INTRODUCTION

Politics is an interplay of power. As conceptualized by กนลา (2535): "Politics refers to activities that stem from roles and behaviors of groups of individuals for the purpose of governing society... Exercise of political power is justified only if it is in the name of and for the public."

Accordingly, politicians and individuals with political power have roles and duties to justly allocate resources among different stakeholders in society. In a democratic society, political participation is not justified unless members of society are given equal opportunities to exercise their power in a process of resource allocation. As men and women have different needs and viewpoints, it is important that women take part in political processes to express their needs and protect the rights of women. Along these lines of thought, equal right to political participation of both genders is necessary.

The issue of women and politics has focused the world's attention since the United Nations declared 1975 as International Women's Year, and extended it to the Decade of Women in Development (1976-1985). Promotion of women's participation in social and political decision-making processes has since been incorporated in agendas of international discussions and agreement preparations. Studies on women's political participation have been conducted in various countries.

Existing studies yield similar results that the overall level of women's political participation remains low. Although women constitute half of the world's population and represent half of the eligible voters in democratic societies, only 12 percent and 6 percent of the female population sits in parliaments and holds Cabinet positions respectively. Women are found to be more politically active at the local and community level; nevertheless, women's political participation at this level lags behind that of men (United Nations Development Programme 1996).

In the case of Thailand, the level of women's political participation is lower than average percentages in both developed and developing countries, including many Asian nations. In Sweden, Norway and Finland, there are 40.4 percent, 39.4 percent and 33.5 percent of female members of parliament respectively. Female members of parliament in China, Malaysia and India account for 21 percent, 11.1 percent and 8 percent respectively. In comparison, in Thailand, only 5.6 percent of the members of parliament are female (United Nations Development Programme 1996). It is thus evident that encouragement and promotion for higher political participation of Thai women is much needed.

This article presents an overall picture of women's political participation in Thailand at both national and local levels. Brief historical and cultural backgrounds are provided, and the paper also depicts the present situation of women's political participation in Thailand.

BACKGROUND OF WOMEN'S POLITICAL PARTICIPATION IN THAI SOCIETY

Cultural Background

In ancient societies, physical strength primarily determined one's survival (บรรจบ 2540). For this reason, the stronger physical build of men[1] rendered the male gender higher positions, and societies normally placed higher value on men than women. This held true for both Eastern and Western societies. Under Roman Law, wives were possessions of husbands; they could be punished, divorced, sold or killed at the husband's will.

Chinese families preferred sons to daughters as they believed daughters would finally become possessions of the husband's family. This cultural belief has led to an inferior status and limited rights of Chinese women (กอบแก้ว 2531). Similarly, several beliefs and

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cultural practices in India have restricted women's rights. For instance, marriage dowries are provided by the bride's family. Accordingly, sons are preferred in Indian families. As in Chinese culture, married Indian women became possessions of the husband's family and had to serve the husband's family as a result of their inferior status.

The Indian and Chinese cultures have had a strong influence on attitudes and cultural beliefs in Southeast Asia. These two cultures, in particular Hindu and Brahman beliefs, have shaped Thai values and the status of women. In ancient Thai society, men were expected and accepted as heads of the family, while women's roles revolved around taking care of the household. Political roles were thus primarily confined to men, a practice which is believed to have stemmed from Brahman and Hindu influence (Juree 1993). As a consequence, Thai boys and girls received different training. In upper class families, sons received professional training, such as military and administration, while daughters were sent to be raised in the royal court to be trained in etiquette and the skills of "fine ladies," such as the arts of cooking, embroidery, and fruit carving. This strict separation of roles has led to different expectations, status, and, finally, values which society bestowed on the two genders.

Although history provides a number of examples where Thai women played significant political and administrative roles, legal evidence shows that Thai women were inferior to men in many ways. Thai laws in early times, for instance, stated that women were possessions of fathers and husbands, who could rightfully sell, pawn or give out wives and daughters at will. According to the law, Thai women had no right to manage property and wealth. In addition, in the case of divorce, men received two-thirds of the wealth, the women the remainder (Juree 1993; สำนักงานคณะกรรมการส่งเสริมและประสานงานสตรีแห่งชาติ ม.ป.ป.). Although these laws have mostly been amended since the beginning of the Chakri dynasty over 200 years ago, and equality between genders has developed, traces of inequality remain in the thinking and practices of society which in turn influence the role and status of Thai women nowadays.

Historical Background

A large number of beliefs in Thai culture have formed and reinforced different sets of values and expectations among men and women, which has resulted in social disparities between the genders. Unlike some other nations, such as the United States from 1848 to 1960, however, movements for women's rights in Thailand are rarely confrontational (สำนักงานคณะกรรมการส่งเสริมและประสานงานสตรีแห่งชาติ ม.ป.ป.). The status and social perception of women gradually altered as Western influences infiltrated Thai society. The period of change can be set at about the time of the reigns of King Rama IV and King Rama VI toward the second half of the 19th century and the beginning of the 20th century. In 1888, the first woman newspaper, "Naree Rom," was published and was followed by others. "Kulasatree," for instance, was the second newspaper for women. It presented current social and political events as well as articles of women's interests. "Sayam Yupadee" promoted women's interests in politics, including a series on this theme in 13 consecutive editions (กอบแก้ว 2531).

As earlier mentioned, prior to the exposure to Western influence, education of Thai girls, especially those born to upper class families, often took place in the inner court of the royal family. In 1901, the first girl's school was established. Twenty-six years later, the first Thai female freshmen enrolled at Chulalongkorn University, the first university in Thailand. With an open window to formal education, women had an opportunity to be professionally trained. Thailand started to witness upper class women with formal education become involved in social and philanthropic activities. The formation of women's groups in this manner crystallized as a form of women's political participation. Interaction with Western countries during this period also introduced concepts of democracy, equal rights and liberty to Thai society. These new concepts and philosophies served as a firm ground upon which notions of women's political participation grew. Society began to perceive the roles and status of women differently. Most importantly, women themselves started to conceptualize their roles and status with a different mindset.

Women's organizations and movements in their early stages have not been systematically documented. However, studies show many incidents whereby women's organizations took active roles in pressing for equal rights for men and women. A prime example is the equal right to vote and to register as an electoral candidate endorsed in Thailand's first Constitution in 1932. This was at a time when many other states remained dictatorial or curbed women's political rights. Throughout waves of general elections, military dictatorships, civilian administrations and people's revolutions, not one of the 16 Thai Constitutions has revoked these equal political rights (นงเยาว์ ม.ป.ป.).

Increased equality between men and women was attained in the 1974 Constitution, the result of pressure from a movement promoting the status of women. A provisional clause allowed two years for amendment of existing laws in conflict with the Constitution. Accordingly, many ministerial rules and regulations were changed to comply with the concept of equal rights of men and women. These included limiting female military officers to the rank of lieutenant-colonel (Ministry of Defense); barring female officials from the public attorney position (Ministry of Interior); prohibiting married female officials from applying for passports without the consent of their spouses, and barring female officials from becoming ambassadors (Ministry of Foreign Affairs). Pressure from many other women's organizations has led to amendments and the scrapping of unjust and discriminatory laws, as well as the enforcement of

laws which guarantee women's rights. Examples include the revocation of the law that allowed a husband's polygamy, the enforcement of monogamy in 1935, and the enforcement of the law entitling women to 90 days of maternity leave in 1993.

THE SITUATION TODAY

Thai women today enjoy higher economic, social and political status than their ancestors. Women's organizations continue their movements and activities to promote the status of women and to eradicate existing social and political inequalities between genders. Women's organizations today have expanded their network to cover not only women of urban and upper class families who receive formal education, but also women at the grassroots level and women of the same profession. These include the Female Farmers' Group, the Group of Northern Female Leaders, the Group of Women and Youth of Lampoon, and Regional Groups of Housewives. These organizations participate in movements to demand women's rights in such issues as labor oppression/injustice, labor welfare and safety at the workplace, poverty, and injustice in allocation of resources. Apart form focusing on women's issues, women's organizations have cooperated with other organizations in such matters as fights against social injustice, protests against dam construction and demands for agricultural land rights. Many women's issues are included in the demands of the Assembly of the Poor.

Women's organizations and their movements are considered a form of political participation. Political participation at this level includes other forms of gatherings, such as protests or rallies to voice political concerns. The most passive level of political participation takes the form of casting one's vote, while the most active refers to direct participation in political activities, e.g., working for political parties and holding political positions (นงเยาว์ ม.ป.ป.; ขัตติยา ม.ป.ป.). Women in Thailand are active in the first and second level of political participation: voting and organizing political movements. Table 1 shows the number of female and male voters in the most recent general election of November 17, 1996. The result shows a higher proportion of female to male voters, or 52.09 percent as opposed to 47.91 percent. With regard to direct political participation, despite more conducive political, social and legal contexts and the rising trend of women's participation, direct political participation by women remains low.

WOMEN'S DIRECT POLITICAL PARTICIPATION IN THAILAND

The limited scope of active and direct political participation on the part of Thai women can be attributed to cultural and historical reasons as discussed above. The separation of the roles and duties of men and women in society today, though less defined, has perpetuated the perception of politics being a man's affair. The social acceptance and appreciation of "fine" ladies in terms of their abilities in managing family matters and household chores are deeply rooted in the thinking of both Thai men and women. Apart from the fact that social expectations and acceptance leave women little room for active and direct political participation, it is women, believing that their duties lie primarily in the household, who leave "outside matters" in the care of men. Women's indifference to these "outside matters," including politics, has deprived women of continuing interests, knowledge and experience, and has led to their lack of participation in these areas.

This section discusses the situation of direct political participation of women in Thailand. This includes standing as electoral candidates and holding high-ranking administrative positions that allow them to take part in decision-making and policy formulating processes. Active women's political participation both at the national and local levels will be examined.

Women's Political Participation at the National Level

Women's political participation at the national level includes becoming members of parliament, senators, members of the Constitutional Drafting Assembly, and Cabinet members.

Female Members of Parliament

Although Thai women and men were granted equal rights to political participation in the first Constitution in 1932, it took 17 years for the first Thai women to enter the Parliament (นงเยาว์ ม.ป.ป.). On June 5, 1949, Mrs. Orapin Chaiyakan, was elected to the House of Representatives in a by-election to fill a vacancy after a general election in 1948. Female members of parliament have been elected in all general elections since 1952, but the number lags far behind that of male members. In the most recent general election on November 17, 1996, for instance, 371 men and 22 women, or 5.59 percent, were elected to Parliament. It is

Table 1 Female and Male Voters in the 1996 General Election

	Female Voters		Male Voters		Total
	Number	%	Number	%	
Eligible Voters	19,625,181	50.89	18,939,412	49.11	38,564,593
Voters	12,532,665	52.09	11,532,085	47.91	24,070,750

Source: Election Division, Department of Local Administration, Ministry of Interior.

noticeable that for the past two decades, however, that more women have shown an interest in becoming members of parliament. Female candidates accounted for approximately 10 percent of all candidates in the general elections in 1969, and from 1983 to 1996. Table 2 shows the number of male and female candidates and elected members of parliament in general elections from 1933 to 1996.

Female Senators

Prior to the present 1996 Constitution, which stipulates that senators must be elected, Thai senators were appointed from representatives of various fields. The present Senate remains appointed under the term of the previous constitution. The Senate was first introduced to Thailand in 1946. No record exists on the proportion of female to male senators between 1946 and 1974. However, it is documented that there were three female senators prior to 1974, namely Khunying Leka Apaiwongse (1949-1951), Khunying La-iad Pibulsonggram (1949-1951) and Khunying Raem Promrobol Boonyaprasob (1957). In 1974, nine women were appointed to the Senate.

Throughout Thailand's political history, it is evident that female senators have accounted for a small proportion of all senators, particularly from 1979 to 1992. In 1996, 21 women were appointed to the Senate. This number is by far the highest of all female senators present at one time, which can be said to be the result of pressure from women's groups. Still, at 8 percent, this number in 1996 ranks lower than the average percentage in all developing countries, according to the United Nations. Table 3 shows the number of male and female senators from 1975 to 1996.

Female Members of the Constitution Drafting Assembly

The Constitutional Drafting Assembly (CDA) was established during the Banharn Silpa-archa administration. The mission of this ad hoc assembly was to draft a constitution with input from a wide range of people aimed at benefiting society through political reform and by addressing social and political ills. These include vote-buying, the quality of members of parliament, the lack of efficient checks and balances, and issues of basic human rights. The CDA comprised 99 members. Seventy-six were elected provincial representatives, each member representing a province. The other 23 members were nominated from experts in different fields. Provincial representatives entered the CDA via indirect elections. The first round was organized nationwide on December 14, 1996. Candidates registered in the first round elected 10 representatives from each of their provinces. The second round of the election was conducted by the House of Representatives and the Senate, at which stage the 10 nominated representatives were screened down to one.

The CDA election was well-received by women in all provinces. As many as 6,744 women, or 34.9 percent of all candidates, enrolled in the first round of the election. Although a number of candidates in this

Table 2 Numbers of Male and Female Candidates and Members of Parliament from 1933 to 1996

No.	Election Date	Number of Candidates			Number of MPs		
		Total	Male	Female	Total	Male	Female
1	15 November 1933	na	na	na	78	na	na
2	7 November 1937	na	na	na	91	na	na
3	12 November 1938	na	na	na	91	na	na
4	6 January 1946	na	na	na	96	na	na
5	29 January 1948	na	na	na	99	na	na
6	26 February 1952	na	na	na	123	119	4
7	26 February 1957	966	na	na	160	159	1
8	15 February 1957	813	na	na	160	156	4
9	10 February 1969	1,253	1,226	27	219	214	5
10	26 January 1975	2,199	na	na	269	266	3
11	4 April 1976	2,329	na	na	279	272	7
12	22 April 1979	1,626	na	na	301	292	9
13	18 April 1983	1,880	1,826	54	324	311	13
14	27 July 1986	3,811	3,449	362	347	335	12
15	24 July 1988	3,612	3,246	366	357	347	10
16	22 March 1992	2,954	2,742	212	360	348	12
17	13 September 1992	2,417	2,175	242	360	345	15
18	2 July 1995	2,372	2,130	242	391	367	24
19	17 November 1996	2,310	1,950	360	393	371	22

Notes: na = not available; MPs = members of parliament.

Source: Election Division, Department of Local Administration, Ministry of Interior.

Table 3 Number of Male and Female Senators from 1975-1996

Year	Male Senators	Female Senators	Total
1975	91	9	100
1976	322	18	340
1977	350	10	360
1979	222	3	225
1981	222	3	225
1983	239	4	243
1985	238	5	243
1986	255	5	260
1987	255	5	260
1988	262	5	267
1989	261	6	267
1992	263	7	270
1996	239	21	260
Total	3,219	101	3,320

Source: Parliament, March 22, 1996.

first round had no strong intention of becoming CDA members—they primarily aimed at obtaining the right to vote for the provincial representative—the high proportion of female candidates signifies a big step toward their participation in the political process in Thailand. Table 4 shows women's participation in the CDA.

As shown in Table 4, a total of 64 women were elected as provincial representatives. Six were selected as CDA members. No female experts were appointed.

Female Cabinet Members

Through six decades of democracy, Thailand has had 53 Cabinets. The first woman to participate was a member of the 39th Cabinet under the Thanin Kraivichien administration (1976-1977), 44 years after the first Thai constitution. Only 11 women have attained ministerial positions since then. Table 5 shows female Cabinet members since 1932 to the present.

Women's Political Participation at the Local Level

Political participation at the local level involving elections takes different forms, subject to the development of the individual local political bodies. In this article, local government is categorized into three groups, namely:

- Local government at the urban community level, i.e., Municipality, Sanitary District (*sukapiban*[2]), Bangkok Metropolitan Administration (BMA) and the City of Pattaya
- Local government at the provincial level, i.e., Provincial Administration Organization
- Local government at the community level i.e., *Tambon*[3] (Sub-distict) and Village

Women's political participation in the central and local governments is equally important as they should participate in decision-making processes at all levels. Moreover, local government is an important forum that allows local people to join forces in protecting their rights, stimulating development and ensuring equal distribution of resources.

Women's Political Participation at the Urban Community Level

In 1956, power was first decentralized from the central government to the urban community level. In this year, Bangkok became the country's first sanitary district. It was later upgraded to a municipality and finally to its present status as the BMA. At present, urban community administration in Thailand takes 4 forms, i.e., the BMA, the City of Pattaya, Municipality and Sanitary District. Studies show that women are politically active at the urban community level. The level of their participation in the four forms of local administration differs as follows.

1) Bangkok Metropolitan Administration

Bangkok was promoted to an autonomous local administration in 1973. The Bangkok governor, members of the Bangkok Metropolitan Assembly and members of district assemblies are elected by the citizens of Bangkok. The Bangkok Metropolitan Assembly serves as the city's legislative branch, while the 38 district assemblies monitor the administration of Bangkok districts.

Table 4 Women's Participation in the Constitutional Drafting Assembly in 1996

	Total	Male		Female	
		Number	%	Number	%
Candidates	19,335	12,591	65.1	6,744	34.9
Elected Provincial Representatives	760	696	91.6	64	8.4
Elected CDA Members	76	70	92.1	6	7.9
Experts Appointed to the CDA	23	23	100.0	0	0

Source: Office of the Secretariat, Parliament.

Table 5 Female Cabinet Members from 1932 to the Present

Cabinet No.	Period	Prime Minister	Number			Positions of Female Cabinet Members
			Total	Male	Female	
39	October 1976-October 1977	Mr. Thanin Kraivichien	18	16	2	• Minister of Communications and Transportation (*Khunying Lersak Sombatsiri*) • Minister of University Affairs (*Mrs. Vimolsiri Chamnanvej*)
41	May 1979-March 1980	Gen. Kriengsak Chamanan	43	42	1	• Deputy Minister of Education (*Mrs. Yupha Udomsak*)
45	August 1998-December 1990	Maj. Gen. Chatichai Choonhavan	45	44	1	• Minister to the Prime Minister's Office (*Khunying Supatra Masdit*)
47	March 1991-March 1992	Mr. Anand Panyarachun	35	34	1	• Minister to the Prime Minister's Office (*Dr. Saisuree Chutikul*)
48	April 1992-June 1992	Gen. Suchinda Kraprayoon	49	48	1	• Deputy Minister of Commerce (*Mrs. Puanglek Boonchiang*)
49	June 1992-September 1992	Mr. Anand Panyarachun	26	25	1	• Minister to the Prime Minister's Office (*Dr. Saisuree Chutikul*)
50	September 1992- July 1995	Mr. Chuan Leekpai*	49	48	1	• Deputy Minister of Public Health (*Mrs. Tuenjai Nu-Upala*) • *Reshuffle : Minister to the Prime Minister's Office (*Mrs. Pimpa Chanprasong*) • *Reshuffle : Deputy Minister of Interior (*Mrs. Sudarat Keyuraphan*)
51	July 1995-November 1996	Mr. Banharn Silpa-archa*	49	48	1	• Deputy Minister of Interior (*Mrs. Sudarat Keyuraphan*) • *Reshuffle: Minister of University Affairs (*Khunying Nongyao Chaiseri*)
53	November 1997- Present	Mr. Chuan Leekpai*	48	47	1	• Minister to the Prime Minister's Office (*Khunying Supatra Masdit*) • *Reshuffle : Deputy Minister of Labour and Social Welfare (*Ms. Paveena Hongsakul*)

Source: Sixty Years of Thai Cabinets, the Secretariat of the Cabinet.

Candidates for the position of Bangkok Governor have included a number of women, for example, Khunying Kanok Samsen Ville. All, however, have been unsuccessful. With regards to the Bangkok Metropolitan Assembly, nine women were elected on March 6, 1994, accounting for 16.36 percent of the 55 members.

2) City of Pattaya

No women have been elected as Pattaya City Mayor.[4]

3) Municipality

First established in 1933, municipalities refer to urban communities with an annual income of more than 5 million baht. At present, there are 143 municipalities nationwide. Records show that the first female deputy mayor, Mrs. Lamoon Singkalavanij, was elected in 1936, and in 1966, Mrs. Pison Soontorndham of Chanthaburi province was elected the first female mayor (นงเยาว์ ม.ป.ป.). The number of women holding

municipal positions has increased over the years. Studies reveal that women elected to municipal positions are well known and trusted by the community. Most elected women have been dedicated and accomplished public services prior to attaining municipal positions. Elections of municipal council members are organized every year due to incidents of term expiration and by-elections. Recent results show that the trend of women winning municipal council elections is on the rise (See Table 6).

Records of the Election Division, Department of Local Administration, Ministry of Interior on elections of municipal council members in 1995 show that of the 24 elections, 1,814 men and 161 women were elected. Female municipal council members account for 8.15 percent.

4) Sanitary District (*Sukapiban*)

As stipulated in the 1985 Sanitary District Administration Act, a sanitary district council comprises two types of membership, appointed and elected. Most of the appointed members hold sanitary district positions ex officio. These include the district chief officer, who chairs the Sanitary District Council, the assistant district chief officer as appointed by the provincial governor, the chief of the district or minor district police station, the district or minor district chief accountant, the *kamnan*[5] and village heads under the sanitary district. In most cases, non-elected members are men. With regards to elected members, four are allowed in each sanitary district, which offers opportunities for women. The proportion of elected to non-elected members, however, shows a limited scope for participation at this level.

Women's Political Participation at the Provincial Level

At the provincial level, the Provincial Administration Organization, established in 1955, serves as the administrative branch, while the Provincial Council is responsible for legislation. All provinces are administered through the Provincial Administration Organization, except Bangkok. Similar to the municipal level, studies show high participation of women in provincial administration. Records gathered from the three most recent elections of provincial council members show an increase of female provincial council members by approximately 50 percent, from 3.95 percent in 1985 to 6.28 in 1995 (See Table 7).

Table 6 Number of Female Municipal Council Members

Year	Female Municipal Council Members	
	Number	%
1992	120	5.5
1994	190	8.4
1995	161	8.1

Source: Election Division, Department of Local Administration, Ministry of Interior.

Table 7 Female Provincial Council Members from 1985-1995

Election Date	Female Provincial Council Members	
	Number	%
28 August 1985	78	3.95
20 October 1990	82	4.00
24 December 1995	135	6.28

Source: Election Division, Department of Local Administration, Ministry of Interior.

Despite an increase in women's participation over the years, the proportion of female provincial council members shows that promotion for higher women's political participation at this level is still needed. Another important reason is that provincial administration as a political forum has gained higher significance as the Eighth National Economic and Social Development Plan (1997-2001) stresses decentralization of development to communities. With this target, higher efficiency of provincial administration will be targeted, and higher resources will be distributed to the provincial level.

Women's Political Participation at the Community Level

Local administration at the community level in rural areas comprises *Tambon* and Village. Political participation on the part of the people at this level was not fully implemented until the enforcement of the *Tambon* Council and the *Tambon* Administration Organization Act in 1994. In the past, the election of *kamman* and village heads was the only channel of community political participation. The position of *kamnan* was restricted to males, while village heads could be both male and female.

1) *Tambon*

The Decree (no. 326) of the National Executive Council issued in 1972 ordered the establishment of a local administrative body called "the *Tambon* Council" chaired by a *kamnan*. Council members include village heads, teachers, and elected representatives by *tambon* dwellers. The amendment of the law in 1982 to allow female *kamnan* has broadened the scope of women's political participation in the local government in many ways. First of all, female village heads are allowed to run for the *kamnan* position. Secondly, as a *kamnan*, one sits ex officio in other administrative positions, such as chairman of the *Tambon* Council and member of the Sanitary District Council.

Despite the amendment of the law in 1982, the proportion of female community leaders remained low. In 1989, the number of female *kamnan* and female village heads accounted for only 0.49 percent and 0.75 percent respectively. The number of female community

leaders, however, has increased. The number of female *kamnan* increased from 33 persons or 0.49 percent in 1989 to 110 persons or 1.52 percent in 1996. The number of female village heads rose rapidly from 418 persons or 0.75 percent in 1989 to 6,375 persons or 9.68 percent in 1996 (See Table 8). This not only signifies higher opportunities for women to take part in community level administration, but also suggests higher acceptance in communities of female leaders.

The 1994 *Tambon* Council and *Tambon* Administration Organization Act rendered all *tambon* councils the status of legislative bodies from March 2, 1995. As stipulated by the Act, *tambon* councils with an annual income exceeding 150,000 baht for three consecutive years are promoted to *Tambon* Administration Organization (TAO). In 1997, Thailand had 564 *tambon* councils and 6,397 TAOs.

Since the implementation of the 1994 *Tambon* Council and *Tambon* Administration Organization Act, three elections for TAO members have been organized. Elected female members from the first, second and third election accounted for 9.06 percent, 7.65 percent, and 8.72 percent respectively (See Table 9).

It is found that encouragement and support are much needed to stimulate women's participation in the TAOs. In areas where the promotion of female candidates was emphasized, more women registered as TAO candidates, leading to a higher probability of women being elected. In 1994 and 1995, the Lanna Development Study Center of Chiang Mai University undertook a project to encourage the participation of women in TAOs in 5 northern provinces-- Chiang Mai, Chiang Rai, Lampoon, Lampang, and Tak. The project's goal was to secure two female candidates from each village. During the campaign, 108 women were elected to the TAOs. Bodies active in the promotion of women's participation in these elections included both national and local organizations, such as the National Commission on Women's Affairs under the Prime Minister's Office, local non-governmental women's organizations, colleges and universities.

2) Village

In 1965, the Ministry of Interior announced the establishment of a Village Development Committee in each village, chaired by the village head. Although both men and women were eligible as members, only a small number of women were elected. In 1986, of 119,930 committee members nationwide, women accounted for 523 positions, or 0.43 percent. Information gathered in 1992 shows an increase in the number of female members—20,214, or 5.96 percent, out of 339,377 nationwide (กรมพัฒนาชุมชน 2529; สำนักงานคณะกรรมการส่งเสริมและประสานงานสตรีแห่งชาติ 2535).

Table 8 Number of Kamnan and Village Heads from 1989 to 1996

	Kamnan			Village Head		
Year	Total	Male	Female	Total	Male	Female
1989	6,673	6,640	33	55,598	55,180	418
%		99.51	0.49		99.25	0.75
1990	6,950	6,878	72	63,373	62,517	856
%		98.96	1.04		98.65	1.35
1995	7,161	7,059	102	59,934	58,860	1,074
%		98.58	1.42		98.21	1.79
1996	7,240	7,130	110	65,873	59,498	6,375
%		98.48	1.52		90.32	9.68

Source: Department of Local Administration, Ministry of Interior.

Table 9 Statistics on the Election of TAO Members in 1995, 1996 and 1997

	Election Date								
	21 May 1995			28 April 1996			11 May 1997		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Eligible Voters	2,406,090	na	na	9,356,166	4,633,164	4,723,002	11,766,081	5,817,762	5,948,319
Voters	1,227,664	na	na	5,525,718	2,669,363	2,856,355	7,480,799	3,610,015	3,870,784
Candidates	21,800	na	na	98,062	88,421	9,641	147,601	131,440	16,161
Elected Members	11,971	10,886	1,085	43,332	40,016	3,316	63,541	57,998	5,543

Note: na = not available.

Source: Election Division, Department of Local Administration, Ministry of Interior.

A larger number of women participated in village administration after the Ministry of Interior issued an order to establish a women's affairs branch as part of the Village Development Committee in 1991. The annex of the order recommended that village heads consider appointing the chairperson of the current Village Committee on Women's Development to lead the branch. The National Commission on Women's Affairs has actively promoted higher women's participation at the village level. Promotion via the channel of the Village Development Committee, however, does not yield desirable results as the committees have only a limited role in politics and development (อรพินท์ 2537).

CONCLUSION

Awareness of women's issues and the promotion of women's political participation have captured the interest and attention of various sectors in society. Political parties, for instance, take greater care to attract support from women's organizations and female voters. It is noticeable that increasingly, political parties place women issues on their policy platforms. The New Aspiration Party, for instance, has announced that it will "rectify social problems which affect the female population and will encourage a higher number of female members of parliament from the party." The Democrat Party has proposed it will "promote higher political participation of women by setting as the party's goal that women must constitute approximately 25 percent of the party's electoral candidates" (สถาบันพัฒนาบทบาทชายหญิงและการพัฒนา 2534).

Despite an overall increase in women's political awareness and participation in Thailand, involvement at the national level remains limited. This needs to be increased as it has far-reaching implications for the protection of women's rights and the promotion of the status of women. At the World Conference on Women's Issues held in Beijing in 1995, the promotion of equality between men and women was strongly stressed, particularly in the area of women's political participation. The United Nations Economic and Social Commission has set a firm goal to push for no less than 30 percent participation on the part of women in the political process. This goal has been endorsed in Thailand's Long-Term Women's Development Plan (1982-2001). The statistics presented above, however, clearly indicate that the country has a long way to go (สำนักงานคณะกรรมการส่งเสริมและประสานงานสตรีแห่งชาติ 2538).

ENDNOTES

1 Information from West Point Military College in 1976 shows that a young woman has only one-third of the arm strength and two-thirds of the leg strength of a man. While a woman's muscles constitute 35 percent of the body, a man's constitute 41 percent. Men's and women's strength accounts for 90 and 50 percent of body weight respectively.

2 A level of local administration smaller than a municipality.

3 A level of local administration which consists of a group of villagers.

4 Complete data on the City of Pattaya is not available.

5 The title for head of the *tambon*.

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The Economic Impact of the Liberalization of Oil Market*

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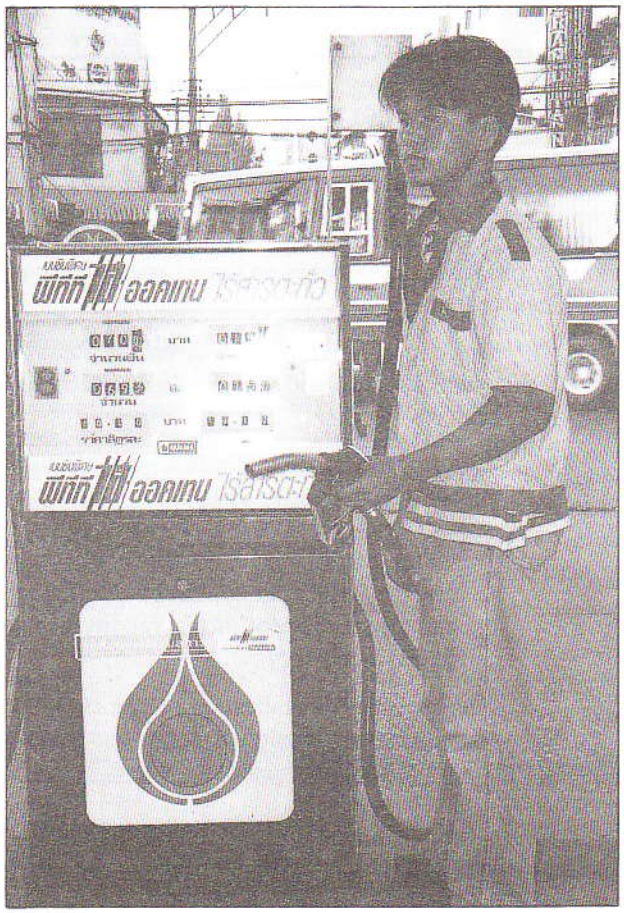
Nipon Paopongsakorn**

Since the first oil shock in 1973, oil pricing has become a very sensitive policy issue. Past governments have thus implemented various measures to stabilize domestic oil prices in order to avoid political backlashes. Oil prices were subsequently placed under government control, and the Oil Price Stabilization Fund was established in 1977 as a major tool to maintain price stability. Although the Fund to some extent helped stabilize domestic oil prices, it inadvertently created many problems, such as a distorted pattern of consumption, illegal dilution of oil products, and a delay in the development of alternative indigenous energy resources.

To reduce the adverse affects of the stabilization measures, a major price liberalization policy was introduced in 1991. Table 1 compares the oil price regulatory regimes before and after liberalization. After seven years of implementation, the liberalization policy is now widely believed in academic and business circles to have had a positive impact on the oil industry and to have generated net gains for consumers and tax payers. The general public seems to disagree, however, as the policy impact is not fully understood. There are several myths with regard to liberalization. For example, there are claims that since liberalization, the adjustment of domestic oil prices has become sensitive to an upward movement in the world price, but sluggish in response to a downward movement. This reflects opportunistic behavior on the part of oil companies. There is also a belief that liberalization has resulted in a general increase in production and service costs. Among the various arguments against liberalization, the issue of equity is often raised. For example, some have argued that, to create equity among regions, a single-price policy should apply nationwide.



Liberalization of the oil market in 1991 has led to higher non-price competition, e.g., good forecourt services, in the retail market.

Although not all the myths are widely held, those that attracted attention have caused some confusion among consumers. The danger is that, if such myths are held by policy makers or a majority of consumers, they can become an obstacle to further liberalization, or could even lead to a policy reversal.

* *We would like to express our sincere thanks to the Petroleum Institute of Thailand for its helpful advice and contribution. For further detail of the study, please refer to the TDRI research report of the same title.*

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Table 1 Comparison of Oil Price Regulatory Regimes before and after Liberalization

	Pre-liberalization Period	Post-liberalization Period
Ex-refinery or Import Price	Approved by the Petroleum subcommittee based on Singapore weekly price	Determined by the domestic refineries based on Singapore spot price. Generally, changes once a week.
Excise and Municipal Tax	Determined by the Ministry of Finance	Determined by the Ministry of Finance
Oil Fund Contribution	Approved by the Petroleum subcommittee. Generally changes once a week.	Fixed at 3 satang per liter for most products.
Energy Conservation Fund Contribution	Not existed.	Fixed. Applied since November 1, 1992
Marketing Margin	Fixed and approved by the Petroleum subcommittee	Determined by each oil company

The major goal of this research is to dispel these myths and to consider the impact of the oil market's liberalization objectively from the public interest point of view. In particular, we focus on three issues which are key public concerns:

1. The impact of liberalization on the stability of the oil price and the speed of price transmission.
2. The impact of liberalization on resource allocation efficiency. The study focuses, in particular, on three sub-topics, namely, the evaluation of the impact on major economic sectors, the impact on consumption efficiency, and the assessment of the validity of the single oil price policy.
3. The impact of liberalization on the structure of the oil market and the conduct and performance of oil companies and dealers.

The rest of this summary will highlight major findings concerning the above topics.

THE IMPACT ON PRICE STABILITY

We begin our analysis by assessing the effectiveness of the price stabilization scheme through the establishment of the Oil Fund. In assessing the effectiveness, we propose a price stability index that measures the degree of fluctuation of the domestic price relative to that of the world price. We find that:

- Price control through the Oil Fund was quite effective when there were small fluctuations in the world price, as evidenced by relatively stable prices during most of the period before liberalization.
- Price control became ineffective, however, when the world price changed drastically during the first half of 1991. Apparently, the ineffectiveness of the Oil Fund in stabilizing the oil price and the depletion of the Oil Fund Reserve were two compelling reasons for the government to liberalize the market.

From the finding, it can be concluded that, contrary to popular belief, price liberalization helps stabilize domestic oil prices in the long run.

THE IMPACT ON THE SPEED OF PRICE TRANSMISSION

Concerning the speed of oil price transmission, we have constructed an econometric model to test whether the speed of the transmission has been changed by the liberalization and whether the domestic oil price responds equally to the rise and fall in world market prices. From the analysis, we learn that:

- Before liberalization, Bangkok retail prices did not seem to respond to changes in Singapore prices. This is hardly surprising since the domestic price was controlled by the government.
- After liberalization, however, the domestic retail prices of all oil products became sensitive to the world price. Contrary to popular belief, after liberalization, the speed with which the domestic price changes in response to both upward and downward global price movements is virtually the same for gasoline, diesel and fuel oil.
- The domestic oil price in 1997 was more responsive to the world price than in the period

immediately following liberalization, reflecting that the market has become even more competitive.

Thus, the popular claim about the opportunistic behavior of the oil companies is unfounded. The reason is that, in a competitive market, there is no room for oil companies to take advantage of consumers.

THE IMPACT ON MAJOR ECONOMIC SECTORS

We also analyze the impact of the liberalization policy on key economic sectors. The focus is to identify sectors that are sensitive to oil price changes and thus are affected by the liberalization policy. Based on the cost structure of each sector, we find that:

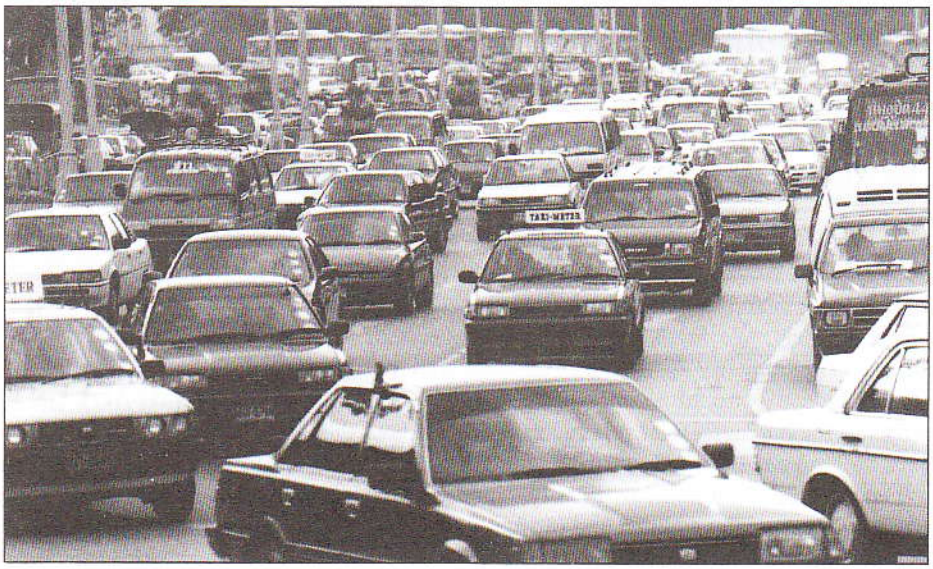
- The sectors with the heaviest use of oil products, especially diesel, include sea, land and air transportation, fishery, mining, agricultural services—e.g., irrigation and cooperative activities—and electricity generation and distribution. The percentage share of cost of oil to the total cost in these sectors ranges from 14 percent for electricity generation and distribution to 31 percent for sea transportation.
- These sectors have been less negatively affected by liberalization than it would appear, referring only to the above percentages. For example, if the price of diesel rose by 1 percent, the cost of sea transportation would rise by less than 0.31 percent. This is for two reasons. First, every sector also consumes gasoline, which has become relatively cheaper since liberalization. Second, when prices rise, consumption falls, dampening the impact of price increases.
- Gains accrue to certain individuals, such as passenger car owners, who benefit from relatively cheaper gasoline. However, the collective gains of these individuals cannot be estimated.

THE IMPACT ON CONSUMPTION EFFICIENCY

Theoretically speaking, resource allocation is most efficient when the market is allowed to operate freely. Deviations from the free market system due to government intervention will lead to efficiency losses in both consumption and production. Based on this concept, we estimate the efficiency gain resulting from liberalization, and show that society as a whole gains significantly. In particular, we show that:

- The benefit due to the correction of price distortion from the consumption side alone is estimated to be between 640 and 1,300 million baht per year at the 1990 consumption level. This is equivalent to 0.55-1.12 percent of total market sales.
- The above estimation is very conservative because certain benefits accrued to producers are ignored. These include the benefits gained from reducing the burden of exporting excess gasoline and the interest burden that had been associated with frequent delays in Oil Fund refunds, etc. Due to a lack of information, we do not attempt to estimate these benefits.
- Other benefits accruing to society cannot be easily quantified. These range from the decrease in oil product adulteration, which had caused serious harm to humans and property, the decreases in the costs of adapting or changing car engines to be usable with cheap products by the car owners, etc.

Thus it is clear that, in terms of economic efficiency, liberalization has brought about tangible and



The liberalization policy has posed a positive impact on passenger car owners who benefit from relatively cheaper gasoline.

significant benefits to consumers, producers, and society as a whole.

THE VALIDITY OF THE SINGLE PRICE POLICY

A policy that would set a single price for each oil product nationwide was once proposed to create greater equity among regions. In this study, we show that:

- The proposed single price policy for each oil product can be approximated to the average price in each province weighted against their respective consumption volumes. The single-price policy thus entails higher retail prices in Bangkok and nearby provinces and lower prices in distant provinces. Consequently, the policy may have a positive income distribution effect.
- Unfortunately, the policy would result in price distortions, which entail an efficiency loss to society of 6.5 million baht per year, when two products, i.e., premium gasoline and high-speed diesel, are taken into account. A more significant loss, however, would arise from the administration costs of implementing the policy, which could be as high as 45 million baht per year.
- The policy would be inefficient in achieving its intended goal of promoting equity. This is because while the policy may succeed in targeting many provinces with low income levels, it also subsidizes many provinces with high income levels. Even within the subsidized provinces, the policy would indiscriminately subsidize both the rich and the poor.

Thus there is no justification for supporting the single price policy. More broadly, our study also rejects the validity of any policy that creates price distortion according to location, including one currently being implemented.

THE IMPACT OF LIBERALIZATION ON THE RETAIL MARKET

To ascertain the impact of liberalization on the retail market, we have compiled some data, interviewed oil companies, and conducted surveys on retail stations and consumers. We focus on three main aspects of the impact: The industry's structure, conduct and performance. Industry structure concerns the number of companies in the business, their relative network size and the sales volume per station. Industry conduct includes price and non-price competition. Finally, industry performance concerns sales volume and profitability.

THE IMPACT ON THE INDUSTRY STRUCTURE

Concerning the impact of liberalization on the retail industry structure, we find that:

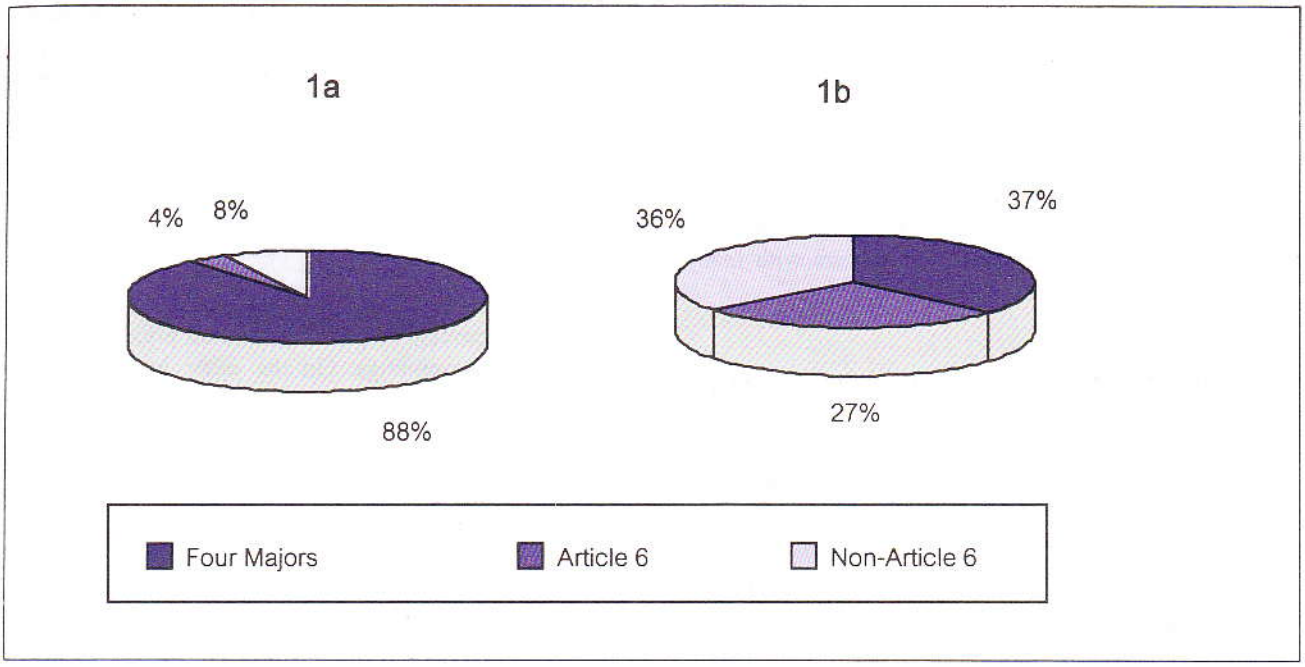
- At the time of liberalization in 1991, there were 3,473 retail stations in Thailand. The four major oil companies, i.e., PTT, Shell, ESSO and Caltex, had a combined retail station share of 88.9 percent (See Figure 1a). The growth rate of the retail stations at that time was about 4-5 percent per year. This amounts to 150-200 stations being added to the distribution network annually.
- The years after liberalization have witnessed continuing high growth rates of the retail station expansion, with an average annual growth rate of 20.9 percent. This is equivalent to the annual increase of 1,233 stations since deregulation. As a result, the total number of stations had risen to 10,874 in the first half of 1997.
- By 1997, the combined retail station share of the four majors had fallen to 36.7 percent as the share of Article 6[1] newcomers' had expanded from 3.8 percent in 1991 to 27.4 percent. The share of non-Article 6 companies had also grown rapidly from 7.3 percent in 1991 to 35.97 percent in 1997 (See Figure 1b). This indicates that the market has become much more competitive after liberalization.
- Apart from market forces, efforts by the Public Works Department to register informal non-Article 6 stations, e.g., skid tank stations, for safety regulation, may partly explain the rapid growth in the number of stations.
- As a result of the high growth, average throughput per station of the five major brands, including Bangchak, has fallen from 296,600 liters per month in 1992 to 246,860 liters per month in 1997. Average throughput per station of non-major Article 6 stations is believed to be lower than that of the major brands.

Thus the market has become much more competitive with regards to the number of companies in business, the expansion of retail networks, the less concentrated share of distribution channels, and the tougher environment in which to obtain sustainable throughput for retail stations.

THE IMPACT ON PRICE COMPETITION

One major impact of liberalization has been the emergence of price competition among traders and retail stations. Concerning this, the survey reveals that:

Figure 1 Station Shares before (a) and after (b) Liberalization



- Price gaps of the major brands are observed to be as small as 3-4 satang per liter for most products. Thus, it seems that price cutting is clearly not an intended tool to promote sales among major brands. In fact, retail stations are discouraged, if not prohibited, to cut prices. In areas with heavy price competition, however, major brands may try to match the prices of low price competitors. In that case, dealers are normally asked to share the 'cost' of price cutting.
- Some small foreign brands, e.g., Jet, are quite active in cutting prices to gain customers. Significant price cutting can be very effective in gaining sales volume, provided that others do not try to match the price. For a small foreign brand, being a company-operated station has an advantage over a dealer-operated station in a price war.
- Independent Thai stations normally set their prices slightly lower than those of major brands. Significant price cutting is not often found, especially in dealer-operated stations. However, some TPI and MP company-operated stations may decide to cut prices.
- For a skid tank station, price cutting is a usual practice in attracting consumers. In highly competitive areas, the price gap among these outlets can be as wide as 20-30 satang per liter.

In summary, different pricing strategies demonstrate a positive sign of the market that will eventually benefit consumers. This should be taken as a major achievement of liberalization.

THE IMPACT ON NON-PRICE COMPETITION

In addition to price competition, non-price competition has become an ordinary practice in the retail market. The survey interestingly shows that:

- Usual forms of non-price competition among retail station are good forecourt services, credit, cleanliness, free give-aways, complete car care services and quick and convenient customer service facilities.
- Forecourt services are difficult to improve because of acute manpower shortages, with a high rate of turnover in most areas.
- Credit has been an effective way to gain volume and to establish a base of regular customers. However, giving credit can entail high risk.
- Cleanliness has become increasingly important and many major brands' stations are built without car wash, car repair, tire repair, or other car care services that may affect cleanliness of the stations.
- Free give-aways have become a normal expectation of consumers. Giving away gifts is not to raise sales volume but to prevent them from falling off as competitors regularly give away things to customers.

- Quick and convenient customer service facilities, such as mini-marts and restaurants, have not only attracted customers to stations, but also are major sources of station revenues. Competition in this regard will certainly expand.

Although the real benefits of some forms of non-price competition, especially the give-aways, can be debatable, non-price competition is a clear sign of a healthy market since it provides consumers with many choices to fit their needs.

THE IMPACT ON SALES AND PROFITABILITY

It is widely believed among economists that, in a competitive market, it is impossible for a company to make more than normal profits. Our survey strongly confirms the belief:

- The retail oil business is clearly not highly profitable for most station owners. Sales volumes of 250,000-300,000 liters a month are required just to cover the operating expenses of a retail station. This level of monthly throughput is becoming harder to achieve in many areas.
- The major expenses of a retail station are labor costs, electricity charges, costs of give-away gifts and rental fees. Labor costs alone exceed 100,000 baht a month for a medium size station with 20 workers. Electricity costs usually exceed 20,000 baht a month, excluding convenience (CV) stores. Free gift costs are shared with oil companies. However, the cost share of the station owner is about 4-5 satang per liter. Station rent varies among stations depending on investment conditions. The range is between a few thousand to several hundred thousand baht a month.
- Average margins for leased stations are between 30-35 satang per liter. Dealer-owned stations may earn about 60-65 satang per liter while high-volume stations may receive extra rebates of 10-30 satang per liter.
- For most stations in the survey, the margins from fuels are just enough to cover operating expenses. Profits are earned from non-fuel income. Main income earners are CV stores and car washes. The average gross CV store margin is 18 percent. Monthly franchise fees, if any, run between 3-7 percent of sales revenues. Rising operating costs and stronger competition make it necessary to seek income from non-fuel services if the station is to survive. However, non-fuel services are not money makers for all stations.

CONSUMERS' PERCEPTION OF THE IMPACT

We conducted a survey of 312 consumers to seek their opinions concerning the effects of the oil price deregulation. The sample consists of passenger-car, pick-up truck, truck, bus, and motorcycle drivers. From the survey, we find that:

- The most significant factors affecting a consumer's decision to buy from a particular brand are oil product quality (38 percent responding), location and convenience (18 percent responding) and oil price (15 percent responding). On the other hand, free gifts were said to be insignificant. The finding contrasts with that of the retail station survey that shows that they are an effective marketing tool.
- About 60 percent of the consumers notice price differences at retail stations and believe it to be between 1-25 satang per liter. However, only 30 percent of the consumers usually seek low priced stations.
- 95 percent of the consumers are convinced that oil retailing is a competitive business. 77 percent observe that deregulation has resulted in the growth of retail stations and 52 percent notice that the policy has made competition stronger. On the other hand, 65 percent believe that deregulation has made prices higher. 75 percent of consumers mention that services have improved since deregulation and 39 percent believe that oil quality has improved.
- For the overall evaluation, 37 percent of the consumers believe that the deregulation has made them better off, 26 percent say they are worse off, while another 26 percent responded that they are unaffected. About 70 percent also say that they have not changed their consumption behavior since deregulation

From the survey, we can conclude that most consumers believe that the liberalization has brought about many benefits to them. Concerning oil prices, however, they somehow believe that oil prices have risen since liberalization. This may help explain the origin of many myths previously mentioned and emphasize the importance of an objective evaluation of the policy and a better public relations effort.

Table 2 summarizes the major impact of the oil market liberalization on consumers, the retail industry, and society.

With the above objective and systematic evaluation, we have shown that the 1991 liberalization

has been successful in creating a much more competitive oil market. This in turn has brought about several benefits to consumers and society as a whole. Further liberalization in areas that are still under government control is thus worth consideration.

ENDNOTE

1 Article 6 of the Oil Act 1978 requires any oil company with a total annual sales volume more than 0.1 million tons to get a special license to operate.

Table 2 Summary of the Impact of Oil Market Liberalization

Impact on		Pre-liberalization Period	Post-liberalization Period
Consumers	Price Stability	Short-term price stability with occasional discrete jumps which usually cause panic among consumers.	Fluctuating prices with rare discrete jumps. No panic observed as consumers are accustomed to continual price adjustment.
	Price Diversity	No diversity as prices are controlled.	Price differences among stations range from a few satang to over 1 baht per liter in highly competitive area. Consumers have alternatives of where to get services.
	Convenience	Inconvenient since stations are few and far between.	Convenient since stations can be found almost in every corner.
	Service	Poor forecourt and other types of services due to limited competition.	Better forecourt and other types of services, e.g., clean toilet, convenience store, etc. Handing out free gifts has become a normal practice.
	Overall Assessment	37 percent of the consumers believe that the liberalization has made them better off, 26 percent say they are worse off, while another 26 percent responded that they are unaffected	
Retail Industry	Industry Structure	Highly-concentrated; the four "major" oil companies own 89 percent of the stations.	More competitive; the four "major" oil companies' share has fallen to 37 percent as new competitors entered the market.
	Number of Service Stations	Increased 4-5 percent per annum on average during 1991-1993. There were only 3,473 service stations in 1991.	Increased 25 percent per annum on average during 1991-1996. The number of stations reached 10,874 in mid 1997.
	Sales Volume per Station	296,000 liters per month per station for stations belonging to a "major" oil company.	247,000 liters per month per such station.
	Margin and Profitability	Low and controlled margin but was profitable due to limited competition.	Higher margin but lower profitability due to greater competition and higher cost. Most stations are not profitable without convenience store and other value-added services.
The Society	Economic Efficiency Loss	Price distortion is estimated to result in an efficiency loss of approximately 640-1,300 million baht per year due to consumption distortion and a comparable size of loss due to production distortion.	Efficiency loss is minimal. Price distortion remains only in the LPG market in which further liberalization is required.
	Other Losses	Frequent accidents caused by illegal dilution and adulteration of oil products.	Very few reports of accidents caused by tainted oil products.

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