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Impact Of Discount Brokerage Fees On Online Stock Trading:

A Study Of The Stock Market In Thailand

The mid 1990s saw the advent of Internet and the proliferation of stock trading using Internet. The U.S market lead the world in terms of de-regulation, discount brokerages and competitive commission fees. This scenario has been replicated globally. The deregulation of trade commissions, entry of new discount online brokerages reshaped the competitive landscape of securities trading in Asia most notably in Japan, Hong Kong and Korea. Online stock trading though recent yet is fast growing trend in an emerging market like Thailand. The opportunities for individual investors to participate in the stock market has been made possible to the deregulation of brokerage of commissions coupled with the relatively inexpensive Internet connectivity costs. This paper analyzes the growth of online stock trading and impact of discount trading fees has on online trading in Thailand.

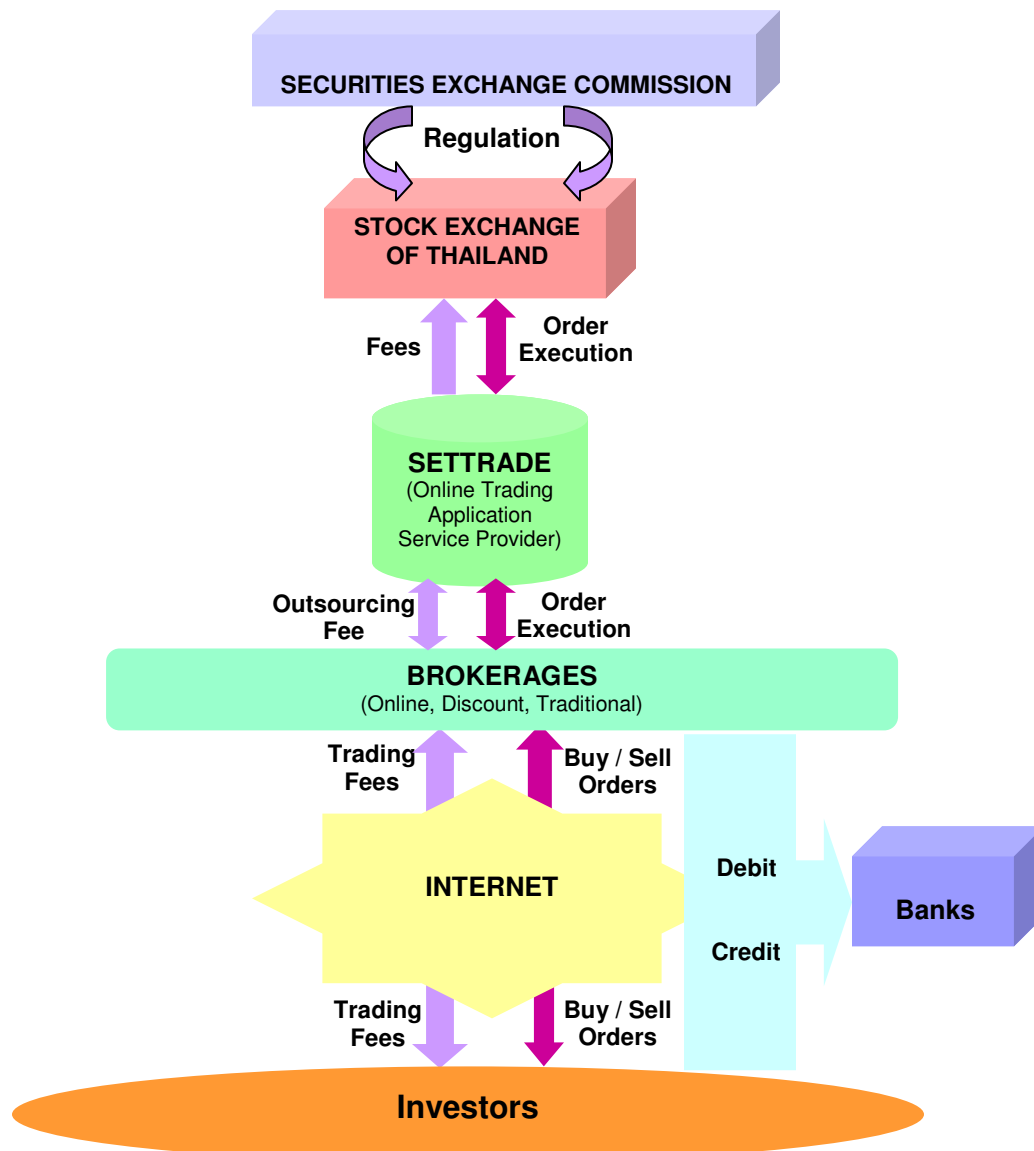
1. Introduction

In Thailand, online stock trading began in 2000, whereas in the U.S e-brokerages offering online stock trading to investors began in 1994. By 2000, over 33% of all retail stock trades were initiated online in the U.S¹. According to Forrester in U.S., in 2003 19% of retail investment assets totaling about 20.4 million online accounts manage close to US\$ 3 trillion in assets online⁴. In Japan, at the end of March 2002, 9.5% of Y 1,417 trillion in financial assets of households was held in the form of investment assets compared to U.S where 46.7% of US \$ 31.8 trillion in financial assets of U.S. households. Also in Japan, 54.1% of financial assets was held

in banks, postal saving systems compared to 11.6% of financial assets held in banks in the U.S. In Thailand, prior to the introduction of online stock trading, the number of investors was limited to the clients of full service brokerages. Between the first quarters of 2000 and 2003, the number of online stock traders rose from 411 to 18,193 a extraordinary growth of 43 times or 4326.52 %. During the same time, the number of active day traders rose from 206 to 4,877, a growth of 23 times or 2,267 %².

Figure 1

Online Trading Ecosystem in Thailand



The rapid growth of online stock trading in Thailand can be analyzed from the following:

1. Regulatory policies
2. Infrastructure development
3. Connectivity costs

The regulatory policy includes the de-regularization of the brokerage commissions (discount trading fees) from a fixed percentage to a free floating percentage. This propelled the growth of online stock trading due to low cost, affordable rates. The infrastructure development addresses the creation of an online stock trading application service provider (ASP) by the stock exchange to facilitate the small and medium brokerage firms to offer online stock trading as a means of expanding their investor base. The communication costs deals with the opening up of the Internet service providers in Thailand who offered competitive nation wide low-cost access to subscribers.

The paper is structured such that the analysis encompasses the factors that have helped in the boom in online trading in Thailand. The advantages and favorable factors that have sustained and continued the growth are discussed in detail. The supporting table, graphs depicting the growth in different parameters are given in the Appendix.

2. Analysis

The Stock Exchange of Thailand uses an automated trade execution system and replaced the floor based trading in 1989. Although order matching can occur in various ways, the electronic

order matching system is the most popular in exchanges (Sundel and Blake 1991, Domowitz 1992). The number of exchanges that use electronic systems to trade with varying degrees increased from eight to about forty in 1997 (Baptiste, Kang and Rosenfeld 1993)⁷. Two of most important measures of a trading system’s effectiveness are its ability to create liquidity and its ability to reduce direct costs for market participants⁸. This explains the rationale for the creation of the online trading service provider SETtrade that has tight integration with existing main stock trading system. The linkage of the electronic trading system to the automated stock trading system is an “implicit merger” as what Domowitz (1995) calls it⁹. The increase the capacity of exchanges to handle larger trading volumes at lower cost⁶ (page 3). Since the electronic online trading system is created so that the members firms can utilize the same trading platform reduces the costs for the members and hence the transaction costs for all market participants particularly the retail investors.

a. Regulatory Policy

The Securities Exchange Commission along with the Stock Exchange of Thailand after debating the merits of de-commissioning the brokerage fees in order to spur investment into the stocks made the following changes:

Table 2
Trading Fees Structure – Before and After De-Regulation

Period	De-Regulation (<i>% of trading value</i>)	
	Prior	Post
July 5, 1999 – August 31, 2000	0.5	
September 1, 2000 – September 30, 2000	0.25	
October 1, 2000 – January 13, 2001		Floating (no minimum)
January 14, 2001 – present		0.20 (for online) 0.25 (others)

Interestingly the de-regulation of trading fees in Japan dramatically dropped from 75 basis points to as low as 12 basis points. Within a month, increase of the number of online trading accounts increased by 67%.

Before de-regulation:

Between July 5, 1999 - August 31, 2000, the rate was fixed at 0.5% of trading value.

Between September 1, 2000 - September 30, 2000, the rate was a minimum of 0.25% of trading value.

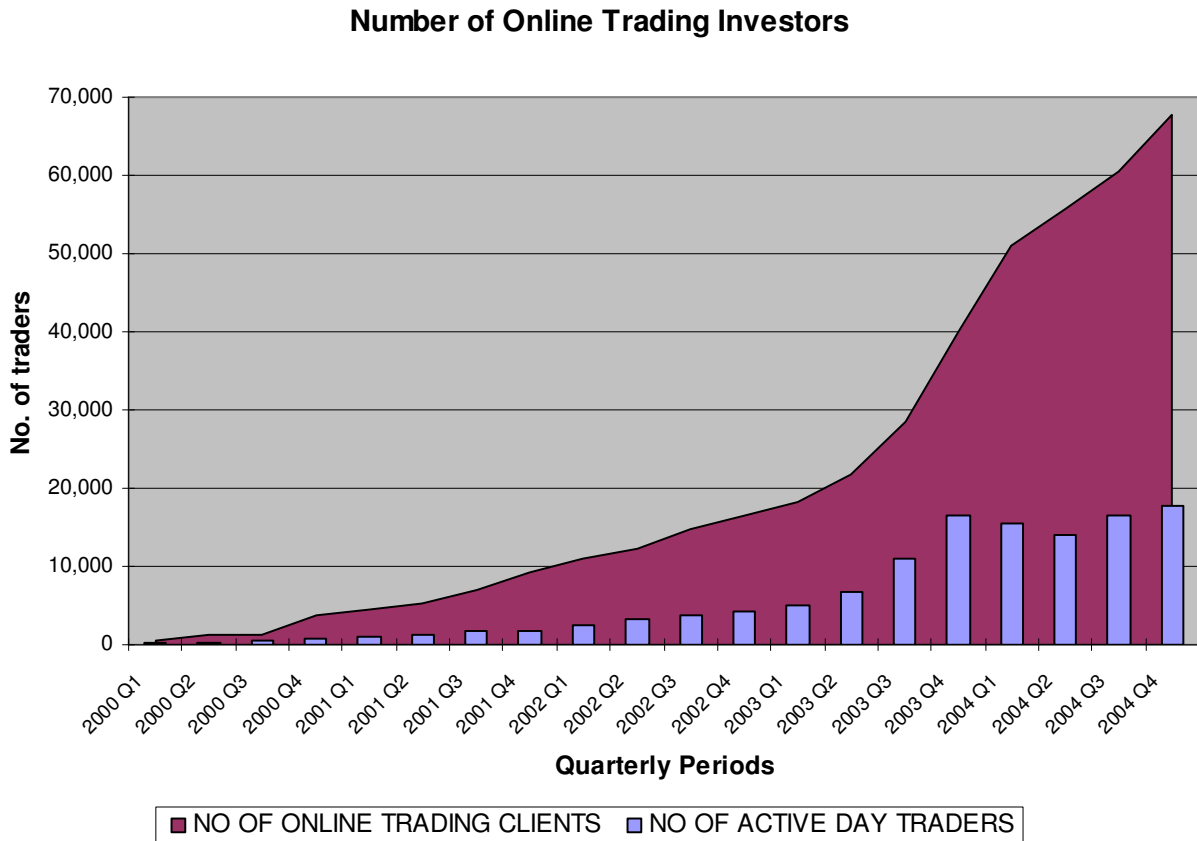
After de-regulation:

Between October 1, 2000 - January 13, 2002, the rates were liberalized

Between January 14, 2002 - at present, the rates are as follows:

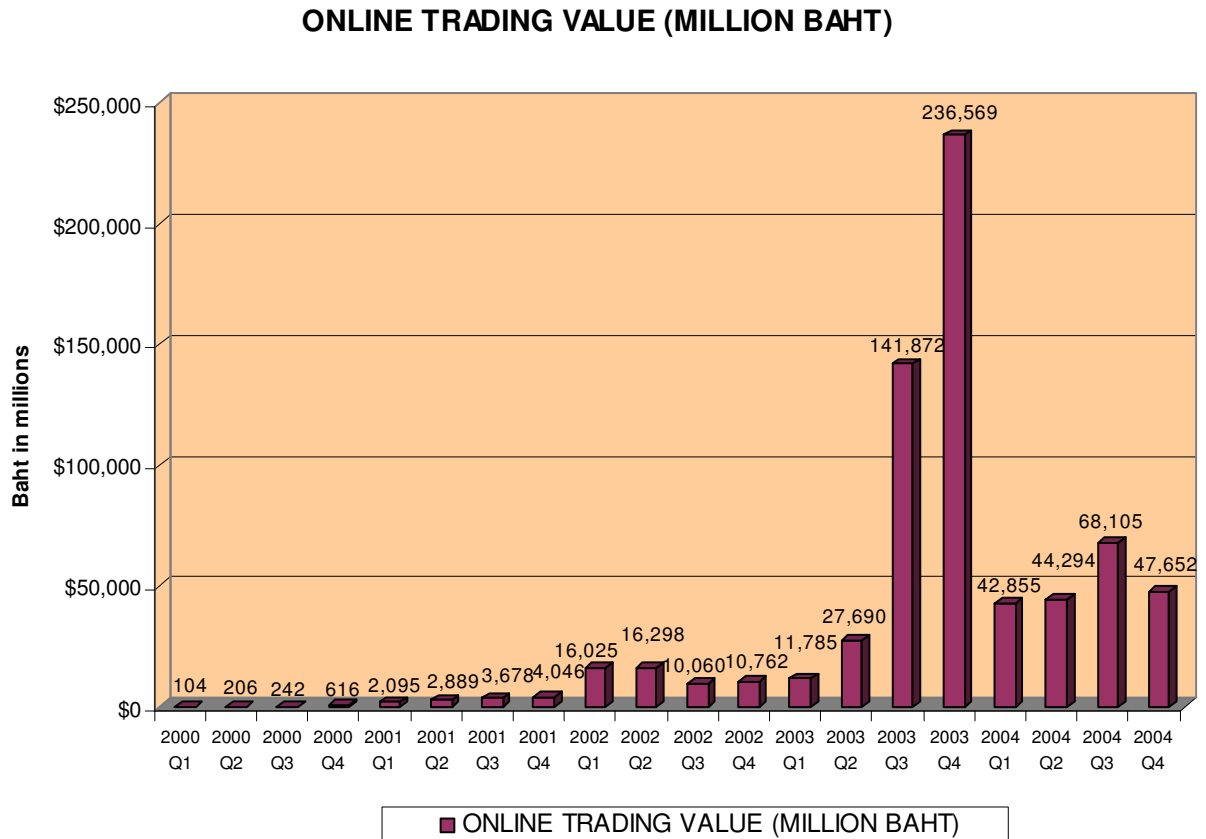
- In case of securities traded online, at the rate not less than 0.20% of trading value.
- In case of securities traded not online, at the rate not less than 0.25% of trading value.

Graph 2 – Number of Online Trading Investors



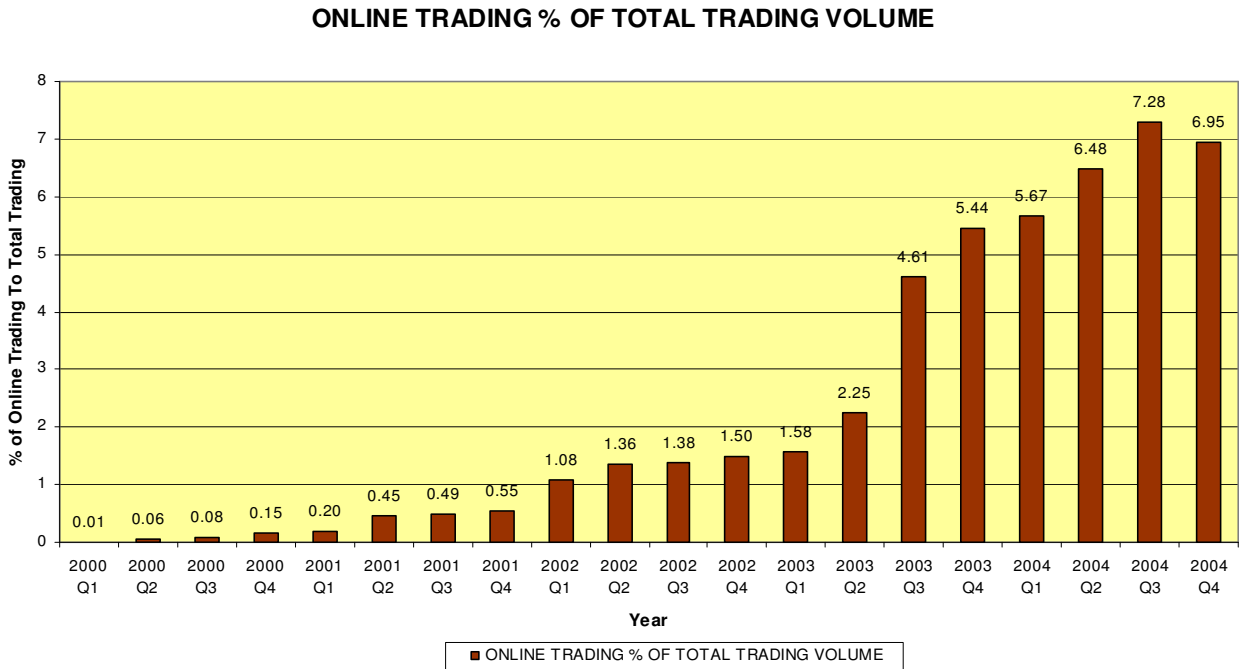
From the graph 2, it is evident that the de-regulation of the brokerage commission has contributed directly to the growth of online trading not only in attracting larger number of online investors, but also in terms of online trading value and online trading as a percentage to the total trading volume.

Graph 3 – Online Trading Value (Million Baht)



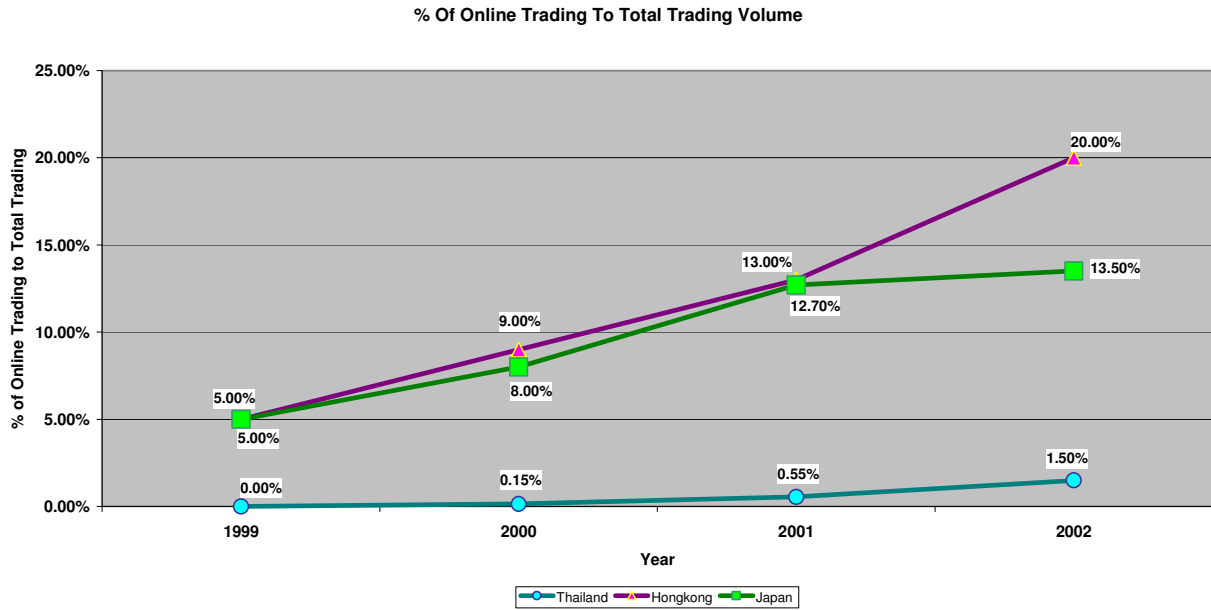
From Graph 3, we can see that the value of online trades has seen a remarkable growth from 104 million baht in the first quarter of 2000 to 11,785 million baht. An incredible 112 times growth in the value.

Graph 4 – Online Trading % of Total Trading Volume



The graph 4 shows the percentage of online trades executed as a percentage to the total trading volume increased from 0.01% to 1.58 %, which is quite a significant growth given a two year time period.

Graph 5– Online Trading % of Total Trading in Japan, Hong Kong, Thailand



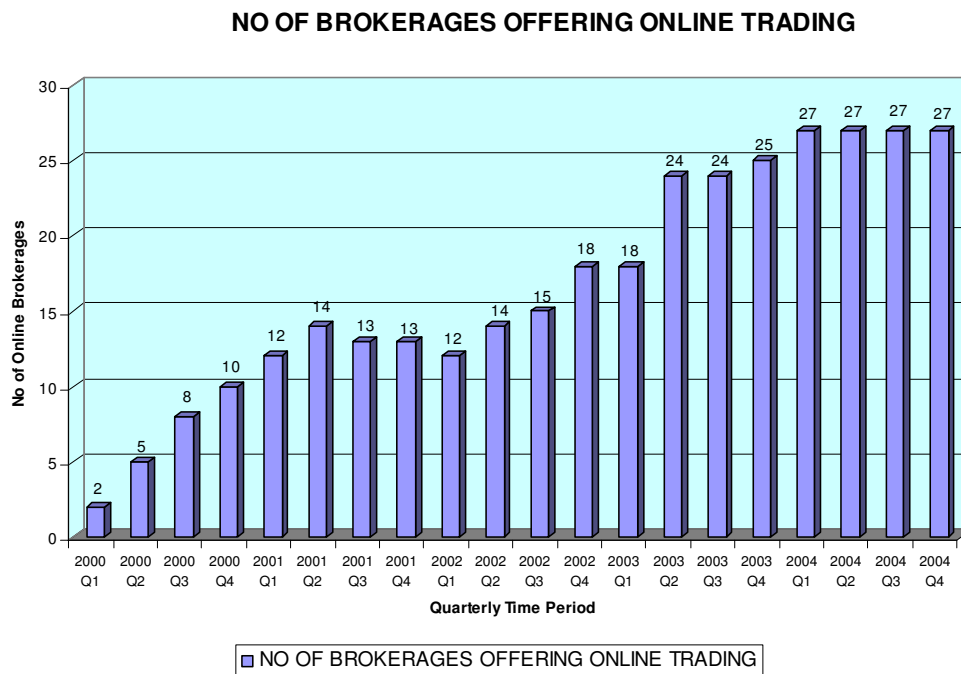
A comparison of the online trading volume in three Asian markets is particularly fascinating. Graph 5 depicts the competitive growth in Japan, Hong Kong and Thailand. Japan being a much more sophisticated market (Market capitalization of US \$ 3.11 trillion), online trading done using mobile phones has been contributed to the growth from 5% in 1999 to 13.5% in 2002. In Hong Kong, the proportion of online trading to total trading volume increased from 5% in 1999 to 20% in 2002.

b. Infrastructure Development

The stock market in Thailand has market capitalization of close to US \$ 42 billion. It is relatively small with regard to the number of brokerages and number of investors to the total population. In the U.S close to 36% of general population invests in the stock market either directly or indirectly³ (p 57.). Since most of the small and medium sized brokerage firms did not have the technical or financial resources to develop or deploy online trading systems, the Stock Exchange of Thailand set up an online trading Application Service Provider called SETtrade.com⁵. This subsidiary created a new online trading system that serves as

connection between the main trading system in the exchange and offers an interface to the brokerages to offer online trading to their investors. The creation of SETtrade did help in promoting online trading as evident from the growth in the number of brokerages offering online trading (see Graph 1).

Graph 1 – Number of Brokerages offering Online Trading



It is interesting to note the parallels between Thailand and Hong Kong. In Hong Kong, with the introduction of the third generation trading system AMS/3 which offered online trading to brokerages. Within a month of launch of AMS/3, the number of brokerages offering Internet trading increased from 32 to 80. The member firms (brokerage firms) that constitute the Stock Exchange of Thailand indirectly have a share in the new subsidiary. In return for use of exchange facilities, in this case the online trading system, members pay fees for the usage⁶. We can see that there is a 400% growth in the number of brokerages offering online

trading between the first and third quarter of 2001. An exponential growth between first quarters of 2000 and 2003 as the number of brokerages offering online trading from 2 to 18.

c. Connectivity Costs

In 2000, the Telecommunications Regulatory Committee set up by the Royal Thai Government gave significant changes to the Internet connectivity charges. It lowered the fees paid to the government owned Telecommunication monopoly for Internet access by private Internet Service Providers (ISP). This shaped a very competitive Internet market where several ISPs to offer nation wide low cost Internet access. The inexpensive connectivity coupled with lower brokerage commission for online trading helped in phenomenal growth of online stock trading.

The advantages of using the online trading as a channel to invest were the following:

- (i) Majority of the brokerages in Thailand (13 out of 18 firms) were using SETtrade.com as their online trading platform. The tighter integration of this online trading system with the main stock trading system ironed out any technical issues of trades not going through, time delay in trade execution or incompatibilities in systems. This is similar to the SuperMontage online trading platform used in NYSE to execute faster trades and automatic order matching to compete the electronic communication networks.
- (ii) Besides, using SETtrade, most brokerage houses did not have to focus on running the online trading system as it was outsourced system they could better focus on marketing, educating and signing in new customers to try their online trading. Also, the time to roll out for the brokerage houses was almost negligible

- (iii) The cost of investment or the capital risk for the brokerage firms in implementing an exclusive online trading system is minimized as they only pay an annual fee for their utilizing the SETtrade system.

Conclusion

The de-regulation of the brokerage commissions for online trading which gave an incentive for even regular investors to shift their trading from the traditional to the online due to lower commission charges is significant in the shaping the online trading culture in Thailand. The adoption of online trading culture rapidly shows how a technological less savvy or lack of excellent communication infrastructure has not constrained the growth of a new channel for investing by the general public.

The spectacular growth in online trading is not attributed to the factors discussed above but also the bull market that was evident by the rising SET index in 2000. The bull bear was an incentive for lot of speculators and first time novice investors who were young, technologically savvy and embraced online trading. The lack of financial or technical resources in creating an online trading environment was overcome by the creation of the online trading ASP. This eventually helped in expanding the number of brokerages offering online trading to their client. This in return attracted a significant rise in the number of investors to the market and also active day traders who created liquidity and volatility.

This study also explores how an emerging market with quite an attractive stock market can recover after a severe economic downturn. The Asian Economic Crisis and its aftermath brought

a change in the investors who looked forward to diversify their holdings from banks to equity markets. The growth of online stock trading make access to the market more affordable to the general public. The development of the online trading subsidiary has led to multiple initiatives in the Thai market by the successful development of a bond market and fledgling futures market as well.

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Table 1

Online trading in the Stock Exchange of Thailand (Q1 2000 - Q1 - 2003)													
	2000	2000	2000	2000	2001	2001	2001	2001	2002	2002	2002	2002	2003
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
1. Total number of brokerages offering online trading	2	5	8	10	12	14	13	13	12	14	15	18	18
2. Total number of online trading clients	411	1,129	1,364	3,662	4,471	5,373	7,035	9,189	11,019	12,154	14,845	16,381	18,193
3. Total number of active day traders	206	323	420	632	1,036	1,255	1,678	1,787	2,621	3,276	3,833	4,150	4,877
4. Online Trading Value													
* Trading Value (in million baht.)	104	206	242	616	2,095	2,889	3,678	4,046	16,025	16,298	10,060	10,762	11,785
* % per SET volume	0.01	0.06	0.08	0.15	0.20	0.45	0.49	0.55	1.08	1.36	1.38	1.50	1.58

Brokerage Fee of Securities Firms in Thailand during 2003

Brokerage Fee (%)	Number of Brokerages											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.41-0.50	0	0	0	0	0	0	0	0	0	0	0	0
0.31-0.40	1	1	1	1	1	1	1	1	1	1	1	1
0.26-0.30	3	3	3	2	3	2	1	2	1	3	1	1
0.21-0.25	32	32	31	32	31	32	33	32	33	31	34	35
0.16-0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.11-0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.06-0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.01-0.05	0	0	0	0	0	0	0	0	0	0	0	0
Total	36*	36*	35**	35**	35**	35**	35**	35**	35**	35**	36***	37

Average Brokerage Fee	0.26	0.26	0.26	0.25	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.26
Total Brokerage Fee/Total Volume	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Max Brokerage Fee	0.40	0.39	0.38	0.37	0.39	0.38	0.39	0.39	0.38	0.39	0.39	0.38
Min Brokerage Fee	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Note: * exclude one non-trading member, YUANTA

** exclude YUANTA and SGACS

*** exclude SGACS

Brokerage Fee of Securities Firms in Thailand during 2004

Brokerage Fee (%)	Number of Brokerages											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.41-0.50	0	0	0	0	0	0	0	0	0	0	0	0
0.31-0.40	1	1	1	1	1	1	1	1	1	1	1	1
0.26-0.30	1	1	0	1	1	2	1	1	1	0	0	1
0.21-0.25	34	34	35	33	33	31	32	32	32	33	33	32
0.16-0.20	0	0	0	0	0	0	0	0	0	0	0	0
0.11-0.15	0	0	0	0	0	0	0	0	0	0	0	0
0.06-0.10	0	0	0	0	0	0	0	0	0	0	0	0
0.01-0.05	0	0	0	0	0	0	0	0	0	0	0	0
Total	36 *	36 *	36 *	35 **	35 **	34 ***	34 ***	34 ***	34 ***	34 ***	34 ***	34 ***

Average Brokerage Fee	0.25	0.25	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26
Total Brokerage Fee/Total Volume	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Max Brokerage Fee	0.38	0.38	0.39	0.38	0.39	0.39	0.38	0.38	0.39	0.39	0.38	0.38
Min Brokerage Fee	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Note:

- * exclude one non-trading member, SGACS
- ** exclude two non-trading members SGACS and HSBC-S
- *** exclude three non-trading members SGACS, HSBC-S and ASSET