

# Taiwanese Investment in Thailand : A Customer Satisfaction Approach

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## Introduction

Foreign direct investment has played an important role in expediting the economic growth of developing countries. Since there is generally not sufficient accumulation of capital, each country tries to compete in getting foreign capital into her own country in order to boost the employment and consequently economic growth of the country. Japan has been known as a leading country in investing in other countries including Thailand. There are many studies done on the Japanese investment in Thailand so far. However, the study on countries which maintain high level of direct investment in Thailand are minimal. These countries include Hong Kong, USA, Singapore, and Taiwan. The figures on foreign direct investment in Thailand from the top five countries during the period 1985 to

**Table 1**

### Net Flow of Foreign Direct Investment in Thailand of the Top Five Countries

Million baht

Year	Japan	Hong Kong	USA	Singapore	Taiwan
1985	1,534.0	649.0	2,387.5	(1,121.9)	170.6
1986	3,049.0	955.7	1,293.7	403.1	132.6
1987	3,268.7	796.2	1,815.7	535.3	687.3
1988	14,607.6	2,794.5	3,184.7	1,572.0	4,136.3
1989	18,761.6	5,715.7	5,220.3	2,748.1	5,062.3
1990	27,930.9	7,027.4	6,153.6	6,135.8	7,160.0
1991	15,593.3	11,565.5	5,918.6	6,469.3	2,753.5
1992	8,571.8	14,549.0	11,788.3	6,722.2	2,208.8
1993	9,651.8	4,424.3	7,726.9	5,698.5	1,539.4
1994	3,079.4	3,224.7	4,117.8	(2,864.8)	2,364.1
1985-1994	106,048.1	51,702.0	49,607.1	26,297.4	25,214.9

Source : Bank of Thailand, as of April 1995.

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1994 are shown in Table 1. Though the ranking may be changed year by year, the overall foreign direct investment from Japan during such period was the highest, about double the amount invested by Hong Kong which was the second. Japan had its peak in 1990 before declining. Hong Kong invested heavily around 1991-1992 and then started to decline. USA invested the most in 1992, then the investment had been decreased. Singapore was exceptional in that for some years the net foreign direct investments were negative which means that the Thai investors invested in Singapore more than what the Singaporean investors did in Thailand. Taiwan had investment peak in 1990, then the investment declined. However, if the total foreign direct investment for the ten year period (1985-1994) is considered, Taiwan ranked the fifth largest investor in Thailand.

Considering the attempt to draw investments into her own country, there are so many selling points that each developing country can use to attract foreign investment. In such case, developing countries can compete in offering attractive and quality services to various investing countries. Any country which can offer a good bargain and satisfy foreign investor's needs will gain a competitive edge within this global market. One can consider investors' satisfaction on their investment in a country in a similar way to that of customer satisfaction from buying tangible goods and services. How well the service quality a country can offer to an investing country and gain investors' satisfaction, will determine a constant flow of fund to that country. Foreign direct investment usually is examined from the perspectives of the economic theories. This paper, however, will deal with foreign direct investment, particularly that from Taiwan, from a different theoretical background. The marketers' theory of customer satisfaction will be used to explain the Taiwanese investment in Thailand. Business firms compete in satisfying their customers, similarly, Thailand, as a country, can ask herself how well she can satisfy her particular customers, which are foreign investors, in order to attract their investment into this country. Though the substance of the service quality of Thailand in satisfying foreign investors may not be well defined, it is unequivocal that if Thailand can render quality service and gain investors' satisfaction, there should be some strategic benefits added to the country as a whole.

Though there are lots of economic studies on foreign investments as well as the studies of service quality and customer satisfaction in marketing literature, few researchers have attempted to integrate the two. This paper is an attempt to look at some economic constructs from marketing perspective. The purpose of this study is of twofold. First, the level of expectations and satisfaction on different aspects offered from the Thai investors to Taiwanese investors are investigated. Second, a case study of Taiwanese investors in Thailand will be investigated using the theoretical framework of customer satisfaction model. The perceived satisfaction of Taiwanese investors is contrasted to their original expectations to see if Thailand has offered a customer satisfaction to those investors. The significant factors determining the Taiwanese investors' satisfaction on investment in Thailand are explored.

Prior work on measuring quality has been largely done in the goods sector especially on the Japanese firms. Recently, the study has been undertaken on service sector. Service quality and customer satisfaction are hot issues in the area of marketing for the past decade. Distinct from the quality of goods, service itself has properties of intangibility, heterogeneity, and inseparability (Parasuraman, Zeithaml and Berry 1985). Therefore, to measure an elusive construct like service quality is a difficult task. One has to get involved with attitude measurement like perceptions of investors in this case. The heterogeneity character will lead to the differences in service that Thailand can give to each investor. What a Taiwanese investor receives may be entirely different from what an American investor or even another Taiwanese investor receives. Those who perform this service are numerous government officials and some other individual Thais. On the other hand, from the investors' viewpoint, to invest in any country, they certainly will consider the whole package that such country like Thailand can offer them. There is no particular person who will have a full control over quality in service. In this case there is no explicit price of service of the country, it is the benefit that Thailand as a whole will get instead. Then the issue is more complicated.

### LITERATURE REVIEW

Churchill and Surprenant (1982) states "satisfaction is an outcome of purchase and use resulting from the buyer's comparison of the rewards and costs of the purchase in relation to the anticipated consequences."<sup>1</sup> Oliver (1997) suggests that satisfaction fulfillment involves two stimuli which are an outcome and a comparison standard. However, the comparison standard used for each one may not be the same, depending on one's own expectation. Researchers have studied and tested many process theories underlying satisfaction. Oliver and DeSarbo (1988) have summarized five process theories from various studies.<sup>2</sup> They are expectancy disconfirmation model (Weaver and Brickman 1974), assimilation theory (Havland et al. 1957 : Anderson 1973; Olshavsky and Miller 1972; Olson and Dover 1979), equity theory (Walster, Walster and Berscheid 1978; Jasso 1980; Carrell and Dittrich 1978; Huppertz et al. 1978), attributive theory (Weiner et al. 1971; Weiner 1985; Weiner, Russel, and Lerman 1978, 1979), and performance theory (Churchill and Surprenant 1982; Olshavsky and Miller 1972; Wilton and Tse 1983; Westbrook 1981).

Among the proposed satisfaction theories, the expectancy disconfirmation is a widely used one. Tse, Nicosia, and Wilton (1990) conclude that studies focusing on the antecedents of satisfaction have produced strong support for the expectancy disconfirmation paradigm across a wide variety of

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<sup>1</sup> Churchill, Gilbert A., Jr. and Carol Surprenant (1982), "An Investigation into the Determinants of Customer Satisfaction," *Journal of Marketing Research*, 19 (November), p. 493.

<sup>2</sup> Oliver, Richard L. and Wayne S. DeSarbo (1988), "Response Determinants in Satisfaction Judgements." *Journal of Consumer Research*, 14 (March), pp. 495-497.

products. Erevelles and Leavitt (1992) also support that the expectancy disconfirmation paradigm has dominated customer satisfaction research since 1970s.

Two important antecedents of disconfirmation are expectation and performance outcomes. According to Oliver (1980), consumers are believed to form expectations of product performance prior to purchase. Subsequent purchase and usage show actual performance levels that are compared to expectation levels. The results is positive disconfirmation if the product is better than expected and is negative disconfirmation if it is worse than expected. The positive disconfirmation will lead to customer satisfaction as a result.

Considering expectation only, Miller (1977) has proposed four types of expectation: the ideal or wished-for level, the expected or predicted level, the minimum tolerable or lowest acceptable level, and the desirable level which is stemming from what the consumer thinks is appropriate based on investments. These four levels may be referred to as the 'can be', 'will be', 'must be', and 'should be' respectively. Different type of expectation of each customer will lead to different disconfirmation as well as his satisfaction level. Parasuraman, Berry and Zeithaml (1991) seem to support the last type of expectation and suggest that expectation refers to adequate and desired levels. They add that, in case of service quality, expectation refers to excellence or superiority. During the past decade the study of satisfaction has focused more on services other than tangible products. However, the emphasis is still around business firms, not much on the government units, especially not on a country's service as a whole. In case of a country's service, the dimension used in forming investors' expectation upon their investment may be away from those used in evaluating consumer goods and services.

Another important construct of disconfirmation is perceived performance. If the perceived performance is just agreeable to the consumer's desired levels, then the disconfirmation is neutral. Disconfirmation scales are normally bipolar which can take on either positive (better than expected) or negative (worse than expected) values. Negative disconfirmation or negative discrepancy occurs when performance is below standard (Oliver 1997). The expectation level provides a baseline around which disconfirmation judgments are made. The higher (lower) one's expectations, the higher (lower) the subsequent satisfaction judgment (Oliver and DeSarbo 1988). The delight of a positive disconfirmation enhances a satisfaction judgment, which the disappointment of negative disconfirmation decreases it. According to Oliver (1977), with the same outcome, one consumer might be satisfied because it was better than expected while another one might be dissatisfied because it was worse than expected. An individual expectation is important in performance evaluation and consequently his satisfaction level. He suggests that researchers may be able to infer disconfirmation by collecting only expectation and performance data.

Churchill and Surprenant (1982) conclude that disconfirmation is a crucial intervening variable in the satisfaction research. Disconfirmation arises from discrepancies between prior expectations and

actual performance. It is the magnitude of the disconfirmation effect that generates satisfaction and dissatisfaction. Oliver (1997) has also stressed the importance of measuring disconfirmation apart from expectation. He states that "the disconfirmation concept is so versatile that it can be applied to the entire consumption experience as well as groups of attributes or the individual attributes themselves."<sup>3</sup> According to Oliver (1980), in the absence of prior experience with a service provider, consumers make their decision based on their prior expectations which in turn define the level of perceived service quality. Once the customers experience the service, the disconfirmation process will modify the level of perceived service quality and consequently their satisfaction (dissatisfaction) will be realized. Lewis and Booms (1983) suggest that service quality involves a comparison between expectations and performance. In evaluating service quality, consumers compare their expected service with perception of the service they receive (Gronroos 1982), Satisfaction with services is related to confirmation or disconfirmation of expectation per se (Smith and Houston 1982).

Oliver (1993, 1994) suggests that by using either performance ratings or quality ratings as a proxy for performance, direct effect operating side by side with disconfirmation have been found for the product and service categories of automobiles, course instruction, and medical care. Swan and Trawick (1980) examined the influence of perceived product performance on disconfirmation and satisfaction. On the basis of correlation analysis, they found disconfirmation to be strongly related to performance, as to satisfaction. Some others (Bolton and Drew 1991; Churchill and Surprenant 1982; Woodruff, Codotte, and Jenkins 1983) appear to support the concept of simple performance based measures of service quality. They tend to prefer the performance based theory of satisfaction other than the expectancy disconfirmation.

Churchill and Surprenant (1982) suggested that performance and disconfirmation operated in either/or fashion depending on the product context. They found out from their study that for a consumer durable good (a video disk player) showed performance only effects while a nondurable (a potted plant) showed the more traditional expectancy disconfirmation influences. Therefore, other than expectancy disconfirmation model, the performance only model is sometimes considered as an appropriate theory for some products.

Though there are some other satisfaction theories such as the assimilation, the equity, and the attribution theory; however, the most mentioned one in the literature of service quality and customer satisfaction is more of the expectancy disconfirmation model. Therefore the model used in this study is mainly based on the expectancy disconfirmation theory. The difference of this study from the reviewed literature is upon the type of service, which in here is at the national level other than

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<sup>3</sup> Oliver, Richard L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*, New York: McGraw Hill Book Co., p.

just a mere business firm. It is the service that Thailand as a country gives to Taiwanese investors. Therefore, the dimensions used in this study of expectation and perceived performance are more of economic variables that investors should consider in making their investment decision.

## METHODOLOGY

### Sample

List of Taiwanese firms was obtained from the Taiwanese Business Directory in Thailand. The target respondents were the CEO of each Taiwanese business. From 100 distributed questionnaires only 41 were returned.<sup>4</sup> The main difficulty in placing and getting each questionnaire back was the transportation problem because each company is normally situated in the suburb, within or near industrial estate area. Therefore, the data collection is more of a mail survey instead where the response rate is around 41%.

For the firm that has a joint venture with Thai partners, an extra page of the questionnaire was included and sent to the Thai partners on their attitudes on the Taiwanese investment to see if both sides have similar perceptions on the same aspects.

### Measurement

From the beginning of the questionnaire, the respondents were asked by an open-ended question on what they had expected to get from investing in Thailand the most. The purpose of using open-ended questions is to probe to what extent and if there are other factors that influence investors' investment decision. After that, the respondents were asked about their attitude on the importance of various factors influencing their decision to invest in Thailand before and after their actual investment using 7-point semantic differential scale. The statements are composed of the internal factors within Taiwan and some important factors in Thailand, such as factors of production, benefits that they expected to get, economic, social and political environments in Thailand and return on investment. The same kind of statistics on important factors in Thailand has been asked again on their perception of satisfaction after they actually invested in Thailand. Moreover, the respondents had been asked about their problems with respect to investing in Thailand and the activities that they took part in the Thai society.

Descriptive statistics on all questions were obtained. Only on the part of factors from the Thai side which influences Taiwanese investors' decision to invest in Thailand *before* and *after* their actual

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<sup>4</sup> At first, the personal interview was planned for data gathering. However, after sending the students to interview the CEO of each firm, they hardly had enough time to answer the questions right away. So, it was necessary to leave the questionnaires for them to fill whenever they had time to. And the students were assigned to get those questionnaires back.

investment are used as expectations and perception on actual performance of investors according to the expectancy disconfirmation model.

Due to the different nature of this particular product from those studied in the literature of service marketing, the underlying dimensions are different from the 5 dimensions of service quality literature. The hypothesized dimensions are drawn from economic perspectives; however, they have not been explored technically like some other marketing variables. And because there has never been any direct study on the suitable dimensions for this kind of service. Therefore, the exploratory factor analysis is done to find the underlying dimensions of the service to Taiwanese direct investment.

## RESULTS

From the open-ended question on what investors expected to get from investment in Thailand, the findings show that the answers are diverse. However, the most mentioned factors are profit, low labor cost or production cost, and sufficient manpower. Together with other factors mentioned, almost all factors that the respondents freely mentioned are included in the detailed rating scale questions. Therefore the measurement used in the questions concerning each factor is quite appropriate and covers all important factors according to investors' expectations. The results of the survey are presented in two sections. In the first section, the descriptive statistics are presented along with the t-statistics to test the difference between the expectations of Taiwanese investors before they really start their business here and their perception of actual performance in Thailand upon satisfying their investment climate after their actual investment. Next, the factor analysis results are reported using the expectancy disconfirmation model. However, the nature of this study is different from the study on goods and services where some particular dimensions are suggested. The proposed dimensions here are more of economic variables in which the measurement has never been tested before. However, they are confirmed from the respondents on the open-ended question that the influencing factors are what the respondents really expect to get. Then, only the exploratory factor analysis can be used to explore the underlying dimensions in the model.

### **Discussion of Results: Profile of Taiwanese Firms**

In this part, the descriptive statistics will be presented on the profile of the sample of Taiwanese firms. Since the sample size is small, e.g., only 41 observations, It is difficult for us to be really conclusive about the findings. This is admittedly a limitation of this study. However, as the total population of the Taiwanese joint-venture firms is not very large compared to those of other investor countries such as Japan, this sample can be used as a suggestive evidence to a certain extent. The results on the company profiles such as type of business, amount of investment, number of employees

and sales will not be shown here. Only the information on the attitudes of the Taiwanese investors on the factors influencing their investment both before and after the actual investment in Thailand, the problems they encountered after their actual investment and the activities that they think they have taken part actively in Thailand will be presented. The hypothesized factors which are confirmed by those investors are considered from the economic viewpoints. Return on investment or profits are used as proxy variables to test the assumption of the microeconomics theory that firms maximize profits. To profit maximize, one needs to produce at low cost. Since labor cost in Taiwan is increasing, Taiwanese investors are therefore looking for other production bases which provide cheaper labor resources. Thailand is one of the country that meets this requirement.

### 1. Investors' internal factors

The importance of each variable was scaled to range from 1, not at all important, to 7, very important. Table 2 shows the means of each variable together with the corresponding standard error ranking descendingly according to the mean value. As expected, the most influencing factor within Taiwan is the country's high labor cost. Next is the encouragement of Taiwanese government to invest in foreign countries, the strict environmental law in Taiwan, the high import tariff of Thailand on goods imported from Taiwan, and high corporate income tax in Taiwan. Only the first two variables have an average over 3.5. It indicates that other than the high labor cost in Taiwan, the Taiwanese government also encourages businesses to invest abroad in order to utilize the surplus within the country as well.<sup>5</sup> The other four factors seemed not to play an important role in the investment decision.

**Table 2**  
**Internal Factors within Taiwan**

Factors	Mean	SE Mean
1. High labor cost in Taiwan.	4.829	.333
2. Encouragement of Taiwanese Government.	3.878	.311
3. Strict environmental law in Taiwan.	3.415	.351
4. High import tariff in Thailand for Taiwanese Products.	3.375	.361
5. High corporate income tax in Taiwan.	3.000	.302
6. Opportunity of satisfactory rate of return in Taiwan.	2.925	.283

### (2) Factors of production in Thailand

According to the theory of the firm where the profit maximization is always assumed, cost of production is an important element in this process. Rational entrepreneurs would normally keep their

<sup>5</sup> In the same manner, some Thai businesses have been investing in the neighboring countries right now.

production at the lowest cost possible. Therefore, the availability and sufficiency of inputs at reasonable prices should be the main concern. Those variables on production costs are on labor, raw materials, and capital. Moreover, the sufficient utilities and infrastructure are also important in facilitating the smooth operation within the time limit. The results of the rating scales by Taiwanese investors are shown in Table 3.

Among eleven variables shown in Table 3, only the variable on sufficiency of unskilled labor and low incidence of strike that have mean value of the actual performance perception higher than the mean value of the expectation before actual investment in Thailand. However, the differences are not statistically significant. All other variables showed the lower average value of perception of actual performance from the expectation evaluation. The variables are ranked descendingly according to the mean values of the factors before investment. The wide gaps are on the expected low labor costs, the sufficiency of infrastructure, the sufficiency of utilities and the plentifulness of domestic raw materials. The results show the negative disconfirmation of this kind of service provided to Taiwanese investors. After the paired t-test on the difference between the expectations and the perceived actual performance, the only statistical differences are only on five variables. The first three variables which are statistically significant at 95% level of confidence are low labor cost, sufficient utilities and sufficient infrastructure. The other two are statistically significant at 90% level of confidence. They are plentiful domestic raw materials and sufficient skilled labor in Thailand. Other variables are not different in means statistically. The negative disconfirmation is confirmed in all significant differences.

**Table 3**  
**Factors of Production in Thailand**

Factors	Before investment		After investment		t Statistics
	Mean	SE Mean	Mean	SE Mean	
1. Low labor cost in Thailand.	5.341	.296	4.366	.265	4.05*
2. Sufficient utilities.	4.650	.260	3.750	.281	2.53*
3. Sufficient infrastructure.	4.579	.276	3.605	.265	3.24*
4. Plentiful domestic raw materials.	4.475	.330	3.850	.285	1.87**
5. Sufficient unskilled labor.	4.450	.334	4.475	.282	-0.07
6. Knowledgeable and experienced Thai co-worker.	4.375	.295	3.875	.291	1.43
7. Sufficient semi-skilled labor.	4.350	.303	3.925	.262	1.45
8. Low incidence of strike and labor conflict.	4.150	.341	4.300	.287	-0.39
9. Domestic source of investment fund.	4.100	.293	3.875	.278	0.78
10. Sufficient skilled labor.	4.050	.336	3.425	.263	1.67**
11. Inexpensive raw materials.	3.925	.335	3.525	.284	1.04

\* Significant at .05 level.

\*\* Significant at .10 level.

### (3) Benefits that the Thai Government gives to the Investors

Considering the potential benefits that the Thai government used as incentives to attract foreign investment such as tax exemptions of various items, the industrial estate zones, the tariff barrier to the goods produced abroad and the connection between the investors and the government, those items are listed for the Taiwanese investors for rating. The results are shown descendingly in Table 4 according to the mean values of the factors before investment together with the corresponding standard errors.

**Table 4**

#### **Benefits that the Thai Government Provides to the Investors**

Factors	Before investment		After investment		t Statistics
	Mean	SE Mean	Mean	SE Mean	
1. Tax exemption on machines and equipment.	5.538	.303	4.487	.314	2.94*
2. Tax exemption on imported raw materials.	5.359	.334	4.205	.337	2.66*
3. Tax exemption on income tax.	4.850	.317	4.100	.306	2.21*
4. Help in facilitating connections between the government and investors.	4.789	.295	3.895	.317	2.34*
5. Help setting up industrial estates.	4.632	.340	4.289	.313	0.84
6. Tax exemption on earned income.	4.538	.346	4.128	.333	1.07
7. Protection to investors by setting import tariff.	4.538	.350	3.974	.293	1.49

\* Significant at .05 level.

For all the variables concerning the benefits that the Thai Government gives to the Taiwanese investors, the average value of attitudes on expectations are higher than the average value of the perception on actual performance for every variable. The larger gaps are on tax exemption on machine and equipment, tax exemption on imported raw materials and income tax, and on the government help in facilitating connections between the government and the investors where the t-statistics on the paired t-test of differences in mean are statistically significant. The results indicate the negative disconfirmation consequence of the actual performance from their expectations. Other variables under the heading of benefits that the Thai government provides to Taiwanese investors, though the average actual performance are lower than the expectations, they are not statistically different.

#### (4) Economic, social and political environment in Thailand

One of the key factors that foreign investors consider besides the expected profits is the potential risk within the country they would like to invest. This factor will be reflected in the country's rating that some international rating institutions such as Standard and Poors' and Moody's always do regularly. The factors like the country's economic growth, the political stability, the stability of the country's currency, the inflation rate and the internal investment policies are normally considered in constructing the country's risk. Moreover, some others such as the size of internal market for the products produced, the positive attitudes of Thais towards the foreign investors and the advantage of the Thai GSP should be a plus to the foreign investors' decision. All those factors according to the Taiwanese investors' perspective are rated and shown descendingly by the mean values of each factor before investment (see Table 5).

**Table 5**  
**Economic, Social and Political Environment in Thailand**

Factors	Before investment		After investment		t Statistics
	Mean	SE Mean	Mean	SE Mean	
1. Rapid Thai economic growth.	5.710	.241	5.184	.264	1.66**
2. Positive attitudes of the Thais towards Taiwanese investors.	5.500	.249	4.210	.304	3.55*
3. Political stability in Thailand.	5.421	.260	3.816	.308	5.00*
4. Domestic investment policies that encourage foreign investment in Thailand.	5.395	.284	4.316	.272	3.51*
5. Ability to use Thai GSP to export manufactured products.	4.973	.356	4.351	.320	1.47
6. Stability of Thai currency.	4.921	.310	4.921	.248	0.00
7. Low inflation in Thailand.	4.718	.257	4.282	.277	1.24
8. Domestic market for the products.	4.622	.370	4.108	.287	1.57

\* Significant at .05 level.

\*\* Significant at .10 level.

Almost all of the variables under this category have the average scores of the actual performance lower than the their expectations except on the stability of Thai currency which are equal. However, the ones with the large gaps are the political stability in Thailand, the positive attitudes of Thais towards Taiwanese investors and the domestic investment policies that encourage foreign investment in Thailand. These three variables have significant t-statistics which suggest the difference in means of the expectations and the actual performance. Again the negative disconfirmation is confirmed.

### (5) Return on investment

Unlike the Thai entrepreneurs, the foreign investors may not only want just getting profits but also sending profits earned back home. The rating results of such factors are shown in Table 6 together with the standard errors.

Again the expectation of the return on investment is greater than the perception on actual performance. The differences are statistical significant for both the annual profit generated from investment and on sending profit earned back to Taiwan. The former is significant at 95% confidence level while the latter is significant at 90% confidence level.

**Table 6**  
**Return on Investment**

Factors	Before investment		After investment		t Statistics
	Mean	SE Mean	Mean	SE Mean	
1. Annual profits generated from investment.	4.750	.329	3.639	.268	2.64*
2. Sending profit earned back to Taiwan.	3.917	.348	3.139	.322	1.72**

\* Significant at .05 level.

\*\* Significant at .10 level.

### (6) Problems encountered after investment in Thailand

#### - Factors of production

The most serious problems the Taiwanese investors encountered are insufficient infrastructure, raw materials scarcity, high labor cost and scarcity of fund (see Table 7). The problems on labor has an average less than 3.5 which is less than the means of other factors. This seems to suggest the availability and stability of Thai labor to an extent.

#### - Government and governmental units

The problem the Taiwanese investors in this study consider the most serious is the slow government system. This factor gets the highest mean value (5.769) among all variables (see Table 7). The problem of the corruption of government officers is also considered as the next serious problem with the mean value of 4.923. And the bad treatment by the government officer and the non-cooperation in facilitating facilities has mean value of 4.41 and 4.077 respectively which are also considerably high.

Table 7

**Problems Encountered after Investment in Thailand**

Problems	Mean	SE Mean
<b>Factors of production:</b>		
1. Lack of sufficient infrastructure.	4.410	.281
2. Raw material scarcity.	4.050	.289
3. High labor costs.	3.800	.280
4. Fund scarcity.	3.692	.236
5. Labor strike.	3.450	.338
6. Labor scarcity.	3.350	.303
<b>Government and government units:</b>		
1. Slow government system.	5.769	.266
2. Corruption of government officers.	4.923	.285
3. Bad treatment by government officers.	4.410	.298
4. Non-cooperation in facilitating facilities.	4.077	.258

**(7) Activities that Taiwanese Investors Took Part Actively**

To the questions asked about the activities that the Taiwanese investors took part actively in the Thai economy. The respondents gave the use of Thai labor the most with mean of 6 (see Table 8). Next are the transfer of management knowledge to the Thais and the transfer of technology to Thailand where the average values of attitudes are 5.184 and 5.132 respectively. The average scores

Table 8

**Activities that Taiwanese Investors Took Part Actively**

	Mean	SE Mean
1. Use of Thai labor.	6.000	.244
2. Transfer of management knowledge to Thai.	5.184	.235
3. Transfer technology to Thailand.	5.132	.288
4. Use of domestic raw materials.	4.684	.302
5. Use of high technology in production.	4.211	.311
6. Investment in research & development.	3.895	.282

on the use of domestic raw materials, the use of high technology in production and an investment in research and development are also more than half where an investment in research and development has the least value. There are 20 Thai co-investors from 41 respondent companies which suggest their attitudes on the activities that the Taiwanese investors took part. The differences of the perceptions from both sides are not statistically different except for the use of Thai labor that the Thai counterparts give significantly lower rate than the Taiwanese investors (see Table 9).

There is no doubt that the main incentive of investing in Thailand is labor. The rating scale shows the highest scores for this activity (see Table 9). The Taiwanese investors also regard themselves at higher scales on management and technology transfer to Thailand too. The utilization of high technology is accepted to be moderate where the rating scores are about the middle point of scale so is an investment in research and development. The foreign investment should be more beneficial to the country if the country's people can learn more of high technology in producing goods to compete with other lower labor cost countries such as China. The country has to upgrade her products to be more value added to survive under the turbulent global competition. And to prepare herself to have her own better technology, the investment in research and development is needed. Therefore, not only the technology transfer should be encouraged but also the R&D funds.

Table 9

**Comparisons between Taiwanese and Thais Perception on Activities that Taiwanese Investors Took Part Actively**

	Taiwanese's		Thais'		t Statistics
	Mean	SE Mean	Mean	SE Mean	
1. Use of Thai labor.	6.550	.246	6.000	.316	1.99*
2. Transfer of management knowledge to Thai.	4.300	.448	4.900	.340	-1.64
3. Transfer technology to Thailand.	5.050	.373	5.100	.324	-0.13
4. Use of domestic raw materials.	4.350	.494	4.850	.372	-1.13
5. Use of high technology in production.	4.474	.504	4.105	.397	0.80
6. Investment in research & development.	3.800	.439	4.050	.387	-0.63

\* Significant at .05 level.

### Factor Analysis Results

According to expectancy disconfirmation model, the disconfirmation is caused from the differences between expectation and perceived actual performance. Therefore, the difference between the perceived actual performance and expectations of an investor for each variable was computed and used as input for factor analysis of the expectancy disconfirmation model. Under the exploratory factor analysis, the dimensions underlying this kind of service from the perspective of Taiwanese investors will be revealed. Factors with eigenvalue greater than one are selected and the reliability tests are computed to determine the suitable variables to be included in each factor. The rotated factor matrix using varimax rotation is shown in Table 10. The internal consistency of the measurement model is assessed by computing Cronbach's alphas. The reliability test statistics are shown on the right hand side of the Table.

Table 10

## Rotated Factor Matrix:

	Factor						Cronbach's Alpha
	1	2	3	4	5	6	
Tax exemption on imported rm.	.85	-.01	.11	.13	.27	-.10	.841
Tax exemption on mach. & equip.	.80	.23	-.06	.06	.21	-.24	
Low labor cost in Thailand.	.67	-.11	.05	-.17	.36	.12	
Plentiful domestic raw material.	.66	-.09	.29	.38	-.33	.10	
Protect investor through tariff.	.62	.08	.06	-.03	-.26	.14	
Inexpensive raw material.	.56	-.01	.24	.36	-.14	.12	
Sufficient unskilled labor.	.54	.43	-.10	.30	-.00	.25	
Political stability in Thailand.	-.09	.83	.31	-.00	-.06	-.00	.802
Domestic investment policy.	.20	.76	.06	.01	.17	.12	
Low inflation in Thailand.	.04	.59	.34	.05	.34	.09	
Positive attitudes of the Thais.	.03	.49	.48	.26	-.02	.42	
Knowledgeable and experienced Thai	.15	-.03	.84	.05	.02	.12	.843
Sufficient utilities.	.21	.25	.77	.16	-.10	-.20	
Sufficient infrastructure.	-.05	.29	.76	.16	.11	-.09	
Sufficient skilled labor.	.13	-.00	.06	.84	.14	.11	.801
Sufficient semi-skilled labor.	.07	.18	.08	.81	.24	.12	
Low incidence of strike.	.06	.05	.37	.67	.08	.09	
Tax exemption on income tax.	.18	.06	.15	.27	.81	.24	.816
Annual profit from investment.	.07	.39	-.06	.27	.68	-.09	
Sending profits back.	-.11	.51	-.14	.29	.51	.15	
Tax exemption on earned income.	-.07	.06	.09	.02	.34	.83	.749
Help setting industrial estate.	.08	.04	-.10	.23	.01	.81	
Ability to use Thai GSP.	.18	.38	-.06	.12	-.44	.63	
Eigenvalue	6.15	2.96	2.42	2.19	1.78	1.20	
Cumulative percentage variance	26.8	39.7	50.2	59.7	67.5	72.8	

Note: Factors that do not load are as follows:

Domestic source of investment.

Help facilitating connection between Thais and Taiwanese investors.

Rapid Thai economic growth.

Domestic market for products.

Stability of Thai currency.

The Cronbach's alpha of .7 is used as a minimum criteria in grouping variables into different dimensions. The reliability test statistics show that the measurement for each dimension is reliable. Five out of six factors have alpha around .8. Only the last one has alpha equal to .749 which is still acceptable.

Though all the measured variables are primarily grouped into four main dimensions based on important factors from the Thai side which are namely "factors of production", "benefits that the Thai government provides to Taiwanese investors", "economic, social and political environment in Thailand" and "return on investment", the expectancy disconfirmation model could extract six factors. On the primarily hypothesized construct "benefits that the Thai government provides to Taiwanese investors", it turns out that there are two extracted factors called "internal supporting facilities within Thailand" and "encouraging Thai policies". These two factors are what the Thai government used as incentives to attract foreign investors. Another extracted factor is on the labor issue in which those items were included in "factors of production" construct at first. It seems that there are two interested elements in "factors of production" construct according to Taiwanese investors from the exploratory factor analysis. They are direct and indirect costs of manufactured goods. The direct cost is the investors' main concern. The indirect part is what they are also worried, but to a lesser degree.

Because there is no such study on the dimension of this kind of service using attitude scales so far, this study is an attempt to find out the dimensions of expectancy disconfirmation process of investors which is believed to be an acceptable theory underlying customer satisfaction on their direct investment. All factors have an eigenvalue greater than one and the total variance of these six factors account for is 72.8%. There are 7 items loading on the first factor which supports the underlying "low cost of production" dimension. Items loading on this factor are tax exemption on imported raw material, machine and equipment, low labor cost, plentiful raw material, sufficient unskilled labor and import tariff on the manufactured products. This factor concerns particularly with direct cost of goods sold. Though the normal assumption upon theory of the firm is on profit maximizing; however, cost minimization is also implied as a necessary condition. It turns out that this factor is what the investors are concerned the most. This factor alone accounts for 26.8% of the total variance where the coefficient alpha is .841 which is a good indication of internal consistency of measurement.

Items loading on the second factor confirms "economic, social and political environment in Thailand" construct. Those items are political stability, domestic investment policy, low inflation rate, and positive attitudes of the Thais towards Taiwanese investors. It accounts for 12.9% of the variance where the coefficient alpha is .802. Thus, this factor conforms to the hypothesized construct so far.

The third factor through the sixth factor, each are loaded from 3 items. Three items confirming the third factor represents "internal supporting facilities within Thailand" construct which accounts for 10.5% of the variance where the coefficient alpha is .843. The items loading on the third

factor are knowledgeable and experienced Thais, sufficient utilities and sufficient infrastructure. This factor shows the concern of those investors upon the fundamental facilities that a country can offer.

The other three factors can be treated as "labor availability and stability", "return on investment" and "encouraging Thai policies" dimensions which account for 9.5%, 7.8% and 5.3% of the total variance respectively. The coefficient alphas for these three dimensions are .801, .816 and .749 sequentially. The fourth factor consists of the sufficiency of skilled labor and semi-skilled labor and low incidence of labor strike. So, this factor is mainly on labor issue. However, these kinds of labor are not much required by the factory as much as the unskilled labor that will affect the variable cost directly.

Item loading on the "return on investment" other than annual profits generated from investment and the ability to send profit earned back home, is tax exemption on income tax. This item is put under the benefit that the Thai government provides to Taiwanese investors at first. However, this item will affect the company's return directly. If income tax is reduced, there should be more profit left within the company.

The last extracted factor, "encouraging Thai policies", consists of tax exemption on earned income, the way the government help setting industrial estates, and the ability that the investors can utilize the Thai GSP. These items are all the variables used to induce more investment in Thailand. The first two items were primarily included in the "benefits that the Thai government provides to Taiwanese investors" construct. And the last one was at first included in "economic, social and political environment in Thailand" construct. According to Taiwanese investors they considered all these three items as incentives to their investment.

To summarize, from the exploratory factor analysis result, there are six dimensions underlying the expectancy disconfirmation on Taiwanese investors. They are cost of production, economic, social and political environment in Thailand, supporting facilities within the country, labor availability and stability, return on investment and the encouraging Thai policies: It turns out that the actual performance that the investors perceived is worse than expected. And the negative disconfirmation will lead to the customer dissatisfaction.

## **DISCUSSION OF RESULTS**

Based on the survey research results of the Taiwanese investment, it is obvious that the main reason for Taiwanese direct investment in Thailand is to lower cost of production and thus expected higher return on investment. The high labor cost in Taiwan and expected low labor cost in Thailand together with the incentives from the Thai government had drawn the direct investment from Taiwan. The actual outcomes after the actual investment has occurred, an individual comparison between expectations and perceived actual performance on each variable, indicate that what the Taiwanese

investors really get are generally lower than their expectations. The statistically significant disconfirmation on “factors of production” are on low labor cost, sufficient infrastructure, sufficient utilities and plentiful domestic raw materials. The statistically disconfirmation on the variables under the “benefits that the Thai government gives to Taiwanese investors” are on tax exemption on machinery and equipment, tax exemption on imported raw materials, tax exemption on income tax and on the assistance expected to facilitate the connection between the Thai government and the Taiwanese investors. What the investors really get from those items are not as much as what they have formerly expected.

On the “economic, social and political environments in Thailand” , the Taiwanese investors are also disappointed on the political stability in Thailand, the attitudes of Thais towards Taiwanese investors and on the Thai domestic investment policies. They are also not satisfied about their return on investment. The serious problems they face after their actual investment in Thailand is the slow government system, the corruption of government officers, an improper treatment by government officers, the lack of sufficient infrastructure and the non-cooperation in facilitating the foreign investors from the Thai side.

Moreover, the Taiwanese investors regard themselves as highly involved in the use of Thai labor, transfer of management knowledge and technology to Thais. However, they accept that there is not much investment in research and development.

The study shows that overall, the quality of service offered by Thais to Taiwanese investors are below the Taiwanese’s expectations. The negative disconfirmation is realized and the customer dissatisfaction seems apparent. In order to boost the Taiwanese investment, the Thai government should improve the current situation, such as speeding up the government process, improve the facilities especially the infrastructure within the country, stabilize political situation, better facilitating the connection between Thais and Taiwanese investors and improve the competitive situation by creating the service minded government officers to perform better service to investors. If all the above weak points are corrected, and the positive disconfirmation is in place yielding the customer satisfaction, the higher direct investment from Taiwan should be more realistic. Thai government should adjust herself to better satisfy those investors according to their needs.

The service quality and the customer satisfaction concepts are at the core of business firms’ operations. However, government organizations seem to be reluctant to pay attention to such concepts. The need to practice quality service may not be immediately apparent. Unfortunately, under the globalisation era, competition among developing countries to induce foreign direct investment has become more vigorous. The decision made by General Motor in choosing Thailand instead of Philippines as the South East Asia base is an evident example. In this sense, without recognizing customers’ complaints and attempts made to improve the quality of service, a country will lose her

competitiveness to new competitors. This study has revealed some weak points of Thailand on attracting and servicing foreign investors, and provide some recommendations to those involved to better handle the complaints of customers' dissatisfaction.

Moreover, the results of this study indicate that in order to identify the antecedents of customer satisfaction of this type, the expectancy disconfirmation model is confirmed. In this study the overall score on service quality or customer satisfaction has not been measured. Therefore the causal relationship of each perceived construct could not be identified.

For future research, it is suggested that one should measure the overall service quality of Thailand and the investors' satisfaction so that the causal relationship between their attitudes on each aspect of the service they could get and their perception on overall service quality and customer satisfaction could be ascertained. The Thai government can use such knowledge to set the priority of the government service to their investors in order to satisfy and boost their investment into the country in the future.

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## REFERENCES

- Anderson, Rolph E. (1973), "Consumer dissatisfaction: The Effect of disconfirmed Expectancy on Perceived Product Performance," *Journal of Marketing Research*, 10 (February), 38-44.
- Bolton, Ruth N. and James H. Drew (1991), "A Multistage Model of Customers' Assessments of Service Quality and Value," *Journal of Consumer Research*, 17 (March), 375-384.
- Cadotte, Ernest R., Robert B. Woodruff, and Roger L. Jenkins (1987), "Expectations and Norms in Models of Consumer Satisfaction," *Journal of Marketing Research*, 24 (August), 305-314.
- Churchill, Gilbert A., Jr. And Carol Surprenant (1982), "An Investigation into the Determinants of Customer Satisfaction," *Journal of Marketing Research*, 19 (November), 491-504.
- Day, Ralph (1977), "Toward a Process Model of Consumer Satisfaction," in H. Keith Hunt (ed.), *Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, Marketing Science Institute, Cambridge, MA, (May), 153-186.
- Droge, Cornelia and Diane Halstead (1991), "Postpurchase Hierarchies of Effects: The Antecedents and Consequences of Satisfaction for Complainers versus Non-complainers," *International Journal of Research in Marketing*, 8 (November), 315-328.
- Erevelles, Sunil and Clark Leavitt (1992), "A Comparison of Current Models of Consumer Satisfaction/ Dissatisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 5, 104-114.
- Gronroos, Christian (1982), *Strategic Management and Marketing in the Service Sector*, Helsingfors: Swedish School of Economics and Business Administration.
- Lewis, Robert C. and Bernard H. Booms (1983), "The Marketing Aspects of Service Quality," in *Emerging Perspectives on Services Marketing*, L. Berry, G. Shostack, and G. Upah, eds., Chicago: American Marketing, 99-107.
- Locke, Edwin A. (1969), "What Is Job Satisfaction?" *Organizational Behavior and Human Performance*, 4 (November), 309-336.
- Michalos, Alex C. (1985), "Multiple Discrepancies Theory (MDT)," *Social Indicators Research*, 16, 347-413.
- Miller, John A. (1977), "Studying Satisfaction, Modifying Models, Eliciting Expectations, Posing Problems, and Making Meaningful Measurement," in H. Keith Hunt (ed.), *Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, Marketing Science Institute, Cambridge, MA, (May), 72-91.
- Oliver, Richard L. (1977), "Effect of Expectation and Disconfirmation on Postexposure Product Evaluations: An Alternative Interpretation," *Journal of Applied Psychology*, 62 (August), 480-486.

- Oliver, Richard L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research*, 17 (November), 460-469.
- Oliver, Richard L. (1981), "Measurement and Evaluation of Satisfaction Process in Retail Settings," *Journal of Retailing*, 57 (Fall), 25-48.
- Oliver, Richard L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*, New York: McGraw-Hill Book Co.
- Oliver, Richard L. and Wayne S. DeSarbo (1988). "Response Determinants in Satisfaction Judgments," *Journal of Consumer Research*, 14 (March), 495-507.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and Its Implication for Future Research," *Journal of Marketing*, 49 (Fall), 41-50.
- Parasuraman, A., Leonard L. Berry, and Valarie A. Zeithaml (1991), "Understanding Customer Expectations of Service," *Sloan Management Review*, 32 (Spring), 39-48.
- Smith, Ruth A. and Michael J. Houston (1982), "Scrip-Based Evaluations of Satisfaction with Services," in *Emerging Perspectives on Services Marketing*, L. Berry, G. Shostack, and G. Upah, eds., Chicago: American Marketing, 59-62.
- Swan, John E. and I Fredrick Trawick (1980), "Inferred and Perceived Disconfirmation in Consumer Satisfaction," in *Marketing in the 80's*, Proceedings of the AMA Educators' Conference, Chicago, 97-101.
- Tse, David K., Franco M Nicosia, and Peter C. Wilton (1990), "Consumer Satisfaction as a Process," *Psychology & Marketing*, 7 (Fall), 177-193.
- Woodruff, Robert B., Ernest R. Cadotte, and Roger L. Jenkins (1983), "Modeling Consumer Satisfaction Process Using Experience-Based Norms," *Journal of Marketing Research*, 20 (August), 296-304.
- Yi, Youjae (1990), "A Critical Review of Consumer Satisfaction," in Valarie A. Zeithaml (ed.), *Review of Marketing 1990*, American Marketing Association, Chicago, 68-123.