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STATEMENT FROM THE MANAGING EDITOR

This issue of the Au Journal of Management has an eclectic mix of articles ranging from responsible environmental behavior of tourists to testing financial models in Thailand. As in our previous issue, a section of the Journal provides a platform for the publication of our current PhD students' research.

We are proud to publish two papers from our PhD students specializing in Finance, in this issue, Suntraruk tests the CAPM Model under Bull and Bear market conditions in Thailand. The findings suggest important implications for investors in the Thai market. Another article, co-authored by Suntraruk and Titheesawad, examines the effect of bundle frames on consumers' purchase intention and reservation price. Their findings, while making an important contribution to the literature on bundling, also offers useful information for those managers who might wish to implement bundling strategy in the future.

Chaipoopiruntata's article outlines the development of service quality models from the earlier Nordic models to the most recent, the service quality of Internet search engines. Her findings will be of importance, particularly to researchers who are studying service quality in educational institutions. In similar vein, Tuntirattanasoonthorn has examined service quality improvements in the Thai hotel industry. She concludes that although Thai hotels have come a long way in service improvements, they still need to implement several quality initiatives to compete with their counterparts in other countries.

In this issue, we also have two articles from recent MBA graduates. With more 'Made in China' products entering the Thai markets, it is crucial that Thai consumers' perception and attitude toward these products be surveyed. Ting Ting Ran's study covers such perception and attitude toward Made in China television sets. Her findings suggest that Chinese marketers need to alter some of the product's intrinsic and extrinsic cues in order to be successful in the Thai market. Vanasunthakul's study on purchase intention toward Bangkok Post newspaper found significant relationships between all three media credibility factors and purchase intention.

Prapannethivuth and Arttachariya surveyed the responsible environmental behavior of visitors to selected Thai National Parks. In this exploratory study, environmental attitudes were associated with responsible environmental behavior; similarly socio-demographic factors as well as personality characteristics were significantly related to visitors' behavior. The authors' findings and implications offer useful suggestions to policy makers, marketers, and consumers, in general.

I express my thanks to all the contributors, any meaningful improvements in the Journal are dependent upon submissions. I urge those of you who previously have submitted manuscripts to the Au Journal of Management to continue to do so. I also welcome contributions from all researchers, this is your opportunity to make your work known to a wider community.

Patricia Arttachariya, Ph.D.
Managing Editor

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Contents

THE EFFECT OF BUNDLE FRAME ON PURCHASE INTENTION AND CUSTOMER'S RESERVATION PRICE

by

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Abstract

This paper examined the influence of bundle frame, the presentation format of products within the bundle, on customer's purchase intention and reservation price. The results from a laboratory experiment indicated that purchase intention was higher when the bundle price was presented in segregated form than an integrated one. However, presenting discounted price in segregated form posed negative impact on customer's reservation price. In a segregated price framing, the discount prices of individual products are unambiguous resulting in customer's inference that the product is cheap, thus, they will decrease the price that they are willing to pay (or reservation price) for the products in the future. On the other hand, in the integrated price framing, there is an ambiguity about the cost of each individual product, the inference that the price of individual product is low will not occur. Thus, the reservation price of customers who are presented with the segregated price framing is lower than those with integrated price framing.

INTRODUCTION

Bundling, the sale of two or more separate products in a package (Stremersch & Tellis, 2002), is a widespread phenomenon in today's market. Firms in a number of industries have used such a strategy to increase sales and profits. For instance, in the service industry, hotels bundle lodging, meals and activities within one package. In the restaurant industry, several restaurants offer set menu combining main course, drink and dessert. In consumer product industry, a bundle of toothbrush and toothpaste, a bundle of shampoo and conditioner, and a bundle of soft drink containing six cans of the product in a package are prevalent in the market.

Bundling strategy has received attention in the economic and marketing literature since the 1970s. Most of the literature has examined how customers evaluate the value of products within a bundle (e.g. Adam & Yellen, 1976; Chakravarti, Krish, Paul, & Srivastava, 2002; Cready, 1991; Dolan & Simon, 1996; Gal-or, 2004; Guiltinan, 1987; Hanson & Martin, 1990; Janiszewski & Cunha; 2004; Kalwani & Yim, 1992; Kalynaram & Little, 1994; MaAfee, McMillan, & Whinston, 1989; Naylor & Frank; 2001; Salinger, 1995;

Schmalensee, 1982, 1984; Venkatesh & Kamakura, 2003; Yadav & Monroe, 1993; Yadav, 1995) and how the presentation format of a product bundle, namely the bundle frame, can influence customer's perception of value (e.g. Chakravarti et. al, 2002; Harlam, Krishna, & Mela, 1995; Heat, Chatterjee, & France, 1995; Stremersch & Tellis, 2002; Yadav, 1995).

Although the issues of bundling frame are widespread in the economic and marketing literature, there is no universal classification and definition of the bundle's frames. Moreover, while several researchers (Chakravarti et al., 2002; Harlam et al., 1995; Stremersch & Tellis, 2002; Yadav, 1995) agreed that different bundle frames affect customer's perception and purchase intention differently, a conflict still exists as regards to a certain frame providing higher purchase intention. Harlam et al. (1995) showed that presenting a single bundle price (integrated price framing) resulted in higher purchase intention than presenting the price of each product in a bundle separately (segregated price framing). However, Chakravarti et al. (2002) found that presenting the price of product bundle showing separated price is more favorable to consumer rather than presenting a single bundle price. Since there is an inconsistency in the previous research, this paper attempts to examine

the sources of this inconsistency and identify the most effective frame of presenting bundles to attract customers.

In addition to purchase intention, the post purchase behavior of customers should not be ignored. The discount framing of product within a bundle may pose a negative impact on perceived price and purchase intention in the future. The discount price of products in a bundle causes customers to infer that the product is cheap and they will decrease the maximum price that they are willing to pay or reservation price for the products within a bundle. Raghubir (2005) indicated that different frames of presenting bundle may affect customer's reservation prices differently. Customers are willing to pay less (less reservation price) when the product is framed as "buy one get one free" rather than framing it as an integrated price bundle.

Currently, the effect of bundle frame on reservation price is still in question. Few previous studies have examined this issue. Although, Raghubir (2005) studied the effect framing on reservation price, the results of the study were limited to only two frames and newly launched products. Therefore, this paper attempts to extend the effect of bundle frame on reservation price to other products and other bundle frames.

THEORETICAL BACKGROUND

Over the past two decades, the literature on bundle frame is mostly based on prospect theory (Kahneman & Tversky, 1979) and mental accounting theory (Thaler, 1985).

Prospect Theory

According to the value function of prospect theory of Kahneman and Tversky (1979), the assumed shape of value function incorporates three important behavioral principles.

First, the value function $v(\cdot)$ is defined over perceived gains and losses relative to some natural reference point, rather than wealth or consumption as in the standard theory. This feature reflects the fact that people appear to respond more to perceived changes than the absolute levels.

Secondly, the value function is assumed to be concave for gains and convex for losses $(v''(x) < 0, x > 0; v''(x) > 0, x < 0)$.

Thirdly, the loss function is steeper than the gain function $(v(x) < -v(-x), x > 0)$. This means that losses appear larger than gains.

Mental Accounting Theory

The value function of Kahneman and Tversky (1979) is defined over a single, unidimensional outcome. Based on prospect theory, Thaler (1985) extended the value function and proposed the ways customers value (or code) their gains and losses when they are confronted by two compound events.

The outcomes could be value jointly as $v(x + y)$ in which case they are said to be *integrated*. Alternatively, they may be valued separately as $v(x) + v(y)$ in which case they are said to be *segregated*. The issue to be investigated is whether segregation or integration produces greater utility. People try to frame outcomes in whatever way that makes them happiest.

For the joint outcome *(x, y)* there are four possible combinations to consider:

1. Multiple Gains. Let $x > 0$ and $y > 0$. Since v is concave $v(x) + v(y) > v(x + y)$, so segregation is preferred.

2. Multiple Losses. Let the outcome be -x and -y where x and y are still positive. Then $v(-x) + v(-y) < v(-(x + y))$ integration is preferred.

3. Mixed Gain. Consider the outcome *(x, -y)* where $x > y$ so there is a net gain. Here $v(x) + v(-y) < v(x-y)$, so integration is preferred.

4. Mixed loss. Consider the outcome *(x, -y)* where $x < y$, a net loss. In this case, we cannot determine without further information whether $v(x) + v(-y) > v(x - y)$ *or* $v(x) + v(-y) < v(x - y)$. Segregation is preferred if $v(x) > v(x - y) - v(-y)$. Intuitively, with a large loss and a small gain, e.g. ($40, -$6000), segregation is preferred since v is relatively flat near -$6000. This will be referred to as the "silver lining" principle. On the other hand, for ($40, -$50) integration is probably preferred since the gain of $40 is likely to be valued less than the reduction of loss from $50 to $10, nearly the case of cancellation (Thaler, 1985).

The results from this study provide important implications relevant to bundling strategy such as how sellers should present bundle price to the customers, which attributes should be combined, and which should be separated. In addition, mental accounting theory indicates two main principles: segregated gain and integrated loss. People prefer gains

to be separated and losses to be integrated.

RESEARCH FRAMEWORK AND HYPOTHESES

Based on previous literature, several forms of price framings are available. The price of bundle can be presented in a single bundle price which is called "integrated price framing". Bundle can also be presented with two (or more) discounted prices of individual items within a bundle which is called "segregated price framing". Moreover, firms may present one product at regular price and present another product at the discounted price which is called "leader price framing" in this paper. Examples of each frame are presented as follows:

Integrated price framing: "*Buy bundle of product A and product B at special price of $299*"

Segregated price framing: "*Buy product A at special price of $199 and buy B at special price of $100*"

Leader price framing: "*Buy product A at regular price of $220 get a special price on product B at $79*"

Previous research (Chakravarti et. al, 2002; Harlam et al., 1995; Stremersch & Tellis, 2002) had shown that different price framings of bundles influence customer's perception of value and purchase intention differently. However, there is still ambiguity on which price frames lead to higher purchase intention. Therefore, the following sections will propose two hypotheses in accordance with the effects of various price framings on customer's purchase intention and customer's reservation price.

Bundle Frame and Purchase Intention

An inconsistency in the previous research had been found when presenting price of the product in a bundle. Harlam et al. (1995) indicated that presenting price of the bundle together (integrated price framing) leads to higher purchase intention than presenting separate price (segregated price framing) when the bundle is offered at discount. In contrast, Chakravarti et al.(2002) had shown that a multi-component product bundle was evaluated more favorably and chosen more often when its component were presented with partitioned price (segregated price framing) rather than consolidated price (integrated price framing). Munger and Grewal (2001) indicated that promotional discount that is presented in an unbundled form (segregated price framing) is more favorable than the same discount presented in a bundle form (integrated price framing).

The inconsistency in the previous research can be explained by the way customers evaluate the price, whether they evaluate price as gain or loss. Different ways of coding price results in different choices. Based on the theory of mental accounting, if price is coded as loss, integrated price framing must be preferred. However, if customers code price as gain, segregated price framing is preferred. The question is that "should the price be coded as gain or loss?" In the study of Harlam et al. (1995), the price of the each product is not highlighted for customers. Thus, the price indicating the amount that customers have to pay may be coded as loss, leading to the higher purchase intention of the integrated frame.

On the other hand, Munger and Grewal (2001) stated that price reductions are likely to be perceived as gain as the customers are likely to compare the reduced price and the original price (or reference price). Chakravarti et al. (2002) also indicated that prices serve as value tags for the component benefit. A consolidated price then directly integrates the component gains, and partitioned prices are perceived as segregated gains. Since the reduction in a bundle price is perceived as gain, based on the mental accounting theory, a segregated price faming is preferred. Therefore, in this paper, it is expected that if the reference prices of the each product in the bundle is given, customers will perceive the discount price of product bundle as gain; hence, segregated price framing will lead to higher purchase intention than other bundle frames.

An alternative explanation of the high purchase intention of segregated price framing lies in transaction decoupling. Soman and Gourville (2001) proposed that it is relative easy to identify the price in a segregated price frame. The transaction of each product in a bundle is one to one. There is less ambiguity as to what cost is paid for what items, resulting in a strong association or coupling. However, in the integrated price bundle, the transaction is one to many. A single payment is paid for several products. There is far ambiguity and uncertainty on the value of each product within a bundle, which may lead to psychological dissociation or decoupling. The ambiguity or uncertainty about the

value of products can decrease sales because consumers who are uncertain about product value tend to provide reason against buying (Simonson, Carmon, & O'Curry, 1994). Therefore, integrated price bundling which makes customers uncertain about the value of each product can sometimes decrease purchase intention. Therefore, it is expected that

Hypothesis 1: *Purchase intention will be higher when the bundle is presented in segregated price framing than integrated price framing and leader price framing.*

Bundle Frame and Reservation Price

Reservation price refers to the maximum price that customers are willing to pay for the product. Raghubir (2005) indicated that the discount framing of products within a bundle may pose a negative impact on customer's perception on price. When a product is presented as free or is discounted in a bundle, consumers typically believe that the firm is not making loss on the bundle promotion. Thus, they infer that the product (within a bundle), which is offered for free or at a discount, is cheap and they will use this price information to make inferences regarding the price of product that they will buy in the future. The inference that product is offered for free or is inexpensive influences customers to reduce the price they are willing to pay for product or reduces reservation price (Raghubir, 2005). In addition, Kwon and Schumann (2001) stated that if a promotion or discount is run frequently, customers may adjust to the lower price and may be adverse toward paying the normal price when the promotion ceases. This will decrease the price that customers are willing to pay for the product in the future.

Different frames of presenting bundle affect customer's reservation prices differently (Raghubir, 2005). In segregated price framing, both products in a bundle are obviously presented at discount. The discount price of both products in a bundle makes customers infer that the product is cheap and they will decrease the price that they are willing to pay for the products in a bundle. Therefore, it is expected that segregated price framing will lead to lower reservation price of both products in the bundle than integrated price framing. Unlike segregated price framing, integrated price framing provide customers with a single bundle price. With a single bundle price, there is

an ambiguity as to how much discount is allocated to each product in a bundle. Customers are uncertain and face difficulty in allocated discount price in the bundle. Therefore, the inference that the product is cheap may not occur and customers may not lower the price in which they are willing to pay for each product in a bundle. In addition, for the leader price framing, one product is set at the regular price, which is called "leader", while the other product in a bundle is set at discount. It is expected that reservation price for the discount product will be lower than other frames, but the reservation price of the leader product will be higher than segregated price framing. Thus, it is expected that

Hypothesis 2: *Reservation price of each product in the bundle will be higher when the bundle is presented in integrated price framing than segregated price framing and leader price framing.*

RESEARCH METHODOLOGY

Selection of Products and Prices: Pretests

A series of pretests were conducted to select the product bundle included in the study. Results from pretests indicated that a bundle of "Pantene" shampoo and its conditioner was selected because it was a category that was the most familiar to the participants. In addition, for the price selection, the real market prices surveyed from the department store in Bangkok area were observed. The regular price for the "Pantene" shampoo was 119 baht and the "Pantene" conditioner was 119 baht. The total was 238 baht. In each pricing frame, the discount was similar, that was equal to 39 baht. The price of the bundle, which served as the control conditions, was equal to 199 baht in every frame.

Experimental Procedures

Since three bundle frames were manipulated between subjects, three groups of students were required. Each group was randomly assigned a different price framing to examine its effect on purchase intention and reservation price. The first group of respondents was provided with the segregated price framing questionnaire. The participants were told that "when buying together, the participant can buy "Pantene" shampoo at the *special* price of 100 baht

and buy "Pantene" conditioner at the *special* price of 99 baht". The second group of participants received a questionnaire on the integrated price framing. The participants were informed that they could buy ""Pantene" shampoo together with "Pantene" conditioner at the *special* price of 199 baht". The last group was assigned with the leader price framing questionnaire. The questionnaire stated that "when buying together, they can buy "Pantene" shampoo at the *regular* price of 119 baht and buy "Pantene" conditioner at the *special* price of 80 baht".

In the experiment, participants were briefed on how to complete the questionnaire. After a few minutes of orientation, each participant was given a questionnaire. Each questionnaire had five sections. First, the participants were asked to fill in their demographic data which were gender, year of study, and program of study.

In the second section, participants were asked whether they were familiar with the given bundling product. They were asked two questions whether they had ever purchased the "Pantene" shampoo and "Pantene" conditioner separately on "Yes-No" questions.

Third, to investigate how likely the participants were to buy an individual item at the given price, the participants were asked to look over the advertisements which showed the regular prices of the individual products. Then, they were asked to indicate their intention to purchase the "Pantene" shampoo and "Pantene" conditioner on a 10-point rating scale in which 1 was "definitely not buy" and 10 was "definitely would buy". A 10-point rating scale was preferred in this measurement because it provides precise information and it is large enough for the participants to reveal their intensity of feeling. In addition, even number scale (10-point) means there is no neutral point. Without neutral point, participants are forced to indicate some degree of positive or negative feeling on buying a bundle (Soman & Gourville, 2001). The researchers expected that when the reference prices were given and the bundle was set at lower price, respondents should be certain about the discount of the bundle and should perceive discount price as gain, thus, segregate gain was preferred.

In the fourth section, the participants were asked to look over the advertisement showing the special offer of a bundle. They were asked to indicate their intention to purchase a bundle of "Pantene" shampoo

and "Pantene" conditioner on a 10-point rating scale in which 1 was "definitely not buy" and 10 was "definitely would buy".

Finally, in the last section, to examine whether different price framings affected customer's reservation prices differently, the participants were asked two open-ended questions. They were asked to specify the maximum price in baht that they were willing to pay in the future for "Pantene" shampoo and "Pantene" conditioner after seeing the promotion.

RESULTS

Descriptive Statistics

Data from the questionnaire indicated that from 102 respondents 86.3% of participants had purchased "Pantene" shampoo and 80.4% of participants had purchased "Pantene" conditioner before. The results indicate that most participants were familiar with the products. When asking the participants about purchase intention on separated products at the market price, the means of intention to purchase "Pantene" shampoo and "Pantene" conditioner were about 5.9 and 5.3, respectively.

Hypothesis Testing

1. *Bundle frames and Purchase Intention*

As expected, the results from ANOVA supported hypothesis 1. Results revealed that purchase intention score of three bundle frames were significantly different at ninety five percent confident level ($F_{(2, 99)} = 3.519$, $p < 0.05$) as shown in table 1.

Table 1: ANOVA Results of Bundle Purchase Intention

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	Combined		30.635	2	15.317	3.519*	0.033
	Linear Term	Unweighted	0.315	1	0.315	0.072	0.789
	Weighted		3.863	1	3.862	0.887	0.349
	Deviation		26.773	1	26.773	6.150*	0.015
Within Groups			430.944	99	4.353		
Total			**461.578**	**101**			

The mean of purchase intention for a bundle of "Pantene" shampoo and "Pantene" conditioner was significantly higher in the segregated price framing (Mean = 8.129) than that in the integrated price framing (Mean = 6.902) and leader price framing (Mean = 7.050) as shown in table 2. In addition, table 3 indicates that the purchase intentions provided by integrated and segregated price framings and by segregated and leader price framings are statistically significant at ninety five percent confident level (sig. = 0.021 < 0.05 and sig. 0.037 < 0.05, respectively). However, the purchase intention provided by integrated and leader price framings is not significantly different at ninety five percent confident level (sig. = 0.986 > 0.05).

Table 2: Mean of Bundle Purchase Intention

	N	Mean	Std. Deviation	Minimum	Maximum
Integrate	51	6.902	2.563	1.00	10.00
Segregate	31	8.129	1.455	5.00	10.00
Leader	20	7.050	1.432	5.00	9.00
Total	**102**	**7.304**	**2.138**	**1.00**	**10.00**

Table 3: Mean Different of Bundle Purchase Intention

	(I) Bundle Frame	(J) Bundle Frame	Mean Difference (I - J)	Std. Error	Sig.
Tamhane	Integrate	Segregate	-1.227*	0.444	0.021
		Leader	-0.148	0.481	0.986
	Segregate	Integrate	1.227*	0.444	0.021
		Leader	1.079*	0.413	0.037
	Leader	Integrate	0.148	0.481	0.986
		Segregate	-1.079*	0.413	0.037

*The mean difference is significant at the 0 .05 level

2. Bundle Frame and Reservation Price

2.1.Bundle Frame and Reservation Price of Pantene Shampoo

Hypothesis 2 was also examined by using a one-way ANOVA. It was found that reservation price of "Pantene" shampoo among three frames were significantly different at ninety five percent confident level $(F (2, 99) = 5.760, p < 0.05)$ as presented in table 4. The mean of reservation price of "Pantene" shampoo in integrated price framing (Mean = 146.294) was significantly higher than mean of reservation price in segregated price framing (Mean = 118.452) (sig. = 0.002 < 0.05) as shown in table 5. Moreover, empirical results in table 6 indicate that the mean of reservation price provided by integrated price framing was significantly greater that that of segregated price framings at the ninety five percent confidence level (sig. = 0.002 < 0.05). However, with ninety five percent confidence, the mean of reservation price of integrate price framing was not significantly higher than that in leader price framing (sig. = 0.115 > 0.05) and the mean of reservation price of leader price framing was not significantly higher than that in segregated price framing (sig. = 1.000 > 0.05).

Table 4: ANOVA Results of Reservation Price of Shampoo

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups							
	Combined		19149.454	2	9574.727*	5.76	0.004
	Linear Term	Unweighted	10237.006	1	10237.006	6.159	0.015
		Weighted	14918.325	1	14918.325	8.975	0.003
		Deviation	4231.129	1	4231.129	2.545	0.114
Within Groups			164559.100	99	1662.213		
Total			183708.500	101			

Table 5: Mean of Reservation Price of Pantene Shampoo

	N	Mean	Std. Deviation	Minimum	Maximum
Integrate	51	146.294	44.770	70.00	250.00
Segregate	31	118.452	25.893	79.00	200.00
Leader	20	119.600	48.247	79.00	300.00
Total	102	132.598	42.649	70.00	300.00

Table 6: Mean Different of Reservation Price of Pantene Shampoo

	(I) Bundle Frame	(J) Bundle Frame (I - J)	Mean Difference	Std. Error	Sig.
Tamhane	Integrate	Segregate	27.843*	7.806	0.002
		Leader	26.694	12.477	0.115
	Segregate	Integrate	-27.843*	7.806	0.002
		Leade	-1.148	11.748	1.000
	Leader	Integrate	-26.694	12.477	0.115
		Segregate	1.148	11.748	1.000

*The mean difference is significant at the 0 .05 level

2.2.Bundle Frame and Reservation Price of Pantene Conditioner

The results from ANOVA revealed that different bundle price framings statistically affect reservation prices of "Pantene" conditioner differently (F (2, 99) = 8.691, p < 0.05) as shown in table 7. Table 8 also showed that mean of reservation price in integrated price framing was the highest (Mean = 142.471), followed by that of segregated price framing (Mean = 115.065), and that of leader price framing (Mean = 100.500). The mean of reservation price of integrated price framing was significantly higher than that of segregated price framing (sig. = 0.004 < 0.05) and integrated price framing (sig. = 0.007 < 0.05) as presented in table 9. However, there was no statistical difference between the mean of reservation price of segregated price framing and that of leader price framing (sig. = 0.562 > 0.05).

Table 7: ANOVA Results of Reservation Price of Pantene Conditioner

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	Combined		30546.629	2	15273.315*	8.691	0.000
	Linear Term	Unweighted	25306.491	1	25306.491	14.401	0.000
		Weighted	29716.456	1	29716.456	16.910	0.000
		Deviation	830.173	1	830.173	0.472	0.493
Within Groups			173975.580	99	1757.329		
Total			204522.210	101			

Table 8: Mean of Reservation Price of Pantene Conditioner

	N	Mean	Std. Deviation	Minimum	Maximum
Integrate	51	142.471	45.504	70.00	250.00
Segregate	31	115.065	28.582	79.00	200.00
Leader	20	100.500	49.169	65.00	300.00
Total	**102**	**125.912**	**44.999**	**65.00**	**300.00**

Table 9: Mean Difference of Reservation Price of Pantene Conditioner

	(I) Bundle Frame	(J) Bundle Frame (I - J)	Mean Difference	Std. Error	Sig.
Tamhane	Integrate	Segregate	27.406*	8.183	0.004
		Leader	41.971*	12.708	0.007
	Segregate	Integrate	-27.406*	8.183	0.004
		Leader	14.565	12.134	0.562
	Leader	Integrate	-41.971*	12.708	0.007
		Segregate	-14.565	12.134	0.562

*The mean difference is significant at the 0 .05 level

Therefore, the results from ANOVA supports hypothesis 2 which illustrated that reservation price of each product in the bundle will be higher when the bundle is presented in integrated price framing than segregated price framing and leader price framing.

DISCUSSION

Results from an experiment confirmed the established hypotheses. For purchase intention of the bundle, result from hypothesis testing was consistent with Chakravarti et al. (2002) and Munger and Grewal (2001). Mean of purchase intention is higher when the bundle price was presented in segregated form than integrated form. Segregated discount prices framing were perceived as multiple rewards resulted in higher perceived value and higher purchase intention than integrated price framing.

For the reservation price of the product, as expected, reservation price of shampoo and conditioner were different among three frames. Integrated price framing provided the highest mean of reservation price. Because of the ambiguity on the price of both products in a bundle, customers may allocate the price of the product more favorably than segregated price frame and leader price frame. Reservation prices of shampoo and conditioner were highest in the integrated price framing. In the segregated price framing and leader price framing, the prices of the individual products within a bundle were obviously presented at discount (at lower price). With the lower price, customers made an inference that the product is cheap and adjusted their perceptions to the lower price. Hence, customers were willing to pay less for the discounted product. The reservation price of shampoo was lowest in the segregated price framing since the posed price of shampoo in this frame was lower than that of leader price framing. In addition, the reservation price of conditioner indicated by the participants was lowest in leader price framing because of the cheapest price of conditioner posed in the frame. The lower the price posed in the bundle frame, the lower the reservation price perceived by the participants.

THEORETICAL CONTRIBUTIONS

Although the research on bundle frame on purchase intention is widespread in the marketing literature, the results are not consistent. This paper indicated that the source of difference is the way customers perceive the price of the bundle. When the reference price is highlighted, customers perceived the price discount as gain. Thus, segregated price framing is preferred. In addition, the effect of bundle frames on reservation price is seldom found in previous studies. Although, Raghubir (2005) studied the effect framing on reservation price, the results of the study were limited to only two frames and newly launched products. Therefore, this paper extends the effect of bundle frames on reservation price of existing products (not newly launched) and other bundle frames.

IMPLICATIONS FOR MANAGERS

Results from hypotheses testing provide implications to the managers who would like to implement a bundling strategy. When the reference price is posed and the bundle is sold at lower price than the sum of the prices of individual products, presenting bundles with a separated price discount is more attractive than a single bundle price. However, the caution of presenting separated price of the products in a bundle must be taken into account. If discount is run frequently, customers may adjust their perception to the lower price and would not want to pay the normal price. Thus, the reduction in individual prices of products within a bundle can mitigate the customer's willingness to pay the normal prices in the future.

FUTURE RESEARCH

Several limitations are associated with this paper. First, this research focuses only on the bundle of consumer goods. The results may not be applicable to other types of products or services. Therefore, future research should focus on this issue. Second, this paper considered only two-product bundle. Multiple items in the bundle were not investigated. It is believed that the more products within a bundle, the more difficult it is for customers to allocate the price of individual items in a bundle. Hence, the perception of customers may differ when the number of items in a bundle is different. It is recommended

that the future research also study this. Even though this current research provides an initial investigation of the effect of bundle on reservation price, the effect of bundle on reservation price and repurchase behavior are still limited. Thus, it might be interesting for the future research to investigate how customers code their reservation price and how reservation price affects repurchase behavior.

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ECOTOURISM: A STUDY ON RESPONSIBLE ENVIRONMENTAL BEHAVIOR OF VISITORS TO SELECTED THAI NATIONAL PARKS

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ABSTRACT

This study examined the factors related to responsible environmental behavior of visitors to Thailand's popular national parks. Based on the model by Hines, Hungerford and Tomera (1987), the study examined the relationships between environmental attitude, behavioral intention, socio-demographic and psychological characteristics as independent variables, and responsible environmental behavior as the dependent variable. Data was collected in 11 national parks of Thailand and a total of 384 samples were analyzed. The findings showed no relationships between Environmental Attitude and Behavioral Intention, however, Environmental Attitude showed a moderately strong relationship with Responsible Environmental Behavior. In regard to Socio-demographic factors, there were differences between all variables and Responsible Environmental Behavior, with the exception of gender. Both Personal Responsibility and Locus of Control were found to have moderately strong relationships with Responsible Environmental Behavior.

INTRODUCTION

Ecotourism has become an issue over the last 15 years not only in the hospitality industry, but also in government and academic areas (Kirstges, 1995; Blamey, 1997). Proposed definitions vary from very general to highly specific. The most recent definition of ecotourism is any tourism that takes place in relatively undisturbed areas and which satisfies the following principles:

• Minimize impact,

• Build environmental and cultural awareness and respect,

• Provide positive experiences for both visitors and hosts,

• Provide direct financial benefits for conservation,

• Provide financial benefits and empowerment for local people,

• Raise sensitivity to host countries' political, environmental, and social climate (The International Ecotourism Society, 2007, p.2).

Just as there are several definitions for the term "ecotourism", there are also several definitions for the term "ecotourist". Ballantine and Eagles (1994), who suggest one of the most precise operational definition of ecotourists, use three criteria to identify them: (1) they must have stated that learning about nature is very or somewhat important to them in a questionnaire, (2) they must have stated that *wilderness / undisturbed nature* is very or somewhat important to them and (3) they must have spent at least one third of their vacation in a nature-based area or setting.

The reasons for visiting natural areas are often as diversified as the visitors to these areas. Some come to participate in specific activities, others to experience a certain place or environment. Studies of visitors to protected areas in Sweden have shown that peace and quiet, wilderness experiences and absence of litter are of the highest importance while geographical location and social interactions are less important (Fredman and Hansson, 2003). Whereas, in a study of Australian visitors to US national parks, Uysal, McDonald, and Martin (1994) found that novelty, enhancement of kinship relationships, escape, prestige, and relaxation accounted for over 50 percent of the motivation variances.

Natural Parks

National park and world heritage are well-known labels to many people. From an international perspective, such labels often represent places where pristine or unique natural environments are accessible, often with some degree of development or infrastructure. The fame of many national parks and natural areas of the world is a powerful magnet to overseas visitors and is a major export earner. Evidence suggests that demand for outdoor recreation as part of the in-bound tourism/travel industry on national parks and protected areas is likely to increase in the coming years. It is currently estimated that around 55 percent of all visitors' worldwide travel to national parks (IUCN, 2005).

Thailand's National Parks

In Thailand, most of the popular ecotourism destinations are located within protected areas, such as national parks and wildlife sanctuaries (Pipithvanichtham, 1997). There are eight categories of protected areas in Thailand: national parks, forest parks, wildlife sanctuaries, non-hunting areas, national forest reserves, botanical gardens, arboretums, and biosphere reserves (Chettamart, 1987). After the National Park Act was enacted in 1961, Khao Yai became Thailand's first national park. Since the establishment of Thailand's first national park, the number of national parks in Thailand has slowly increased. For example, there were only 16 parks covering 9,357 sq. kms in 1979 and 45 parks covering 24,222 sq. kms in 1982. However, in the last decade the number of national parks has dramatically increased. Thailand has 96 national parks, 100 wildlife and non-hunting sanctuaries and 65 forest parks, which together make up a full 13 percent of land area (National Parks in Thailand, 2006).

Given below in Figure 1 is a map showing popular national parks in Thailand by region.

RESEARCH PROBLEM

While several studies have profiled North American and European visitors' responsible environmental behavior in parks, little research has been published on the Asian market to understand

Figure 1: Thailand's popular Parks and Wildlife Sanctuaries by region

Source: http://gorp.away.com/index.html (Accessed on 7 July, 2007)

the characteristics and attitudes of ecotourists in that region. Owing to lack of documented data on visitors to national parks, the measures necessary to understand local and foreign visitors' use patterns has not been well established in Thailand. Therefore, the aim of this study is to examine environmental attitudes, socio-demographic and personality factors related to responsible environmental behavior of Thai and foreign visitors to Thailand's national parks.

Specific research questions posed in the study are:

1) Are environmental attitudes of park visitors related to behavior intention?

2) Is behavior intention of park visitors related to responsible environmental behavior?

3) Are environmental attitudes of park visitors related to responsible environmental behavior?

4) Are there differences in park visitors' socio-demographic variables and their responsible environmental behavior?

5) Are park visitors' personality characteristics related to responsible environmental behavior?

LITERATURE REVIEW

Many researchers have examined the relationships that exist among a limited number of environmental behavior-related variables. For this literature review, they have been grouped into five broad dimensions: (1) Responsible Environmental Behavior (2) Attitude, (3) Behavioral Intention (4) Socio-demographic variables, and (5) Personality Factors.

Responsible Environmental Behavior

Responsible environmental behavior is an action of an individual or group that promotes and/or results in the sustainable use of natural resources (Sivek and Hungerford, 1989/90). A search of empirical research, Hines *el al.* (1986-1987) reported since 1971 on responsible environmental behavior recorded the characteristics and findings of each study to serve as data for a meta-analysis. By analyzing and synthesizing this research, an attempt was made to 1) identify those variables most strongly associated with REB; 2) determine the relative strengths of relationships between these variables and REB; and 3) formulate a model of REB based on the findings. The authors found that the following variables were associated with responsible environmental behaviors:

- Knowledge of issue;
- Knowledge of action strategies;
- Locus of control, which refers to an individual's perception of whether or not he or she has the ability to bring about change through his or her own behavior;
- Attitudes;
- Verbal commitment, or an expressed intention to act upon an environmental problem; and
- An individual's sense of responsibility

Environmental Attitude

An individual's environmental attitude is defined as the body of favourable or unfavourable feelings toward some specific aspects of one's environment (Hines *et al.*, 1986; Newhouse, 1990). Environmental attitude is also defined as a learned belief which develop from an individuals' knowledge and values about the environment and governs actions to support or sustain the environment (Uitto, Juuti, Lanoven, and Meisalo, 2004). In essence, two types of environmental attitude are used to predict responsible environmental behavior (1) attitudes toward the

environment, and (2) attitudes towards ecological behavior (Hines *et al.*, 1986/87). Either the object of one's attitude is the natural environment itself or some aspects of it (e.g. air quality) or the attitude object is ecological behavior (e.g. recycling or political activism). Attitude toward the environment is also commonly referred to as environmental concern (Vining and Ebreo, 1992). Based on prior literature and findings from both local and overseas studies, this construct is strong enough to add value to the explanation of behavioral intention and REB in this study. Thus, we hypothesize:

Ha1: Environmental Attitudes are significantly related to responsible environmental behavior

Behavioral Intention

Behavior Intention is indicated by the person's subjective perception and report of the probability that he or she will perform the behavior in question. Therefore, intention to act can be understood as the expressed willingness to act upon a certain behavior (Hines *et al.*, 1986; Hungerford and Volk, 1990). In previous studies, environmental behavior intention was strongly related to environmental behavior (Maloney and Ward, 1973; Schahn and Holzer, 1990a, 1990b). In behavioral research, revealed or stated behavior has been widely used as a dependent variable. An attractive feature of intention as a stated behavior is that it can be used when it is not possible to measure revealed behavior (Parcel, 1984). Therefore, we propose:

Ha2: Environmental Attitudes are significantly related to behavioral intention

Socio-Demographic Variables

Socio-demographic characteristics that can be hypothesized to be associated with nature-conserving tourists include education, age, income and gender. Some researchers have found that age is slightly correlated with responsible environmental behavior (Lansana, 1992) while others found that age is correlated negatively or not at all (Schultz et al., 1995; Hines *et al.*, 1986). At a broad level, women are thought to be more concerned than men about environmental issues (Steel, List, and Shindler, 1994; Dietz, Stern and Guagnano, 1998). Gebhardt and Lindsey (1995) supported the idea that environmentalism is associated with social class, but again,

this concept is often confused with other characteristics such as occupation, income and place of residence. Some studies support the idea that urban residents are more likely to be concerned with the environment than those in rural areas (Jones and Dunlap, 1992). Among the socio-demographic variables the single most consistently identified indicator across numerous studies was the level of education (Edwards and White, 1980; Yavas and Riecken, 1985; Florin, Jones and Wandersman, 1986; Curtis, Grabb and Baer, 1992; McPherson and Rotolo, 1996; Reed and Selbee, 2000; Dolnicar and Randle, 2004) with higher levels of education being associated with higher levels of engagement in responsible environmental behavior. Thus, we hypothesize:

Ha3: There are significant differences between Socio-demographic variables of age, gender, income, occupation, education, nationality/region and responsible environmental behavior

Personality Traits

Personality traits are measures of general tendencies of individuals, and it has been hypothesized that they influence behavior. While not as commonly considered by researchers as predictors or determinants of pro-environmental behavior as socio-demographic characteristics, some traits have been found to be moderately correlated with pro-environmental behavior. Locus of control, self-efficacy, personal responsibility, and psychological sex role classification (i.e., traits traditionally associated with each gender) have all been found to be significantly correlated with behavior, although the relationships were not always strong. Thus, our final hypothesis is:

Ha4: Personality Factors are significantly related with responsible environmental behavior

METHODOLOGY

A questionnaire was designed to collect information on the respondents' environmental attitudes, behavioral intention, socio-demographic and personality characteristics. In Section I, the respondents' attitude to the environment was measured by the 15-item NEP (New Environmental Paradigm)

scale developed by Dunlap and Van Liere in 1978 and later revised in 2000. The NEP measures attitude using a five-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). Section II of the questionnaire consisted of questions on Personality Factors. This section was divided into two categories: Locus of Control and Personal Responsibility. Based on the studies by Hungerford and Volk (1990) and Stern (1992), six positive statements concerning attitudes towards environmental responsibility were rearranged according to locus of control; moving from personal responsibility towards more distant position to environmental challenges. Section III of the questionnaire consisted of questions related to Behavioral Intention. They were taken from Stern *et al.* (1993). The same response format was used for all questions consisting of five-point Likert-type scales ranging from Strongly Disagree (1) to Strongly Agree (5). Section IV of the questionnaire consisted of questions related to the Dependent Variable of the study - Responsible Environmental Behavior. For measuring responsible environmental behavior, the researcher adapted seven questions from two scales, the first developed by Maloney *et al.* (1975) and the General Ecological Behavior (GEB) by Kaiser *et al.* (1999). In the final section of the questionnaire, Section V, questions were related to socio-demographic variables. It must be noted that because of the large number of Thais visiting national parks, the researchers classified them by nationality, whereas other respondents were classified as per geographic region.

In addition, two open-ended questions were asked:

(1) Please indicate your general experiences as a visitor to this national park

(2) Any other comments about your trip or suggestions about the management of this national park are welcome.

A questionnaire pretest was conducted with 40 respondents who had similar characteristics to the population in this study. The internal consistency reliability of measures used in this study ranged from 0.7218 to 0.8163.

Sample

The respondents of this research was 384 Thai and foreign visitors to 11 Thai national parks. The 11 national parks were selected for the following reasons:

1) They are listed among the largest parks in Thailand

2) They are popular places for both Thai and foreign visitors

3) They are located in different areas of Thailand

4) They offer both day visits and overnight stay.

5) They offer ecotourism experiences including relatively undisturbed natural areas with flora, fauna, and other natural resources as attractions.

The list of national parks where data was collected is shown below:

Khao Laem Ya National Park (Central Region)
Khao Yai National Park (Northeast Region)
Phu Kradueng National Park (Northern Region)
Sai Yok National Park (Central Region)
Nam Nao National Park (Northeast Region))
Krang Kra Jarn National Park (Southeastern Region)
Mae Wong National Park (Northern Region)
Khuean Srinagarindra National Park (Eastern Region)
Doi Inthanon National Park (Northern Region)
Doi Suthep National Park (Northern Region)
Lanta Islands National Park (Southern Region)

Data Collection Procedures

Written permission was sought and received from the Director of the Department of National Parks, Wildlife and Plants for the collection of data in the specified parks. The respondents were approached at the exit points in each park. A shaded area with writing tables and chairs was set up near the exit points of each park. Purposive sampling was used because it allows the samples to be selected based on appropriate characteristics of the sample member such as age, gender, and nationality (Zikmund 1999; McPhail 1999). If a family was exiting the part, only one member was invited to participate in the survey. In parks of larger size and with greater numbers of visitors, 75 sets of questionnaires were distributed. In smaller and less visited parks, 50 sets of questionnaires were distributed.

FINDINGS

A total of 675 questionnaires were distributed in 11 national parks. Of these, 412 were collected from respondents. Thirteen questionnaires could not be used because respondents did not fill in all the sections on environmental attitude, and 15 questionnaires were rejected because the respondents did not fill in some items on their personal data. Thus 384 questionnaires were considered valid for the purpose of analysis for a final cumulative response rate of 56.88 percent.

Environmental Attitude

In order to assess park visitors' environmental attitude, the New Ecological Paradigm Scale, consisting of 15 items was used. Although some studies have used only parts of the NEP scale or have reworded particular statements to reflect the specific focus of the research, in this study, the NEP scale was used in its entirety. In this section, the items with the mean scores ranging from highest to lowest are presented. The statements and mean scores are shown in Table 1 below:

Table 1: Ranking of NEP Statements

NEP STATEMENTS	MEAN
The balance of nature is very delicate and easily upset	4.34
Despite our special abilities humans are still subject to the laws of nature	4.28
If things continue on their present course, we will soon experience a major ecological catastrophe	4.21
Plants and animals have as much right as human to exist	4.21
The earth is like a spaceship with very limited room and resources	4.16
When humans interfere with nature it often produces disastrous consequences	4.11
Humans are severely abusing the environment	4.06
The earth has plenty of natural resources if we just learn how to develop them	3.98
We are approaching the limit of the number of people the earth can support	. 3.78
Humans eventually learn enough about how nature works to be able to control it	3.49
Human were meant to rule over the rest of nature	3.23
Human have the right to modify the natural environment to suit their needs	3.23
The so-called "ecological crisis" facing humankind has been greatly exaggerated	2.78
The balance of nature is strong enough to cope with the impacts of modern industrial nations	2.75
Human ingenuity will insure that we do not make earth unlivable	2.69
Total	**3.69**

The mean score for the entire sample averaged across the 15 items was 3.69 (out of a possible 5), indicating overall agreement with the NEP statements. The 2 items that yielded the strongest and least ambiguous responses were: "The balance of nature is very delicate and easily upset" and "Despite our special abilities humans are still subject to the laws of nature". More than 90 percent of the respondents agreed or strongly agreed with these statements, producing NEP scores of 4.34 and 4.28 (out of 5), respectively. These 2 statements reveal the respondents' awareness of and concern for humanity's interconnections with and impact on nature.

This study's respondents seemed to be clearly aware of and concerned about the limits to which nature can be pushed by industrial society, a finding that is reflected in NEP statements: "The earth is like a spaceship with very limited room and resources"; "We are approaching the limit of the number of people the earth can support". Both statements fell in the agree range with means of 4.16 and 3.78, respectively. Five NEP statement scores fell in the neutral range. Two of these "Humans were meant to rule over the rest of nature"; "Humans have the right to modify the natural environment to suit their needs", both had similar means of 3.23. Although none of the statement scores fell in the

Disagree and Strongly Disagree levels, the lowest mean score of 2.69 was elicited for NEP statement: "Human ingenuity will insure that we do not make the earth unlivable", with roughly 17.2 percent of the respondents strongly disagreeing, 35.9 percent disagreeing, 29.2 percent strongly agreeing, and agreeing, and 17.7 percent indicating neutrality, which is relatively high when compared with neutral responses to other statements in this study.

Hypotheses

Pearson Correlation Coefficient was used to find relationships between Environmental Attitudes, Personality Traits, Behavioral Intention and Responsible Environmental Behavior. The Analysis of Variance (ANOVA) was used in this study to examine the differences between socio-demographic variables and responsible environmental behavior. The results of the hypotheses tests are shown in table 2 below:

Table 2: Hypotheses Test Results

No.	Hypotheses		Supported	Not Supported
1.	Ha1: Environmental Attitudes are significantly related to responsible environmental behavior		X	
2.	Ha2: Environmental Attitudes are significantly related to behavioral intention			X
3.	Ha3: There are significant differences between Socio-demographic variables of age, gender, income, occupation, education, nationality/region and responsible environmental behavior			
	3.1	There is a significant difference between Socio-demographic variables of age and responsible environmental behavior	X	
	3.2	There is a significant difference between Socio-demographic variable of gender and responsible environmental behavior		X
	3.3	There is a significant difference between Socio-demographic variable of income and responsible environmental behavior	X	
	3.4	There is a significant difference between Socio-demographic variable of occupation and responsible environmental behavior	X	
	3.5	There is a significant difference between Socio-demographic variable of nationality/region and responsible environmental behavior	X	
4.	Ha4: Personality Factors are significantly related with responsible environmental behavior			
	4.1	There is a significant relationship between respondents' locus of control and responsible environmental behavior	X	
	4.2	There is a significant relationship between respondents' personal responsibility and responsible environmental behavior	X	

SUMMARY OF CONCLUSIONS

The major findings that emerged from the study are summarized as follows:

1) The majority of visitors to Thailand's national parks are male, falling within the age group of 35-49 years. They have university level education, are employed in the private sector, and earn incomes of over 30,000 baht per month. The largest two groups of visitors are Thai and European nationals.

2) The study found no relationship between Environmental Attitude and Behavioral Intention

3) Environmental Attitude showed a moderately strong relationship to Responsible Environmental Behavior. The NEP scores revealed that the respondents were ecocentrics who believed in the limits of the earth to sustain growth rather than in the ability of humans to solve environmental problems.

4) In regard to Socio-demographic factors, all factors with the exception of gender, were related to responsible environmental behavior. Respondents aged 35-49 years, and those older than 65, scored higher in responsible environmental behavior than those in other age groups. Those respondents who had bachelor degrees and those earning higher levels of income also showed higher responsible environmental behavior. Entrepreneurs or business owners were higher in their responsible environmental behavior than those in other professions. Thai respondents showed the highest level of responsible environmental behavior followed by respondents from European countries, East and South Asia.

5) Both Personal Responsibility and Locus of Control had moderately strong relationships with responsible environmental behavior.

6) Respondents' answers on the open-ended question revealed a strong concern for ecological responsibility, many emphasizing the need to maintain the natural environment in the parks. There was also concern for preserving the wildlife and plants in the parks for future generations, i.e., "I want my children to see these things"; "National parks should always be kept 'natural'- The

natural conditions of a park should never be compromised for any type of financial gain for individuals or organizations". In general, there was an expressed desire for balance; the necessity of considering the needs of human as well as other species in the parks.

Theoretical Implications

This study was conducted based on gaps and weaknesses found in the literature relating to responsible environmental behavior of park visitors. They were as follows:

• Lack of empirical studies on the variables related to responsible environmental behavior in the Thai context

• Lack of explanatory models and theory building studies in the area of ecotourism in Thailand in general.

Although most studies conducted in national parks fall in the ecotourism category; the researchers have not labeled the respondents as "ecotourists" because the study was an exploratory one and included general visitors to Thailand's national parks. Many tourists have no clear idea of the concept of ecotourism and many may not have been aware that they traveled as ecotourists themselves. In previous research, Björk (1997) found that knowledge of ecotourism was very limited. The author surveyed Finnish tourists and his results show that when the tourists tasks was to pick out the right characteristics from a presented list, they managed quite well, but when they had to describe ecotourism in their own words, the results were very disappointing. In similar vein, Batra and Sangpikul (2007) in a recent study on 400 students in high school and universities in Thailand, found that most of the respondents had a moderate level of ecotourism knowledge. They appeared to have positive attitudes and supported the concept of ecotourism, however, they had little knowledge of how ecotourism should be managed and enhanced. In this respect, this study recommends that a common definition of the concept needs to be reached and knowledge of ecotourism has to be promoted among travelers.

The current study did not segment visitors according to their participation in trips of different purposes and characteristics. It might be possible that one and the same person on one occasion would travel as a city tourist, on another as a nature tourist and on a third occasion as an ecotourist. Behavior might differ in different situations. Wurzinger (2003a) found that although ecotourists and city tourists made a similar number of holidays during a year, ecotourists had significantly more often traveled as ecotourists. What is needed are strict definitions of the different forms of tourism, from which suitable principles and regulations can be developed. This is particularly important as the Tourism Authority of Thailand is hoping to reach this year's target of 14.8 million international tourists and 82 million domestic trips following a doubling of its marketing activities (The Nation, 14 December, 2007, p.4B).

This study found no relationship between environmental attitude and behavioral intention. It is widely accepted that attitudes are only weakly predictive of behavior when measured at a general level (Kraus, 1995; Petty, 1995). Bamberg (2003) felt that environmental concern was only weakly predictive of specific environmental behaviors because it was a general measure and only an indirect determinant of behavior. The observed relationship between attitude and behavioral intention can become stronger only if measured at the same level of specificity. For example, a specific attitude on recycling is more likely to be predictive of recycling behavior. Thus, it may be more useful to have separate or distinct sectors of behavior rather than general scales for measurement.

Managerial Implications

This research has many managerial implications for different stakeholders, which are outlined next.

The study has identified the socio-demographic and personality characteristics of respondents with responsible environmental behavior. Specifically targeting tourists that are sympathetic to environmental issues can be an effective way to reduce the adverse impact of tourism in natural settings. Efforts can be made to more selectively target such tourists. Durst (1986) argued that in Thailand, ecotourism occurs at a small scale compared to the overall tourism industry. By targeting specialized groups and organizations dedicated to natural history, as well as tourists with relatively low environmental and social impact, latent demand for park visitation can be transformed into real demand.

The findings show that respondents with high

education and high income tend to be higher in responsible environmental behavior. This would indicate that seminars featuring guest speakers/ films and video presentations about Thai national parks, forests and natural areas, would be appropriate venues for attracting this segment of tourists in Thailand. It is also important that promotional literature for national parks and natural places in Thailand stresses the opportunities for experiencing the biological diversity and striking scenery found in these places. Ecotourism has been discussed with a strong focus on the ecological dimension, but it is also important to look at ecotourism from a marketing point of view - from the wants and needs of the consumer. All marketing campaigns and activities need to be more strategic, equally focusing on and stressing the environmental, cultural and social components of ecotourism and the advantages for the individual. Both, the distribution and promotion channels for ecotourism products should therefore be consistent with the type of tourism the consumer is being offered and with the typology of ecotourists.

The study has also found from the NEP scores that respondents who are environmentally responsible tend to be ecocentrics. It is assumed that ecocentrics will be opposed to theme parks and large resorts; they may also be opposed to advanced infrastructure and too many visitor centers. This group is more likely to support the development of ecotourism rather than other types of tourism because of their support for nature based tourism. The Thai government needs to incorporate these needs into future infrastructure development in Thai parks. To this end, more research focusing on the demand side of ecotourism would be a good starting point.

The findings showed a relationship between personal responsibility and environmental behavior. Respondents indicated that they would be willing to accept regulating programs, energy saving programs, measures to protect plants and wildlife and higher entrance fees for conservation purposes. Zoning in national parks can be used to create core protection areas for sensitive resources but which can be accessed by nature visitors for a higher fee. In Kenya's Amboseli National Park, annual tourist carrying capacities were increased from 80,000 to 120,000, with less environmental impact through spatial and temporal dispersion (Weaver, 1998). Such measures have not been introduced in Thai national parks but they are a good idea,

not just for conservation purposes but also to alleviate overcrowding.

The study also found a moderately strong association between Locus of Control and responsible environmental behavior. This conclusion implies that if environmental educators want to change or improve their subjects' environmental behavior, they should use programs and materials that can stimulate internal locus of control. However, previous researchers have argued that other levels of knowledge, about action skills and action strategies rather than general knowledge about an issue, might be more effective knowledge components to improve locus of control (Boerschig and DeYoung, 1993; Hines *et al.* (1986/87).

Visitor education is important in reducing negative impacts such as littering and feeding and harassments of wildlife. Publications, signposts, and interpretive displays can inform visitors of park regulations and their importance. In Thai parks, many signposts are in Thai and tourists lack information, pamphlets and maps in English or other languages. Training for park rangers, tour operators and guides can also help to increase responsible environmental behavior in parks.

Finally, the responses to the open-ended question elicited concern about crowding in national parks. The National Parks office found that tourist quotas in parks had exceeded capacity, causing damage to the environment as a result of toxic emissions from vehicles, noise pollution, careless waste disposal, entry of tourists into restricted areas, and lack of respect for natural ecosystems. As mentioned in earlier chapters, five national parks have suffered severe damage to their eco-systems resulting in the Thai government proposing more stringent measures to deal with the issue. However, just a temporary closure of national parks might not be the solution. Other measures, such as offering educational programs on ecotourism through schools and universities, improving habitat and wildlife protection (for example, increasing patrols to keep out poachers), promoting tourism at alternative public and private reserves, and creating new national parks, might offer better and more long term solutions towards conservation and development of national parks in Thailand.

Limitations of the study

The study attempted to expand the understand-

ing of factors related to responsible environmental behavior in Thailand's national parks. Although the endeavor was worthwhile, it was not without its limitations. First, there is the possible problem of self-selection and self-reporting in this study. This survey allowed visitors to participate at will, it is possible that results are biased toward visitors who were willing to join this survey. Secondly, the study identified only three antecedents of responsible environmental behavior; attitude, socio-demographics, and personality characteristics. Other factors, not included in this study, such as environmental knowledge and situational factors might also be associated with responsible environmental behavior. Thirdly, this study was conducted in the early months of 2007. Every variable related to responsible environmental behavior can be modified or changed over time. Caution is advised regarding any interpretation of results linked to future points in time. Fourthly, owing to the large number of local people visiting national parks, the researcher used "nationality" for Thai visitors and "regions" for international visitors. This may cause some confusion in the interpretation of findings. Finally, this study only focused on 11 popular national parks in Thailand. These parks were deemed "popular" based on the information supplied by various government and private company websites. Therefore, care should be given in interpreting or generalizing from these findings when applying them to other types of parks or other ecotourism destinations.

These limitations do not minimize the significance of the results or findings in this study. The above points are mentioned in order to direct the attention of future research identifying and aiding further improvement in this area. Next, the implications for future research are discussed.

FUTURE RESEARCH

This study was the first study on responsible environmental behavior of visitors to Thailand's national parks. It is the first attempt to empirically examine visitors' environmental behavior using many of the variables in the theoretical framework proposed by Hines et al. (1986/87). Given the rising number of visitors to national parks in Thailand, the lack of systematic and empirical research in this area is quite alarming. This study then provides advanced knowledge in a context other than the West, where most studies on responsible environmental behavior to date

have taken place. Some suggestions for future research are now described.

Firstly, although national parks and natural areas are an important part of the total attractions to local and international visitors, there is very little documented data on visitors to national parks in Thailand. For example, there is no official data on the types of tourists that visit national parks, their use patterns, motivation for visiting, and information used before visitation. Such findings are critically important, not only for segmenting tourists, developing promotional materials, ecotourism packages, and sightseeing brochures, but in support of policy and management plan formulation. Secondly, although the study covered national parks in different areas of Thailand, the samples were taken in 11 parks and covered only 384 respondents. There is a need for more rigorous and systematic research conducted at the national level, in order to gauge the amount and sources of environmental impacts from both local people and visitors. Thirdly, in terms of the model used in this study, there may be ways of improving the proportion of explained variance in responsible environmental behavior by introducing new measures within the model. For example, environmental knowledge variables, as proposed by Kaiser et al. (1999) could be included. Other psychographic factors, not used in this study, could be included as predictors of responsible environmental behavior. Finally, Thailand is competing with countries such as Vietnam, Laos, Cambodia, Myanmar and other Asian and international destinations for a share of the ecotourism market. An approach to environmental management that relied on stricter definitions of different types of nature tourists can help to obtain a better picture of each type's attitudes and behavior and their wider environmental impacts. Such an approach must start from a better understanding of these issues than is currently present in Thailand.

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SERVICE QUALITY IMPROVEMENT IN THE THAI HOTEL INDUSTRY

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Abstract

At present, hotels in Thailand have been experiencing dramatic changes, leading hotel practitioners to pay attention to service quality improvement. Empirical research, using in-depth face-to-face interviews, has been conducted to examine service quality improvement in the Thai hotel industry. Thirty hoteliers were recruited from five-star hotels in Bangkok, Thailand, to find out their problems in customer service, their critical success factors, barriers to success, what should be done to overcome those problems, and what more could be done to continue to improve service quality. Though service quality improvement initiatives in the Thai hotel industry are successful to some extent according to respondents' views, the findings, however, indicate hotels in Thailand might not exactly understand their problems or have misallocated their resources to solve the problems. Therefore, hotels have to increasingly solve customer service problems, improve quality initiatives, and create more necessary quality programs based on present experiences and expertise.

INTRODUCTION

Services are taking on an increasing importance both domestically and internationally (Dean *et al.*, 1999). Ingram (2000) states that in today's changing global environment, many businesses are facing intensifying competition, and, in order to achieve competitive advantage and efficiency, businesses have to seek profitable ways to differentiate themselves. One strategy that has been related to success is the delivery of high service quality, especially during times of intensive competition in the domestic and international markets (Duran & Eccles, 1997). Maxwell *et al.* (2004) concurs that service has increasingly played a critical role in a hotel's operations. This concept has been the subject of many conceptual and empirical studies, and it is generally accepted that quality has positive implications for an organization's performance and competitive position.

LITERATURE REVIEW

Service Quality and its Determinants

Parasuraman *et al.* (1985) described service quality as the ability of the organization to meet or exceed customer expectations. Customer expectations that may be defined as the "desires and wants of consumers", i.e., what they feel a service provider should offer rather than would offer. Definitions of service quality, therefore, focus on meeting the customers' needs and requirements and how well the service delivered matches the customers' expectations of it. Moreover, Parasuraman *et al.* (1988) offer the most widely reported set of service quality dimensions. They suggest that the criteria used by consumers that are important in moulding their expectations and perceptions of delivered service ultimately fit into ten dimensions. These were subsequently condensed into five dimensions of service performance known as SERVQUAL: Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

However, O'Neill (2001) points out that there are difficulties in defining service quality. The factors affecting customer satisfaction and service quality are many and as varied as the number of potential customers themselves. Different things are important to different people for different reasons and as such are perceived in different ways.

In conclusion, with the different definitions of service quality, there is as yet no real consensus as to what these definitions and their determinants might be.

Concepts of Service Quality Improvement

In an attempt to achieve sustained competitive advantage, hospitality organizations are now investing quite heavily in a host of service quality improvement initiatives. O'Neill (2001) observed that the hospitality industry has been investing heavily in raising quality standards through human resource development. Oliver (1996) describes these initiatives as belonging to the total quality management movement, advocating organizational strategies and changes, which are thought to make a firm more customer friendly.

Characteristics of the Thai Hotel Industry

Tourism plays an important role in the economy of Thailand. It is one of the territory's largest service industries. Like the hotel industry in other countries, the Thai hotel business environment has also changed substantially. Major changes are detailed below.

First of all, hotels around the world, particularly in Thailand, are now experiencing severe competition from local and overseas hotels as well as other accommodation competitors due to financial deregulation and globalization (Thai Hotels Association, 2003).

Secondly, in general, customers' expectations and needs for services have substantially increased (Lee *et al.*, 2000; Lockwood, 1995; Meyer *et al.*, 1999). Customers will search for services that offer the best value for their money (Lee *et al.*, 2000). Like other customers, Thais have become better educated; their expectations and needs for hotel services have substantially increased. For example, there is a high demand for new facilities and convenient delivery channels; therefore, hotels have to improve their services to meet their customers' needs and expectations (Thai Hotels Association, 2003).

The third major change is the development of technology, which facilitates the creation of new services and distribution channels, provides convenient services and drives quality (Lockwood, 1995; Griffiths *et al.*, 2001). To be more competitive, hotels have to invest more in technological development. This will in turn increase customer expectations and demands in the quality and variety of services provided, which finally leads hotels to invest in more limited resources (Thai Hotels Association, 2003).

Consequently, these changes are having a profound impact on the Thai hotel industry. To compete with their rivals and to maintain their survival, hotel practitioners must seek a kind of long-term corporate weapon-better service quality.

Need for Service Quality

In general, hotels offer similar kinds of services in the accommodation market, and their competitors can imitate new differentiated services in a short period of time (Knowles, 1998). Such cases also happen in the Thai market. However, customers can perceive differences in terms of service quality offered. This is due to the fact that service quality is difficult for competitors to copy (Barker *et al.*, 2003; Ennew & Binks, 1996; Maxwell *et al.*, 2004; Reichheld & Sasser, 1990).

At present, hotel providers in Thailand have taken service quality into consideration, but they have assigned to it different degrees of importance depending upon their policies and capabilities. However, there is still a need for more attention from all staff to reinforce their quality initiatives since quality improvements require continuous action and involvement. After an extensive search, no published research was found concerning service quality improvement in the Thai hotel industry regarding all types of hotels. So this research may be one of the first studies to provide knowledge and empirical findings about service quality improvement in the five-star hotels in Bangkok, Thailand.

Problem Identification

The major problem for this study was to explore the service quality improvements in practice in the Thai hotel business environment. The research questions were comprised of five main areas to be examined:

(1) Determinants of service quality in the Thai hotel industry,

(2) Problems of customer service,

(3) Barriers in improving service quality,

(4) Success in improving service quality,

(5) Actions necessary for service quality improvement.

RESEARCH METHOD

Research Design

Methodologically, the research study of this paper is an exploratory study that will be mainly qualitative which is based on in-depth interviews. The aim of this research study is to find out about the service quality improvement in the Thai hotel industry from the perspective of the hotel managers as they operate their hotels directly according to the hotel strategies.

As Sekaran (2000) suggests, exploratory research is undertaken when not much is known about the situation at hand or when not much information on how related problems or research issues have been solved in the past. Moreover, Cooper and Schindler (2001) support that exploratory research is also undertaken to develop concepts clearly, establish priorities, develop operational definitions, and to improve the final research design.

Specifically, in-depth interviews will be used to attain the objectives. The use of in-depth interviews and open-ended questionnaires in exploratory studies has been recommended by a number of researchers (e.g., Cooper and Schindler, 2001; Sekaran 2000). Moreover, Clark *et al.* (1999) suggest that an in-depth interview is a preferred instrument when the researcher aims to collect detailed information or when it is reasonable to rely on information gathered from a small number of informants. That is normally justifiable when the objective of the research is "discovery" rather than "checking".

The benefit of in-depth interviews is that they can investigate areas that cannot be directly observed by other methods and can yield the best perspective and informative analysis of a particular group or sample (Travers, 2001). Although this interview method is time-consuming and it is difficult to control the range of answers (Hussey & Hussey, 1997), this method was utilized because the researcher could then understand the picture of service quality improvement and quality initiatives across the hotel industry and obtain information in detail.

Research Subjects

The total number of selected respondents was 30 from ten hotels, four Thai hotel chains and six international hotel chains.

Sample size

Veal (1997, p.207) states that it is the absolute size of the sample that is important, not its size relative to the population. Therefore, this research study selected 10 hotels from the five star hotels in Bangkok, Thailand, in order to be representative of the high quality target group of the population. According to Cooper and Schindler (2001, p.181-2), the ultimate test of a sample design is how well it represents the characteristics of the population it purports to represent.

Sampling frame

A particular hotel was selected based on its hotel category and location: the research in this study was conducted at ten hotels located in Bangkok, Thailand. The hotels were set within the administrative boundaries of the star rating system, from the five star hotels. Moreover, the hotels were selected based on a number of criteria, which include the number of tourism businesses at the destination, the number of visitors per annum and the accessibility of information at the destination.

Three hotel professionals from each hotel, including two from the top management and one from the middle management, were selected as participants;

Top management level

The respondent who works in position levels ranging from Department Director up to the General Manager of five star hotels in Bangkok, Thailand

Middle management level

The respondent who works in position levels ranging from Supervisor up to the Department Manager of five star hotels in Bangkok, Thailand

In addition, hotel practitioners were selected for this study according to the following criteria: They were currently working in the hotel industry in a sector or executive position in five-star hotels in Bangkok, Thailand. They were viewed as making significant contributions to their organizations and to the field. To ensure the quality of interview data, the respondents' experience had to include at least two years working in the hotel industry.

Table 1: Participant Profiles

Individual	Hotel	Position	Department	Years of experience
1. A1	A (Thai)	Hotel Manager	Executive Office	18
2. A2	A (Thai)	Human Resource Director	Human Resource	30
3. A3	A (Thai)	Sales & Marketing Manager	Sales & Marketing	15
4. B1	B (Thai)	Resident Manager	Executive Office	17
5. B2	B (Thai)	Director of Sales & Marketing	Sales & Marketing	18
6. B3	B (Thai)	Marketing Communication Manager	Sales & Marketing	6
7. C1	C (Inter)	Director of Human Resource	Human Resource	25
8. C2	C (Inter)	Training Manager	Human Resource	15
9. C3	C (Inter)	Laundry Manager	Resident Office	25
10. D1	D (Inter)	Executive Assistant Manager	Executive Office	10
11. D2	D (Inter)	Director of Sales & Marketing	Sales & Marketing	18
12. D3	D (Inter)	Front Office Manager	Front Office	10
13. E1	E (Thai)	General Manager	Executive Office	30
14. E2	E (Thai)	Director of Human Resource	Human Resource	15
15. E3	E (Thai)	Housekeeping Manager	Housekeeping	20
16. F1	F (Inter)	Director of Social Affairs and Protocol	Sales & Marketing	8
17. F2	F (Inter)	Guest Service Manager	Room Division	11
18. F3	F (Inter)	Restaurant Manager	Food & Beverage	21
19. G1	G (Inter)	Director of Human Resource	Human Resource	15
20. G2	G (Inter)	Human Resource Manager	Human Resource	7
21. G3	G (Inter)	Duty Manager	Front Office	6
22. H1	H (Inter)	Director of Training and Development	Human Resource	20
23. H2	H (Inter)	Assistant Director of Sales and Marketing	Sales & Marketing	8
24. H3	H (Inter)	Front Desk Manager	Front Office	6
25. I1	I (Thai)	Director of Sales & Marketing	Sales & Marketing	15
26. I2	I (Thai)	Director of Finance & Accounting	Finance & Accounting	13
27. I3	I (Thai)	Food & Beverage Manager	Food & Beverage	12
28. J1	J (Inter)	Director of Training	Human Resource	20
29. J2	J (Inter)	Director of Food and Beverage Manager	Food & Beverage	22
30. J3	J (Inter)	Front Office Manager	Room Division	5

Data Analysis

In this section, quantifying method was used to analyse the data in order to provide richness and give insight to the qualitative data. The results of each question focused on the explanation first, followed by the summary illustration. The data of all interviews was interpreted and also coded in order to answer the research questions of the study. The raw data was broken down into smaller units and categorized according to the content of the idea. Each category was transcribed and the frequency counted. The content was studied to identify themes. Interviews were then coded according to predominant themes and filed by subject.

1. Determinants of Service Quality in the Thai Hotel Industry

1.1 *Definition of Service Quality of the Hotel*

Most managers from Thai hotel chains and International hotel chains defined the meaning of service quality of the hotel as the ability of the organization to meet or exceed customer expectations.

According to one respondent:

A1: "Definitions of service quality focus on meeting the customers' needs and requirements and how well the service delivered matches the customers' expectations".

Other respondents had similar sentiments:

B1: "Service quality is meeting and exceeding guest expectations".

D2: "Service quality is meeting or exceeding customer needs and that depends on the level of the hotels".

G1: "Service quality is the feeling that you do something that will satisfy guests. Right attitude is of secondary importance".

J2: "The most essential thing about service quality is to not only satisfy guests' expectations, but go beyond guests' expectations".

While some considered attaining consistency of service as the mark of service quality, others found the fulfillment of "staff satisfaction" more meaningful. A manager in a General Manager position noted:

E1: "Quality staff produce good service".

Another manager pointed out the benefits of guest satisfaction:

I2: "Service quality is the way the hotel impresses their guests in order to increase the return of guests and also the return of revenue".

Some viewed service quality as having the opportunity to demonstrate expertise:

F2: "It means that the hotel knows how to solve any problems immediately".

Some respondents believed that the criteria for service quality were composed of three aspects: product, service and anticipating customer satisfaction, which will help judge service quality. Another respondent, a General Manager, noted that delivering service on time, as well as reliability and value for money, indicates service quality.

From the views of hotel practitioners, the definitions of service quality, therefore, generally focus on meeting the customers' needs and requirements and how well the service delivered matches the customers' expectations of it.

1.2 *Service Quality Dimensions*

In this study, the service quality dimensions-for example, tangibles and intangibles such as reliability, responsiveness, assurance and empathy developed by Parasuraman *et al.* in 1985-

were utilized to investigate the service focus of hotels in Thailand. All dimensions were ranked by their importance from a score of one as the first priority to five as the lowest priority and then compared with the average score. As presented in the table below, the hotel providers' priorities were: Responsiveness (2.00), followed by Reliability (2.53), Assurance (2.90), Empathy (3.53), and Tangibles (4.03), respectively. Customers' views on the ranking of service quality dimensions in the study by Berry *et al.* (1994) were firstly focused on Reliability, followed by Responsiveness, Assurance, Empathy and Tangibles. Thus, it indicated that hotels in Thailand do not really provide their services in line with customers' views regarding the service quality dimensions.

Compared with the two groups of hotels, the priorities of service quality dimension were quite different, except for Tangibles as the fifth priority. Tangibles did not have a great impact on hotel service quality from the managers' point of views because this research study focuses only on the five-star hotels. Normally, the five-star hotels have to pay attention to their facilities since the beginning. Surprisingly, regarding the first priority, both international hotel chains in Thailand and Thai hotel chains focused on responsiveness. What was different from the past research studies about the dimension of service was Reliability was generally found as the first priority.

It can be concluded that hotels in Thailand maybe not generally on the right track because they do not focus on Reliability as the first priority since this dimension was considered the first priority in the customers' views in judging service quality (Berry *et al.*, 1994).

Table2: Service Quality Dimensions in Customer Service Provision

Dimension	Thai Hotels (in total) (1)	Average for Thai Hotels (in total) (2)	International Hotel Chains (3)	Average for International (4)	Total (5)	Total Average (6)
Tangibles	53	4.42	68	3.78	121	4.03
Reliability	27	2.25	49	2.72	76	2.53
Responsiveness	19	1.58	41	2.28	60	2.00
Assurance	42	3.50	45	2.50	87	2.90
Empathy	39	3.25	67	3.72	106	3.53

Remark:

1. Each dimension is given the score in ranking as 1, 2, 3, 4, 5 as priority in serving customers according to the view of hotel respondents. 5 means the least importance and 1 means the highest importance.

2. The scores in (1), (3) expressed in the above table are summed up (in total) from each answer interviewed from each respondent.

3. The average in (2) and (4) is calculated by the total scores in (1) and (3) divided by the total number of respondents.

4. The total in (5) is the total score from all respondents or the total of (1)+(3).

5. The total average in (6) is calculated by the total score from (5) divided by the total numbers of respondents.

2. Problems of Customer Service

Hotels in Thailand face various problems concerning customer service. These problems can be classified into five major groups: Staff; Customer Behavior; Communication and Cooperation; Work Process and Other Problems.

Most respondents viewed staff's lack of skills as a major problem of service quality improvement. One of the participants stated that

A2: "The Staff's skills are considered the first step in service quality improvement. Staff's lack of skills is our serious problem".

Many respondents cite insufficient number of staff as a major problem of service quality improvement. For example:

E2: "In order to improve the service quality, the number of staff is essential, particularly in the high contact service with customers like five-star hotels. Definitely an insufficient number of staff is the main problem for us".

Respondents also cite knowledge as important to manage their staff's assignments properly. As stated by a participant:

C1: "Knowledge is the foundation of an accomplished person. If the staff has no firm background and knowledge, they cannot succeed. This definitely affects the service quality improvement of the hotel".

From the research results, the number of answers of each of the five major groups can be shown as a percentage in order to compare the importance as follows: Staff (36.07%), Customer Behaviour (27.87%), Communication and Cooperation (24.59%), Work Process (6.56%), and Other Problems (4.92%). These are shown in the table below:

Table 3: Problems of Customer Services

	Thai Hotel Chains	International Hotel Chains	Total	Percent of Grand Total	Percent of Problems in Each Group
1. Staff					
1. Staff's lack of skills	3	4	7		31.82
2. Insufficient number of staff	2	3	5		22.73
3. Staff's lack of knowledge	2	2	4		18.18
4. Staff attitudes	1	3	4		18.18
5. Staff work problems: inconsistent performance	1	0	1		4.55
6. Staff's manners	1	0	1		4.55
Total			22	36.07 %	100
2. Customer Behaviour					
1. High expectations	2	11	13		76.48
2. Increase in customer demand	2	2	4		23.52
Total			17	27.87 %	100
3. Communication and Cooperation					
1. Communication ineffectiveness	3	10	13		86.67
2. Cooperation with top management	1	1	2		13.33
Total			15	24.59 %	100
4. Work Process					
1. Too many steps in work process	1	1	2		50
2. Inflexibility of work process	1	1	2		50
Total			4	6.56 %	100
5. Other Problems					
1. Limited budget	1	0	1		33.33
2. IT system	1	0	1		33.33
3. Government policy	1	0	1		33.33
Total			3	4.92 %	100
GRAND TOTAL			61		

Regarding staff problems, major problems can be ranked in importance as: "Staff's lack of skills" (31.82%), followed by "Insufficient number of staff" (22.73%), "Staff's lack of knowledge" (18.18%), and "Staff attitudes" (18.18%). With regards to customer behavioral problems, "High expectation of customer" (76.48%) and "Increase in customer demand" (23.52%) show outstanding results. For communication and cooperation problems, "Communication ineffectiveness" (86.67%) and "Cooperation with top management" (13.33%) are major concerns. With respect to work process problems, "Too many steps in work process" and "Inflexibility of work process" are the hotels' focus equally (50%). The other problems are "Limited budget" (33.33%), "IT system" (33.33%), and "Government policy" (33.33%).

Remarkably, in a comparison among the two groups of hotels, their service problems are similar. However, the dominant differences are that Thai hotels face some more problems such as limited budget and IT system, while international hotel chains are predominantly faced with customer behaviour, staff, and communication and cooperation problems.

3. Barriers in Improving Service Quality

By asking the question directly for the factors influencing the barriers to the service quality improvement of the hotels, the results indicate that manager respondents of the Thai hotels cited Communication, Staff involvement, and Limited budget as the main factors. Communication was, in fact, the most frequently named factor.

Interestingly, culture was found to be another im-

portant barrier as well. In the tradition of Thai culture, staff do not want to give their opinions or new ideas because they are afraid of being wrong. Therefore, it was found that the lack of creative thinking among staff is one of the strongest barriers. Moreover, the mix-mode culture, which includes the differences in opinions between the owner of the Thai hotels and the senior managers who come from the international hotel chains, is seen as another barrier. Furthermore, the manager respondents cited Staff's attitude, Communication, and Timing as main factors influencing the service quality of the international hotel chains.

Obviously, the data shows that Communication is the biggest barrier, affecting service quality improvement of the Thai hotel industry (46.67%).

4. Success in Improving Service Quality

The manager respondents cited leadership and teamwork as main success factors of the service quality improvement of Thai chain hotels. This can imply that both international hotel chains and Thai hotels chains, consider that teamwork is the key success factor of service quality improvement.

In comparison, between the two groups of hotels, their success level was a bit different. Most of the hotel practitioners in the International hotel chains pointed out that their hotels have succeeded in improving service quality with a "high" success level of 94.44%, whereas hotel practitioners in the Thai hotels indicated only 58.33% in the "high" level. Hence, this can imply that the resources that international chain hotels invested in their service quality improvement has paid off in their perspective.

5. Actions in Service Quality Improvement

5.1 Actions towards Service Quality Improvement

There were many comments that suggested actions towards service quality improvement were being undertaken in the Thai hotel industry. For example,

B3:"We are concerned about providing English language training to all staff. Misunderstanding between our guests and staff always happen because of the poor English language of the staff. So, we have to get rid off this communication problem first".

C1:"We try to increase moral activity to improve staff attitude".

D3:"We always go for internal promotion to reduce staff turnover".

F2:"We use employee research to understand the staff's needs and ensure overall satisfaction. Moreover, our hotel pays more attention to customer complaint handling. We think that responsive complaint handling is needed to show a hotel's sense of urgency and attention regarding their guests' concerns".

H1:"We have just established a unit for continuous service quality improvement in our hotel".

H2:"My hotel pays a lot of attention to the strengthening of IT systems and equipment. Moreover, our boss always delegates more power to staff to make their own decisions. I am really impressed by that and it made me feel more confident. I definitely think that this is another affective action towards service quality improvement".

Besides, barriers to service quality improvement and customer service problems as mentioned above, respondents' answers focused on solving related issues and could be categorized into five major groups, in percentage according to their priority of importance as: Staff (57.97%), Management (17.39%), Communication and Cooperation (14.49%), Customers (5.80%), and Other Projects (4.35%).

Regarding quality projects, projects in each major group could be ranked regarding their importance as percentages. For Staff, "Staff training" (50%) demonstrates the most important service quality improvement. With respect to management projects, there were major concerns shown for top management meeting directly with the staff equal to leadership direction (50%). For communication and cooperation projects, "English language training" (70%) was the major focus. The customer projects that showed major concerns were "Customer service and customer satisfaction survey" (50%). For the other projects, "Computer system improvement" (66.67%) was the major focus.

In addition, between the two groups of hotels, there were no major differences in their focus on projects for service quality improvement. They mainly concentrated on training. Remarkably, the

international hotel chains stated psychology training and moral activity had been established for improving staff attitude. This may imply that this sort of training activities will play an important role in improving service quality of the Thai hotel industry.

Table 4: Actions towards Service Quality Improvement

	Thai Hotel Chains	International Hotel Chains	Total	Percent of Grand Total	Percent of Project in Each Group
1. Staff					
1. Staff training: knowledge, skill and psychology	7	13	20		50
2. Rewards and incentives	2	3	5		12.5
3. Recruitment: open-minded staff	2	1	3		7.5
4. Increase moral activity to improve staff attitude	0	2	2		5
5. Internal promotion to reduce staff turnover	1	1	2		5
6. Staff evaluation after training	1	1	2		5
7. Employee research to understand the staff's needs.	0	2	2		5
8. Empowerment	0	2	2		5
9. Self-development	0	2	2		5
Total			40	57.97%	100
2. Management					
1. Top management meeting directly with the staff	2	4	6		50
2. Leadership direction	2	4	6		50
Total			12	17.39%	100
3. Communication and cooperation					
1. English language training	2	5	7		70
2. Working as a team	0	3	3		30
Total			10	14.49%	100
4. Customer					
1. Customer service and customer satisfaction survey	1	1	2		50
2. Customer complaint handling	0	1	1		25
3. Service quality unit establishment	0	1	1		25
Total			4	5.80%	100
5. Other					
1. IT system improvement	0	2	2		66.67
2. Provision of various facilities	0	1	1		33.33
Total			3	4.35%	100
GRAND TOTAL			69		

Furthermore, as mentioned earlier in this paper, major groups of service problems in ranking were: staff (36.07%); customer behaviour (27.87%); communication and cooperation (24.59%); work process (6.56%); and other problems (4.92%). However, major groups of projects implemented to solve these problems were: staff (57.97%); management (17.39%); communication and cooperation (14.49%); customer (5.80%); and other projects (4.35%). Interestingly, the projects implemented to solve the problem of the customers were hardly mentioned, also the work process was not mentioned even though these problems were very important to the success of service quality improvement. This could suggest that hotels might not pay attention to solving these problems. This indicates that hotels in Thailand might not exactly understand their problems or might misallocate their resources to solve problems.

5.2 Service Quality Measurement Techniques

Comments that suggested techniques for service quality measurement are cited below:

- I1: "We are utilizing guest satisfaction surveys to measure customer satisfaction in order to receive up-to-date information concerning the hotel facilities and services offered. I think that the guest satisfaction survey is a much more practical technique".
- E3: "Although all guests within a hotel have different perceptions on the quality of their stay, our hotel is continually striving to monitor guest feedback in order to find out the potential directions of improving our service quality".
- H2: "Our hotel prefers using the mystery shopper service to measure service quality of the hotel, as they come from a professional market research company. Mystery guest service consists of unannounced visits to the hotel property and, using the exhaustive checklist, tests every aspect of guest services from check-in, meal service, room service, room cleanliness, concierge, bellman, business services and equipment. The mystery shoppers ask for odd items, place high demands on the hotel staff and test the security before checking out".
- D1: "The mystery shoppers rate every aspect of the hotel and every staff member they contact. The mystery shoppers will also provide an extensive commentary report, and our hotel will use this information to take corrective actions in our needed areas and as a training tool to educate our staff".
- I1: "Obviously, the information from the mystery shoppers is much more meaningful because it comes from a professional market research company".
- B1: "I prefer using management observation technique to assess the interactions that take place daily between our hotel operation and our guests. To me, I think it is the most practical technique and I'm sure that I receive reliable results from it".

Obviously, the data has shown that Guest satisfaction survey (76.67%) was the main approach used for measuring service quality of the Thai hotel industry. Interestingly, the mystery shoppers technique was the second technique used for measuring service quality of the Thai hotel industry (16.67%).

5.3 Approaches for Service Quality Improvement

Comments that suggested approaches for service quality improvement are cited below:

- B1: "Our hotel mainly uses staff intensive training courses to improve the staff's skills, manners, and attitude. We think that this approach is the most practical to improve our service quality".
- A2: "We use benchmarking to track the competitors' movements and use this information as an indication to evaluate the hotels' performance. We believe that it is the best approach".
- C1: "Our hotel focuses on encouraging teamwork. We think that teambuilding should be the first approach to think about improving our service quality".
- J1: "We are using Six-Sigma to improve the effectiveness and efficiency of our operations, and it works very well".
- G1: "Since our hotel is certified by ISO 9000, it is very beneficial because trends show that guests prefer to choose hotels that have been certified by ISO 9000. Moreover, I think that if you want to ensure the standard-

ization and consistency in service delivery, to improve the quality of services, to develop staff's knowledge, skills and attitudes, to encourage teamwork and cooperation, and to enhance cost savings, ISO 9000 should be adopted".

- E2:"My hotel is using Total Quality Management technique. I think that it is very effective as it is the management of work system in order to protect and reduce errors and mistakes and create value in each work process to meet the success of the hotel operational functions".

Obviously, the data has shown that "Training" (32.35%) was the main approach used for improving service quality in the Thai hotel industry. In addition, the international chain hotels applied Six Sigma, ISO 9000, and Total Quality Management approaches for service quality improvement, but this was not found in the Thai chain hotel. This may imply that Thai hotels use very limited approaches for service quality improvement.

ANALYSIS

The most critical service problems in the Thai hotel industry are staff-related. Some examples are staff's lack of skills, lack of knowledge, insufficient number of staff and staff's attitudes of resistance to change in a new environment. Practically speaking, hotel staff has played an important role in representing the hotel as a whole, to ensure the accuracy of the service, and are the key for customers to evaluate hotel service quality. If staff problems still persist, the improvement in service quality may not be able to reach an optimal level.

Second, hotels in Thailand may be not generally on the right track in focusing on responsiveness as the first priority. Since the reliability dimension is considered the first priority in judging service quality in the customers' views, the hotels have to reconsider their service quality dimensions by focusing on more reliability in order to improve customer perceptions of their credibility. To put the emphasis on reliability and achievement of service improvement goals, the corporate mission should include messages on service improvement that have to be recognized and easily seen by all staff doing their day-to-day duties.

Third, hotels showed a strong interest in service quality improvement. This implies that hotels have to continue to improve service quality as there will be an increased competition in the future. Presently, the guest satisfaction survey is emerging as the main effective method in the Thai hotel industry to reduce the dissatisfaction of the customers and to allow more accuracy for hotel staff to deliver better service to customers. However, being best in service quality improvement is difficult and there needs to be a team to plan and monitor the whole process. Hence, hotels should establish service improvement teams or related units to be responsible for service problem investigation and quality initiative development. As a result, service problems will be solved effectively and service quality will be improved and accomplished as a corporate competitive advantage.

Interestingly, the five-star hotels in Thailand hardly mentioned IT systems and equipment as important problems. They believe that all the IT systems in their hotels are already well set up. However, they are faced with other important issues such as staff, customer behaviour, communications and cooperation and work process-all of which greatly affect service delivery. Hotel projects have mainly focused on staff. However, hotel projects to solve the service problems with the communication and customer behaviour study have, to this point, received less attention than they should get. Moreover, service problems with work process is still an area where hotels have taken few initiatives to solve. As a result, hotels urgently need to solve these service problems before they reposition themselves in the market. If the solutions cannot be found, service quality improvement and implementation will not be accomplished.

In brief, service quality improvement initiatives in the Thai hotel industry are successful to some extent, at least according to the respondents' views. However, hotels have to increasingly solve customer service problems, improve quality initiatives, and create more quality programs based on present experiences and expertise.

IMPLICATIONS OF SERVICE QUALITY IMPROVEMENT IN THE THAI HOTEL INDUSTRY

Based on the literature review regarding service quality improvement and the empirical findings obtained from research study, an effective system for service quality improvement in the Thai hotel industry was then developed. This system was used as a framework for this research study and, it is hoped, will be applied in hotels to improve the service quality for hotel practitioners to add value to the hotel industry. Thus, the system below is proposed for hotel practitioners to continuously improve service quality in the Thai hotel industry.

Figure 1 provides the framework connecting and integrating the categories as follows:

First, the arrow lines show the relationship between each category: perceived service quality (Category 1), service quality measurement (Category 2), service quality improvement (Category 3), and service quality target and feedback (Category 4). According to service quality target, the hotels have to achieve excellent service quality, which is the ultimate goal of organizational survival in terms of profits and market share through developing customer satisfaction.

The arrow in the center of the framework links the Internal Factors (Category 1.1), the External Factors (Category 1.2), and the Customer Factors (Category 1.3) to the perceived service quality (Category 1). The factors directly influencing perceived service quality are composed of External Factors and Internal Factors. The External Factors that are out of the hotels' control are such things as government policy, technology, competitors, and the economy. Internal Factors are under each hotels' control. The internal profile sets the context for the way the organization operates. The key working relationships serve as a guide for the organizational performance and management system. The internal factors are composed of 5 main categories. Management (Category 1.1.1), Staff (Category 1.1.2), Communication (Category 1.1.3), Work Process (Category 1.1.4), and the Hotel Facility and Provided Service (Category 1.1.5) represent the internal factors. These categories are placed together to emphasize the importance of internal factors that affect the perceived service quality. Senior leaders set the organizational direction and seek future opportunities for the organization. The organization's employees and key factors accomplish the work of the organization that yields business results.

Furthermore, the backward arrows indicate the central relationship between Service Quality Target and Feedback (Category 4), Service Quality Measurement (Category 2) and Service Quality Improvement (Category 3), which represent continuous

Figure 1: Proposed Effective System for Service Quality Improvement in the Thai Hotel Industry
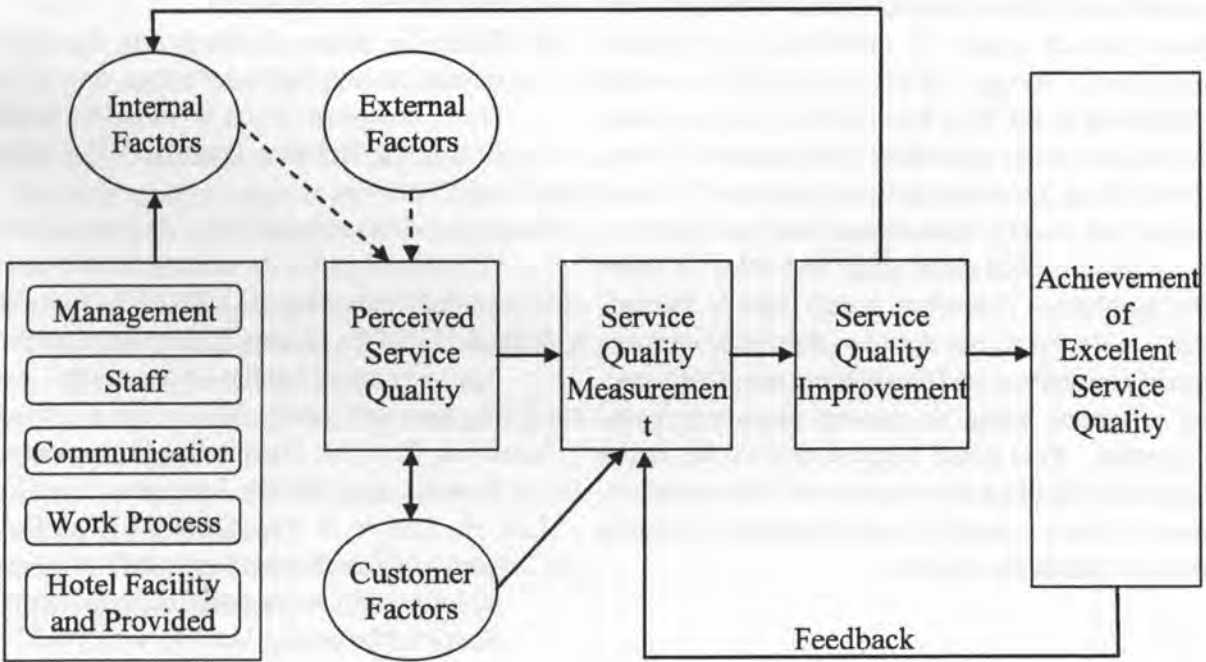
improvement. Service Quality Measurement is critical to the effective management of the organization for improving performance and competitiveness. The steps of service quality measurement and service quality improvement will be repeated until the hotel reaches the achievement of the service quality target.

Limitations

This research was conducted within the context of the hotel industry. It adds knowledge to the literature of service quality improvement. However, its results cannot be completely relevant, consistent and applicable to all service businesses due to the limitation of sample size, selection procedure, and its focus on only the five-star hotel industry. Caution should be applied in generalizing the findings for the whole service industry, either in Thailand or worldwide. Further study is needed to compare with this research.

Implications

At present, the hotels in Thailand have been experiencing dramatic changes, leading hotel practitioners to pay closer attention to service quality improvement. Service quality improvement is considered as a winning strategy because it brings about an increase in customer satisfaction and ultimately maximizes a company's profits and market share (Barker et al., 2003; Berry *et al.*, 1994; Getty & Getty, 2003; Lee et al., 2000; Maxwell *et al.*, 2004; Oliver, 1996, Newman *et al.*, 1998).

The results of the empirical research in this research study have shown the hotels' attempts to improve service quality by establishing key quality initiatives. Though service quality improvement initiatives in the Thai hotel industry are successful to some extent according to respondents' views, the findings, however, indicate hotels in Thailand might not exactly understand their problems or have even misallocated their resources to solve the problems. Therefore, hotels have to increasingly solve customer service problems, improve quality initiatives, and create more necessary quality programs based on present experiences and expertise. This could suggest that in the future hotels should place more resources in the improvement of communication, and on customer expectation and satisfaction studies.

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THAI CONSUMERS' PERCEPTION AND ATTITUDE TOWARD THE QUALITY OF CHINESE BRAND TELEVISION SETS

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Abstract

This study examines the relationship between extrinsic cues, intrinsic cues and Thai consumers' perception and attitude toward the quality of Chinese brand television sets. The data for this study were collected through personal interviews in five hypermarkets and five department stores in Bangkok from October 2007 to January 2008. The research results indicated that there are relationships between all extrinsic cues (country of origin, brand and price) and intrinsic cues (appearances, picture quality and sound system) and Thai consumers' perception and attitude toward Chinese brand television sets.

INTRODUCTION

China is the number one producer in over a hundred categories of different consumer and industrial products. As a contiguous country, Thailand has increasingly more economic cooperation with China. Many Chinese products have entered into the Thai market, especially Chinese electric products. It is important to examine how Thai consumers perceive products originating from China now.

There are many international marketing studies have shown that one information used by consumers in judging the quality and purchase value of a manufactured product is their knowledge of the country where the product was designed (country of design: COD) and/or assembled (country of assembly: COA) (Chao, 1998). Besides, Thakor and Katsanis (1997) mentioned that consumers evaluate products by analyzing extrinsic and intrinsic cues. Extrinsic cues are those that are not a part of the physical product, while intrinsic cues are those that are integral to the product.

This study partly addresses this deficiency by investigating how Thai consumers evaluate Chinese brand television products. Specifically, the researcher assumed that there are relationships between extrinsic cues and intrinsic cues and Thai consumers' perception and attitude toward Chinese brand television products.

LITERATURE REVIEW

Steenkamp (1989) suggested a model of the quality perception process. This process starts with the acquisition and categorization of cues, intrinsic (e.g. appearance, color, shape, presentation) or extrinsic (e.g. price, brand name, stamp of quality, country of origin, store, production information and nutritional information) of the product. From an information theoretical perspective, consumers evaluate a product on the basis of both intrinsic (e.g. taste, design, fit) and extrinsic (e.g. price, brand, warranty) cues (Szybillo and Jacoby, 1974).

Country of origin (COO) denotes the country with which a firm is associated. Typically, this is the home country for a company. Country of origin is inherent in certain brands, for example, IBM and Sony imply U.S. and Japanese origins respectively (Chandarapratin, 1995). Country-of-origin is regarded as an extrinsic cue - an intangible product attribute, which is widely used by consumers, especially when they have only limited familiarity with products of foreign origin (Hanne, 1996).

A brand is defined as 'a name, term, sign, symbol, or design, or combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors (Kotler and Keller, 2006). Because a brand identifies a product's or service's source, thus protecting against competitors who may attempt to market similar goods or services,

companies have an incentive to invest in the quality, consistency, and imagery of their brand. Branding dates back to ancient times, when names or marks appeared on such goods as bricks, pots, ointments and metals. In medieval Europe, trade guilds used brands to provide quality assurance for customers and legal protection for manufacturers.

Price is the one element of the marketing mix that produces revenue; the other elements produce costs. Prices are perhaps the easiest element of the marketing program to adjust; product features, channels, and even promotion take more time (Kotler and Keller, 2006). Zeithaml (1988) argued that objective price and perceived price are crucial factors to evaluate quality.

Perception of quality plays a significant role in consumer product evaluation and decision making (Stephen et al., 1985; Hugstad and Durr, 1986; Kraft and Chung, 1992). Furthermore, the perception of quality by consumers toward a product will increase consumer confidence in the product evaluations before arriving at a final choice (Rogers et al., 1994). Hence, the perception of quality in influencing consumers' preferences in the buying of foreign-made product has been documented in the literature with quality playing a significant role (Wall and Heslop, 1989).

Attitudes are learned, and they tend to persist over time. Our attitudes also reflect our overall evaluation of something based on the set of associations linked to it. This is why we have attitudes toward brands, product categories, ads, people, types of stores, activities, and so forth (Hoyer and MacInnis, 2005).

CONCEPTUAL FRAMEWORK

The conceptual model is adapted from Chung, et al., (2006).

As shown in Figure 1.1, the two main independent variables extrinsic cues and intrinsic cues, each of them included three elements. All the six independent variables have the relationship with the two dependent variables, consumers' perception and attitude toward the quality of Chinese brand television sets.

Figure 1.1: Conceptual framework of the study

Independent Variables   Dependent Variables
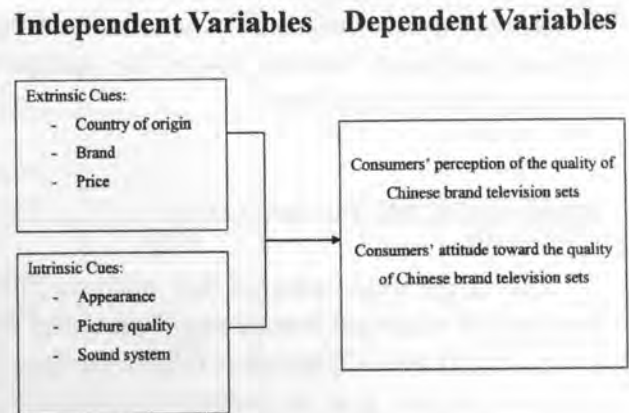
Source: Adapted from Chung, et al., (2006).

HYPOTHESES

12 Null hypotheses were formulated:

Ho1: There is no relationship between country of origin and consumer's perception of the quality of Chinese brand television sets

Ho2: There is no relationship between brand and consumer's perception of the quality of Chinese brand television sets

Ho3: There is no relationship between price and consumer's perception of the quality of Chinese brand television sets

Ho4: There is no relationship between appearance and consumer's perception of the quality of Chinese brand television sets

Ho5: There is no relationship between picture quality and consumer's perception of the quality of Chinese brand television sets

Ho6: There is no relationship between sound system and consumer's perception of the quality of Chinese brand television sets

Ho7: There is no relationship between country of origin and consumer's attitude toward the quality of Chinese brand television sets

Ho8: There is no relationship between brand and consumer's attitude toward the quality of Chinese brand television sets

Ho9: There is no relationship between price and consumer's attitude toward the quality of Chinese brand television sets

Ho10: There is no relationship between appearance and consumer's attitude toward the quality of Chinese brand television sets

Ho11: There is no relationship between pic-

ture quality and consumer's attitude toward the quality of Chinese brand television sets

Ho12: There is no relationship between sound system and consumer's attitude toward the quality of Chinese brand television sets

RESEARCH METHODOLOGY

The target population of this study is Thai people both male and female who (1) are over 18 years old; (2) live in Bangkok; (3) have purchased a television set. It is an unknown population. Hence, the number of samples needed for conducting this research is determined by estimating the proportion. From the calculation, minimum of 384 samples are required to conduct this research. The researcher increased the number of respondents to 400.

The researcher randomly drew 5 department stores in Bangkok (The Mall Bang Kapi, Central Ladprao, The Mall Bangkae, Robinsons Ratchadapisek and Central Bang Na), 5 hypermarkets (Big C, Fashion Island, Tesco Lotus Rama III, Carrefour Rama IV, Big C Rajdamri and Tesco Lotus Minburi) to distribute the questionnaires. Using Quota sampling technique, the sample size for each place was 40. Judgment sampling was used to select the respondents in each of the ten shopping areas.

Questionnaire

The questionnaire was divided into 5 parts. Part A contained four screening questions. Part B included three major factors of extrinsic cues (Country of Origin, Brand and Price). Respondents rated themselves at a specific level by using a five-point Likert scales. Part C included three major factors of intrinsic cues (appearance, picture quality and sound system). It also used five-point Likert scale. Part D included two parts which are perception and attitude which also used five-point Likert scale. Part E included questions on demographic variables.

Method of Analysis

In this study, descriptive analysis was used to analyze demographic information. The Pearson's product moment correlation coefficient (Pearson correlation) was used to test the 12 hypotheses.

RESULTS

Table 1.2: Summary of hypotheses results

Hypothesis	Test Statistics	Level of Significance	Correlation Coefficient	Results
Ho1: There is no relationship between country of origin and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.589	Reject Ho1
Ho2: There is no relationship between brand and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.655	Reject Ho2
Ho3: There is no relationship between price and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.677	Reject Ho3
Ho4: There is no relationship between appearance and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.681	Reject Ho4
Ho5: There is no relationship between picture quality and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.737	Reject Ho5
Ho6: There is no relationship between sound system and consumers' perception of the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.704	Reject Ho6

Hypothesis	Test Statistics	Level of Significance	Correlation Coefficient	Results
Ho7: There is no relationship between country of origin and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.626	Reject Ho7
Ho8: There is no relationship between brand and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.705	Reject Ho8
Ho9: There is no relationship between price and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.730	Reject Ho9
Ho10: There is no relationship between appearance and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.726	Reject Ho10
Ho11: There is no relationship between picture quality and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.786	Reject Ho11
Ho12: There is no relationship between sound system and consumers' attitude toward the quality of Chinese brand television sets.	Pearson Correlation Coefficient	0.000	0.746	Reject Ho12

DISCUSSION

The findings on table 1.2 showed that there is a positive relationship between country of origin and consumers' perception and attitude toward the quality of Chinese brand television sets. It implied that if the "made in China" label can give the good impression to consumers, consumers' perception and attitude toward the quality of Chinese brand television set also should be good, and vice versa. Papadopoulos and Heslop (1993) argued that consumer behavior and international marketing literature have extensively documented the impact that a consumer's knowledge about a product's COO has on subsequent product evaluations. This study found that country of origin has the weaker relationship with consumers' perception and attitude toward the quality of Chinese brand television set compared to the other two extrinsic cues; brand and price.

The findings showed that there is a positive relationship between brand and consumers' perception and attitude toward the quality of Chinese brand television sets. This result is similar to the findings of Hong et al., (2002) in that a familiar brand is a powerful cue that may even overcome or enhance the COO effect particularly where there is a strong association of a brand name with a country. Moreover, research found that brand has a stronger relationship with consumers' perception and attitude toward Chinese brand television sets compared with the country of origin. One study's findings indicated that foreign branding affects product evaluations more than COO (Thekor and Pachetu, 1997).

The research showed that there is a positive relationship between price and consumers' perception and attitude toward the quality of Chinese brand television sets. It means that if consumers' evaluation of the price of Chinese brand television set is positive, consumers' perception and attitude toward the quality of Chinese brand television set is also positive, and vice versa. It is consistent with Rao and Monroe's (1989) study which concluded that is a positive relationship between price and quality assessment for certain products and within a product price range. There is a long history of research that demonstrates that consumers often use price to infer product quality. In this study, the researcher found that price has the strongest relationship with consumers' perception and attitude toward the quality of Chinese brand television sets. The results are similar to what Chung et al., (2006) found for Indian consumers; price is the most effective extrinsic cue in inferring the intrinsic attributes of product quality.

The research showed the 3 intrinsic cues, appearance, picture quality and sound system, have positive relationships with consumers' perception and attitude toward the quality of Chinese brand television sets. It means that if any one of the three intrinsic

cues gets a good evaluation from consumers, their perception and attitude toward the quality of Chinese brand television sets is also good, and vice versa. The findings showed that the three intrinsic cues had a stronger relationship with perception and attitude compared to the extrinsic cues. This is consistent with the findings of Olson (1972) in that intrinsic cues are more important than extrinsic cues when consumers evaluate quality.

RECOMMENDATIONS

First, Chinese brand television manufacturers should know that the "Made in China" label will influence consumers' perception and attitude toward the quality of their products. However, if this is negative in the consumers' minds, it is difficult to change in a short period. Watson and Wright (2000) indicated that if COO is negative, it may be better to promote other attributes and benefits of the product. In addition, strategic benefits may also be gained by establishing alliances with domestic distributors. In such instances, the image of the Chinese products may be improved through associations with reputable retailers operating in Thailand. Second, Andaleeb (1995) and Mitchell et al. (1990) argued that offering a variety of product choices can combat negative country of origin effects when competing in product categories in which a domestic alternative is available. Chinese brand television manufacturers should try to offer more categories of television sets to compete with other countries' manufacturers. Jo (2005) mentioned that branding strategies can also be employed to obscure less favorable countries of origin. Companies have used brand names that are disassociated with their countries of origin (e.g., Acer for a Taiwanese company). Thai consumers prefer electronic brands which have western names because they associate this with higher quality (Komin, 1990). Chinese television set manufacturers can use this strategy by employing western style brand names for their products in the Thai market.

Since in this study, brand is found to have a positive relationship with consumers' perception and attitude, Chinese brand television manufacturers should improve the image of their brands in consumers' mind. First of all, they should create brand recognition and brand awareness so that more consumers become familiar with them. This can be done by: 1) increasing advertisements (TV advertisement and billboard advertisement) of their brand television products in Thailand, 2) planning some public relations campaigns such as sponsorship or social activities, 3) by merging with or acquisition of a famous brand. Take Lenovo for example, who entered into an alliance with IBM, is a good lesson for Chinese brand manufacturers who export their products worldwide.

Since price is found that have a strong relationship with Thai consumers' perception and attitude toward the quality of Chinese television sets compared to country of origin and brand, Chinese television manufacturers should use pricing strategy cautiously. Consumers today are looking for products that give them value for their money. According to this, Chinese brand television manufacturers have to add more value to their television products to get higher consumer evaluations. For example, value can be added by paying more attention to the technology employed, and in this, Chinese brand television manufacturers can learn from Japanese manufacturers who use value-orientation rather than low price-orientation. By providing a variety of products in different price categories to cater to different types of consumers, Chinese manufacturers can take off the low quality low price impression.

The study showed that there are strong positive relationships between intrinsic cues (appearance, picture quality and sound system) and Thai consumers' perception and attitude toward the quality of Chinese brand television sets, hence, manufacturers should pay more attention to these cues. The most important thing is that they increase their investments on technology of television products. Enhancing screen settings, installing high-definition sound systems, improving picture quality, and upgrading the physical looks of television sets, are some of the recommendations offered to Chinese manufacturers of television sets.

FUTURE RESEARCH

Because of resource limitations, it was not possible to identify the relative importance of specific extrinsic cues (i.e. retailer of product, manufacturer of product and advertisement of product) and intrinsic cues (i.e. material of product, technical innovation in product) that influence consumers' perception and attitude. Researchers in the future could

manipulate such cues independently to assess their relative importance. Second, country of origin is another important variable influencing consumer perceptions of brands (Hulland, 1999) and brand images (Ahmed et al., 2002). Hence, future research can focus on the relationship between extrinsic cues and specific brands. Moreover, this study only researched Thai consumers who live in Bangkok area. Hence, future researchers can expand the sample to include respondents from all over Thailand. In addition, due to the time and resources limited, this research only focused on Chinese brand television products. Since China exports many varieties of products to Thailand, specifically low involvement products, such as food, toys and clothes, future researchers can examine Thai consumers' perception and attitude toward these products.

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THE DEVELOPMENT AND MEASUREMENT OF DIFFERENT SERVICE QUALITY MODELS

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Abstract

This article outlines the development of service quality models, from the earlier Nordic model, the Gaps model, SERVQUAL and SERVPERF models, to the most recent, the service quality of internet search engines (adapted from SERVQUAL), and perceptions of educational service quality (adapted from SERVPERF). The author presents and discusses the basis of development of each service model, service quality structures, and element of each service industry. Finally, the implications for service quality model improvement and further research are discussed.

INTRODUCTION

Service quality models have been adapted and developed by many researchers. Each subsequent development has been an attempt to define more precisely the five dimensions of the service quality structure or to correct the inadequate attention paid to customers' expectation, perception, and satisfaction in the previous model. The original service model was developed by Gronroos (1982). The most popular service quality model is SERVQUAL and SERVPERF which consists of a scale designed to measure five dimensions. However, both models have not been supported or successfully adapted in all service industries. Many researchers have tried to test and adapt these models to fit with their particular service sectors. The objective of this article is to understand the development and adaptation of service quality models used in different service sectors.

The Original Service Quality: The Nordic Model

An early measure of service quality was developed by Gronroos (1982, 1983, 1984) who applied a traditional CS/D (Customer Satisfaction/ Dissatisfaction) model to explain service quality. The researcher identified two service quality dimensions: technical quality and functional quality. Technical quality focuses on the outcome of the service, or what the customers received from

their interactions with service providers to satisfy their basic needs. Functional quality or process-related dimension represents the process which evaluates the manner of delivery of the service. It defines customers' perceptions of the interactions during service delivery (see Figure 1). The Gronroos service quality model or the Nordic Model has been used to measure consumers' perception of service quality. Many researchers have applied and adopted this model to measure service quality in different industries.

Figure 1: The Nordic Model
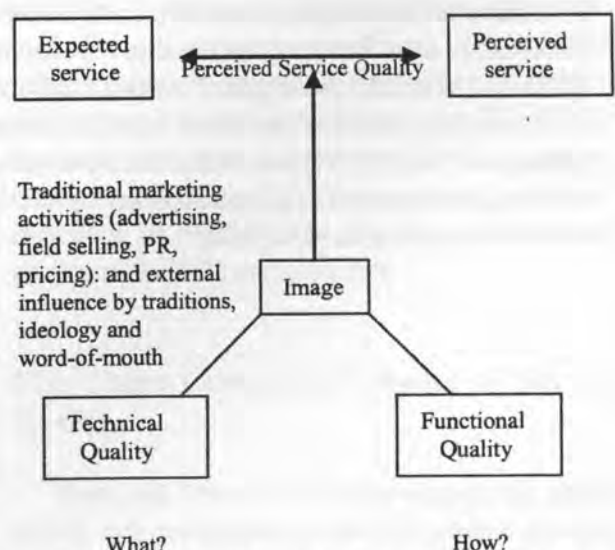
Source: Gronroos (1984), "A Service Quality Model and Its Marketing Implication" European Journal of Marketing, 18(4), p.40.

The Gaps Model of Service Quality

Using the Nordic Model, the outcomes of the technical and functional quality may not be sufficient to identify what is perceived by the customer, because technical quality and functional quality, combined, comprise the construct of image. Expanding on Gronroos' work, Parasuraman, Berry, and Zeithml (1985) developed the concept of expectation and perception of service quality by creating the Gaps Model of Service Quality as shown in Figure 2. Parasuraman, et al. (1985) defined the Gap model by focusing on the discrepancy between customers' expectation and perception. The initial model comprised of ten dimensions of service quality. The ten dimensions are: tangible, reliability, responsiveness, competence, access, courtesy, communication, credibility, security, and understanding/knowing the customer (Berry, et al., 1985, p.45-46). Parasuraman, et al. (1985) reduced the ten dimensions of their earlier work to five dimensions (tangible, reliability, responsiveness, assurance, and empathy) and this instrument, known as the SERVQUAL measurement, confirmed their conceptual model of the Gaps Model of Service Quality. The foundation of the model is a set of four gaps, with gap 5 showing the discrepancy between consumer's expectation and perception.
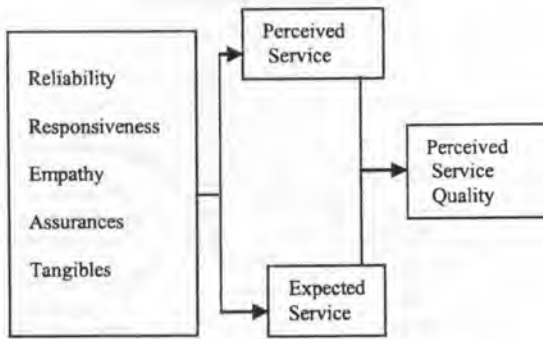
In summary, in the earlier models, two dimensions of service quality were suggested by Gronroos (1982). Five dimensions were developed by Parasuraman, Zeithaml, and Berry (1988) known as the SERVQUAL model (see Figure 3) which measured the discrepancy between customers' expectation and perception. The SERVQUAL instrument comprises of two parts (expectation and perception) that can be used for measuring service quality.

Figure 2: The Gaps Model of Service quality
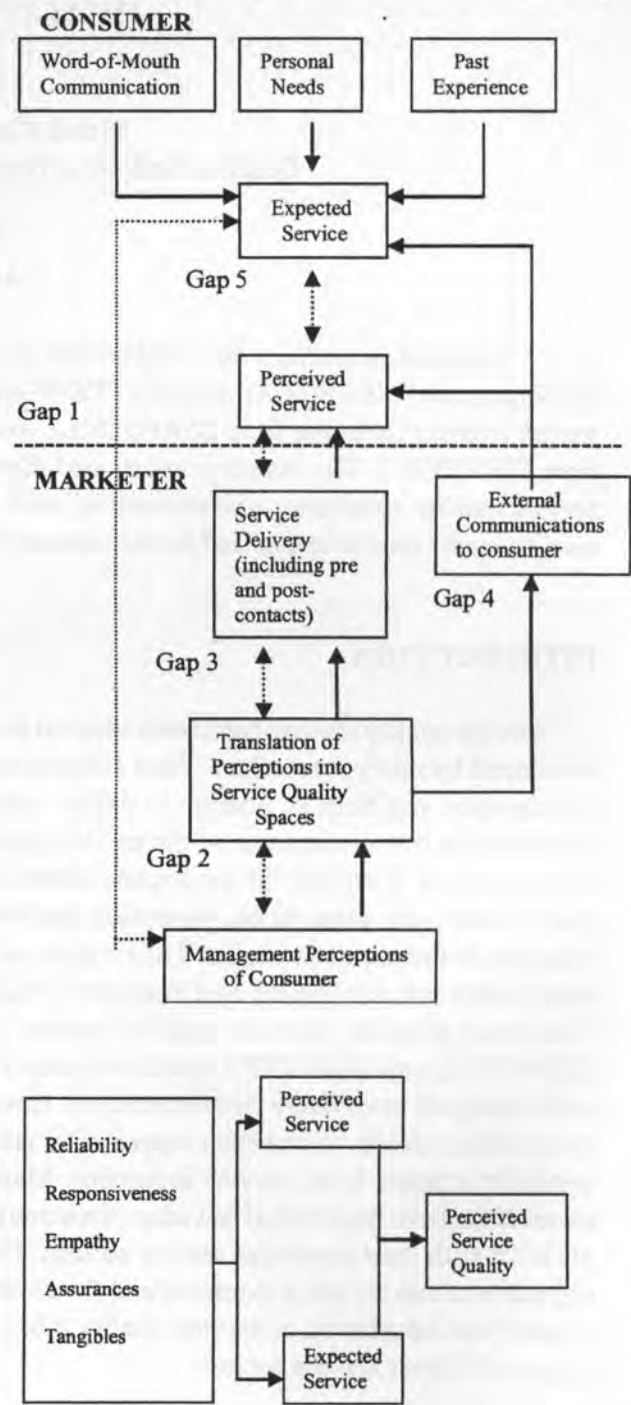
Source: Parasuraman, Berry, and Zeithaml (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research", Journal of Marketing, 49 (Fall), p.44.

Figure 3: The SERVQUAL Model

Parasuraman, et al. (1985) identified the differences between expected service (ES) and perceived service (PS) in terms of a "PS-ES" measurement framework. If expectation of service quality is exceeded (PS>ES or PS-ES > 0), it means customers' satisfaction. If expectation of service quality is met (PS = ES or PS-ES = 0), it means customers' mere satisfaction. If expectation of service quality is not met (PS<ES or PS-ES < 0), it means customers' dissatisfaction. However, Parasuraman and his colleagues (1995) suggested that research studies should be focused on the customers' expectation and their nature.

SERVQUAL vs. SERVPERF

Cronin and Taylor (1992) argued that the conceptualization and operationalization of service quality (SERVQUAL) are inadequate measures of the relationship between service quality, customers' satisfaction, and purchase intentions. In addition, Brow and Swartz (1989), Crosby (1979), Garvin (1983), and Rathmell (1966) confimed that service quality is abstract and difficult to measure. Similarly, Carman (1990) studied service quality of a tire store, placement center, and dental clinic. The researcher found that the SERVQUAL scale fails to demonstrate the five dimensional structure of service quality. Cronin and Taylor (1992) analyzed and tested a performance model based on the SERVQUAL measurement which was supported by Mariz, Ahtola, and Klippel (1975). Also, Churchill and Surprenant (1982) affirmed the efficacy of applying performance perceptions alone to measure the service quality. In addition, Hawes and Rao (1985) concluded that the

SERVPERF scale can measure consumers' perceptions of a service firm's performance. An examination by Cronin and Taylor (1992) found statistical significance in service quality (SERVQUAL) effects in two industries (banking and fast food) out of four industries but SERVPERF or a performance-based approach of the measurement of service quality effects fitted all four industries (banking, pest control, dry cleaning, and fast food). The researchers concluded that the SERVPERF is an adequate measure of consumers' perception, hence they supported the performance-based measures of service quality.

An Alternative Conceptualization and Measurement of Service Quality

Several researchers modified the original SERVQUAL and SERVPERF models. Some researchers were interested in the technical and functional quality dimensions of Gronroos' model (1982, 1984). For instance, Rust and Oliver (1994) developed a three-component model of service quality. Based on Rust and Oliver's (1994) view of overall perception of service quality, Brady and Cronin (2001) developed a three component measure of service quality based on a hierarchical approach known as a third-order factor model. Dabholkar, Thorpe and Rentz (1996), finding that the SERVQUAL model was an inadequate measure of consumers' perceived service quality of retail stores, developed a hierarchical factor structure of retail service quality. Wang, Xie, and Goh (1999) similarly agreed on the inadequacy of the SERVQUAL model. In order to apply SERVPERF for measuring the service quality of education, Oldfield and Baron (2000) regrouped the five dimensions of SERVPERF into three dimensions, shown in the following section.

The Three-Component Model of Service Quality.

Rust and Oliver (1994) developed this model which was comprised of service product (technical quality), service delivery (functional quality), and service environment as shown in Figure 4. This model has been supported and has been employed to measure retail banking service quality.

Figure 4: The Three-Component Model of Service Quality
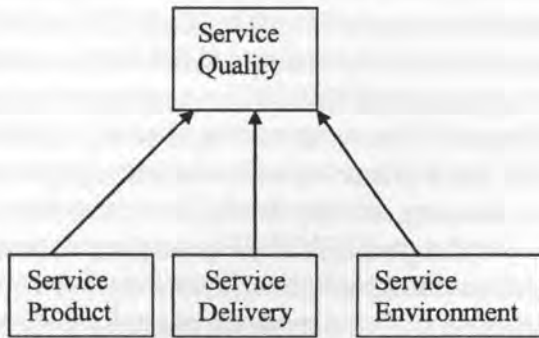
Source: Rust and Oliver (1994). "Service Quality: Insights and Managerial Implications from the Frontier", in Service Quality: New Directions in Theory and Practice.

The Structure of A Third-Order Factor Model

Brady and Cronin (2001) developed the third-order factor model which comprised three primary dimensions (interaction quality, physical environment quality, and outcome quality) and nine sub-dimensions. Attitude, behavior, and expertise form the first sub-dimension group under interaction quality. Ambient conditions, design, and social factors form the second sub-dimension group under physical environment quality. The last sub-dimension group under outcome quality is waiting time, tangibles, and valence (see Figure 5). All variables were analyzed and tested by factor analysis. This model is similar to the three-component model of service quality which was developed by Rust and Oliver (1994). Also, the interaction quality component and the outcome quality component are similar to the functional quality and the technical quality of the Nordic model by Gronroos (1982, 1984). According to Bitner's (1990) study, perception of service quality is affected by the service environment which is one of the crucial dimensions of Brady and Cronin's (2001) model.

The Hierarchical Factor Structure of Retail Service Quality Model

Dabholkar, Thorpe and Rentz (1996) found that the SERVQUAL model has not been fully applied to measure the service quality of retail stores. The authors developed a 28-item scale, retaining 17 items from SERVQUAL to measure

Figure 5: The Structure of A Third-Order Factor Model
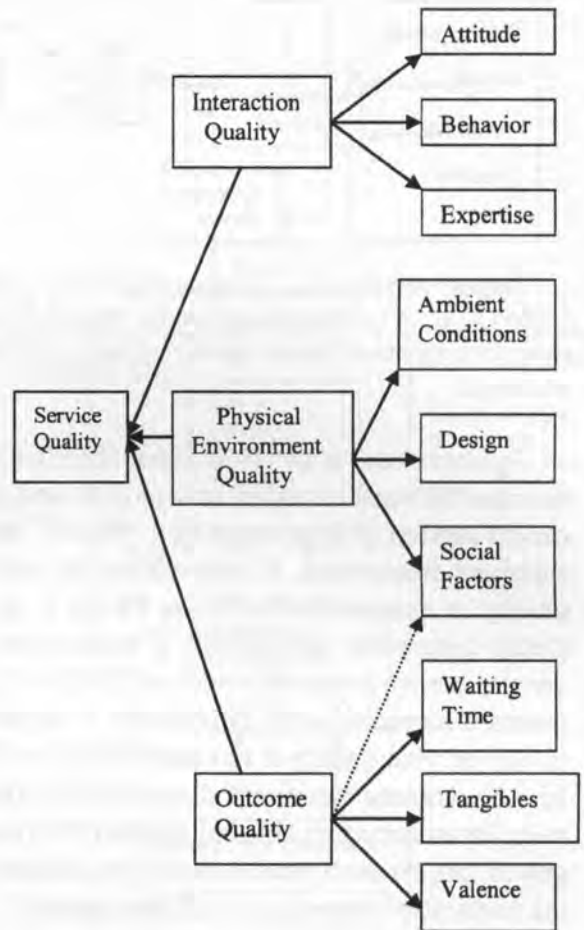
Source: Brady and Cronin (2001). Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierachical Approach, Journal of Marketing, 65 (July), p.37.

customers' perceptions of retail service quality. The retail service quality model comprises five dimensions (physical aspects, reliability, personal interaction, problem solving, and policy) and six sub-dimensions of physical aspects, reliability, and personal interaction. These are appearance and convenience, which fall under physical aspects; promises and doing it right, which fall under reliability; and inspiring confidence and courteous help, under personal interaction as shown in Figure 6.

Figure 6: The Hierarchical Factor Structure of Retail Service Quality
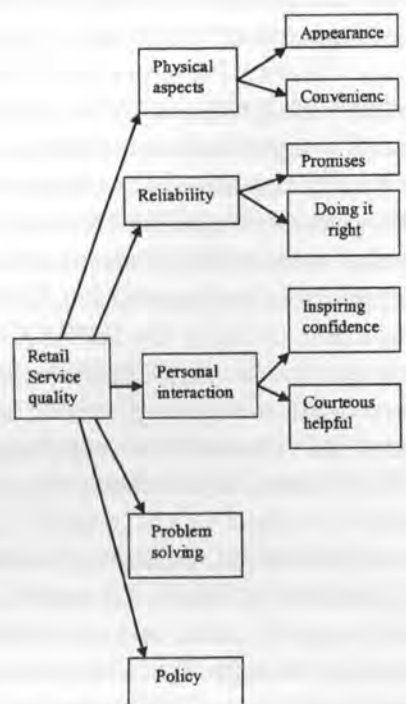
Source: Dabholkar, Thorpe, and Rentz (1996) "A Measure of Service Quality for Retail Stores: Scale Development and Validation", Journal of the Academy of Marketing Science, 24 (1), p.6.

Service Quality of Internet Search Engines Model (SERVQUAL)

Wang, Xie, and Goh (1999) failed in their application of the traditional five dimensions of SERVQUAL to measure the gap between expectation and perception of internet search engines. The researchers modified SERVQUAL from the traditional 22 items to 14 items and five dimensions. The authors mailed the questionnaires around the world. From the analysis of the modified SERVQUAL based on 168 valid replies, the researchers found that tangible, reliability, and assurance dimensions are not important to customers. The researchers grouped nine items of three dimensions (tangibles, reliability, and assurance) to form a new dimension, namely, the *Technical support* dimension based on factor analysis.

Also, the three items from empathy dimension were grouped under *Supplementary service* and the last factor, *Speed*, which is regarded as the responsiveness dimension (see Table 1). The three

new factors were matched and considered as an effective means of measuring the gap between expectation and perception of internet search engines.

Table 1: The Three Factors Service Quality of Internet Search Engines

Service quality variables	Service Quality Gap
Technical support:	-0.89
1. Different search methods available	-0.38
2. A large amount of information	-0.44
3. Information is well organized	-0.81
4. Good syntax consistency	-0.59
5. Can narrow search topic	-0.88
6. Search results are relevant	-1.44
7. Information is up to date	-1.18
8. No repetition of pages/sites	-1.07
9. No dead links	-1.20
Supplementary service:	0.31
10. The layout upon first impression is easy to understand	0.07
11. Offers natural language searching	0.19
Speed:	
12. There are help screens to guide users	-0.10
13. Search results are provided quickly	-0.42

Source: Wang, Xie, and Goh (1999). Service Quality of Internet Search Engines, Journal of Information Science, 25 (6) pp.505.

Perceptions of Educational Service Quality (SERVPERF)

Oldfield and Baron (2000) studied student perceptions of education service quality (SERVPERF). A sample of 333 undergraduate students of Business and Management at a UK university was used to collect data. The results of the factor analysis using a principal component and varimax rotation showed that the five components structure (tangible, reliability, responsiveness, assurances, and empathy) were insufficient to measure the education service quality. The authors created three names for new factors: *requisite, acceptable*, and *functional elements*, where requisite element comprised thirteen items, acceptable element, five items, and functional element, three items, as shown in Table 2.

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Table 2: Perceptions of Educational Service Quality (SERVPERF)

Variables

Factor 1: Requisite element

1. When I have a problem, administrative staff show a sincere interest in solving it.
2. Academic staff understand the needs of their students.
3. Services are performed right the first time.
4. Queries are dealt with efficiently and promptly.
5. Administrative staff are never too busy to respond to a request for assistance.
6. Administration keeps accurate records.
7. I am dealt with promptly when requesting assistance.
8. Academic staff have the knowledge to answer my questions relating to course provision.
9. When the support service promise to do something by a certain time they do so.
10. Academic staff deal with me in a caring fashion.
11. The physical facilities are visually appealing (i.e. building and surroundings).
12. I feel secure in my transactions with this faculty.
13. This faculty employ staff in whom I have confidence.

Factor 2: Acceptable element

14. Academic staff are often too busy to respond to a request for assistance.
15. Academics are willing to give students individual attention.
16. When I have a problem, academic staff show a sincere interest in solving it.
17. This faculty provides its services within the time one might reasonably expect.
18. All staff are consistently courteous to me.

Factor 3: Functional element

19. The opening hours are convenient for me.
20. This faculty has up-to date equipment.
21. This faculty provides its services at the time it promises to do so.

Source: Oldfield and Baron (2000). Student perceptions of Service Quality in a UK University Business and Management Faculty, Quality Assurance in Education, 8 (2), p.91.

CONCLUSION

The preceding discussion demonstrates that the Nordic model by Gronroos may not be adequate to explain customers' perception. Expanding on Gronroos' work, Parasuraman, Berry, and Zithaml's models (1958, 1988, 1991, 1991a, 1994), have made a significant contribution to various service quality research studies. Parasuraman and his colleagues developed five dimensions of service quality model which focused on the gap between expectation and perception, both of which are measurable by using the SERVQUAL instrument. Cronin and Taylor (1992) developed a performance-based measure of service quality and concluded that the performance perception alone (SERVPERF) is sufficient to measure consumers' perception.

Subsequent to the development of the Nordic, SERVQUAL and SERVPERF models, many researchers adapted, tested, and applied these models in various researches: Rust and Oliver (1994), and Brady and Cronin (2001) applied the Nordic model from Gronroos. Dabholkar, Thorpe, and Rentz (1996) adopted 17 items from the SERVQUAL and created a hierarchical factor structure of a retail service quality model. In addition, Wang, Xie, and Goh (1999) regrouped the 5 factors of SERVQUAL into 3 factors to analyze the service quality of internet search engines. SERVPERF was applied by Cronin and Taylor (1992) and by Oldfield and Baron (2000) for studying the perception of service quality of educational institutions. All service quality models cover different dimensions, structures, and use different names based on the specific nature of each service industry. Each service model has its own strong and weak points. Future studies should aim at testing the service components and service structures to suit current measures of service quality in new and emerging service industries.

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THE RELATIONSHIP BETWEEN CONSUMERS' PERCEPTION OF MEDIA CREDIBILITY AND PURCHASE INTENTION: A CASE STUDY OF THE BANGKOK POST NEWSPAPER

by
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Abstract

The main purpose of this research was to investigate the relationship between the respondents' perception of media credibility factors (content, trustworthiness and expertise) and purchasing intention toward the Bangkok Post newspaper. In addition, the study also examined the differences in respondents' demographic variables (age, gender, income, education and nationality) and their purchase intention toward the Bangkok Post newspaper. The data was collected by using self-administered questionnaires, which were distributed to 3 groups; students, working professionals, and general public at selected venues in Bangkok. The researcher found significant relationships between all media credibility factors and respondents' purchase intention. Based on the findings, all sub-variables of the media credibility showed strong positive relationships. Following the hypothesis testing of demographic characteristics, there was a difference in age, gender, education level and monthly income with respondents' purchase intention. Nationality, however, was the only demographic factor to show no such difference.

INTRODUCTION

Thailand has two major English language newspapers on general news, the Bangkok Post and The Nation. Both are large and widely read newspapers, and over the years have been leading newspapers in Asia, having won many awards by international trade organizations. Many foreign readers have consistently rated Thailand's newspaper status as among the best in Asia.

Some people who compare the editorials in the Bangkok Post and The Nation feel that The Nation is usually more critical of the government, though clearly both are critical to similar degrees. Many feel that the Bangkok Post gives a more "internationalist" view of sorts, whereas The Nation is a little better at publishing local news and analysis. The Nation is sometimes qualitatively measured as fairly radical in this culture, and it seems to address questionable cultural values more often (www.thailandguru.com. Accessed 21 October, 2007).

Many foreigners who prefer the Bangkok Post seem to do so because of its international style, which is in turn, due to higher influence by foreign journalists within. Bangkok Post is a little bit more of an establishment sort of conservative newspaper, and The Nation is a little more courageous, cutting edge and ambitious. Nonetheless, each paper has excellent pieces missing in the other, especially in the analysis sections. However, consumers do see differences between the two.

Research problem

Bangkok Post newspaper has been established with a history of 60 years, it is quite challenging to determine the reader's perception of this newspaper in terms of media credibility. On the other hand, this study on media credibility will provide a perspective of potential success factors for establishing an ideal newspaper for Thai society. Besides media credibility, measuring customer's purchase intention is also important, as it can indicate the industry's growth.

In order to understand the perception of media credibility and purchase intention, the researcher proposed the main questions for this study as follows:

-    Is the purchase intention toward Bangkok Post correlated with consumers' perception of media credibility? Are there differences in consum-

ers' demographic factors and their purchase intention toward Bangkok Post?

LITERATURE REVIEW

Credibility

In the past, communication researchers defined credibility as the attitude toward a speaker held by a listener. The first approach for studying source credibility was presented by Hovland, Janis, and Kelley (1953). They perceived credibility as consisting of two components: expertise and trustworthiness. McCroskey (1966) presented the second approach when he investigated how message recipients perceived a particular communicator without simply assuming that credulity consists of x or y components.

Source credibility is a term commonly used to describe a communicator's positive characteristics as they affect the receiver's acceptance of a message (Applbaum and Anatol, 1974; Ohanian, 1990). It is the audience's judgment or evaluation of the source (O'Keefe, 1990). Ohanian's (1990) endorser credibility scale incorporated not only the dimensions of expertise and trustworthiness, but also included attractiveness. The author's decision to include attractiveness as a dimension of source credibility was prompted by research suggesting that physically attractive communicators are often liked more and have a positive impact on opinion change and product evaluations (Joseph, 1982).

Dimensions of Credibility

The two major dimensions of the credibility of a source are generally agreed to be expertise and trustworthiness (Baker and Churchill, 1977; Benoit, 1987; McCracken, 1989; Ohanian, 1990). These two dimensions are also among the basic dimensions of credibility used in this study.

Trustworthiness

Trustworthiness is, generally considered the major dimension underlying source credibility (Friedman and Friedman, 1979). While expertise is important, the target audience must also find the source believable.

According to Hovland et al. (1953), one of the most important variables in assessing source credibility is trustworthiness. For a communicator to be effective, he or she must be perceived as being worthy of trust. The authors argued that this is partially due to the mental armor an audience member establishes when exposed to different types of communications.

Definitions of Trustworthiness

Despite a considerable amount of attention, the literature provides no definitive position on either the meaning or the role of trust in marketing thought and practice. For example, in the communications literature, Pearce (1974) distinguishes between "trustworthy" and "trust" to develop a model of the construct in person-to-person relationships. Although numerous definitions of the term trust have been offered over the years, this study uses the definition by Rotter (1967), who argued that trust is a generalized expectancy held by an individual that the word of another can be relied on.

Expertise

A review of the literature in marketing on the impact of expertise on persuasion shows that there is little agreement about the definition of expertise. Hovland et al. (1953), define expertise as the extent to which a communicator is perceived to be capable of making correct assertions. McGuire (1969, p.182) defines expertise as an individual's "perceived ability to know the correct stand on the issue". These two definitions are very similar but not very precise.

Newspaper Content

Consumers expect different types of information and news coverage in the newspaper they buy. The first, obvious difference in content is in the sheer quantity. Newspapers with circulations between 10,000-25,000 average 32 pages and 72 stories per weekday issue; newspapers of more than 200,000 run 104 pages with 162 stories. Regardless of size, newspapers dedicate about 8 percent of all printed pages to listings (The Readership Institute, Northwestern University, 2004).

The product attributes for this research are

mainly related to the contents of newspapers as follows:

- Accurate contents: Refers to the accuracy, correctness and precise content of the newspaper.
- Up-to-date content: Refers to the fast, fresh, and up-to-date content of the newspaper.
- Insightful content: Refers to the in-depth, comprehension, and insightful contents of the newspaper.
- Good formatted style: Refers to the literary composition, and format style of the newspaper.

Media Credibility and Purchase Intention

Research reveals that the focus of most of the studies conducted has been on the structure of the concept of credibility and the level of public trust in the media. Investigation of the structure has been done mainly by factor analysis, but there has been little progress made with this approach (e.g., Carter, and Greenberg, 1965; Gazizno and McGrath, 1986; Ibelema and Powel, 2001; Newhagen and Nass, 1989).

However, due to the belief that the business success of a media organization is dependent on its credibility, the increase in level of media credibility will return an increase in more audience, consequently resulting in revenue from sales of product and advertising or higher levels of purchase intention. The commercial interests of media institutions have stimulated the concern with the level of media credibility. People in the media industry generally believe that audience members are more likely to read a medium that they think is more credible than one that they think is not.

CONCEPTUAL FRAMEWORK

The researcher developed the conceptual framework to examine whether the media credibility and demographic factors are related to consumers' purchase intention toward the Bangkok Post newspaper, according to literature reviewed in the previous chapter. In this research, expertise, trustworthiness, and content, as well as demographic variables have been chosen as independent variables. Purchase Intention toward Bangkok Post has been chosen as the dependent variables. Figure 1 shows the conceptual framework of this study.

Figure 1: Conceptual Framework

Independent Variable   Dependent Variable
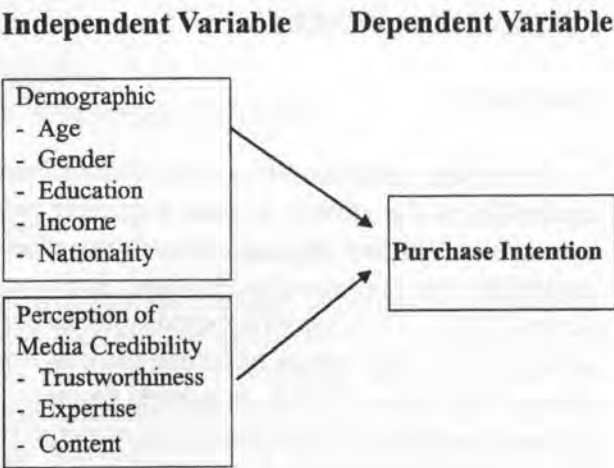
Research Hypotheses

The main objective of this study is to examine the relationship between perception of media credibility, demographic factors and purchase intention toward the Bangkok Post newspaper. According to conceptual framework, the hypotheses for this research are constructed as follows:

Group A: Demographic and Purchase Intention toward the Bangkok Post newspaper

Ho1	There is no difference in purchase intention toward Bangkok Post when segmented by age.
Ho2	There is no difference in purchase intention toward Bangkok Post when segmented by gender.
Ho3	There is no difference in purchase intention toward Bangkok Post when segmented by education level
Ho4	There is no difference in purchase intention toward Bangkok Post when segmented by income level
Ho5	There is no difference in purchase intention toward Bangkok Post when segmented by nationality

Group B: Perception of Media Credibility and Purchase Intention

Ho6	There is no relationship between trustworthiness and consumers' purchase intention toward Bangkok Post
Ho7	There is no relationship between expertise and consumers' purchase intention toward Bangkok Post
Ho8	There is no relationship between content and consumers' purchase intention toward Bangkok Post

RESEARCH METHOD

Descriptive research is used in this research, which is designed to describe the characteristics of a population. Descriptive research seeks to determine the answer to who, what, when, where, and how questions (Zikmund, 2003). Therefore, descriptive research is used when the objective is to provide a systematic description that is as factual and accurate as possible.

Target Population

The target population for this research was persons who were readers of the Bangkok Post newspaper. Those who already subscribed to the Bangkok Post were not included, as they already expressed their intention to buy at least for 1 year and other factors such as special offers or premiums may have influenced their decision. Only potential subscribers living in the Bangkok area were surveyed.

Sample Size

The approximate number of people who subscribe to the Bangkok Post newspaper is 11,560 in the Bangkok area (Bangkok Post Annual Report, 2005) however, the number of readers of the Bangkok Post as reported by Nielsen Media Research in June 2007, is 63,000 readers per day. Because this study did not include subscribers, the researcher used a total of 51,440 (63,000-11,560) as the population. The researcher requires the sample size at 5% for tolerable error, therefore the appropriate number of sample size should be 382 (Anderson, 1996).

The primary data were collected using self-administered questionnaires that were distributed to three groups of respondents: students at selected universities having international programs; working people (professionals) at selected office buildings around Silom and Sathorn Business District; and general public at bookstores located in selected areas of Bangkok. These areas were selected because they had a larger mix of both local people and foreigners who were potential purchasers of the Bangkok Post.

After determining the sample elements, researcher used quota sampling method by setting 130 samples for each of the 3 groups in order to get the total sample of respondents to be equal to 382 respondents. The questionnaires were distributed in the following manner:

Students
Bangkok University, Assumption University, Chulalongkorn University, AIT, 130 questionnaires

Working People (Professionals)
Silom Business District, Sathorn Business District, 130 questionnaires

General Public
Asia Books, The Emporium Department Store, Se-Ed Bookstore, Central Department Store - Bang Na, 130 questionnaires

Research Instrument

The mode of data collection in this study is a self-administered questionnaire. Self-administered questionnaire is a survey delivered to the respondent via personal (intercept) or non-personal (computer-delivered, mail-delivered) means that is completed by the respondent without intervention from the interviewer (Cooper and Schindler, 2001).

In this research, the questionnaire is divided into three different parts:

Part I
The first part of the questionnaire consisted of screening questions, where the respondents will be asked the following questions:
- Do you know Bangkok Post newspaper?
- Are you currently a subscriber of Bangkok Post newspaper?

Part II

The second part of the questionnaire consisted of questions regarding respondents' perception of media credibility of the Bangkok Post newspaper. For the construction of this section, the researcher adapted the questionnaire used by Gaziano and McGrath (1986) in their study entitled "Measuring the concept of media credibility". The researcher used the Likert five point scale ranging from 1 to 5 where 1 (Strongly agree), 2 (Agree), 3 (Neutral), 4 (Disagree), 5 (Strongly Agree), to measure the respondent's opinion. Likert scale is a widely accepted and adopted technique. Using Likert scale, the respondents indicate the amount of agreement and disagreement with a variety of statements about some attitude or object. The scale is highly reliable when it comes to the ordering of people with regard to a particular attitude (Zikmund, 2003).

Part III

The third part of the questionnaire consisted of demographic factors of the respondents. The variables consist of:
- Age
- Gender
- Education
- Personal Income
- Nationality

FINDINGS

Demographic Characteristics of Respondents

The largest group of respondents was female, aged between 30 to 39 years old, and had earned a Bachelor's Degree. They also had monthly income of more than 50,000 Baht, and were Thai nationals.

Respondents' overall perception of media credibility

As presented in figure 2, the respondents' perception of media credibility of the Bangkok Post newspaper overall falls in the agree level. Moreover, the most positively perceived factor was content (mean = 3.91), followed by trustworthiness (mean = 3.86) and expertise (mean = 3.76).

Hypotheses test results

Table 1 shows the hypotheses test results of the difference among demographic factors (age, gender, education level, monthly income, and nationality) and purchase intention toward the Bangkok Post newspaper. It indicates a significant difference among all the demographic factors, except for nationality, and respondents' purchase intention toward the Bangkok Post newspaper. It also indicates a significant relationship between all the three factors of media credibility and respondents' purchase intention.

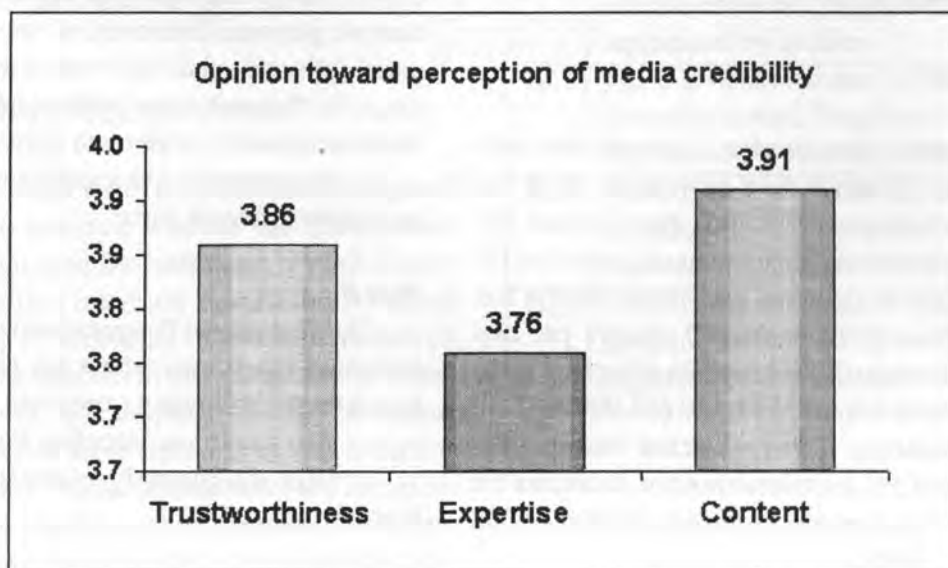**Figure 2: Respondents' overall perception of media credibility of the Bangkok Post newspaper**

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Table 1: Hypotheses Test results

Null Hypotheses	Failed to Reject Ho	Rejected Ho
H1o: There is no difference in purchase intention toward Bangkok Post when segmented by age.		X
H2o: There is no difference in purchase intention toward Bangkok Post when segmented by gender		X
H3o: There is no difference in purchase intention toward Bangkok Post when segmented by educational level		X
H4o: There is no difference in purchase intention toward Bangkok Post when segmented by income		X
H5o: There is no difference in purchase intention toward Bangkok Post when segmented by nationality	X	
H6o: There is no relationship between trustworthiness and respondents' purchase intention toward Bangkok Post		X
H7o: There is no relationship between expertise and respondents' purchase intention toward Bangkok Post		X
H8o: There is no relationship between content and respondents' purchase intention toward Bangkok Post		X

CONCLUSION AND RECOMMENDATIONS

Findings related to Demographic Variables

Newspaper readership is significantly and positively related to age, education, and income (Robinson, Skill and Taylor, 2004). These findings are also evidenced in this study on the Bangkok Post. For example, the analysis showed that almost 64 percent of the sample fell in the age group between 30-49 years old. This is similar to what has been found in the US, where it has been reported that older Americans are more likely than younger ones to be newspaper readers (Newspaper Audience, 2006). The older generation generally came of age at a time before the emergence of the Web as a mass information tool. Moreover, they are usually more likely to have higher incomes to spend on a newspaper subscription. The youngest adults, for example, those below 25 years, look first to the Internet for news. In a study for the Carnegie and Knight foundations, Merrill Brown found that baby boomers read newspapers a third less than their parents and Gen Xers another third less than the boomers (Brown, 2005). In the case of the Bangkok Post newspaper, the contents are geared more toward political and business news

with less emphasis on entertainment and fashion. Thus, based on the contents, older people might be more interested in purchasing the Bangkok Post than young adults.

The study also found that the largest group of respondents were female. Generally, women read more than men, the affluent among them reading twice as much (Robinson and Godbey, 1999). Gibbons (2008) found women respond most strongly to news that is both local and international, has an accessible graphic presentation, is solutions-oriented (this is especially important in foreign and political reporting) and is told in a storytelling style, rather than a factual approach. The contents of Bangkok Post fits the description above. The increase in education levels among women in Bangkok and their participation in the workforce could also be factors explaining the larger number of female readers. Surveys have consistently shown that educated women, who work outside the home, are somewhat more likely to be newspaper subscribers and readers, both daily and Sunday. They also have broader informational needs and recreational interests (Newspaper Audience, 2006).

It is not surprising that almost 77 percent of the sample of respondents had earned Bachelor and Master degrees. Higher levels of education have been

correlated with increased newspaper reading. For instance, Fielder and Tipton (1986) surveyed the readership research for the American Society of Newspaper Editors in 1986 and concluded that education, not race, is the significant determinant of newspaper reading. Education levels are also linked to online newspapers as is evident in the biennial news consumption survey by the Pew Research Center for the People & the Press, conducted among 3,204 adults from April 27 to May 22, 2006. It was found that the largest audience for newspapers is the most educated Americans. Nearly a quarter (22%) of people who have had at least some post-graduate education read a newspaper on a typical day, compared with 15% of college graduates with no postgraduate training; 9% of those who attended some college; 6% of high school graduates; and just 2% of adults who have not finished high school. Because of this pattern, newspapers contribute greatly to the overall readership of the most educated 62% of people with post-graduate education who read a newspaper on a typical day but does little to increase the use of newspapers among those with less education.

Studies have also correlated income levels and newspaper readership. Burnett (1991) found newspaper readership to vary among income levels of adults. Specifically, he found that affluent elderly males read the news section, business section, travel section, and magazine section of the newspaper more than less affluent male counterparts. In addition, Burnett (1991) found that female readers with high income levels were more likely to read the news sections, food section, lifestyle section, and travel section than females with lower levels of income.

The study did not find any differences in nationality and purchase intention and this may be caused by the large number of Thai respondents who answered the questionnaire. Hence, no solid conclusions can be drawn on the basis of nationality.

Findings related to Media Credibility Factors

Media credibility is a complex concept. Researchers have used a wide range of approaches to evaluate it and to understand its components. All three of the media credibility factors: content, expertise, and trustworthiness, were positively correlated to purchase intention in this study. In the descriptive analysis, content of the Bangkok Post scored the highest mean at 3.91, whereas trustworthiness was 3.86, and expertise, 3.76. Recently, the Bangkok Post has revamped its design to become more reader-friendly. The paper has incorporated more visual effects to draw attention to top stories, and the front page makes it easier to navigate to the jump stories.

In the earlier cited Pew Research Center for the People & the Press, conducted among 3,204 adults from April 27 to May 22, 2006 in the US, 42 percent of the sample favored newspapers for their content. In particular,13% said that coverage of local news is what most sets newspapers apart from TV, radio and the internet, and 12% said that newspapers provide more in-depth, detailed and informative coverage than other sources. The emphasis on in-depth coverage is viewed as a feature both in terms of content and format by many readers. As one put it: "There is usually deeper coverage that is more detailed. And there's a leisure...I can set it aside and go back and read it".

At least three studies have suggested that newspaper trustworthiness matters partly because low assessments of newspaper trustworthiness are associated with low levels of newspaper use and of support for the freedom of expression rights (Blake, 2002). In this study, respondents' cited the second strongest perception on the trustworthiness of Bangkok Post, after content. Both daily newspapers and television are widely used sources of news and information, and each is perceived to have specific competitive advantages. Many newspaper readers would agree that the major job of the press is to report the truth, even if it's painful or shocking to a lot of people.

McGuire (1969, p.182) defines expertise as an individual's "perceived ability to know the correct stand on the issue". Newspaper journalists have a unique role in society. They continually work to balance business and social responsibility, while trying to maintain their role as social activists, responsible to both their sources and their readers. In this study, expertise was rated the lowest at 3.76 of all three media credibility factors.

Recommendations

Based on the study's findings, the researcher recommends the following:

By understanding the demographics of read-

ers, what they read and which type of news they clip, editors and publishers could serve them better by tailoring content and advertising. In fact, many believe that the readership movement is absolutely critical to the future success of the industry. The more a newspaper knows about its current readers, the better that paper will be able to showcase its advantages to potential readers. Knowing its current readers and also conducting surveys from time to time, is a step that Bangkok Post needs to take in order to remain competitive in the English language newspaper market.

The survey findings included more women than men. McGrath (1993) found the gender gap in newspaper readership was widening because women do not consider newspapers relevant and approach news differently than do men. Specifically, she recommended content and tone changes to represent women's interests better. The Bangkok Post could overcome this by improving its performance with female readers and providing local advertisers with unique access to them. As reported earlier, Burnett (1991) found that female readers with higher incomes were more likely to read the news sections, food section, lifestyle section, and travel section than females with lower levels of income. The Bangkok Post should restyle the paper to make it more rewarding for women, insert articles on fashion, family and health which are important to women readers and launch a monthly supplement for women.

As access and availability of newspapers grow, the concern for quality of information will also increase. News consumers concerned about sources of information and its trustworthiness, content, and other characteristics will demand and seek sources of news that are reliable and credible. The Bangkok Post's credibility is based on content, expertise and trustworthiness. But its credibility must be perceived to be balanced in story telling, complete in providing information, objective and fair, accurate, and unbiased. The journalists who write for the Bangkok Post should also be honest in their presentation of news, be believable, and trustworthy.

No doubt the Bangkok Post has updated its format to a more reader-friendly one in order to capture a higher share of market, yet it can do more. The researcher recommends a number of steps to help improve the newspaper's credibility with readers, including making reporters and editors more accessible through e-mail; using new technologies to track errors; posting complete documents and interview transcripts online; and even considering a Post blog that promotes interaction with readers.

Finally, a newspaper's credibility is strongly affected by its content, and it should be content that has no grammatical, spelling and factual errors. For instance, Meyers (2005) argues that the newspapers with the highest accuracy ratings were generally held to be the most credible both by their news sources and their readers, and these papers also the highest rates of circulation penetration in their core markets. The Bangkok Post should take greater advantage of electronic tools, both for gathering and checking information and as part of the production and corrections processes. Instruction on using electronic fact-checking tools should be encouraged for all reporters and editors of the newspaper.

Limitations of the Study

This research focused only on the examination of the relationship between perception of media credibility and consumers' purchase intention of Bangkok Post newspaper. The area of this research was limited only in Bangkok. The results of this research may not be generalized to other regions of Thailand. This research was conducted under a certain time period (Nov. 2007), therefore the results may vary in other periods reflecting changes in consumer behavior. This research focused only on the Bangkok Post newspaper hence results of the study are limited to this publication only.

Further Research

The findings of this study have set the ground work for additional investigation. Further analysis based on psycho-demographic characteristics of respondents is needed. These should include news consumption preferences, high and low level users, computer literacy levels, online access, geographic location and occupation.

It would also be valuable to analyze each of the three factors of media credibility to determine the comparative ratings of newspapers, television news, and online news. A side-by-side-by-side comparison of newspapers, television, and online news may yield insights into respondents' views of each of the three news media relative to each other. In-depth analysis of non-users may provide

insights needed to better understand the findings presented in this study.

While this study has shown relationships between all factors of credibility and purchase intention for the Bangkok Post, there is also a strong need to further test the link between content and credibility since content was the factor most strongly related to credibility. The demonstrated value of credibility should motivate future researchers to find how credibility can be created through content or whether content makes a significant difference in newspaper readership.

The two English-language newspapers, the Nation and the Bangkok Post have their own strengths and weaknesses; however, there has never been a comparative study done to assess these. The researcher believes that such a study would offer insights to both newspaper editors and publishers to improve their contents and thus attract a wider readership base.

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A SIMPLE TEST OF THE CAPM MODEL UNDER BULL AND BEAR MARKET CONDITIONS: THE CASE OF THAILAND

by
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Abstract

The current study is aimed at examining the explanatory power of the CAPM model in Bull and Bear markets for Thailand from 2000 to 2006. Using the varying risk model suggested by Fabozzi and Francis (1977), the study evidences that the systematic risks or betas do not differ between Bull and Bear periods. The substantial forces of Bull and Bear markets have no impact on the CAPM model. The CAPM is still robust. Moreover, the study observes size effect in which small stocks are found to outperform large stocks, regardless of market conditions. However, the reversal of size effect persists in the Bull periods. The results of this study suggest two important implications for the Thai market. First, investors could employ the traditional CAPM model. Second, it is not necessary to predict future Bull and Bear market conditions when estimating the risk premium.

INTRODUCTION

Over the past four decades, many studies have theoretically and empirically examined the validity of the Capital Asset Pricing Model (CAPM) developed by Sharpe (1964), Lintner (1965) and Black (1972). The CAPM indicates that the systematic risk or beta is the only variable that can explain the difference in average returns between stocks. While the CAPM is an extremely elegant and useful tool, many researchers have doubts about the overall efficiency of the model.

Recently, a number of tests on the CAPM model have been examined. Many studies documented a consistent and highly significant relationship between average return and beta based on the assumption of constant risk (Clare, Priestley & Thomas, 1997; Fama & McBeth, 1973; Jagannathan & McGrattan, 1995). However, others evidenced that beta alone has less ability in explaining the returns because firm size can play an important role, in addition to the beta (Banz, 1981; Elfakhani, Lockwood & Zaher, 1998; Fama & French, 1992; Kato & Schallheim, 1985).

Nonetheless, there are concerns about the varying risks that become main factors in return-generating process. Various studies indicated that the CAPM model assuming constant risk cannot participate in Bull and Bear market conditions. Levy (1971) suggested that there is a need to separate betas between Bull and Bear markets. However, Fabozzi and Francis (1977) proposed the varying risk model to examine the stability of beta over these two markets. They find that the beta is stable even when the market conditions change. Later on, many empirical studies supported Levy (1971) that there is a need for calculating two betas, one for Bull period and the other for Bear period. It is because the traditional CAPM does not work well when market conditions change (Bhardwaj & Brooks, 1993; Chen, 1982, Kim & Zumwalt, 1979; Spiceland & Trapnell, 1983).

Even though there is ample evidence on varying risk CAPM models, many of them use the U.S. data. The published literature on the validity of the CAPM model assuming varying risk in Thailand is particularly limited where the Bull and Bear market conditions are concerned. Hence, the study's objective is to test the robustness of the CAPM model by taking into account the time variation in risk during Bull and Bear markets in Thailand during the period of 2000-2006. It also attempts to investigate whether the size of the firm has an impact on the average returns. The

next question is whether the size effect suggested by Banz (1981) persists. Results in this study then contribute toward important findings on non-US test of the CAPM model and add the applicability of the CAPM model in Thailand's capital market, especially when the risk is allowed to vary.

The remaining of the study is organized as follows. Section 2 presents previous literature discussed on the CAPM. Section 3 details the data collection and the models examined in this study. Section 4 presents the results. Section 5 contains conclusion and implications.

LITERATURE REVIEW

Constant Risk CAPM Model

The CAPM model asserts that the average return for any asset is the function of any three-variables that are (i) beta (assuming constant), (ii) the risk-free return and (iii) the average market return but only beta can be used in the pricing of risky assets. In addition, the CAPM model documents a positive linear relationship between the average return and beta with the underlying assumption that higher average returns require taking higher risk. In other words, an investor would demand a higher average return as a compensation for accepting additional risk. However, investors are rewarded only for systematic risk since unsystematic risk can be eliminated through a well-diversified portfolio (Lintner, 1965; Samuelson, 1967; Sharpe, 1964). Hence, the sensitivity of assets to the movement of the market is the only factor that can cause differences in average returns between assets.

A number of empirical studies support the usefulness of CAPM in asset pricing. Fama and MacBeth (1973) studied the validity of the CAPM during 1935-1986 by using average realized returns as a proxy for expected returns and equity index returns as a proxy for market returns. They found a positive relationship between monthly returns and beta. They then suggested that the CAPM can well explain the risk-return behavior observed in the US capital markets. Jagannathan and McGrattan (1995) concluded that eventhough the great debate rages on, the CAPM may still be useful for those interested in the long run. Clare et al. (1997) also reported that the beta is still crucial in explaining the returns for the U.K. stock market. They tested the validity of CAPM by using two alternative estimation techniques. They found that the CAPM is dead by using Fama and MacBeth (1973)'s procedures, while it is alive by using the Non-Linear Three Stage Least Square. They thus concluded that the robustness of CAPM depends on the technique used.

However, several other studies argued that the power of beta explaining the difference in return is relatively weak compared to other variables. Banz (1981) evidenced that firm's size measured by its market capitalization can well explain the average return, not beta. He first introduced the size effect and examined the robustness of the CAPM during period 1936-1975. He considered whether size can explain the variation of average returns across assets that cannot be captured by the beta. He insisted that size can substantially explain the average returns better than beta. He also evidenced an inverse relationship between average returns and size in which the average returns of small stocks is significantly higher than those of large stocks. Kato and Schallheim (1985) documented the size effects in return-generating process in the Japanese stock markets during 1952-1980. In addition, Fama and French (1992) reported that the beta has relatively low power in explaining the returns during 1963-1990. Rather, they found that size and book-to-market equity play a role in asset-pricing. Elfakhani et al. (1998) reported the size effect for Canadian stocks during 1975-1992. They found no evidence that average returns can be explained by beta. Nonetheless, these studies challenging the CAPM have always been criticized due to lack of sound theoretical background for the model. The main criticism is on the risk distress.

Varying Risk CAPM Model

Besides the constant risk model, the varying risk model in Bull and Bear markets has become more pronounced in the financial literature in recent years. Allowing the risk to vary, especially during Bull and Bear markets may influence the ability of asset pricing model in explaining average returns. If risk is not captured by the constant risk model, there is a need for the prediction of future Bull and Bear market conditions.

Fabozzi and Francis (1977, 1979) indicated that the CAPM shows significant results in Bull and Bear market periods. They are among the first to evidence the stability in betas over Bull and Bear markets on individual stocks and mutual funds. Fabozzi and

Francis (1977) used a sample of 700 NYSE stocks and examined whether the beta in the CAPM model differs significantly when measured over Bull and Bear markets during 1966-1971. They indicated that the betas appear to be insignificantly affected by the change in conditions between the two periods. Furthermore, Fabozzi and Francis (1979) studied whether betas are persistent for mutual funds from 1965 to 1971. They indicated that mutual funds generally respond indifferently to Bull and Bear markets. These empirical results reinforced that mutual fund managers do not raise their betas during the Bull periods and do not reduce their betas during the Bear periods to earn additional risk-adjusted premiums. Eventually, these imply no difference in beta during Bull and Bear markets. Thus, the use of beta estimated for the entire period (constant beta) is still powerful in return-generating process.

Kim and Zumwalt (1979) disagreed on the finding of Fabozzi and Francis (1977, 1979) in which the betas of the CAPM model are sustainable in both Bull and Bear markets. They argued that even if the constant betas are potentially sound in the two types of markets, there should be the return variations in Bull market that may not consistent with those in Bear market. Rather, they believed that the risk-averse investors would demand higher risk premium when taking unfavorable risk during the Bear market and pay a premium when consuming favorable risk during the Bull market. Therefore, they examined the risk premiums associated with the returns variation in these two markets during 1962-1976. They found a positive risk premium in Bear periods and a negative premium in Bull periods. Thus, they suggested that the responses to Bull and Bear markets allow betas to vary over time.

Consistent with Kim and Zumwalt (1979), Chen (1982) also showed that the varying risks in market model appears to be more appropriate than the constant risks when the Bull and Bear conditions are taken into account. Using the Kim and Zumwalt (1979) procedures, he found that during 1965-1977, investors prefer higher compensation if assuming the unfavorable variations of returns occuring in Bear markets. Investors then pay premium for the favorable variations on returns occurring in Bull markets. Spiceland and Trapnell (1983) replicated the study of Fabozzi and Francis (1977) and found that the betas are not stable over Bull and Bear periods. They also reported that the risk-return behavior observed in this sample period is affected by the Bull and Bear market conditions during 1972-1977.

In addition, Bhardwaj and Brooks (1993) documented that the changes in betas over Bull and Bear markets can play a significant role in explaining the size effect. Prior studies evidenced that the small firm stocks outperformed the large firm stocks (Banz, 1981; Fama & French, 1992, 1993). However, such superior performance of small firms stock is found by assuming the constant risk model. Bhardwaj and Brooks (1993) then questioned whether allowing for the varying risk, the risk differential in Bull and Bear markets can significantly impact such small firm superior performance. If a varying risk model is found to be empirically significant, the CAPM assuming the constant risk would be less powerful to represent the return-generating process. Hence, they adopted an asset-pricing model with a dual Bull and Bear beta approach. They found that during 1926 to 1988 the betas in Bull markets significantly differ from those in Bear markets. There exists large risk difference in Bull and Bear months for small firm stocks that can reflect the differential return premium. Small firm stocks have a very large standard deviation of returns, causing them to persistently outperform large firm stocks, especially in Bull-January months. However, their study documented the reversal of the size effect in non-January months, in which on average, the large firm stocks are found to outperform the small firm stocks. Thus, they suggested that large risk differences in Bull and Bear months should be considered when estimating the excess returns in firm-size-based portfolios because risk differences seem to be captured by the varying risk model, not by the constant risk model.

Jaganathan and Wang (1996) also found a consistent and highly significant relationship between beta and portfolio returns when using a conditional CAPM in which betas and market risk premiums vary with time. When beta is allowed to vary, the importance of beta in explaining the cross-section of realized stock returns increases. They concluded that that there is a strong support for the traditional CAPM on the U.S. data when using conditional betas and market risk premiums which vary over time.

Moreover, Howton and Peterson (1998) also examined the power of varying beta in explaining the cross-sectional returns. They first replicated the work of Fama and French (1992) by using the CRSP data from 1977 to 1993. They found that the constant beta has no explanatory power related

to the average returns. However, they doubted whether the results may change if the systematic beta is allowed to vary. They then further employed the dual risk approach suggested by Bhardwaj and Brooks (1993) to examine a cross-section of stock returns. They evidenced the positive (negative) relationship between the Bull market (Bear market) betas and average returns. These relationships persistently remain even after size is additionally included to the regressions as an explanatory variable. They also found that size is an important factor in January and Bear markets in non-January. The variations in Bull and Bear markets significantly influence the explanatory power of market and size risks.

In all, the inconsistent results in constant and time-varying betas and the link between size effect and beta lead to two main questions. First, if the CAPM model is useful in explaining the average returns between assets over Bull and Bear market conditions. Second, whether there is any evidence of size effect in the case of Thailand. The answers for these questions are verified in the following sections.

DATA AND METHODOLOGY

Data Collection

The sample period spans from January 2000 to July 2006 (84 months). The secondary data for the study are obtained from three primary sources. Stock price and market value of equity is from the DATA STREAM. SET (market) index data are taken from the Stock Exchange of Thailand. The 14-day repurchase rate is obtained from the Bank of Thailand.

Methodology

Portfolio Formation

Each year all SET stocks with twelve month returns and previous years' market value of equity available are included in the sample. The stocks traded on the foreign board and stocks of mutual funds are excluded in this study. Hence, the number of stocks in the sample each year varies from 321 to 482 firms. At the beginning of each year t, all monthly stock returns are ranked in ascending order based on size or market capitalization at the end of December of year $t-1$. The size is defined as the product of stock price and number of shares outstand-

ing. Then, the 10 portfolios of SET stocks are formed in which MV1 represents the smallest portfolio and MV10 represents the largest portfolios. Furthermore, monthly portfolio returns is calculated by equally weighting the returns across stocks in each portfolio. These procedures are repeated for each year, generating a time series of 84 monthly returns (seven years multiplied by twelve months) for each of the 10 size portfolios.

Testing the CAPM Model

The CAPM asserts that the average returns should be explained only by market beta which is the portfolio's covariance with market returns. The following is the CAPM model.

$$R_i - R_f = a_i + b_i(R_m - R_f) + \varepsilon_i \qquad (1)$$

The intercept, a_i represents average abnormal returns. The slope coefficient, b_i represents the systematic risk or beta of portfolio. Since CAPM implies that only beta is necessary to explain differences in expected returns among assets, the results from the Ordinary Least Square (OLS) regression should indicate that the b_i should be positive and significant and the a_i should be insignificant. (Black, 1972; Lintner, 1965; Sharpe, 1964). Also, the expected value of the residual term, $E(\varepsilon_i)$ should equal to zero. The left-hand side (l.h.s) dependent variable in Eq. 1 represents the excess return, which is the difference between monthly stock return (R_i) and 14-day repurchase rate (R_f). The monthly stock returns for each asset i are defined as the continuously compounded return during month t (between the end of month $t-1$ and the end of month t) as follows (Hull, 2006):

$$R_{i,t} = \ln(P_{i,t}/P_{i,t-1}) \qquad (2)$$

Where P_i is the average stock price of asset i.

The 14-day repurchase rate is an appropriate proxy of the risk-free interest rate in the case of Thailand as suggested by Supaarmorakun (2007). However, such repurchase rate is quoted as the rate per annum. This annualized rate cannot be used directly when studying the monthly excess return. Then, Eq. 3 is used to obtain the equivalent rate with monthly continuous compounding (Hull, 2006):

$$R_C = \ln(1 + \frac{R_a}{12}) \qquad (3)$$

Where R_c is the monthly continuous compounding rate. R_n is the interest rate with normal compounding per annum.

The right-hand side (r.h.s) explanatory variables in Eq.1 is $R_m - R_f$, named as a market risk premium. It represents the excess returns on a market portfolio which is the difference between monthly market index return (R_m) and 14-day repurchase rate (R_f). Indeed, the monthly market index return, which is the continuously compounded market index return during month t, can be calculated as the following (Hull, 2006):

$$R_{m,t} = \ln(P_{m,t}/P_{m,t-1}) \qquad (4)$$

Where P_m is the valued-weighted SET index.

Testing the CAPM Model in Bull and Bear Markets

Particularly, the CAPM model assumes that the data series are a single regime and the risk is assumed to be constant. It is, however, questionable that the CAPM model is robust if it is considered in periods in which the risk is uncertain, e.g. in the Bull and Bear markets. The Bull and Bear periods are classified based on "Up and Down markets" definition suggested by Fabozzi and Francis (1977). This procedure considers each month independently. Hence, each of the 84 months is grouped into either a Bull month or a Bear month based on the median market return over the entire period. The Bull month is the month in which the market return is greater than the median market return, whereas the Bear month is the month in which the market return is lower than the median market return. Consequently, this procedure yields two equal sets of 84 months; each of 42 months. Thus, this study examines the robustness of the CAPM model in the Bull and Bear periods by employing the following time-varying beta regression as suggested by Fabozzi and Francis (1977).

$$R_i - R_f = a_{li} + a_{2i}d_t + b_{li}(R_m - R_f) + b_{2i}d_t(R_m) - B_f) + \varepsilon_i \qquad (5)$$

which is equivalent to

$$R_i - R_f = a_{bull} + (a_{bear} - a_{bull})d_t + b_{bull}(R_m - R_f) + b_{bear} - b_{bull})d_t(R_m - R_f) + \varepsilon_i \quad (5.1)$$

Where d_t is the dummy variable which is equal to one for the Bear market and zero for the Bull market.

The estimates a_1 and $(a_1 + a_2)$ represent average abnormal returns in Bull and Bear markets, respectively. The estimates b_1 and $(b_1 + b_2)$ represent the systematic risks in Bull and Bear markets, respectively. If the a_2 and a_2 are statistically different from zero, the constant CAPM model is affected by the Bull and Bear market condition; in other words, the abnormal returns and systematic risk of the stocks differ over Bull and Bear markets.

EMPIRICAL RESULTS

Descriptive Statistics

Table 1 reports the descriptive statistics on the 10 size-based portfolios for the 84-month period from 2000-2006. The equally-weighted market values of equity for the smallest and largest portfolios are 87.76 million Baht and 52.55 billion Baht, respectively. Panel A in Table 1 indicates that the average monthly returns decrease as size increases, regardless of market conditions. The smallest portfolios provide an average return of 2.30 percent per month, while the largest portfolios provide an average market return of negative 0.52 percent per month. These results generate the size premium of 2.82 percent per month (MV1-MV10). In other words, the small firms are found to outperform the large firms by 2.82 percent per month, on average. Hence, this study suggests the size effect in Thailand market when the constant risk is assumed over time, consistent with Banz (1981).

When allowing the risk to vary over time due to the Bull and Bear conditions, Panel B in Table 1 shows that all portfolios, except the smallest portfolio (MV1), earn a negative average returns in Bear months and positive returns in Bull months. The data also suggest the inconsistent performance of small and large portfolios. It is evidenced that in the Bear periods, the smallest portfolios substantially outperform the largest portfolios where the average returns are 0.03 percent per month and negative 6.26 percent per month, respectively. On the contrary, in the Bull periods, the smallest portfolios underperform the largest portfolios where the average returns are 4.57 percent per month and 5.21 percent per month, respectively. These suggest that the size effect exhibits only during the Bear periods, whereas its reversion is true during

the Bull periods.

The superior performance of all portfolios is from the Bull months. Consider the performance of small portfolios during Bull and Bear months, the results report that the smallest firms (MV1) earn much higher returns in Bull months (4.57 percent per month) than in Bear months (0.03 percent per month). Similarly, for the performance of largest portfolios, the largest firms (MV10) earn substantially higher returns in Bull months (5.21 percent per month) than in Bear months (negative 6.26 percent per month). The small portfolios exhibit higher returns in Bull periods than in Bear periods is possibly because small firms are likely to face distress during the downturn of market due to their low productivity and high financial leverage (Chan & Chen, 1991). Thus, if small firms earn high returns, they should have earned these returns in the Bull markets rather than in the Bear markets.

In addition, considering the standard deviations of returns for the smallest portfolio (MV1), the standard deviation of returns in Bull months (6.33 percent per month) and Bear months (6.83 percent per month) are not substantially different. Similarly, for the largest portfolio (MV10), the standard deviation of returns in Bull months (5.00 percent per month) and Bear months (6.51 percent per month) are not much deviated. The standard deviations in returns appear to be constant in Bull and Bear months. Thus, risk differences during Bull and Bear markets can be ignored when calculating estimates of excess returns.

Table 1: Average monthly return (in percentage) and standard deviation of returns in Bear and Bull periods, 2000 to 2006.

Size-Ranked Portfolios[1]	Average Market Value[2]	Panel A		Panel B			
		All Months (84)		Bear Months[3] (42)		Bull Months[3] (42)	
		Average Returns	Standard Deviation	Average Returns	Standard Deviation	Average Returns	Standard Deviation
MV1	87.76	2.30	6.93	0.03	6.83	4.57	6.33
MV2	227.12	0.96	6.03	-1.82	5.58	3.20	5.44
MV3	385.26	1.39	6.12	-1.86	5.62	4.65	4.76
MV4	596.49	0.37	6.00	-3.27	4.86	4.01	4.69
MV5	913.19	0.57	5.91	-2.62	4.88	3.76	5.11
MV6	1396.93	0.25	6.78	-4.09	5.20	4.60	5.24
MV7	2185.45	0.29	6.28	-3.80	5.01	4.38	4.51
MV8	3702.58	0.08	6.17	-4.01	4.91	4.17	4.33
MV9	7318.62	-0.15	8.02	-5.41	7.08	5.10	4.87
MV10	52553.34	-0.52	8.15	-6.26	6.51	5.21	5.00
MV1-10		2.82	-1.22	6.29	0.32	-0.64	1.33
Market		0.41	7.56	-5.08	5.77	5.90	4.55
Repo Rate		0.19	0.10	0.20	0.10	0.19	0.09

[1]At the beginning of each year t, all monthly stock returns are ranked in ascending order based on size or market capitalization at the end of December of year t-1. MV1 is the smallest portfolio, while MV10 is the largest portfolio.

[2]The average market value is in million Baht.

[3]Each of the 84 months is grouped into either a Bull month or a Bear month based on the median market return over the entire period. The Bull month is the month in which the market return is greater than the median market return, whereas the Bear month is the month in which the market return is lower than the median market return.

Time-Series Regression Tests

Table 2 reports the estimated parameters from the regression tests over 84 months on two different models, a constant risk model and a varying risk model. Panel B in Table 2 providing the results from a varying risk model show that the intercept, a_2, representing a_{bear}-a_{bull} appears to be statistically indifferent from zero across portfolios and the slope coefficient, b_2, representing bbear-bbull is likely to be insignificant. These results suggest that the alpha and beta do not differ over Bull and Bear markets. These imply that abnormal returns and market risk premium are not influenced by Bull and Bear market conditions. These findings reinforce the results of Fabozzi & Francis (1977, 1979) in which the equality of parameters in the two periods exists. Thus, the prediction of future Bull and Bear market conditions is not necessary. In addition, the values of R^2 vary from 0.366 to 0.950 in which the relative high values of R^2 (more than 0.70) are with the large firms' portfolios.

Table 2: Alphas and Betas (percent per month) estimated from a constant risk model and a varying risk model.

A constant risk model: $R_i - R_f = a_i + b_i (R_m - R_f) + \varepsilon_i$

A varying risk model: $R_i - R_f = a_{li} + a_2 d_t + b_{li} (R_m - R_f) + b_2 d_t (R_m - R_f) + \varepsilon_i$

Or $R_i - R_f = a_{bull} + (a_{bear} - a_{bull})d_t + b_{bull} (R_m - R_f) + b_{bear} - b_{bull})d_t (R_m - R_f) + \varepsilon_i$

Size-Ranked Portfolio	Panel A Constant Risk CAPM Model			Panel B Varying Risk CAPM Model						
	a_i	b_i	R^2	a_{bull}	a_{bear}	$a_{bear-bull}$	b_{bull}	b_{bear}	$b_{bear-bbull}$	R^2
MV1	0.020*	0.468*	0.361	0.012	0.025	0.014	0.564*	0.510*	-0.054	0.366
	(3.067)	(5.384)		(0.797)	(1.923)	(0.629)	(2.817)	(3.010)	(-0.203)	
MV2	0.004	0.476*	0.356	0.018	0.016	-0.002	0.214	0.676*	0.462*	0.394
	(0.741)	(6.736)		(1.325)	(1.825)	(-0.152)	(1.153)	(6.166)	(2.213)	
MV3	0.011*	0.547*	0.455	0.020	0.008	-0.012	0.429*	0.536*	0.107	0.461
	(2.179)	(8.280)		(1.828)	(0.772)	(-0.826)	(2.847)	(4.150)	(0.532)	
MV4	0.001	0.532*	0.451	0.028*	-0.008	-0.036*	0.173	0.512*	0.339	0.503
	(0.134)	(8.208)		(2.440)	(-0.926)	(-2.566)	(1.082)	(4.848)	(1.809)	
MV5	0.003	0.547*	0.488	0.016	0.004	-0.012	0.354*	0.604*	0.251	0.502
	(0.554)	(8.848)		(1.269)	(0.506)	(-0.852)	(2.106)	(6.405)	(1.349)	
MV6	-0.001	0.675*	0.566	0.024*	-0.008	-0.032*	0.348*	0.665*	0.317	0.600
	(-0.172)	(10.350)		(1.922)	(-1.040)	(-2.244)	(2.008)	(6.896)	(1.659)	
MV7	-0.001	0.709*	0.730	0.006	-0.003	-0.009	0.631*	0.693*	0.062	0.732
	(-0.148)	(14.880)		(0.672)	(-0.522)	(-0.860)	(5.206)	(8.344)	(0.431)	
MV8	-0.003	0.678*	0.690	0.005	-0.011	- 0.015	0.614*	0.594*	-0.021	0.698
	(-0.676)	(13.522)		(0.569)	(-1.429)	(-1.371)	(5.349)	(6.161)	(-0.137)	
MV9	-0.006	0.963*	0.826	0.006	0.003	-0.004	0.751*	1.111*	0.360*	0.839
	(-1.514)	(19.721)		(0.705)	(0.682)	(-0.329)	(6.258)	(13.494)	(2.513)	
MV10	-0.009*	1.049*	0.948	-0.006	-0.007*	-0.001	0.988*	1.098*	0.110	0.950
	(-4.645)	(38.780)		(-1.150)	(-2.097)	(-0.053)	(13.255)	(27.208)	(1.353)	

*significant at 5 percent level based on two-tailed t-test.

The number in parenthesis is t-value.

A d is the dummy variable where 1 = Bear and 0 = Bull.

Considering the traditional constant risk model, results from Panel A in Table 2 report that on average a_1 appears to be statistically indifferent from zero, except MV1 and MV10. These indicate that the abnormal returns in the smallest and largest portfolios that equal to 0.020 and -0.009 percent per month are only found. The evidence is thus consistent with the findings of Banz (1981) in which the small stocks provide superior returns than large stocks. Panel A in Table 2 also reports that the all slope coefficients, b_1 (beta) are statistically significant for all portfolios. The values of R^2 range from 0.356 to 0.948 in which the relative high values of R^2 (more than 0.70) belongs to the large size portfolios. This implies that the CAPM model fits very well for the large firm portfolios. Overall, these results in Panel A, table 2 show that the constant risk model holds eventhough market conditions change. The abnormal returns and the systematic risks then can be captured by the constant risk CAPM model. Again, for investment purposes and in market research, it is not necessary to separate calculations of coefficients for Bull and Bear market. These confirm the conclusion of Fabozzi & Francis (1977, 1979) in which the beta risks are constant over time.

CONCLUSIONS & IMPLICATIONS

Since previous empirical evidence on the traditional CAPM assuming constant risk is found to be inconsistent and previous literature argues that the traditional CAPM is not robust as the systematic risks are not stable over time, it is important to consider the time varying premium in systematic risk. Hence, this study examines the robustness of the CAPM model in Bull and Bear markets for the Thailand stock market from 2000 to 2006. The results in this study indicate that there are no shifts in CAPM model parameters during Bull and Bear market conditions. The traditional CAPM model is robust over both Bull and Bear market periods. In addition, this study reports the results of tests relating to the size effect. In Thailand, small stocks earn larger abnormal returns than large stocks, regardless of market conditions. This study then evidences the size effect. However, there exists the reversal of size effect in the Bull periods. The results from this study suggest two important implications for the Thail stock market. First, investors could use the traditional CAPM model in asset pricing with no consideration of a varying risk in the Bull and Bear markets. Second, for the invest-

ment strategy, the prediction of future Bull and Bear market conditions and estimation of the risk premium are not necessary because the parameters in the CAPM model are not influenced by Bull and Bear market conditions.

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