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#### STATEMENT FROM THE MANAGING EDITOR

Welcome to the third issue of the **Au Journal of Management**. We have now started on our second year of publishing this journal. For new readers — the mission of the Au Journal of Management is to expand and update research and the knowledge base in business. Part of the challenge of editing this Journal is to work together across program areas with an interdisciplinary perspective. **The Au Journal of Management** will continue to play its part in meeting that challenge by publishing articles that build on our knowledge base and are relevant to all business educators, students, practitioners, and the general public.

You will find research on finance, international business, and marketing, throughout this issue, with a special contribution from two of our authors on managing in the field of education. In the first of two articles, Kitcharoen uses a modified Importance-Performance Analysis (IPA) model to assess attributes of service quality as perceived by students and staff in Thai private universities. His findings establish an important link between students' satisfaction with quality and pride in their universities. Following on from the first article, Kitcharoen explores university senior administrators' opinions about service quality of administrative units in their universities. Both articles pinpoint the fact that the quality of service is critical in maintaining a competitive edge and that empathy is an important, if not the most important dimension, in this provision of service.

Continuing with the research on education, D'souza assessed the relationship between Teacher Burnout and Organization Citizenship behavior. Her findings show that gender is an important determinant of the degree of both burnout and citizenship behaviors among school teachers. These findings hold practical implications for school managers as well as for those in the teaching profession.

In the fourth article, Ogenyi investigates Nigerian consumers' perceptions toward foreign and locally-made products. The findings of his study are likely to assist foreign businesses in developing suitable marketing strategies for their products in Nigeria and can also be used as a guideline for marketing in other developing countries.

In the fifth article, Trimetsoonthorn and Chattananon study the impact of relationship marketing on business performance in the Thai steel pipe industry. From the standpoint of practical implications for sales managers, their findings could provide potentially important direction.

In our final article, Ronapat investigates the propensity to pay dividends by listed firms in Thailand. She examines how propensity to pay dividends has changed before and after the financial crises and also looks at changes in the dividend patterns in general. Her paper offers empirical evidence that the propensity to pay dividends slightly declines in pre-crisis, largely declines in crisis, and is assumed later in post-crisis period.

I want to encourage both new and long-time readers to write for the Journal. I also urge you to read and become familiar with all sections of the Journal. Make the next issues of the Journal the one in which your own article appears, thereby making it personally historic for you as you contribute to the knowledge base of business.

Let's continue to pool resources, share progress, and pioneer change. I look forward to it.

Patricia Arttachariya, Ph.D. Managing Editor.

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## THE IMPORTANCE-PERFORMANCE ANALYSIS OF SERVICE QUALITY IN ADMINISTRATIVE DEPARTMENTS OF PRIVATE UNIVERSITIES IN THAILAND

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#### ABSTRACT

Service quality is one of key success factors that lead an organization to success in this era of privatization. To be a service leader is very important in all industries, including education. It is very critical that private universities offer quality services to students. The competition among educational institutions in both the state and private sector in Thailand is intense. Therefore, improving the service quality in private universities is one of the strategies to increase their sustainable competitive advantage. In this paper, a modified Importance-Performance Analysis (IPA) model was constructed on the basis of comparing perceived performance and the importance of each service attribute of the five dimensions of the SERVQUAL model.

#### INTRODUCTION

The popular "SERVQUAL" model (Parasuraman, Zeithaml, and Berry, 1990) has been used effectively to measure service quality in various businesses and countries. The SERVOUAL model was modified and adopted in studies on a wide range of service industries, such as hotels (Saleh and Ryan, 1992), car servicing (Bouman and Van Der Wiele, 1992), banking (Kwon and Lee, 1994; Wong and Perry, 1991), accounting firms (Freeman and Dart, 1993), and several other professions. SERVQUAL model has also been used to measure the service quality in ocean freight services in Singapore (Durvasula, Lysonski, and Mehta, 1999), high street retail banks (Newman 2001) and patient's satisfaction with NHS hospital in UK (Youssef, 1996). It is also interesting to note the application of SERVQUAL in educational service, for example, business schools (Rogotti and Pitt, 1992) and higher education (Ford et al., 1993 and McElwee and Redman, 1993).

One modification on the previous study on service quality is the adoption of the "Importance-Performance Analysis". This technique was introduced into the field of marketing in the late 1970s. It identifies strengths and weaknesses of a market offering such as brands, product, and services (Keyt, Yavas, and Riecken, 1994).

The measurement of the Importance—Performance Analysis (IPA) and the SERVQUAL model is quite similar. The IPA technique identifies strengths and weaknesses by comparing the two criteria that consumers use in making a choice. One criterion is the relative importance of attributes. The other is consumers' evaluation of the offering in terms of those attributes. The SERVQUAL model, on the other hand, identifies the customer satisfaction of service attributes by comparing customer's expectation and customer's perception on five dimensions.

The five dimensions of SERVQUAL model include: "tangibles" (the hardware infrastructure), "reliability" (the consistency of service as promised), "responsiveness" (the ability to update, adjust or customize the contents & delivery of the service), "assurance" (the capability of the service provider) and "empathy" (a caring and customer-centered soft environment).

#### REVIEW OF RELEVANT LITERATURE

# The Importance-Performance Analysis (IPA) technique

The Importance-Performance Analysis (IPA) is a technique for prioritizing attributes based on measurements of performance and importance to understand customer satisfaction. This technique

emerged from the earlier work of Martilla and James (1977). Unlike SERVQUAL model, which is best described as an absolute performance measure of consumer perceptions of service quality, the Importance-Performance paradigm also seeks to identify the underlying importance attributed by consumers to the various quality criteria being assessed (Sampson and Showalter, 1999).

Slack (1991) presented an IPA model in which the underlying framework was to consider a relationship between importance and performance. Slack (1991) theorized that target levels of performance for particular product attributes should be proportional to the importance of those attributes. Thus, attributes of high importance should have higher performance standards than attributes of lower importance.

In other words, importance is viewed as a reflection of the relative value of the various quality attributes to consumers. According to Barsky (1995), lower importance ratings are likely to play a lesser role in affecting overall perceptions, while higher importance ratings are likely to play a more critical role in determining customer satisfaction. The objective is to identify which attributes, or combinations of attributes are more influential in repeat purchase behavior and which have less impact. The information derived is valuable in terms of the development of marketing strategies for the organizations that use it (Ford et al., 1991). This view is confirmed by Lovelock et al. (1998), who argued that the importance-performance analysis is an

especially useful management tool to direct scarce resources to areas where performance improvement is likely to have the most effect on overall customer satisfaction. It also has the benefit of pinpointing which service attributes should be maintained at their present levels and those on which significant improvement will have little impact.

The Importance-Performance Analysis conceptually rests on multi-attribute models. This technique identifies strengths and weaknesses of a market offering in terms of two criteria that consumers use in making a choice. One criterion is the relative importance of attributes. The other is consumers' evaluation of the offering in terms of those attributes. After determining those attributes that are worthy of examination, consumers are asked two questions. One relates to the salience of the attributes and the other to the company's own performance in terms of delivery of these attributes.

By using a central tendency e.g. mean, median or a rank-order measure, the attribute importance and performance scores are ordered and classified into high or low categories; then by pairing these two sets of rankings, each attribute is placed into one of the four quadrants of the importance performance grid (Crompton and Duray, 1985). Mean performance and importance scores are used as coordinates for plotting individual attributes on a two-dimensional matrix as shown in Figure 1. This matrix is used to prescribe prioritization of attributes for improvement (Slack, 1991) and can provide guidance for strategy formulation (Burns, 1986)

Figure 1: The Original IPA Framework

# A. Concentrate Here B. Keep Up The Good Work Fair Excellent Performance C. Low Priority D. Possible Overkill

**Extremely Important** 

**Slightly Important** 

Source: Martilla, J. and James J. (1977), 'Importance-Performance Analysis', Journal of Marketing, 14 (January): pp. 77-79.

The vertical axis of the grid in figure 1 indicates the importance of the attributes from high to low and the horizontal axis represents their perceived performance from high to low. The placements of attributes on this two dimensional graph suggest the suitable strategy for each. Attributes in Quadrant 1 are ranked high both in importance and performance. What is needed here is to "keep up the good work". Quadrant 2 signals those attributes, which need special marketing effort. These attributes are high in importance but rated substandard in performance. The attributes in Quadrant 3 indicate those rated low in both importance and performance. Because of their low salience, these attributes are considered low priority and hence require no additional resources. Attributes in Quadrant 4 are rated high in performance, but low in importance. This implies that overkill has occurred. Perhaps the resources committed to these attributes should be channeled elsewhere. The

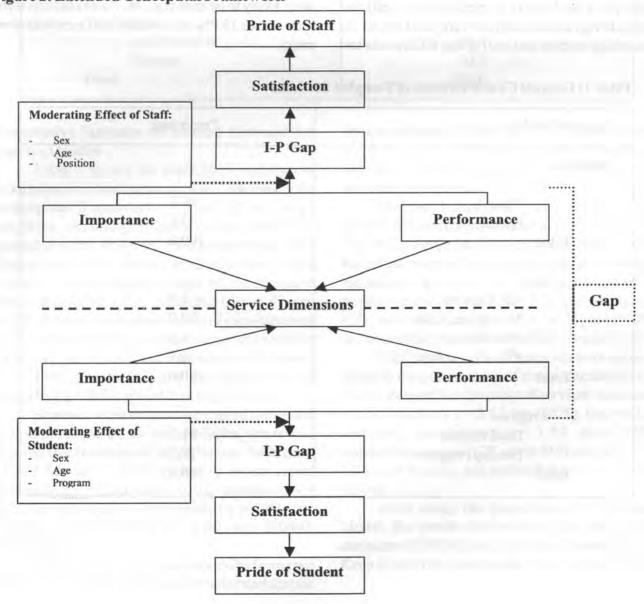
procedure is very pragmatic, easy to apply and interpret. More importantly, it readily identifies the strategic options and translates the results into action.

The Importance-Performance Analysis (IPA) has been applied in a number of settings with relatively little modification in form. For example; Chon, Weaver, and Kim (1988) applied IPA for the Visitors Bureau of Norfolk, Virginia and Nitse and Bush (1993) used IPA to compare preconceptions of dental practices.

#### RESEARCH FRAMEWORK

In this study, the Importance-Performance Analysis (IPA) technique and SERVQUAL model are adapted to find out the service quality provided by administrative departments of private universities in Thailand. The extended conceptual framework of variables for this paper is diagrammed in figure below:

Figure 2: Extended Conceputal Framework



#### RESEARCH METHODOLOGY

A cross sectional survey of 405 students and 390 staff members was conducted for measuring and comparing the perception of these two groups about university service attributes. These survey respondents were selected from ten private universities in Thailand. These universities were randomly selected from 26 private universities in Thailand. They were Assumption University, Bangkok University, Rangsit University, The University of the Thai Chamber of Commerce University, Siam University, Dhurakijpundit University, Kasem Bundit University and Sripatum University, Krirk University, and St. John's University. A selfadministered questionnaire via a mail survey was applied for staff members. Selected students were approached and asked to complete a questionnaire in person. Five dimensions of service quality (e.g., tangible, reliability, responsiveness, assurance, and empathy) were asked in the questionnaire. Both descriptive analyses (e.g., percentage, t-test) and multiple regression analysis were used to test for describing student and staff group differences and

relationship between independent variables (e.g., demographic data, perception about service attributes) and dependent variable (i.e., pride in university).

Qualitative data was gathered through a focus group discussion, during which a number of university staff members and students were asked and probed on issues related to the attributes of service quality. In each group, there were eight participants. The participants were selected from different universities.

#### ANALYSIS AND RESULTS

#### **Baseline Characteristics of Respondents**

In this study, Tables 1 and 2 show the baseline characteristics of respondents. Compared with university staff respondents, the findings showed that students were younger (i.e., 89.9% of students were between 20–25 years old versus 70.7% of university staff members were between 25–35 years old) and were likely to be men (i.e., 46.7% of students were male versus 35.9% of university staff members were male).

Table 1: General Characteristics of Sampled Students

Sample/Variable	Percentage	
Students		
Gender	64	
Male	46.7	
Female	53.1	
Total	100.0	
Age		
<20 years old	7.9	
20 – 25 years old	89.9	
26 – 30 years old	1.5	
31-35 years old	0.7	
Total	100.0	
Program		
Day Program	81.3	
Evening Program	18.7	
Total	100.0	

Table 2: General Characteristics of Sampled University Staff Members

Sample/Variable	Percentage
University Staff Members	
Gender	desirable to
Male	35.9
Female	63.8
N/A	0.3
Total	100.0
Age	
<25 years old	7.4
25-30 years old	45.6
31 – 35 years old	25.1
36 – 40 years old	11.0
>40 years old	10.5
N/A	0.3
Total	100.0
Position	
StaffMember	89.5
Director	10.5
Total	100.0

#### Descriptive Statistics of Studied Universities' Service Quality

Table 3 shows the descriptive statistics of studied universities' service quality. After using the conceptual framework of SERVQUAL (e.g., tangibles, reliability, responsiveness, assurance, empathy) in this study, the results with regard to the importance of the service attributes showed that students had the highest mean of the indicated importance of services' assurance ( $\bar{x} = 4.47$ , se= 0.028), followed by the importance of responsiveness ( $\bar{x} = 4.45$ , se= 0.032), the importance of reliability ( $\bar{x} = 4.41$ , se= 0.030), the importance of empathy ( $\bar{x} = 4.40$ , se= 0.030), and the importance of tangibles ( $\bar{x} = 4.33$ , se= 0.029), respectively.

However, when students were asked to evaluate the performance of service attributes, the results showed that the mean of tangibles was the highest ( $\bar{x} = 3.68$ , se= 0.034), followed by services' assurance ( $\bar{x} = 3.30$ , se= 0.039), reliability ( $\bar{x} = 3.05$ , se= 0.043), responsiveness ( $\bar{x} = 3.04$ , se= 0.044), and empathy ( $\bar{x} = 3.00$ , se= 0.044), respectively.

When using the Importance-Performance Model in this study, the results demonstrated that the service attributes of SERVQUAL fell in the Quadrant B (i.e., Keep up with the good work). This finding showed that the service quality was good in the students' perception.

Meanwhile, university staff members were asked to indicate the importance of service attributes. The results showed that university staff members had the highest mean of the indicated importance of service assurance ( $\bar{x} = 4.47$ , se= 0.024), followed by responsiveness ( $\bar{x} = 4.42$ , se= 0.029), reliability ( $\bar{x} = 4.39$ , se= 0.030), tangibles ( $\bar{x} = 4.35$ , se= 0.029), and empathy ( $\bar{x} = 4.30$ , se= 0.026), respectively.

Then, university staff members were asked to evaluate the performance of service attributes. The results showed that the mean of services' assurance was still highest ( $\bar{x} = 3.85$ , se= 0.028), followed by services' tangibles ( $\bar{x} = 3.77$ , se=0.029), responsiveness ( $\bar{x} = 3.75$ , se=0.034), empathy ( $\bar{x} = 3.75$ , se= 0.031), and reliability ( $\bar{x} = 3.68$ , se= 0.034).

After using the Importance-Performance Model, the results demonstrated that the service attributes of SERVQUAL fell in the Quadrant B (i.e., Keep up with the good work). This finding showed

Table 3: Key Statistics of the Importance-Performance of the SERVQUAL Attributes

Studen						University Staff Members				
SERVQUAL's Attributes	Importance mean	Std. Error	Performance mean	Std. Error	Quadrant	Importance mean	Std. Error	Performance mean	Std. Error	Quadrant
Tangibles	4.33	0.029	3.68	0.034	В	4.35	0.029	3.77	0.029	В
Reliability	4.41	0.030	3.05	0.043	В	439	0.030	3.68	0.034	В
Responsiveness	4.45	0.032	3.04	0.044	В	4.42	0.029	3.75	0.034	В
Assurance	4.47	0.028	3.30	0.039	В	4.47	0.024	3.85	0.028	В
Empathy	4.40	0.030	3.00	0.044	В	4.30	0.026	3.73	0.031	В

that the service quality was good in the university staffs' perception.

Table 4 shows the elements of findings with regard to the gap between the importance and performance of service attributes among students. The results show that all students' importance means of service attributes were significantly higher than their performance means.

Table 5 shows the elements of findings with regard to the gap between the importance and performance of services' attributes among university staff members. The results showed that all staff members' importance means of services' attributes were significantly higher than their performance means.

Table 4: Mean Difference between the Importance-Performance of SERVQUAL Service Attributes among Students.

Elements of Services' Attributes	Importance mean	Performance mean	Quadrant	I-P	T-value	Sig.(2 tailed
1. Visually appealing external appearance of the staff						
(clean & neat)	4.11	3.62	В	0.49	10.130	0.000***
2 Having suitable buildings, places and facilities		22,000			1.000	
for effective services	4.40	3.62	В	0.78	15.422	0.000strate
3. Cleanliness & safety of buildings, places and			(1)		1000	
facilities	4.50	3.81	В	0.69	14398	0.000***
4. Reliability and dependability (the degree of trust		8.55				
in service delivery) of the staff members	4.38	3.17	В	1.21	21.014	0.000 <sub>#s#</sub>
5. Consistency of service by staff members. (The						
level of service delivery is maintained)	4.42	3.00	В	1.42	22.692	0.000***
6. Attention to details of the service delivery by the	4.00	***				
staffmembers	4.43	2.98	A	1.45	22.635	0.000***
7. Willingness of the staff members to provide	4.40	204	1		22.405	0.00044
services in a timely manner	4.48	2.94	A	1.54	23.485	0.000***
<ol> <li>Ease of contact (accessible at any time) of the staffmembers</li> </ol>	4.44	207		1.47	21.007	0.000***
Ability of the staff members to provide services	4.44	2.97	A	1.47	21.867	0.000***
in a timely manner (within a certain time as			-		1	
promised)	4.44	3.20	В	1.24	19334	0.000**
10. Competence (knowledge and skill) of the staff	7/77	320	ь	1.24	19334	0.000
members	439	325	В	1.14	19391	0.000***
11. Levels of courtesy, politeness, and respect	127	322	Б	1.17	17571	0.000
received by students	456	276	A	1.80	24.115	0.000**
12. Believability and honesty of the staff members	4.46	3.45	В	1.01	18.130	0.000**
13. Knowledge of the information that students need	8.10	5.15		1.01	10.150	0,000
from the staff members	4.48	323	В	1.25	19.458	0.000***
14. Assurance that the academic and personal	1 - 1 - 1 - 1	100			27,100	0.000
information in the service delivery is kept	2.00					
confidential by the staff members	4.53	3.71	В	0.82	14.728	0.000**
15. Assurance that information communicated is						31.00
correct and Up-to-date in the service delivery	4.53	3.43	В	1.10	18339	0.000**
16. Staff members have knowledge and necessary						
service skills	4.39	3.28	В	1.11	19.111	0.000***
17. Staff members can communicate with students	1/27					
in a language that they could understand easily	4.46	327	В	1.19	19529	0.000***
18. Approachability (friendliness and warmth) of staff	13.71	Total N			The second	may all
members	4.26	2.88	A	1.38	19.106	0.000akak
19. Effort of the staff members to understand student's	133	-000	-		ALCOHOL:	
needs	4.42	3.04	В	1.38	20.895	0.000**
20. Sincere interest in servicing the students by staff		The state of				
members	4.45	3.01	В	1.44	22.427	0.000**
21. Sincere interest in solving the problems of the		444				7. 10
students by the staff members	4.50	2.89	A	1.61	23.687	0.000**
22. Staffmembers pay attention to individual needs	7.44					
ofstudent	431	291	A	1.40	19281	0.000**

Table 5: Mean Difference between the Importance-Performance of SERVQUAL Service Attributes among University Staff Members

Elements of Services' Attributes	Importance mean	Performance mean	Quadrant	I-P	TT-value	Sig.(2 tailed
Visually appealing external appearance of the staff (clean & neat)	4.33	3.86	В	0.47	12.004	0.000**
<ol><li>Having suitable buildings, places and facilities for effective services</li></ol>	4.36	3.70	В	0.66	14.535	0.000**
<ol><li>Cleanliness &amp; safety of buildings, places and facilities</li></ol>	4.37	3.74	В	0.63	13.668	0.000**
<ol> <li>Reliability and dependability (the degree of trust in service delivery) of the staff members</li> </ol>	4.35	3.71	В	0.64	15.340	0.000**
<ol><li>Consistency of service by staff members. (The level of service delivery is maintained)</li></ol>	4.33	3.57	В	0.76	15.728	0.000**
<ol> <li>Attention to details of the service delivery by the staff members</li> </ol>	4.47	3.75	В	0.72	15243	0.000**
<ol> <li>Willingness of the staff members to provide services in a timely manner</li> </ol>	4.43	3.77	В	0.66	15.119	0.000**
Ease of contact (accessible at any time) of the staffmembers	4.37	3.73	В	0.64	13.645	0.000**
<ol> <li>Ability of the staff members to provide services in a timely manner (within a certain time as promised)</li> </ol>	4.45	3.73	В	0.72	15.816	0.000**
<ol> <li>Competence (knowledge and skill) of the staff members</li> </ol>	4.44	3.79	В	0.65	15.574	0.000**
<ol> <li>Levels of courtesy, politeness, and respect received by students</li> </ol>	4.45	3.72	В	0.73	15.162	0.000**
12. Believability and honesty of the staff members	4.58	4.06	В	0.52	13.660	0.000**
13. Knowledge of the information that students need from the staff members	4.42	3.70	В	0.72	16.494	0.000**
14. Assurance that the academic and personal information in the service delivery is kept confidential by the staff members	4.56	4.18	В	0.38	10214	0.000**
<ol> <li>Assurance that information communicated is correct and Up-to-date in the service delivery</li> </ol>	4.47	3.78	В	0.69	16.054	0.000**
<ol> <li>Staff members have knowledge and necessary service skills</li> </ol>	4.38	3.76	В	0.62	14.751	0.000**
17. Staff members can communicate with students in a language that they could understand easily	4.36	3.68	В	0.68	16.753	0.000**
<ol> <li>Approachability (friendliness and warmth) of staff members</li> </ol>	4.28	3.81	В	0.47	10.518	0.000**
<ol> <li>Effort of the staff members to understand student's needs</li> </ol>	4.32	3.71	В	0.61	14.684	0.000**
<ol> <li>Sincere interest in servicing the students by staff members</li> </ol>	4.43	3.83	В	0.60	13.535	0.000**
21. Sincere interest in solving the problems of the students by the staff members	4.41	3.77	В	0.64	13.748	0.000**
<ol> <li>Staff members pay attention to individual needs of student</li> </ol>	3.97	3.55	В	0.42	9,575	0.000**

After examining the mean difference by t-test, the results on Table 6 showed that the mean evaluation on the overall service quality was significantly different at the 0.05 alpha level for students and university staff members. The university staff members had significantly higher mean evaluation on the overall service quality than the students.

After examining the mean difference by t-test, the results on Table 7 showed that the mean satisfaction with the overall service quality was significantly different at the 0.05 alpha level for students and university staff members. The university staff members

had significantly higher mean satisfaction with the overall service quality than students.

In Table 8, the results showed that both students and university staff members had high and very high pride in their universities (i.e., 41.7% high and 19.3% very high among students versus 50.8% high and 35.4% very high among university staff members). The overall mean of students' pride in their universities was 3.70 out of 5. However, the overall mean of staff members' pride was 4.21. The results of t-test showed that the mean pride was significantly different at 0.05 for students and university staff members. The

Table 6: Respondents' Evaluation on the Overall Service Quality of Administrative Departments in the Studied Universities

Evaluation Levels of Overall Service Quality	Perceived Quality of Service Provided (Students)	Perceived Quality of Service Provided (Staff Members)
Very low	4.2%	
Low	20.6%	4.7%
Neither low nor high	49.0%	27.1%
High	23.9%	62.5%
Veryhigh	2.3%	5.7%
Total	100.0%	100.0%
$Mean(\bar{x})$	2.99	3.69

Table 7: Respondents' Satisfaction with the Overall Service Quality of Administrative Departments in the Studied Universities

Satisfaction Levels with Overall Service Quality	Satisfaction With Level of Service Provided (Students)	Satisfaction With Level Service Provided (Staff Members)
Very low	6.7%	Section 1 to the section (section)
Low	26.9%	1.6%
Neither low nor high	42.3%	19.1%
High	21.9%	65.3%
Veryhigh	2.2%	14.0%
Total	100.0%	100.0%
$Mean(\bar{x})$	2.86	3.92

Table 8: Respondents' Pride in the University

Pride in the University	Students	Staff Members
Very low	2.0%	
Low	6.5%	0.5%
Neither low nor high	30.5%	13.3%
High	41.7%	50.8%
Veryhigh	19.3%	35.4%
Total	100.0%	100.0%
$Mean(\bar{x})$	3.70	4.21

university staff members had significantly higher mean pride in their universities than students.

#### Test of Relationship between Independent and Dependent Variables

In tables 9 and 10, the results showed that the correlation between an overall service quality and students' satisfaction was significantly high at .771. However, the correlation between an overall service

quality and staff members' satisfaction was significantly moderate at .457.

Table 11 shows the correlations between respondents' satisfaction and pride in their universities. The results released that the correlation between students' satisfaction and pride in their universities was significantly high at .650. However, in table 12, the correlation between staff members' satisfaction and pride in their universities was significantly moderate at .428.

Table 9: Correlations between an Overall Service Quality and Students' Satisfaction

		Overall Service Quality	Students' Satisfaction
Overall Service Quality	Pearson Correlation	1.000	0.771**
area segments	Sig. (2-tailed)	3.1	0.000
	N	402	401
Students' Satisfaction	Pearson Correlation	0.771**	1.000
	Sig. (2-tailed)	0.000	
	N	401	402

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 10: Correlations between an Overall Service Quality and Staff Members' Satisfaction

		Overall Service Quality	Staff Members' Satisfaction
Overall Service Quality	Pearson Correlation Sig. (2-tailed) N	1.000	0.457** 0.000 387
Staff Members' Satisfaction	Pearson Correlation Sig. (2-tailed) N	0.457** 0.000 387	1.000

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 11: Correlations between Students' Satisfaction and Pride in Their Universities

		Students' Satisfaction	Pride in Their University
Students' Satisfaction	Pearson Correlation Sig. (2-tailed)	1.000	0.650** 0.000 401
Pride in Their University	Pearson Correlation Sig. (2-tailed) N	0.650** 0.000 401	1.000

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 12: Correlations between Staff Members' Satisfaction and Pride in Their Universities

		Staff Members' Satisfaction	Pride in Their University
Staff Members' Satisfaction	Pearson Correlation Sig. (2-tailed) N	1.000	0.428** 0.000 384
Pride in Their University	Pearson Correlation Sig. (2-tailed) N	0.428** 0.000 384	1.000 - 387

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### CONCLUSION

In this study, the Importance-Performance attributes of service quality were examined among students and university staff members. The key results found that students had lower mean data on all Performance attributes (i.e., tangibles, reliability, responsiveness, assurance, empathy) than university staff members. However, in terms of Importance attributes, students had higher mean data on some attributes (i.e., reliability, responsiveness, empathy) than staff members. These findings may lead to the conclusion that students had higher perception about the Importance attributes of service quality than staff members, but lower perception about the Performance attributes than staff members. Moreover, students suggested that some service attributes should be improved including reliability (e.g., attention to details of the service delivery by staff members), responsiveness (e.g., willingness of staff members to provide services in a timely manner, ease of contact (accessible at any time) of staff members), assurance (e.g., levels of courtesy, politeness, and respect received by students), and empathy (e.g., approachability of staff members, sincere interest in

solving the problems of students by staff members, staff members' attention to individual needs of students).

This study also focused on significant factors affecting respondents' satisfaction with service quality and pride in their universities. The results showed that students' satisfaction with service quality was significantly explained by age, tangible importance, empathy importance, reliability performance, and empathy performance. Meanwhile, staff members' satisfaction with service quality was significantly explained by tangible importance, reliability importance, assurance importance, and reliability performance. In addition, the findings showed that students' satisfaction with a service quality positively affected their pride in the universities. Likewise, staff members' pride in their universities was positively related to their satisfaction with service quality. However, respondents' pride in their universities may be affected by other independent variables (e.g., socio-economic status, improvement of service, quality of professors, image of a university, social roles of alumni). Therefore, future research may be needed to examine these proposed variables.

#### References

- Barsky, J.D., (1995), 'World-Class Customer Satisfaction', Chicago, IL, Irwin Publishing.
- Bouman, M. and Van Der Wiele, T., (1992) 'Measuring Service Quality in the car service industry: building and testing an instrument', International Journal of Service Industry Management, 3(4), pp. 4-16.
- Burns, A.C. (1986) 'Generating Marketing Strategy Priorities Based on Relative Competitive Position', Journal of Consumer Marketing, 3(3), pp. 49-56.
- Chon, K.-S., Weaver P.A., and Kim C.Y., (1988) 'Marketing Your Community: Image Analysis in Norfolk', Cornell H.R.A. Quarterly, 31(4), pp. 31-37.
- Crompton, J.L. and Duray, N.A. (1985) "An investigation of the Relative Efficacy of Four Alternative Approaches to Importance Performance Analysis", Journal of Academy of Marketing Science (Fall), pp. 69-80.
- Durvasula, S., Lysonski, S., and Mehta, S.C., (1999) Testing the SERVQUAL scale in the business-to-business sector: The case of ocean freight shipping service', *Journal of Services Marketing*, 13(2), pp. 132-150.
- Ford, J. B., Joseph, M. and Joseph, B. (1991) 'Importance performance analysis as a strategic tool for service marketers: the case of service quality perceptions of business students in New Zealand and the USA', European Journal of Marketing, 27(2), pp. 59-70.
- Ford, J.W. Joseph, M. and Joseph, B. (1993) 'Service quality in higher education: a comparison of universities in the United States and New Zealand using SERQUAL', unpublished manuscript, Old Dominion University, Norfolk, VA.
- Freeman, K.D. and Dart, J. (1993) 'Measuring the perceived quality of professional business services', Journal of Professional Services Marketing, 9(1), pp. 27-47.
- Keyt, J. C., Yavas, U. and Riecken, G (1994) 'Importance Performance Analysis', International Journal of Retail & Distribution Management, 22(5), pp. 35-40.
- Kwon, W. and Lee, T.J., (1994) 'Measuring service quality in Singapore retail banking', Singapore Management Review, 16(2), July, pp.1-24.
- Lovelock, C., Patterson, P.G and Walker, R. H. (1998) 'Service Marketing', Prentice Hall, Sydney
- Martilla, J.A. and James, J.C. (1977) 'Importance-Performance Analysis', *Journal of Marketing*, 14 (January), pp. 77-79.
- McElwee, G and Redman, T. (1993) 'Upward appraisal in practice: an illustrative example using the QUALED scale', Education and Training, 35(2), December, pp. 27-31.
- Newman, K., (2001) 'Interrogating SERVQUAL: a critical assessment of service quality measurement in a high street retail bank', *The International Journal of Bank Marketing*, 19(3), pp. 126-139.
- Nitse, P.S. and R.P. Bush (1993) 'An examination of retail dental practices versus private dental practices using an importance-performance analysis', *Health Marketing Quarterly*, 11(1/2), pp. 207-21.
- Parasuraman, A., Zeithaml, V. and Berry, L.L. (1990) 'Delivering Quality Service: Balancing Customer Perceptions and Expectations', The Free Press, New York
- Rogotti, S. and Pitt, L. (1992) 'SERVQUAL as a measuring instrument for service provider gaps in business schools', Management Research News, 15(3), pp. 9-17.
- Saleh, F. and Ryan, C., (1992) 'Analysing service quality in the hospitality industry using the SERVQUAL model', Service Industries Journal, 11(3), pp.324-43.
- Sampson, S. E. and Showalter, M. L. (1999), 'The Performance Importance Response Function: Observation and Implications', *The Service Industries Journal*, Vol. 19(3), pp.1-25.
- Slack, N. (1991) 'The Importance-Performance Matrix as a Determinant of Improvement Priority', International Journal of Operations & Production Management, 14(1), pp. 59-75.
- Wong, S.M. and Perry, C. (1991) 'Customer service strategies in financial retailing', *International Journal of Bank Marketing*, 9(3), pp. 11-16.
- Youssef, F. N., (1996) 'Health care quality in NHS hospitals', *International Journal of Health Care Quality Assurance*, 9(1), pp.15-28.

## SERVICE QUALITY IN ADMINISTRATIVE DEPARTMENTS OF PRIVATE UNIVERSITIES IN THAILAND: STRATEGIES AND RECOMMENDATIONS

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#### ABSTRACT

To be a service leader in the educational field, it is necessary for private universities to offer quality services to students. As a continuation of the previous paper (Kitcharoen, 2004) on the service quality of administrative departments in Thai private universities, this research was aimed at exploring university senior administrators' opinions about service quality. Six private universities were randomly chosen from the population of 26 private universities in Thailand. The presidents and vice presidents of these universities were interviewed. The research findings show that according to the university senior administrators, the most important service attribute is "Empathy", while the best performed service attribute is "Tangible". Although most administrators believed the students are satisfied with the service quality, all of them acknowledged the necessity for further improvement.

#### INTRODUCTION

To be a service leader in the educational field, it is necessary for private universities to offer quality services to students. Service leaders view excellent service as the driving force of the business. Excellent service separates them from their competitors. Therefore, improving the service quality in private universities is one of the strategies to enhance their sustainable competitive advantage.

This research is a continuation of the two previous papers (Kitcharoen, 2004). The first paper reviews the literature related to the service quality in the education industry, in particular the application of the SERVQUAL model and the IPA techniques. The second paper reports the results of a questionnaire survey of students and the university staff members on the service quality of the administrative departments of Thai private universities. This research paper, on the other hand, focused on the qualitative data gathered from face to face interviews with the top administrators of six private universities in Thailand.

#### LITERATURE REVIEW

This section of the paper summarizes the relevant literature reviewed on the SERVQUAL model

and the IPA techniques which also constitute the theoretical framework of this research paper.

#### Service Quality & Customer Expectation

Parasuraman, Zeithaml, & Berry, (1985) described service quality as the ability of the organization to meet or exceed customer expectations. The definition of service quality, therefore, is focused on meeting the customers' needs and requirements, and how well the service delivered matches the customers' expectations of it.

#### **Dimensions of Service Quality**

Parasuraman, Zeithaml, and Berry (1985), put forward a list of ten determinants of service quality that can be generalized to any type of service. These ten dimensions were regrouped in the well known five dimensions in the SERVQUAL model (Parasuraman, Zeithaml, and Berry 1990) which include "tangible", "reliability", "responsiveness", "assurance", and "empathy":

- Tangible appearance of physical facilities, equipment, personnel, and communication materials.
- Reliability ability to perform the promised service dependable and accurately.
- Responsiveness willingness to help customers and provide prompt service.

- Assurance knowledge and courtesy of staff and their ability to convey trust and confidence.
- Empathy caring and individualized attention

# The Importance-Performance Analysis (IPA) technique

The Importance-Performance Analysis conceptually rests on multi-attribute models. This technique identifies strengths and weaknesses of a market offering in terms of two criteria that consumers use in making a choice. One criterion is the relative importance of attributes. The other is consumers' evaluation of the offering in terms of those attributes. After determining those attributes that are worthy of subsequent examination, consumers are asked two questions. One relates to the salience of the attributes and the other to the company's own performance in terms of delivery of these attributes.

#### Service Quality in Universities

Earlier studies on service quality in higher education placed higher emphasis on the academic areas instead of the administrative areas, concentrating on effective course delivery mechanisms, and the quality of courses and teaching (Athiyaman, 1997; Bourner, 1998; Cheng and Tam, 1997; McElwee and Redman, 1993; Palihawadana, 1996; Soutar and McNeil, 1996; Varey, 1993; Yorke, 1992). Abouchedid and Nasser (2002), however, attempted to measure student perception of registration and academic advising across different faculties and other administrative services to assure positive quality service complementing that of the academic.

There are many reasons for focusing the service quality in a university on the administrative units (Anderson 1995): The first exposure of the student to the university is through the admission and registrar's services. Providing high quality service to students contributes to the positive assessment of the university. As compared with the academic units, the administrative departments of the university, such as the registration office, financial office, or library, are more likely to be a replication of the bureaucratic units of governmental or public institutions (Salem, 1969). While registration in the Western universities has rapidly adopted the banking touch-tone telephone systems,

universities in developing countries attempt to struggle with bureaucracies and inefficient infrastructure; hence registration remains a traditional and manual process (Spencer, 1991).

#### Research Objectives

The aim of this research was to explore the university senior administrators' opinions about service quality of private universities in Thailand. This involved investigating the perceived importance and perceived performance of services quality of administrative departments of private universities in Thailand, from the perspectives of the university senior administrators.

#### RESEARCH METHODOLOGY

To investigate the relationship between the importance aspect and performance aspect, face to face interviews were used to collect the qualitative data from the university administrators. A sample of university administrators (i.e., presidents and vicepresidents) comprised of twelve interviewees. These interviewees were selected from Assumption University, Bangkok University, Kasem Bundit University, Siam University, Sripatum University, and St.John's University. The selected interviewees were interviewed on a voluntary basis. This criterion was employed to assure basic examining of top management people of the universities. Qualitative and quantitative approaches (e.g., paraphrasing, debriefing, descriptive statistics) were applied for describing research results.

#### **FINDINGS**

This section is divided into two parts including

1.) Characteristics of Interviewees, and 2.) The
Interview Results.

#### 1) Characteristics of Interviewees

Table 1 shows the characteristics of interviewees in terms of their status (president or vice president) and gender. Half of the twelve interviewees were presidents of the private universities in Thailand, and the other half of the twelve interviewees were vice presidents of the private universities in Thailand. Two thirds of them were male and one third of them were female.

Table 1: Characteristics of Interviewees

		Status		Percentage	
	1)	President	Vice President	VIII/OUT	
Gender	Male	5	4	67%	
	Female	1	2	33%	
Percentage		50%	50%		

#### 2) Interview Results

The interview results are presented in the following 4 parts: 1) The perception of university administrators on service quality; 2) The student perceptions on service quality as understood by the university administrators; 3) The plans and mechanisms to improve service quality and 4) The university administrator's comments on the student and staff survey

# 2.1) Perception of the University Administrators on Service Quality

The interviewees who were university administrators were asked to choose the most important attributes among the five service attributes of the SERVQUAL model according to their understanding.

Half of the interviewees chose "Empathy" as the most important service attribute. They suggested that service providers need to serve students with service minds. Service providers must offer services with sincerity, approachability, friendliness, and understanding of the needs of students. A quarter of the interviewees chose "Tangible" as the most important service attribute. They suggested that the tangible dimensions such as building, offices, appearance of service providers will leave the first impression that students would have when they come to the university. The other service attributes chosen included "Reliability", and "Responsiveness". "Assurance" was not chosen as the most important attribute (See Table 2).

Table 2: Rank of the Importance of Service Attributes perceived by the University Administrators

Service Attribute	Number of Interviewees	Percentage of Interviewees	Rank based on frequency
Tangible	3	25 %	2
Reliability	2	16.67 %	3
Responsiveness	1	8.33 %	4
Assurance	0	0 %	5
Empathy	6	50 %	1
Total	12	100 %	

#### The University Administrators' Perception on the Actual Performance of Service Attributes

The interviewees who were university administrators were then asked to choose the best performed attributes among the five service attributes of the SERVQUAL model according to their understanding.

Half of the interviewees chose "Tangible" as the best performed attributes in the service provided by the administrative departments of their universities. Most of them claimed that their universities have beautiful buildings, modern offices, and advanced technology. They were ready to invest more in this dimension and it is easy to improve on the quality of these tangible aspects.

A quarter of the interviewees chose "Assurance" as the best performed attributes. The other service attributes chosen include "Responsiveness" and "Empathy". "Reliability" was not been chosen as the most important attribute (See Table 3)

Table 3: Rank of the Actual Performance of Service Attributes perceived by the University Administrators

Service Attribute	Number of Interviewees	Percentage of Interviewees	Rank based on frequency	
Tangible	6	50 %	1	
Reliability	0	0 %	5	
Responsiveness	2	16.67 %	3	
Assurance	3	25 %	2	
Empathy	1	8.33 %	4	
Total	12	100 %	APTIC TO THE PERSON NAMED IN COLUMN	

## Mismatch between the Most Important & the Best Performed Attributes

A mismatch of the rank orders of most important and best performed attributes are observed (see table 4). For example, the attribute of "empathy" was perceived by the university administrators as the

most important attribute. However, the best performed attributes were physical facilities, appearance of office and personnel (tangible), and competence and credibility (assurance) of the administrative departments.

Table 4: Mismatch between the Most Important & the Best Performed Attributes

No.	Rank of Importance	No.	Rank of Performance
1.	Empathy	1.	Tangible
2.	Tangible	2.	Assurance
3.	Reliability	3.	Responsiveness
4.	Responsiveness	4.	Empathy
5.	Assurance	5.	Reliability

#### Perceived Importance

All interviewees who were university administrators agree that service quality is very important for private universities in Thailand, while nearly half of the respondents believe it is the most important factor for private universities. All interviewees also agree that service quality of the administrative departments is very important for private universities in Thailand. These departments include registration office, office of financial management, library, computing center, etc.

A few interviewees even believe the service quality of the administrative department is just as important as that of the academic units. These departments would normally give students the first impression of a university. Their service quality is more tangible as compared with the academic service and it is easier to compare the administrative service between different universities. Students also have

more confidence in their judgment of the service quality of administrative departments and sometimes have a high expectation.

#### **Perceived Service Quality**

Half of the interviewees were satisfied with service quality provided by administrative departments in their university. However, they said that services provided by these departments were still not perfect. A quarter of the interviewees mentioned that the degree of their satisfaction with service quality of these administrative departments is increasing but they still would like to improve the quality of services. Another quarter of twelve interviewees were completely satisfied with service quality provided by administrative departments in their universities. They mentioned that the service quality provided by these departments met the service standard of their universities.

#### 2.2) Students' Perception on Service Quality as Understood by the University Senior Administrators

#### **Perceived Student Satisfaction**

Most of the interviewees who were university administrators believed that most students were satisfied with service quality provided by the administrative departments in their universities. However, two out of twelve respondents disagreed. They mentioned that most students were not satisfied with the service quality of administrative departments in their universities. The reasons given for dissatisfaction include: 1) service providers cannot adjust themselves to the new situations; 2) service providers do not have sufficient skills to serve student requests; and 3) students have high expectations in terms of the services provided.

However, all interviewees who were top management people believed that the overall service quality in administrative departments of private universities is better than the overall service quality in administrative departments of public (state) universities in Thailand. Most interviewees said that private universities are more flexible than public universities, although private universities do not receive full subsidiaries or supports like public universities in areas such as, investment, campus construction and research funds.

#### Complaints of the Students

Most interviewees received complaints about service quality in administrative departments in their universities from students. Only one interviewee reported that he did not receive any complaint about the administrative departments. One third of the interviewees received complaints two to three times a semester, while one interviewee received complaints two to three times a month. A quarter of the interviewees claimed they would solve the problems immediately after they received the complaints.

In terms of areas of complaints, half of the interviewees pointed to the registration office as the place which receives the most complaints. It was suggested that the high frequency of complaints addressed to the registration office is due to the fact that it is the office which deals with every student, with services such as registration, announcement of grade and assessment, issuance of ID cards, certificates, transcripts and other necessary documents.

#### Plans and Mechanism to Improve Service Quality

#### **Current Situation**

Most interviewees reported mechanisms to monitor and improve service quality in their universities. Half of the interviewees said they used the ISO system, with ISO 9000, ISO 9001 or ISO 9002. The interviewees who do not use the ISO system pointed out that the ISO system is not suitable for educational institutions. One third of interviewees reported the use of an internal "Quality Assurance" system in their universities. They saw the benefit of the QA system as providing automatic feedback of the service processes of each administrative department. The university administrators can use the information to solve the service problems immediately.

Other channels of student feed back on service quality were suggested as follows:

- Suggestion boxes
- Internet
- Research conducted by research centers with questionnaires survey
- Personal contact

Some administrators set up a committee to supervise the administrative departments while other administrators supervised the job themselves

#### **Strategic Directions**

Half of the interviewees who were university administrators believed that the universities need to improve service quality on a continuing basis. The service quality provided by these departments need to be adjusted all the time with the changes in technology and changes in students' preferences. The proposed strategies to improve the service quality in the administrative departments include the following:

- Selecting the right person: Human resources department should adjust the recruitment process and the director should test and interview the applicants concerning their qualifications, competence, skill, service attitude, etc., before selecting service providers. Selecting the right person can help the university to offer the service quality to students.
- Providing better training: Training programs conducted by specialists, seminars in relevant topics may be offered for administrative staff to learn about values, mission, objectives, strategies, services, and

practices of the organization. Some administrators also emphasized the importance of the moral and ethic standards as well as the service mind set of the administrative staff.

- 3. Establishing incentives: An incentive system should be applied for administrative staff in administrative departments. The university should measure the performance of administrative staff and reward them if they provided quality service to students. Rewards may be in the form of high salary, better welfare or promotion.
- 4. Building up the organizational structure: A service assessment committee in the university was proposed. The committee will assess the quality of service provided by administrative departments and report to the university administrators for solving any service problems immediately.
- Enhancing the communication channel:
   Questionnaires surveys with students for measuring service quality in administrative departments of their universities should be conducted periodically. The data collected should be analyzed and the findings can be used as a guideline to improve service quality.

#### Implementation Plan

Nearly all university administrators admitted the lack of implementation plans which are in line with the strategic direction outlined above. In terms of priority, more than half of the interviewees would like to solve the service problems and improve the service quality in the registration office before other administrative departments.

#### **Student Satisfaction**

The interviewees who were university senior administrators were asked to comment on the results of the survey in terms of degree of student satisfaction. The survey results showed that the students were "still not satisfied" with overall service quality provided by administrative departments of private universities while the administrative staff were "satisfied" with their services provided.

Two out of twelve interviewees admitted that the opinions of the staff might be biased. Staff members may think that they have good service performances while students do not think so. One interviewee suggested that students are not satisfied with service quality because they have high expectations on services provided.

#### CONCLUSION

In this study, in-depth, open-ended, face-toface interviews were conducted in order to gather the opinions from the top management in private universities in Thailand.

While most of the interviewees agreed with the findings which showed that "Assurance" dimension is the most important factors, some interviewees still felt that the "Empathy" dimension should be the most important. In terms of the actual performance of service dimensions, most university administrators were in accord with students. Students believed that the "Empathy" dimension should be improved urgently. Most university administrators disagreed with staff members in that the "Reliability" dimension should be improved immediately. Finally, most university administrators agreed with the findings which indicated that students are not satisfied with the service quality provided by administrative departments and they were in agreement that these departments in private universities should be improved as soon as possible.

### References

- Abouchedid K. and Nasser R. (2002) 'Assuring quality service in higher education: registration and advising attitudes in a private university in Lebanon', *Quality Assurance in Education*, 10(4), pp. 198-206.
- Anderson E. A. (1995) 'Measuring service quality at a university health clinic', *International Journal of Health Care Quality Assurance*, 8(2), pp. 32-37.
- Athiyaman, A. (1997) 'Linking student satisfaction and service quality perceptions: the case of university education', European Journal of Marketing, 31(7), pp. 528-40
- Bourner, T (1998) 'More knowledge, new knowledge: the impact on education and training', *Education and Training*, 40(1), pp. 11-14.
- Cheng, Y.C., Tam, W.M (1997) 'Multi-models of quality in education', *Quality Assurance in Education*, 5 (1), pp. 22-32.
- Kitcharoen K. (2004) 'Literature Review of Service Quality in Educational Institutions', *ABAC Journal*, May-August, 24(2), pp. 14-25
- Kitcharoen K. (2004) 'The Importance-Performance Analysis of Service Quality in Administrative Departments of Private Universities in Thailand'.
- McElwee, G and Redman, T. (1993) 'Upward appraisal in practice: an illustrative example using the QUALED scale', *Education and Training*, 35(2), December, pp. 27-31.
- Palihawadana, D. (1996) 'Modeling student evaluation in marketing education', Proceedings of the 1996 Annual Marketing Education Group Conference.
- Parasuraman, A., Zeithaml, V., and Berry, L.L. (1985) 'Quality counts in services too', Business Horizons, May-June, pp. 44-52.
- Parasuraman, A., Zeithaml, V., and Berry, L.L. (1985) 'A conceptual model of service quality and its implications for future research', *Journal of Marketing*, 49(Autumn), pp. 41-50.
- Parasuraman, A., Zeithaml, V., and Berry, L.L. (1990) 'Delivering Quality Service: Balancing Customer Perceptions and Expectations', The Free Press, New York
- Salem, E. (1969) 'The Lebanese administration, in cultural resources in Lebanon', Crossroads to Culture, Librairie Du Liban, Beirut.
- Soutar, G, McNeil, M. (1996) 'Measuring service quality in a tertiary institution', Journal of Education Administration, 34(1), pp. 72-82.
- Spencer, R. (1991) 'After' the registration revolution', College and University, 66(4), pp. 209-12.
- Varey, R. (1993) 'The course for higher education', Managing Service Quality, pp. 45-9.
- Yorke, M. (1992) 'Quality in higher education: a conceptualisation and some observations on the implementation of a sectoral quality system', Journal for Higher Education, 16(2).

## A STUDY OF TEACHERS' BURNOUT IN RELATION TO ORGANIZATIONAL CITIZENSHIP BEHAVIORS AND TEACHING EXPERIENCE

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#### ABSTRACT

This study sought to explain the relationship of teachers' burnout with organizational citizenship behaviors and teaching experience. The Maslash Burnout Inventory was used to assess teachers' burnout on the basis of three dimensions, which are the components of chronic occupational stress. Organizational citizenship behaviors was assessed in terms of five dimensions and an instrument was developed and piloted in order to measure teachers' organizational citizenship behaviors. Results indicated that female teachers scored higher than males on certain components of burnout and also experienced more overall burnout than males. Females scored higher than males on certain dimensions of organizational citizenship behaviors than males and also engaged in more organizational citizenship behaviors than males.

#### INTRODUCTION

"A Teacher affects eternity. He or she can never tell where his or her influence stops" Hendry Adams.

All successful organizations, including high schools, have employees who go beyond their formal job responsibilities and freely give of their time and energy to succeed. Organ (1988) was the first to use the phrase "good soldiers syndrome or organizational citizenship behavior (OCB)" to denote organizationally beneficial behavior of workers that was not prescribed but occurred freely to help others achieve the task at hand. The willingness of participants to exert effort beyond the formal obligations of their positions has long been recognized as an essential component of effective organizational performance.

Research on organizational citizenship behavior has produced some intriguing insights in a variety of organizational settings (Organ, 1988; Organ & Ryan, 1995), but it has been neglected in the study of schools. Teachers who voluntarily help their new colleagues and go out of their way to introduce themselves to others define organizational citizenship behaviors in schools. Teachers in such schools take it upon themselves to make innovative suggestions, to volunteer to sponsor extra-curricular activities, and

volunteer to serve on new committees. Moreover, teachers help students on their own time, stay after school to help if necessary, and resist the temptation to overload students with work. Organizational citizenship behavior in schools connotes a serious educational context in which teachers are rarely absent, make efficient use of their time while at school, work productively with their colleagues, and give high priority to professional activities over personal ones in school. They use their talents and efforts to help both students and the school to achieve.

#### RELATED LITERATURE

Most studies in Organizational Citizenship Behavior (OCB) have stressed on positive outcomes (George & Bettrnhausen, 1990; Graham, 1986; Karambayya, 1989; MacKenzie, Podsakoff, & Fetter,1991; Podsakoff & Mackenzie,1994; Smith, Organ, & Near,1983). These behaviors provide an effective means of managing the interdependencies between members of the work unit and, as a result, increase the collective outcomes achieved (Organ, 1998; 1990; 1997; Smith, Organ, & Near, 1983). Individual, group, and organizational characteristics all influence organizational citizenship behaviors (Koberg, Boss, Bursten, & Goodman, 1999). In fact, individuals who exhibit such behaviors are less likely

to leave the organization (Chen, Hui, Sego, 1998; Koberg, Boss, Bursten, Goodman, 1999).

Freudenberger (1974) posited that the condition of burnout occurred most frequently among the dedicated and the committed. Maslach (1976) noted that those who work intensely with others tend to cope with stress by a form of distancing that not only hurts themselves but is damaging to all of us as their human clients. In a separate vein, research shows that burnout can negatively affect variables associated with intrinsic motivation including one's energy level, engagement with work and sense of achievement (Maslach 1982) However the association between OCB and burnout maybe somewhat more complex due to the various facets of each construct.

#### Conceptual framework

The two major variables of this study were teachers' burnout and organizational citizenship behaviors.

#### Burnout-dependent variable.

Burnout has been researched extensively in the teaching and other helping professions, such as nursing and social work over the past two decades. Burnout is defined as chronic affective response pattern to stressful work conditions that feature high levels of interpersonal contact (Ganster & Schaubroeck, 1991). It is related to a person's feeling of physical depletion, helplessness, depression, detachment and especially, disillusionment.

Burnout is generally considered to consist of three components. *Emotional Exhaustion* (EE) refers to feelings of being emotionally over-extended. *Depersonalization* (D) refers to negative, callous or detached responses to other people. *Reduced personal accomplishment* (PA) is described as a negative sense of one's own job performance. Maslach (1976, 1982) laid much groundwork for the study of burnout and developed the Maslach Burnout Inventory (MBI) for measuring its three components.

#### Organizational Citizenship Behavior— Independent Variable

Organizational citizenship behavior was described by Organ and his colleagues (Smith, Organ, & Near, 1983) as having two basic dimensions—altruism and generalized compliance. Altruism is helping behavior directed at specific individuals. When individuals have specific problems, need assistance, or seek help, altruistic people go the extra mile in

assisting them. The other class of citizenship behavior is generalized compliance, which is a more impersonal conscientiousness: doing things "right and proper" for their own sake rather than for any specific person. Conscientiousness in use of time is the hallmark of this dimension. Organizational participants' behavior far surpasses any enforceable minimum standards; workers willingly go far beyond stated expectations.

In attempting to further define organizational citizenship behavior, Organ (1988) highlights five specific categories of discretionary behavior and explains how each helps to improve efficiency in the organization.

**Altruism** (A) (e.g. helping new colleagues and freely giving time to others)

Conscientiousness (CN) (e.g. efficient use of time and going beyond minimum expectations)

**Sportsmanship** (S) (e.g. avoids complaining and whining)

Courtesy (C) (e.g. advance notices, reminders, and communicating appropriate information)

Civic virtue (CV) (e.g. serving on committees and voluntarily attending functions)

#### Hypotheses

Eleven null hypotheses were formulated. The researcher hypothesized that there would be no gender differences on the 3 components of burnout and on the 5 dimensions of organizational citizenship behaviors. All 3 components of burnout were hypothesized to be negatively related to the 5 dimensions of organizational citizenship behaviors. Further there would be no significant relationship between burnout and teaching experience. There would be no significant relationship between total burnout and total organizational citizenship behavior.

#### METHODOLOGY

The present study was conducted on secondary school teachers both male and female. Three stage sampling procedure involving random stratified technique was used in selecting the sample. Data were collected from 15 schools in Greater Bombay. The size of the final sample was 102, which included 45 Males and 57 Females.

#### Tools

 a) Organizational citizenship behavior scale (2004), containing 50 items, 25 positively and 25 negatively worded to measure Citizenship Behaviors on the basis of five dimensions was prepared by the researcher herself, using a 4 point Likert-type response scale. Content validity and item-test analysis was conducted. Test-retest reliability coefficient was .89.

b) Maslach Burnout Inventory (MBI form Ed) was a standardized instrument used by the researcher. It was prepared by Maslach and Jackson (1986) consisting of 3 related subscales with a total of 22 items and uses a 7 point Likert-type response scale.

#### Techniques of Analysis of Data

To analyze the data, descriptive and inferential techniques of analysis were used. In the descriptive analysis, the mean medium mode skewness and kurtosis were used. In inferential analysis, t-test, coefficient of correlation and eta coefficient were used.

#### FINDINGS & CONCLUSIONS

1. There are significant gender differences in the EE (Emotional Exhaustion) PA (Personal Accomplishment) and TBO (Total Burnout) of teachers at 0.01 level of significance. The EE, PA and TBO of male and female teachers differs significantly. Females are higher than males on EE, PA and TBO. Approximately 8.19%, 31.90% and 37.8% of the variance in EE, PA and TBO respectively, is associated with gender differences among the teachers.

2. There are significant gender differences in the CN (conscientiousness) and TOCBS (Total Organizational Citizenship Behaviors) of teachers at 0.01 level of significance. The CN and TOCBS of male and female teachers differs significantly. Females

Table 1.1 shows the differences in males and female teachers' burnout.

Differences in Male and Female Teachers' Burnout							
Variables	Group	N	Mean	SD	T	L.O.S	Variance
i) DP	Males	45	4.33	3.43	0.3	NS	
	Females	57	4.54	3.51			/
ii) EE M	Males	45	8.4	8.02	3.18	0.01	8.19%
	Females	57.	13.14	6.94			
(iii) PA	Males	45	41.84	11.32	6.99	0.01	31.9%
	Females	57	55.47	7.3		Posterii.	
(iv) TBO	Males	45	52.84	14.2	7.94	0.01	37.8%
	Females	57	58.64	9.36			

Table 1.2 shows differences in males and females teacher's organizational citizenship behaviors.

	Difference	es in TOC	BS of Male		e reachers		
Variables	Group	N	Mean	SD	T	L.O.S	Variance
i) A	Males	45	34.5	3.97	0.11	NS	-
	Females	57	35.73	5.19			
ii) C	Males	45	27.96	3.38	0.63	NS	
	Females	57	28.43	4.21		11-6	
iii) CN Males Females	Males	45	20.5	3.30	9.26	0.01	1.96%
	Females	57	37.50	37.50		y	
iv) S	Males	45	30.22	3.35	0.51	NS	
	Females	57	29.87	3.39			
v) CV	Males	45	37.23	3.71	0.5	NS	
	Females	57	26.86	3.55			
vi) TOCBS	Males	45	150	23.39	6.29	0.01	27.4%
	Females	57	155.1	9.4			

Table 1.3 shows the relationship between emotional exhaustion and elements of Organization Citizenship Behaviors.

Variables	N	df	R	L.O.S	Variance (r <sup>2</sup> x100)
EE AND A	102	100	0.219	0.05	4.79%
EE AND C	102	100	0.087	NS	
EE AND CN	102	100	0.166	NS	
EE AND S	102	100	0.114	NS	
EE AND CV	102	100	0.058	NS	

Table 1.4 shows the relationship between Personal Accomplishment (PA) and elements of Organization Citizenship Behaviors (TOCBS)

Relationship between Personal Accomplishment and elements of Organizational Citizenship Behaviors.							
Variables	N	df	R	L.O.S	Variance (r <sup>2</sup> x100)		
PA AND A	102	100	0.269	0.01	6.76%		
PA AND C	102	100	0.115	NS			
PA AND CN	102	100	0.14	NS	7		
PA AND S	102	100	0.121	NS	I BOOK I		
PA AND CV	102	100	0.192	NS			

Table 1.5 shows the relationship between Total Burnout and Total Organization Citizenship Behaviors.

Relationship between Personal Accomplishment and Total Organization Citizenship Behaviors.							
Variables	N	df	R	L.O.S	Variance (r <sup>2</sup> x100)		
PA AND TOCBS	102	100	0.24	0.05	5.76%		

are higher than males on CN and TOCBS, 1.96% and 27.4% of the variance in CN and TOCBS respectively, is associated with gender differences among teachers.

- There is no significant relationship of DP with A, C, CN, S and CV.
- There is no significant relationship of DP with TOCBS.
- 5. There is a significant relationship between EE and A. Approximately 4.79% of variance is associated with the relationship between EE and A.
- There is no significant relationship of EE with TOCBS.
- 7. There is a significant relationship between PA and A. Approximately 6.76% of variance is associated with the relationship between PA and A.

- 8. There is a significant relationship of PA with TOCBS. Approximately 5.76% of variance is associated with the relationship between PA and TOCBS.
- 9. There is no significant relationship of TBO with TOCBS. Since the magnitude of 'r' is negligible, it was decided to test whether the relationship between these two variables is curvilinear. For this purpose eta coefficient was computed.
- There is no significant relationship of TBO with TE.
- There is no significant relationship of TE and TOCBS.

Table 1.6 COEFFICIENT BETWEEN TBO AND TOCBS

LEVELS OF OCBS	η,	Mean BO(y1)
Low	26	50
Moderate	37	58.4
High	39	57.8
11	102	1/

$$y = 56.10$$
 Sy = 13.70  
 $\Sigma \eta_c (y^i - y)^2 = 1275.9$ 

In order to test if another eta coefficient is significant the F-test is to be computed which is as follows:

$$F = (r_n^2 - r^2) (N-K) \over \eta(1-r_n^2) (K-2)$$

In the given case,  

$$K = 2$$
,  $N = 102$ ,  $r = 0.03$ ,  $r_n = 0.26$ 

The obtained F = 7.08 is greater than the tabulated F at 0.01 of significance. Hence eta coefficient is significant.

#### DISCUSSION

Significant gender differences were observed in EE, PA and TBO of teachers. The mean scores of females on these dimensions were higher than male teachers. It could be that females experience more emotional exhaustion, lack of personal accomplishment and overall more burnout because of the pressure on Indian women in general to conform to a stereotypical pattern of behavior. This puts considerable pressure on women as they are taught to sacrifice, tolerate and not complain despite their having full time teaching jobs. It is not just the pressure to conform to social expectations that places a heavy burden on women, it is also their reluctance to ask or expect assistance from others in sharing tasks. Since teaching is perceived as a feministic occupation, female teachers work harder, longer hours and engage in more duties compared to their male counterparts.

Significant gender differences were observed in the CN and TOCBS of teachers, the mean scores of female teachers being higher than that of males. This can be explained by the fact that in Indian society, the process of socialization is different for males and females. Women experience dual pressure at work and at home. Besides performing household duties, women at work too go beyond the minimum requirements of the job and will often agree to come in early or stay late to finish important projects. Women are also born with maternal instincts and as a result go out of their way to help students and other teachers who are facing problems. In Indian society, a female performs the role of 'Superwoman' and excels as a housekeeper, consumer, and caregiver.

The 'r' between EE and A is significant at the 0.05 level which shows that the more a teacher engages in helping behaviors, the higher will be the emotional exhaustion, which could in the long run lead to burnout.

The 'r' between PA and A is also significant, which shows that when teachers engage in helping behaviors, their personal accomplishment increases as well.

The 'r' between PA and TOCBS for the total sample of teachers is found to be significant, which indicates that when teachers engage in organizational citizenship behavior their personal accomplishment scores are higher. It could be that often teachers set high goals for themselves and when they are difficult to attain, their personal accomplishment scores will be higher or they may suffer from burnout.

The relationship between TBO and TOCBS is curvilinear in nature. It may be concluded that when OCBS is either low/high Burnout is low, but when OCBS is moderate, Burnout is high.

Hence, teacher educators with moderate level of OCBS are likely to have higher Burnout, compared to those with low or high level of OCBS.

# PRACTICAL SUGGESTIONS AND FURTHER RESEARCH

The present study is aimed at understanding the relation between teachers' burnout and organizational citizenship behaviors. This study is likely to be of use to Head Teachers (School Managers), since it is necessary for them to encourage organizational citizenship behaviors such as helping a coworker who is behind his or her work, helping to keep the place clean, staying in at lunch time to help students in order to promote the general well – being of the school and for achieving institutional effectiveness.

On the basis of the empirical findings, school managers could take positive steps towards fostering

and motivating teachers to engage in these behaviors. Cultivating organizational citizenship in schools is similar to changing the culture of the school; it is slow, and not a simple process. The key is that most of the teachers should voluntarily expend extra effort and time to make the school a better place. Furthermore, the school managers could gain awareness about teachers experiencing burnout and try to find strategies in order to avert burnout. The focus of the school should be collegiality, informality, professionalism, and volunteerism.

Further research can be conducted in schools to study the relationship between teachers' organizational behaviors and students' achievement, school climate, institutional effectiveness, turnover, job commitment, and other antecedents, such as job satisfaction, leader behaviors, fairness perceptions, role perceptions and individual dispositions.

#### References

- Bateman, T.S. and Organ, D.W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee citizenship. *Academy of Management Journal*, 26, pp. 587-595.
- Berg, B. (1994). Educator burnout revisited: Voices from the staffroom. Clearing House, 67(4), 185-189.
- Borman, W.C., and Motowidlo, S.J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, & W.C. Borman, (Eds.), *Personality Selection* (pp.71-98). San Francisco: Jossey-Bass.
- Chen, X.P., Hui, C., and Sego, D.J. (1998). The role of organizational citizenship behavior in turnover: Conceptualization and preliminary tests of key hypotheses. *Journal of Applied Psychology*, 83, 922-931.
- Freudenberger, H.J. (1974) 'Staff burnout', Journal of Social Issues, 1,pp.159-64
- Ganster, D. and Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management*, 17, 235-271.
- George, J.M. and Bettrnhausen, K. (1990). Understanding prosocial behavior, sales performance, and turnover: A group level analysis in a service context. *Journal of Applied Psychology*, 75, 698-709.
- Gold, Y., Roth, R. A. (1993). Teachers managing stress and preventing burnout: The professional health solution. London: The Folmer Press.
- Guilford J. and Fruchter B. (1981) Fundamental Statistics in Psychology and Education Singapore: McGraw Hill, International Book Company.
- Google.com http://www.memorable quotations.com/Adams2.htm
- Hoy, W.K., and Sweetland, S.R. (2000). Bureaucracies that work: Enabling not coercive. *Journal of School Leadership*, 10, pp. 525-541.
- Hoy, W.K., and Sweetland, S.R. (2001). Designing better schools: The meaning and nature of enabling school structure. Educational Administration Quarterly, 37, 296-321.
- Kahn, R. (1978). Job Burnout: Prevention and remedies. Public Welfare, 36, 61-63.
- Karambayya, R. (1989). Organizational citizenship behavior: Contextual predictors and organizational consequence. Unpublished doctoral dissertation, Northwestern University, Evanston, II.
- Koberg, C., Boss, R., Bursten, R. and Goodman, E. (August, 1999). Getting more than you bargained for: Empirical evidence of organizational citizenship behavior from the health care industry? Paper presented at the annual meeting of the Academy of Management, Chicago.
- MacKenzie, S.B., Podsakoff, P.M., and Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. Organizational Behavior and Human Decision Processes, 50, 123-150.
- Maslach, C. (1976). Burned-out. Human Behavior, 5(9), 16-22.
- Maslach, C. (1982). Burnout: The cost of caring. Englewood Cliffs, NJ: Prentice-Hall.
- Maslach, C and Jackson, S.E. (1986). Maslach burnout inventory; Manual (2<sup>nd</sup> ed.) Palo Alto, CA: Consulting Psychologist Press.
- Moorman, R.H. and Blakely, GL. (1995). Individualism-collectivism as an individual difference predictor of organizational citizenship behavior. *Journal of Organizational Behavior*, 16(2), 127-142.
- Organ, D.W. (1988). Organizational citizenship behavior. Lexington, MA: D.C. Health and Co.
- Organ, D.W. (1990). The motivational basis of organizational citizenship behavior. *Research in Organizational Behavior*, 12, 43-72.
- Organ, D.W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10, 85-97.
- Organ, D.W., and Ryan, K (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personal Psychology*, 48, 775-802.
- Podsakoff, P.M. and MacKenzie, S.B. (1994). Organizational citizenship behaviors and sales unit effectiveness. Journal of Marketing Research, 31, pp. 351-363.
- Schwanz, J. (1996). A model of role conflict, role ambiguity, and personality factors in relation to burnout in the Christian ministry. Unpublished doctoral thesis, Portland State University, Oregon.

Smith, C.A., Organ, D.W., and Near, J.P. (1983). Organizational citizenship behavior: It's nature and antecedents. *Journal of Applied Psychology*, 68, 653-663.
 George, J.M. & Bettrnhausen, K. (1990). Understanding pros.

## NIGERIAN CONSUMERS' PREFERENCES FOR FOREIGN AND DOMESTIC PRODUCTS: EXAMPLES OF FOOTWEAR AND WRISTWATCHES

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#### ABSTRACT

This research paper is concerned with the examination of Nigerian consumers' attitudes towards foreign and Nigerian-made shoes and wristwatches. Nigeria is one of the biggest consumers of foreign goods with a per capita gross national product surpassing many West African countries. The study compares Nigerian consumer preferences for foreign and domestic produced goods. A number of general product attributes, marketing activities and buying habits were used as preference indicators to explain the general attitudes of Nigerian consumers towards shoes and wristwatches made in Nigeria and in the UK. The findings indicate that Nigerian consumers show positive perception of UK manufactured goods. It concludes that Nigerian consumers are willing to pay a higher price for wholly Nigerian-made products; and are only willing to pay a higher price for foreign made goods if the goods are relatively and of significantly superior quality.

#### INTRODUCTION

Imports of goods and services have played a major role in the economic development of sub-Saharan African countries. The capacity of Nigeria to produce capital and consumer goods is limited and so there is heavy dependence on imports from the developed countries. Presently the economic indices of Nigeria are indicating critical signs of distress with inflation running at 14.8 percent and industrial utilisation at 41 per cent. Also the foreign reserve has declined from \$74529.4 million in 2001 to \$51470.6 million in December 2002 (Central Bank of Nigeria (CBN), 2002). Although interest rate has been brought down by a flat rate at 22.5 per cent, the economy is clearly unsustainable because this slight decline has not arisen from strong micro-economic fundamentals. For example, the effective exchange rate is about N136 to \$1 and the per capita income (Anakwe, 2002) is less than \$300. It is under this economic background that Nigerians have to transact business with other countries.

The purpose of this study was to examine empirically Nigerian consumers' perceptions of foreign and domestic products and the associated marketing tactics practised by major international companies in the Nigerian market. The background to Nigerian

economic development was first reviewed and reasons why Nigerian consumers are particularly suitable for this study were identified. The pertinent literature is then reviewed in the light of the research issues being investigated. The research design and methodology were structured to test the hypotheses developed for evaluating the consumer preferences for selected foreign and domestic products. Finally the findings are discussed and managerial implications suggested for practising marketing managers. The study is useful to the marketers of both industrial and consumer goods and especially for multinational companies who have connections with the Nigerian market. The findings of this research will also enable multinational corporations to structure and develop a sustainable marketing strategy for the Nigerian market.

#### RSEARCH AIMS AND OBJECTIVES

The aim of this study was to identify any significant differences and/or similarities so that recommendations could be made which assist the local and foreign marketers operating in Nigeria. The objectives are therefore threefold: 1) to investigate aspects of product attributes that Nigerian consumers may use in evaluating and differentiating between foreign and domestic products available in the

Nigerian marketplace; 2) to assess the country-oforigin of selected products from key trading partners of Nigeria using country of origin, price, and product quality as determining independent variables; and 3) to examine the bases for discrimination, if any, between national origins of the product to enable the evaluation of attitudes towards Nigerian and foreign-made goods.

## LTERATURE AND THEORETICAL UNDERPINNING

Nigeria is one of the developing countries of sub-Saharan Africa whose rich natural resources (crude oil, iron ore, lead, coal, columbite, limestone, zinc, tin and natural gas) and estimated population of 120 million people have attracted much foreign interest over the years (Anakwe, 2002).

The interest in conducting the present study was prompted by the proliferation of foreign-made goods in Nigeria and the confusion surrounding the Nigerian consumers' perceptions of the importance of whether a given product is manufactured in Nigeria or overseas. As Okechuku and Onyemah (1999) observed, the debate on this issue has been particularly acute because many Nigerians are believed to relatively prefer foreign made goods to goods made in Nigeria.

The variety of imported goods available for sale in Nigeria is considerable and this is due to trade liberalization (Anakwe, 2002). With ongoing trade liberalization, the globalization of markets, advances in communications and transportation technologies, Nigerian consumers are increasingly exposed to a wide array of imported goods (Dadzie, et al., 2002). Previous studies have suggested that consumers tend to stereotype products manufactured in foreign countries, and that, owing to negative stereotypes about some foreign goods and patriotic feelings about goods made in the home country, consumers are more likely to prefer domestically-made goods (Bhuian, 1997; Knight, 1999).

#### Effect of country-of-origin

Country of origin (COO) refers to information pertaining to where a product is made. Marketers are particularly interested in the perceived image associated with the COO (Ahmed, et al., 2001). COO image has been defined as "the overall perception consumers form of products from a particular country, based on their prior perceptions of the country's production and marketing strengths and weaknesses"

(Roth and Romeo, 1992). As Iyer and Kalita highlighted, many studies have acknowledged that consumers have significantly different perceptions about products made in different countries, and that these general perceptions have important effects on consumers' evaluation of the products manufactured in a particular country (Iyer and Kalita, 1997).

Iyer and Kalita (1997) also found that consumers display a preference for products made in some countries more than others. Other researchers (Ede and Panigrahi, 2000; Ahmed et al., 2001) have found various other sources of biases that can influence consumers' preference for products made in different countries, including ethnocentric bias, patriotic sentiments, different demographic characteristics of consumers, product type, and product familiarity.

#### Country image perception

One of the first concepts of the country-of-origin phenomenon was that of Nagashima (1970, p. 68) country image perception. He defined the image that consumers associate with a given country-of-origin as "the picture, the reputation, the stereotype that consumers attach to products of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history, and traditions". Others view this country image as reflecting consumers' general perceptions about the quality of products made in a particular country and the nature of people from that country (Johansson et al, 1994). Kaynak and Cavusgil (1983) studied consumers' perceptions of different classes of products from 25 countries. They found that respondents held positive attitudes towards products made in their own country but the same respondents could be swayed to choose foreign products if quality and price considerations were sufficiently favourable. Specifically, they observed that consumers might not accept inferiorquality domestic products when superior foreign products are available. They concluded that consumer attitudes toward products of foreign origin vary significantly across product classes. Linking Kaynak and Cavusgil's conclusions to the Nigerian market environment, it is likely that emotion of patriotism may play a significant role in Nigerians' choice of products. But the cognitive attitude toward products made in different countries (country image) may also play a limited role.

#### Study assumptions

There are four underlying dimensions that govern consumer evaluations of products from various origins: product integrity, price-value, market presence, and market response. Shimp et al., (1993) found that pricing and product quality are two of the most salient dimensions evoked by consumers when thinking about imported goods. The above review of literature led to the following four hypotheses:

- H1: Nigerians will not show any difference between products made in Nigeria by a Nigerian firm and those made in UK by a UK firm.
- H2: All things being equal, compared to a product made in overseas by a foreign firm, Nigerians are more likely to pay a price premium to purchase a product made in Nigeria by a Nigerian firm.
- H3: The willingness of Nigerians to pay a price premium for products manufactured in Nigeria by a Nigerian firm is a function of the consumer's perception regarding the product's importance to Nigeria's manufacturing base.
- H4: Nigerians will prefer a product manufactured overseas by a foreign-firm if the product's price/quality mix is perceived to be significantly superior to that of a similar product manufactured in Nigeria by a Nigerian firm.

# RESEARCH DESIGN AND DATA COLLECTION METHOD

A non-probability cross-section of consumers in Nigeria was surveyed to find their purchase intentions regarding wristwatches and foot wear. The study employed conjoint techniques and considered products from overseas to test the above hypotheses. Conjoint analysis is a method for predicting choice. The conjoint method employs survey techniques in which selected Nigerian consumers of shoes and wristwatches were asked to make choices relating to their preferences. Each product has a fixed number of attributes and an attribute-level mix that differ slightly from product to product. In this study, Nigerian consumers were asked to select their favourites from among several product features and imaginary, multiattribute products. These products differed mainly with respect to the country-of-origin, product pricing and quality indicators. Based on responses received, predictions were made regarding consumer preferences and purchase intentions for shoes and wristwatches produced and/or originated in Nigeria and the UK, including whether Nigerians will pay a higher price for the Nigerian-made products.

#### **Pre-Testing Technique**

The first step in the research was to select products for use in the conjoint study. To select the products, shoppers were surveyed for their impressions of various consumer products regarding how important it is to the competitiveness of Nigerian manufacturing to maintain a Nigerian manufacturing capability for the product (see also Knight, 1999). Respondents were asked to rate each product on perceived importance in this respect. Based on the results of this initial survey, the two products selected for use in the conjoint study were shoes (foot-wear) and wristwatches. Footwear was perceived as being very important and wristwatch were perceived to be less important. These two products offered a contrast in terms of perceived importance to the competitiveness of Nigerian manufacturers. Finally, actual brand names were used in conjunction with the other attributes to enhance respondents' perception of the realism of the products being studied. Thus, for each product, two familiar brand names were used; one is the brand of a Nigeria-owned company, the other of a UK -owned company.

A total of 120 respondents were interviewed (67 men and 53 women) in a non-probability random sample among shoppers at a shopping centre in Lagos. Lagos is the commercial city of Nigeria and is therefore representative of Nigerian consumer shopping behaviour for shoes and wristwatches (Osuagwu, 2002). The number contacted in this study is sufficient to produce statistically significant results. The researcher employed computer-aided personal interview approach because it reduces the respondent's workload and imposes internal consistency.

The attributes used in the study are those most salient to the purposes of this study and include brand name, country of origin, brand price, and perceived quality. For example 1) country-of-origin for shoes and wristwatches include product's country of manufacture and the manufacturing company's country-of-origin; 2) product quality for footwear and wristwatch was measured by the manufacturer' warranty (expressed in terms of product durability); and 3) product price, consisting of two levels for

footwear and wristwatch was denoted simply as relatively high and relatively low and expressed in Nigerian currency (the Naira).

The product's country of manufacture and the manufacturing company's country of origin were indicated as one of the product's attributes. For both wristwatches and shoes, respondents were given a choice between a brand manufactured by a Nigeria-owned company, and a brand manufactured by a UK company. On this instance, respondents were made aware of the company's country of origin each time a choice was offered.

In addition, a choice was given between a product manufactured in Nigeria and one manufactured in the UK. When combined with the company's country of origin, the two-by-two matrix yielded four products: 1) made by a UK company and manufactured in the UK; 2) made by the UK Company and manufactured in Nigeria; 3) made by a Nigeria-owned company and manufactured in the UK; and 4) made by the Nigerian-owned company and manufactured in Nigeria.

In the study of each product, the respondent was asked to rank the four combinations based on their preferences for buying a product given this attribute. In order to test hypotheses related to consumer willingness to pay a higher price for products manufactured in Nigeria, two price levels were included as an attribute for each product. Respondents also ranked the price levels according to their buying preferences (relatively high or low price). Price is used here as surrogate to perceived product durability.

Similarly, in order to test the hypothesis that consumers will select UK manufactured products when given a favourable price and/or quality trade-off relative to Nigeria-made products; a quality proxy was included as an attribute. For wristwatches, the choice given was one-year warranty. For shoes, the choices were good material, and casual wear. Respondents were asked to rank their preferences for these attribute levels.

#### **Imaginary Products**

The respondents were presented, on a computer screen, with imaginary products comprising different combinations of the attributes shown above. They were asked to rank the various products based on their relative preferences for each. Each respondent was then required to make choices regarding up to five different products. At each stage of the survey, the conjoint approach increased the number of

product attributes and gradually, the level of difficulty of choices increased.

Finally, to confirm the validity of responses, respondents were presented with four final multi-attribute products in increasing order of preference as calculated by the application, based on the rankings and ratings made in the earlier part of the survey. Respondents were asked to rate each on a scale from 0 per cent to 100 per cent, indicating probability of purchasing a product with the attributes presented.

#### ANALYSIS AND RESULTS

A two-way analysis of variance (MANOVA) was conducted on the four measures representing respondent preferences for products made in Nigeria or in the UK by either a UK company or a Nigerian-owned company (see Table 1). As reflected in Table 1, the country of manufacture shows a significant difference (p < 0.04) in determining respondents' purchase intentions, supporting hypothesis H1 - that is, "Nigerian consumers show no differences between Nigeria-made products of Nigeria-owned companies and UK-made products of UK-owned companies". Additionally, although neither the company's country of origin nor the interaction between country of ownership and manufacture are strong, they are in the expected direction.

The significance of the main effect of country of manufacture in determining responses may indicate that Nigerian consumers are aware of the benefits that Nigeria gains from locating a manufacturing facility in the country. The spill over effects from stimulating the local economy with jobs, technical knowledge, local sourcing and contributions to the tax base, may seem more tangible than the benefits to the home country of a multinational corporation.

Table 1: Effects of country of ownership and country of Manufacture on purchase intentions

Source of variation	Sum of squares	Degrees of freedom (df)	Mean square	F-value	Significance
		Shoes (F	ootwear)		
Country of origin (O)	1.29	1	1.29	1.31	0.198
Country of manufacture (M)	3.88	1	3.88	5.99	0.026
OxM	0.02	1	0.02	0.19	0.049
		Wristy	vatches		
Country of origin (O)	1.30	1	1.30	1.58	0.157
Country of Manufacture (M)	3.84	1	3.84	6.98	0.007
OxM	0.04	1	0.04	0.69	0.040

#### DISCUSSION OF THE MAIN FINDINGS

The purchase probability evidence in support of the hypothesis, that Nigerian consumers will pay a higher price in order to purchase a wholly Nigeria-made product over other products, was stronger than expected. The totally Nigerian product was preferred not only at all price levels, but respondents were willing to pay a higher price for Nigeria products equal in quality to those of UK manufacture. Respondents were willing to pay a higher price for products of both Nigeria ownership and manufacture than for products made in the UK. However, respondents were unwilling to pay a higher price for the same quality product if a UK company manufactured it in Nigeria. In general, they preferred Nigeria-made products to foreign-made products, regardless of the company's ownership. But, while respondents preferred Nigeriamade/foreign-owned products to foreign-made/ Nigeria-owned products, they were unwilling to pay a higher price for them. Hypothesis *H2* is therefore largely supported.

An interesting finding is that respondents generally attached lower usage to wristwatches than to shoes. As revealed in Table 2 there is a difference in mean usage values for wristwatches, which was approximately twice the magnitude of the difference in mean values for shoes. This finding is the opposite of what was expected. Maintaining a manufacturing capability in shoes was perceived to be more important than for wristwatches. It was therefore expected that information about the country would play a larger role in determining choices for shoes. Specifically, domestically produced or originated shoes were expected to outperform UK wristwatches. Hence, hypothesis H3, that the willingness of consumers to pay a higher price for a product manufactured in Nigeria by Nigerian-owned firm is a function of the

Table 2: Mean Respondent Usage Preference

Product 1: Shoes (Footwear) Country of ownership	Country of manufacture	
	Nigeria	UK
Nigeria	0.099	- 0.235
UK	0.249	- 0.038
Product 2: Wristwatches		
Nigeria	0.047	- 0.579
UK	0.373	- 0.221

consumer's perception regarding the product's importance to Nigerian manufacturing base, is not supported.

#### Differences in Respondents' Scores

Given a complex and higher involvement choice decision, respondents may have relied more heavily on the brand cue. This is consistent with interviewers' observations of respondent comments during the interview process. Respondents to the footwear questionnaire tended to comment they generally make such choices based on the footwear types rather than brand name. In contrast, respondents to the wristwatch questionnaire were more likely to comment that they based their decisions solely on brand name and disregarded the country information.

The results generally support hypothesis H4, that is, "respondents preferred a product manufactured in the UK by a UK company if the product's price and/ or quality mix was perceived to be superior". Evidence revealed that the product's quality level had to be twice as higher before the respondent was willing to trade up to the next price level. The conjoint method proved useful in exploring respondents' decision rules and predicting purchase probabilities.

The results of this study could be summarised as: i) Nigerian consumer purchase preferences as reported are more likely to be influenced by the country in which the product is made than by the manufacturing company's national origin; ii) Nigerian consumers are willing to pay a higher price for wholly Nigerian products, although this is a finding that may require further research into actual purchase behavior, rather than predicted purchase probabilities based on self-reported preferences. This is even more so when market evidence suggests that many Nigerians perceived Nigerian made goods as inferior in quality; iii) the willingness of Nigerian consumers to pay a higher price for Nigerian products is not a function of the product's perceived importance to the Nigerian manufacturing base; and iv) Nigerians are only willing to pay a higher price for UK goods if the goods are of significantly superior quality relative to similar Nigerian products.

# IMPLICATIONS FOR MARKETING MANAGERS

While most of the efforts have concentrated on the economic and industry conditions that influence investment and business decisions in Nigeria, little research has focused on Nigerian consumers. As a consequence, knowledge about Nigerian consumers still remains quite scarce. In particular, few research efforts have explored Nigerian consumers' attitudes towards foreign-sourced products. This study addresses this deficiency by investigating how Nigerian consumers evaluate foreign made products compared to products produced in Nigeria. Specifically, the study tries to find out what images certain foreign products have in the minds of the Nigerian consumers and how such images may influence their product evaluation and purchase decisions. The findings of this research, although based on small sample, reveal some insights into consumer behaviour in Nigeria. This is likely to assist foreign businesses to develop suitable marketing strategies for marketing their products in this increasingly prosperous market.

# LIMITATIONS AND RESEARCH DIRECTION

Respondents were randomly chosen shoppers at Lagos and may not be representative of the greater population in Nigeria. Future research that draws on samples from various parts of Nigeria would strengthen the external validity of results. The use of actual brand names may also have had an unforeseen effect on respondents' choices. The brand names may have weakened or artificially strengthened the preference for various products. Any future studies relating to this area should account for this potential weakness in the research design. Finally, given the limitations highlighted, further research is necessary before detailed recommendations can be made to specific firms facing both vertical and horizontal competition in the Nigerian market environment.

#### REFERENCES

- Ahmed, Z.U., Johnson, J.P., Ling, C.P., Fang, T.W., and Hui, A.K. (2001), 'Country-of-origin and brand effects on consumers' evaluations of cruise lines', International Marketing Review, Vol. 19, No. 3, pp. 279-302.
- Anakwe, U.P. (2002), 'Human resource management practices in Nigeria: challenges and insights', International Journal of Human Resources, Vol. 13, No. 7, pp. 1042-1059.
- Bhuian, S.N. (1997), 'Saudi consumers' attitudes towards European, US and Japanese products and marketing practices', European Journal of Marketing, Vol. 31, No. 7, pp. 467-486.
- Central Bank of Nigeria (2002), Annual Review of Nigerian Economy, Central Bank of Nigeria, Lagos, October. Ede, F.O. and Panigrahi, B. (2000), 'African-American consumer attitudes towards domestic and foreign-made automobiles', Management Research News, Vol.23, No. 5/6, pp.1-19.
- Haubl, G (1996), 'A cross-national investigation of country of origin and brand name on the evaluation of a new car', International Marketing Review, 13, 5., pp. 76-97.
- Iyer, G and Kalita, J. (1997), 'The impact of country-of-origin and country-of-manufacture cues on consumer perceptions of quality and value', Journal of Global Marketing, Vol. 11 No. 1, pp. 7-28.
- Johansson, J.K. Douglas, S.P. and Nonaka, I. (1994), 'Assessing the impact of country of origin on product evaluations: a new methodological perspective', Journal of Marketing Research, Vol. 22, (November), pp. 388-96.
- Kaynak, E. and Cavusgil, S. (1983), 'Consumer attitudes towards products of foreign origin: do they vary across product classes?', International Journal of Advertising, Vol. 2, pp. 147-157.
- Knight, G.A. (1999), 'Consumer preferences for foreign and domestic products', Journal of Consumer Marketing, Vol. 16, No.2, pp. 151-162.
- Nagashima, A. (1970), 'A comparison of Japanese and US attitudes toward foreign products', Journal of Marketing, Vol. 34, January, pp. 68-74.
- Okechuku, C. and Onyemah, V. (1999), 'Nigerian consumer attitudes toward foreign and domestic products', Journal of International Business Studies, Vol. 30, No. 3, pp. 611-622.
- Osuagwu, L. (2002), 'TQM strategies in a developing economy: empirical evidence from Nigerian companies', Business Process Management Journal, Vol. 8, No.2, pp. 140-160.
- Roth, M.S. and Romeo, J.B. (1992), 'Matching product category and country image perceptions: a framework for managing country-of-origin effects', Journal of International Business Studies, 3<sup>rd</sup> quarter, pp. 477-97.
- Samiee, S. (1994), 'Customer evaluation of products in a global market', Journal of International Business Studies, Vol.25, No.3, pp. 579-604.
- Shimp, T., Samiee, S., and Madden, T. (1993), 'Country and their products: a coginitive structure perspective', Journal of the Academy of Marketing Science, 21, 4, pp. 323-330.

## THE IMPACT OF RELATIONSHIP MARKETING ON BUSINESS PERFORMANCE ACROSS THE STEEL PIPE INDUSTRY IN THAILAND

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#### ABSTRACT

This paper aims to verify empirically the impact of relationship marketing on the business performance of firms in the manufacturing sector, with special reference to the steel pipe industry in Thailand. A questionnaire survey of 166 sales persons in 30 steel pipe firms in Thailand was conducted. It was found that significant relationships existed between bonding, empathy, reciprocity and trust as independent variables, with performance as the dependent variable. Both the multiple regression analysis equation and the correlation matrix (Pearson Correlation) show that trust is the only variable that was significantly related to performance, the remaining independent variables were not significantly related to performance.

#### INTRODUCTION

Sheth (1992) characterizes relationship marketing as the process of creating and maintaining harmonious relationships between suppliers and customers through mutual cooperation and commitment. This directional change in marketing theory and practice towards relationship marketing stems from its conceptualized positive effects on the expectation and nature of future interaction. Consequently, several authors have conceptualized the advantages of the effective management of buyer relationships (Day & Wensley, 1983; Webster, 1994; Weitz, 1981). Others investigating the elements of the relationship development process have provided empirical evidence of its positive influence on organizational performance (Crosby et al., 1990; Dabholkar et al., 1994; Dwyer et al., 1987; Gundlach et al., 1995; Macintoch et al., 1992; Moorman et al., 1992; Morgan & Hunt, 1994; Sheth, 1992). However, Yau et al. (2000) compare a relationship marketing orientation (RMO) with a more traditional market orientation in terms of its relative impact on the business performance of firms in retail, wholesale and manufacturing industries based in Hong Kong. Their findings suggested that while relationship

marketing is relevant to every industry, it is particularly important to the manufacturing industry. Following on from the Yau et al. research and in order to test whether these researchers' observations can be generalized to the manufacturing sector in other countries, the present study aims to verify empirically the impact of relationship marketing on the business performance of firms in the manufacturing sector, with special reference to the steel pipe industry in Thailand.

Thailand's manufacturing sector has been growing in recent years. Thailand's Master Plan for Industrial Development includes as part of its vision for 2012 a statement that Thai industries must be able to maintain their competitiveness (Department of Industrial Promotion, 2000). This plan suggests that due to dynamic domestic and international environments, Thailand has to give up some of its comparative advantages, such as high-import export industries, and identify new comparative advantages which may be in the area of low-import export industries, high-tech and high value added products. The steel pipe industry is an example of a low-import export industry that the Thai government has identified as being able to compete with foreign counterparts. Because of this, this industry has been selected as a research sample for this study.

Furthermore, particularly in Thailand, relationship building and maintenance (pakpuak in Thai) is one of the cornerstones of Thai society (Holmes & Tangtongtavy, 1995). From the interviews of Thai managers, it was found that pakpuak is a key concept in relationship marketing because it builds strong social relationships as a prerequisite to developing a close business relationship; and business takes on strong social elements (e.g. Davies et al., 1995; Yeung and Tuen, 1996; Tsang, 1998). 'Quality of product is important. Price is very important. But most important of all is ... a Thai wants to know if you are his/her kind of person. If he/she feels comfortable with you then he/she will be inclined to do business with you' (Holmes & Tangtongtavy, 1995, p. 18).

This present study, by means of a questionnaire survey of key practitioners, will analyze the conceptual framework of relationship marketing with business performance in the Thai steel industry. Specifically, the study aims to answer the following three major research questions: 1) Are the key success factors of relationship marketing in the literature valid in the Thai steel pipe industry? 2) Do they verify empirically the impact of relationship marketing on the business performance of firms across the steel pipe industry in Thailand? 3) If not, what then are the variables that impact on the business performance of firms across the steel pipe industry in Thailand?

#### Literature Review

Biong (1994) developed and tested a theoretical framework in which satisfaction and loyalty (i.e. commitment) were the key indicators of relationship development. Sheth (1992) integrated the work of numerous scholars (e.g., Anderson & Narus, 1984; Crosby et al., 1990; Dwyer et al., 1987; Gronroos, 1990) to conceptualize a theory of relationships posited in his theoretical framework which were mutual trust, shared goals and commitment, and mutual interdependence. Similarly, in developing and empirically testing their KMV model of relationship marketing, Morgan and Hunt (1994) establish both theoretical and empirical support for trust and commitment as the key variables in successful relationship marketing. Further support for commitment being an essential component for the formation and maintenance of relationships is provided by the work of Gundlach et al. (1995).

Additional conceptual and empirical support for satisfaction, trust, and commitment being essential components in the process of relationship development is provided in the work of other marketing scholars. Noting that reducing risk and uncertainty – through the use of satisfaction with previous interactions as a basis for inferring the nature of future performances – is inherent to relationship quality, Croby et al. (1990) assert that relationship quality is composed of two dimensions: trust in and satisfaction with salespersons.

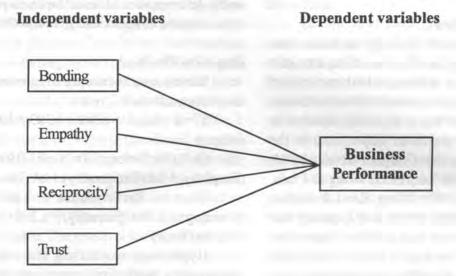
Marketing academics and practitioners have been examining relationship marketing for more than a decade (e.g. Berry, 1995; Gronroos, 1990; Levitt, 1983), yet most of the studies on relationship marketing have been criticized as overly simplistic because of their use of a uni-dimensional perspective (Yau, 1995). A common operational practice which has been susceptible to strong criticism is use of a single dimension, such as trust, reciprocity, bonding, or empathy, to encapsulate relationship marketing (Gronroos, 1989; Houston et al., 1992; Callaghan et al., 1995; Morgan & Hunt, 1994).

Much of the more sophisticated discussion of relationship marketing is qualitative, so it has not necessarily been operationalized and tested at all. Further, it may be necessary to look beyond the literature of relationship marketing towards marketing in general and, additionally, to literature from other disciplines that focus on relationships. This study, based on past literature, adopts the RMO construct originally proposed by Callaghan et al. (1995). The items used to measure the RMO constructs were further enhanced by Yau et al. (1998a) to operationalize the concept fully. The four common components are bonding, empathy, reciprocity and trust.

#### Conceptual framework

Many researchers (Gronroos, 1989; Houston et al., 1992; Callaghan et al., 1995; Morgan and Hunt, 1994) used a single dimension, such as trust reciprocity, bonding, or empathy, to describe relationship marketing. This is a useful approach to look at relationship marketing elements. The key components of a relationship marketing orientation and business performance lead to the conceptual model shown in Figure 1. This model shows that business performance is affected by the four common components of relationship marketing, namely bonding, empathy, reciprocity and trust. Callaghan et al. (1995) defined the central component of relationship marketing as the creating and maintenance of an exchange relationship between two parties—

Figure 1: A model of relationship marketing



Source: developed for this study based on Callaghan et al. (1995)

the supplier as an individual and the consumer as an individual – by means of mutual empathy, reciprocity, trust and bonding.

#### Independent variables

Bond is defined as the dimension of a business relationship that results in two parties acting in a unified manner toward a desired goal (Callaghan et al., 1995). In the dyadic relationship of a buyer and a seller, bonding can be described as a dynamic process that is progressive over time (Dwyer et al., 1987; Ganesan, 1994; Levitt, 1983). The bonding process begins with the very basic force of the need for a seller to find a buyer for their product, and the desire for buyers to purchase a product that will satisfy their needs. The dimension of bonding as it applies to relationship marketing consists of the development and enhancement of consumer and brand loyalty and, as Levitt (1983) described, a long-term relationship (a bonded relationship) with the seller. Thus a long-term relationship requires bonding in order to exist.

Empathy is the dimension of a business relationship that enables the two parties to see a situation from the other's perspective. It is defined as seeking to understand somebody else's desires and goals. It involves the ability of individual parties to view the situation from the other party's perspective in a truly cognitive sense (Hwang, 1987). The empathy dimension plays a major role in Chinese business relationships (Hwang, 1987; Brunner et al., 1989) and is also apparent in Western business relationships (Ferguson, 1990; Houston et al., 1992). These

indicate that empathy is a necessary condition to foster a positive relationship between two parties. Thus, the inclusion of empathy as a dimension of relationship marketing must follow.

Reciprocity is the dimension of a business relationship that enables either party to provide favours or make allowances for the other in return for similar favors or allowances to be received at a later date (Callaghan et al., 1995). Houston et al. (1992), reinforced by Ellis et al. (1993) and acknowledged by Smith and Johnson (1993) have indicated links of reciprocity and empathy to relationship marketing and exchange. Reciprocity and bonding are linked in such a way that reciprocal arrangement is indicative of cooperation. Reciprocity is thus an appropriate dimension of relationship marketing.

Trust is defined as a belief or conviction about the other party's intentions within the relationship. In the context of relationship marketing, trust is defined as the dimension of a business relationship that determines the level to which each party feels it can rely on the integrity of the promise offered by the other (Callaghan et al., 1995). It is a widely accepted basis for relationships (Sullivan & Peterson, 1982; Crosby et al., 1990; Gronroos, 1990; Andaleeb, 1992; Houston et al., 1992; Moorman et al., 1992). It has been documented in the form of an exchange relationship (Gronroos, 1990), considered by some (Moorman et al., 1992; Martin & Sohi, 1993) as a critical component of business relationships, and identified as a key construct in modeling relationship marketing (Morgan & Hunt, 1994).

#### Dependent variable

#### **Business Performance**

Previous research findings indicate that relationship marketing has a significant impact on the business performance of firms, in both service and industrial industries (Gummesson, 1994; Prabhaker, Goldhar & Lei, 1995; Yau et al., 2000; Lee, Pae & Wong, 2001), with particular importance in the manufacturing industry (Wagner et al., 1994; Prabhaker, Goldhar & Lei, 1995; Wong & Chan, 1999; Liu & Wang, 1999; Wang, Head & Archer, 2000; Yau et al., 2000). While it is apparent that relationship marketing has a direct impact on performance, it can be argued that a relationship marketing orientation should be more dominant in the determination of firms' business performance in the manufacturing industry (Yau, 2000). Different from consumer marketing, buyer-seller interdependence can be seen as a unique aspect of industrial marketing, as industrial marketing and selling strategies are usually directed toward individual customer organizations. Hence efforts of industrial marketing should be focused on the buyer-seller relationship marketing rather than on products or on markets (Webster, 1984, p. 52). Sharma and Sheth (1997) studied the industrial buyer-supplier relationship in the USA and concluded that industrial buying is shifting from a buying (transaction oriented) process to a supplier relationship process. Likewise, a study of industrial networks in the USA (Low, 1997) also revealed that business transactions are conducted within the framework of an enduring business relationship, characterized by mutual co-operation and adaptation.

All these suggest that relationship marketing impacts on the determination of firms' business performance in the manufacturing industry (Yau, 2000).

#### **Empirical Findings**

Table 1. uses the multiple regression equation for performance as follows:

Y = a + b1x1 + b2x2 + b3x3 + b4x4 + e, a = constant

Or Y (Performance) = a + b1 (Bonding) + b2 (Empathy) + b3 (Reciprocity) + b4 (Trust)

That is, Performance = 3.879 + 1.322 (Bonding) + 2.860 (Empathy) + 6.308 (Reciprocity) + 0.220 (Trust)

Hypotheses examining the impact of the relationship marketing constructs on business performance were tested using multiple regression following the guidelines established by Hair et al. (1995). Prior to testing the actual hypotheses, correlations between the constructs were derived. There are two constructs, relationship marketing orientation (RMO) and business performance. The first regression analysis with business performance as the dependent variables and RMO as predictors was run. RMO items were factor analyzed into four factors. The four composite variables in the regression are sums of the concept measures.

The first regression analysis was performed on business performance, where the expectation was that the relationship orientation variable would be shown to be important

Results in Table 1 show there is no significant correlation between bonding, empathy and reciprocity on business performance. However, there was a

Table 1: Construct correlation matrix

Model	Unstandardise d Coefficients (B)	Standardised Coefficients (Beta)	T-values	Sig.	Adjusted R2
Constant	3.879	and distance	6.233*	0.000	0.035
Bonding	1.322	0.012	0.117	0.907	1
Empathy	2.860	0.028	0.302	0.763	
Reciprocity	-6.308	-0.070	-0.742	0.459	
Trust	0.220	0.239	2.890**	0.004	

Note: \*Significant at 0.000

\*\* Significant at 0.004

significant correlation (0.004; p<0.05) between the trust construct and performance, suggesting some support for at least one relationship

A further Pearson Correlation analysis was conducted by obtaining partial correlation coefficients, controlled for years of respondent professional sales experience. As was the case in Table 1, the correlation matrix (Pearson Correlation) analysis in Table 2 indicated only the trust construct produced a partial correlation coefficient (0.002; p<0.025) significantly related to performance. The individual hypotheses were then tested using a multiple regression prediction model (Hair et al., 1995) with performance as the dependent variable. The results obtained using actual performance only partially support the stated hypotheses in their proposition that a significant relationship exists between the relationship marketing construct that was found to be significant in the prediction model.

For this research, stepwise regression is used to reduce the 14 independent variables (from the four groups of bonding, empathy, reciprocity and trust) and to run the equation with performance as the dependent variable. Two models of equation can be derived from this method.

In the first step (see table 3) only one independent variable, 'According to our past business relationships, I think he/she is trustworthy person' (or trust) enters the equation. Results of stepwise regression analysis for the 14 independent variables with performance as the criterion variable show that only one independent variable is significant in the final regression with an adjusted R2 of 0.058.

In the second step (see table 4) two independent variables, 'According to our past business relationships, I think he/she is trustworthy person' (or trust) and 'We keep our promise' (or reciprocity) enters the equation. The results from the second stepwise regression analysis show that the two independent variables above are significant in the final regression with an adjusted R2 of 0.084.

The regression equation of this model is as follows: performance = 4.608 + 0.209 (trust) -0.137 (reciprocity) of which reciprocity has partial negative correlation, and all independent variables including constant are significant at p<0.05. This result show

Table 2: Correlation matrix between each independent variable and dependent variable (Pearson Correlation)

	Bonding	Empathy	Reciprocity	Trust
Performance	0.047	0.069	-0.011	0.237*

Note: \*Significant (1-tailed) at 0.002

Table 3: Stepwise analysis of coefficient

Model	Unstandardise d Coefficients (B)	Standardised Coefficients (Beta)	T-values	F-values	Adjusted R2
Constant	3.927	- 13.071*		0.058	
A	0.184	0.253	3.230**	10.433***	

Predictors: (Constant), A=According to our past business relationship, I think he/she is a trustworthy person.

Note: \*Significant at 0.000

\*\*Significant at 0.002

\*\*\*Significant at 0.002

Table 4: Stepwise analysis of coefficient

Model  Constant	Unstandardise d Coefficients (B)	Standardised Coefficients (Beta)	T-values	F-values	Adjusted R2
Constant	4.608		11.027*		0.084
A	0.209	0.288	3.652**	8.034****	
В	-0.137	-0.182	-2.310***		

Predictors: (Constant), A = According to our past business relationship, I think he/she is a trustworthy person, B = We keep our promises.

Note: \*Significant at 0.000

\*\*Significant at 0.000

\*\*\*Significant at 0.022

\*\*\*\*Significant at 0.000

that "According to our past business relationships, I think he/she is a trustworthy person (or trust)" is the most significant variable related to performance and positive attitude of customers. "We keep our promise (or reciprocity)" is also a significant variable related to performance, since salespeople who cannot keep their promises will generate an immediate negative attitude in customers.

#### CONCLUSION

This study set out to investigate the impact of relationship marketing on business performance across the steel pipe industry in Thailand. Significant relationships were sought between bonding, empathy, reciprocity and trust as independent variables, with performance as the dependent variables. The multiple regression analysis equation shows, however, that trust is the only variable that was significantly related to performance, the remaining independent variables were not significantly related to performance.

Similar results for the correlation matrix (Pearson Correlation) show, again, that trust is the only independent variable significantly related to performance. The other variables are not significantly related to performance.

Following on from the study conducted by Yau et al., and in order to test whether their observations can be generalized to the manufacturing sector in other countries, this study verifies empirically the impact of relationship marketing on the business performance of firms across manufacturing industries, especially the

steel pipe industry in Thailand. Although the sample of firms in this study show that RMO is an important factor in enhancing business performance (Question 1), only one variable—trust—has a positive relationship and significance related to business performance as shown in table 1 and table 2. The remaining variables do not show any significance related to business performance (Question 2).

Further data analysis is used in this study with stepwise regression method. Results of stepwise regression analysis confirmed with previous method that only one variable from the group of trust is the key independent variable significantly related with performance in the steel pipe industry. That is 'According to our past business relationships, I think he/she is a trust worthy person' (trust) is the only one independent variable which is significant in the final regression with an adjusted R2 of 0.058.

However, the second stepwise regression analysis shows that one independent variable from group of trust and reciprocity are significant in the final regression with an adjusted R2 of 0.084. It shows that reciprocity is the second independent variable which may be significantly related to performance in the steel pipe industry in Thailand but it is only equal R2 of 0.036 when compared with trust that is an adjusted R2 of 0.058. Therefore, it may be implied that trust is most important variable significant related with performance.

Table 3 shows that only two independent variables, 'According to our past business relationships, I think he/she is a trustworthy person'

(trust) and 'We keep our promises' (reciprocity) have significance related to business performance (Question 3). That reciprocity has a partial negative correlation with performance, may be explained by the fact that if salespeople do not treat customers well, negative consequences will ensue.

#### Implication for managers

In discussing the results of the identified elements of relationship marketing impact on business performance, several aspects stand out. From the standpoint of practical implications for the sales manager, these results could provide potentially important direction. The trust dimension was significantly related to performance which suggests that providing the necessary training in, and monitoring of, such behaviors may be a key component in developing a successful sales organization. In managing a sales organization, this finding may provide support for the efficacy of training and development in attempts to improve productivity. This positive effect manifests itself in increased levels of customer trust in satisfaction with; and intentions of doing continued business with that salesperson.

At the same time, the other variables are bonding, empathy, reciprocity show no significant

relationship with business performance. These variables are difficult to assess in terms of their actual impact on productivity. Trust, on the other hand, involves activities which are more generally applicable and subsequently easier to understand and teach in training sessions for salespeople. Further, as this study shows, a significant empirical relationship can be demonstrated between trust and performance. Thus, in seeking to sort through the many available alternatives, the sales manager faced with the challenge of creating and maintaining a productive sales force with limited resources may want to focus on cultivating a trust orientation among his/her sales team. However, it should be acknowledged that the scope of this study makes it difficult to draw any formal causal attributions related to bonding, empathy and reciprocity and these findings should not be interpreted as discounting important components of the relationship marketing.

From a managerial perspective, the relative ease in addressing trust issues in a training and development context, as opposed to bonding, empathy and reciprocity in buyer-seller interactions, does suggest that focusing on fostering a customer orientation within a sales organization may have more immediate and tangible results while using fewer resources.

#### References

- Andaleeb, S.S. (1992), "The trust concept: research issues for channels of distribution", Research in Marketing, Vol. 11, JAI, Greenwich, CT.
- Anderson, J.C. and Narus, J.A. (1984), "A model of distributors perspective of distributor manufacturing working relationships", *Journal of Marketing*, Vol. 48, Fall, pp. 62-74.
- Berry, L.L. (1995), "Relationship marketing of services growing interest, emerging perspectives", *Journal* of the Academy of Marketing Science, Vol. 23 No. 4, pp. 236-245.
- Biong, H. (1994), "The role of the salesperson within a long-term buyer-supplier relationship in the industrial market" Emory University, Atlanta, GA.
- Brunner, J.A. et al, (1989), "The role of guanxi in negotiations in the Pacific Basin", *Journal of Global Marketing*, Vol. 3 No. 2 pp. 7-23.
- Callaghan, M., McPhail, J. and Yau, O.H.M. (1995), "Dimensions of a relationship marketing orientation: an empirical exposition", Proceedings of the Seventh Biannual World Marketing Congress, Vol. VII-II, Melbourne July, pp. 10-65.
- Crosby, L.A., Evans, K.R. and Cowles, (1990), "Relationship quality in services selling: an interpersonal influence perspective", Journal of Marketing, Vol. 54 No. 3, pp. 68-81.
- Dabholkar, P.A., Johnson, W.J. and Cathey, A.S. (1994), "The dynamics of long-term business-to-business exchange relationships", Journal of the Academy of Marketing Management, Vol. 24, pp. 207-14.
- Davies, H., Leung, T.K.P., Luk, S.T.K. and Wong Y.H. (1995) "The benefits of 'Guanxi: the value of relationship in developing the Chinese market", *Industrial Marketing Management*, Vol. 24, pp. 207-14.
- Day, G.S. and Wensley, R. (1983), "Marketing theory with a strategic orientation", Journal of Marketing, Vol. 47, Fall, pp. 79-89.
- Department of Industrial Promotion, (2000), "Steel Pipe Industry" pp. 1-7.
- Dwyer, F.R., Schurr, P.H. and Oh, S. (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51 No. 2, pp.11-27
- Ellis, K.L., Lee, J. and Beatty, S.E. (1993), "Relationships in consumer marketing: directions for future research", 1993 AMA Educators' Proceedings: Enhancing Knowledge Development in Marketing, Vol. 4, AMA, Chicago, IL, pp. 225-230.
- Ferguson, C.H. (1990), "Computers and the coming of the US keiretsu", *Harvard Business Review*, Vol. 68 No. 4, pp. 55-70.
- Gronroos, C. (1989), "Defining marketing: a market-oriented approach", European Journal of Marketing, Vol. 23 No.1. pp. 52-60.
- Gronroos, C. (1990), Service Management and Marketing, Lexington Books, Lexington, MA.
- Gummesson, E. (1994), "Making relationship marketing operational", International Journal of Service Industry Management, Vol. 5 No. 5, pp. 5-20.
- Gundlach, G.T., Achrol, R.S. and Mentzer, J.T. (1995), "The structure of commitment in exchange", Journal of Marketing, Vol. 59, January, pp. 78-92.
- Hair, J. Jr, Anderson, R., Tatham, R. and Black, W. (1995), Multivariate Data Analysis with Readings, 4th ed., Macmillan Publishing Company, New York, NY.
- Holmes, H., Tangtongtavy, S. (1995), Working with the Thais, White Lotus, Bangkok.
- Houston, F.S., Gassenheimer, J.B. and Maskulka, J.M. (1992), "Marketing Exchange Transactions and Relationships", Quorum Books, Westport, CT.
- Hwang, K.K. (1987), "Face and favor: the Chinese power game", American Journal of Sociology. Vol. 92 No. 4 pp. 944-974.
- Lee, D.J., Pae, J.H. and Wong, Y.H. (2001), "A model of close business relationships in China (guanxi)", European Journal of Marketing, Vol. 35 Issue 1/2.
- Levitt, T. (1983), "After the sale is Over...", Harvard Business Review, Vol. 61 No. 5, pp. 87-93.
- Liu, H. and Wang, Y.P. (1999), "co-ordination of international channel relationship: four case studies in the food industry in china" *Journal of Business & Industrial Marketing*, Vol. 14 Issue 2.

- Low, B.K.H. (1997), "Managing business relationships and positions in industrial networks", *Industrial Marketing Management*, Vol. 26 No. 2, pp. 189-202.
- Macintosh, G, Anglin, K.A., Szymanski, D.M. and Gentry, J.W. (1992), "Relationship development in selling: a cognitive analysis", *Journal of Personal Selling and Sales Management*, Vol. 12, Fall, pp. 23-34.
- Martin, M.C. and Sohi, R.S. (1993), "Maintaining relationships with customers: some critical factors", 1993 AMA Educators' Proceedings: Enhancing Knowledge Development in Marketing, Vol. 4, AMA, Chicago, Il, pp. 21-27.
- Moorman, C., Zaltman, G and Deshpande, R. (1992), "Relationship between providers and users of market research: the dynamics of trust within and between organizations", *Journal of Marketing Research*, Vol. 29, August, pp. 314-328.
- Morgan, R.M. and Hunt, S.D. (1994), "The Commitment-trust theory of relationship marketing" Journal Marketing, Vol. 58, July, pp. 20-38.
- Prabhaker, P.R., Goldhar, J.D. and Lei, D. (1995), "Making implications of newer manufacturing technologies" Journal of Business & Industrial Marketing, Vol. 10, Issue 2.
- Sheth, J.N. (1992), "Toward a theory of relationship marketing", presentation at the research conference on Customer Relationship Management: Theory and Practice held in April at Emory University.
- Smith, T.F. and Johnson, R.L. (1993), "Facilitating the practice of relationship marketing", 1993 AMA Educators' Proceedings: Enhancing Knowledge Development in Marketing, Vol. 4, AMA, Chicago, Il, pp. 232-233.
- Sullivan, J. and Peterson, R.B. (1982), "Factors associated with trust in Japanese-American joint venture", Management International Review, Vol. 22 No. 2, pp. 30-40.
- Tsang, E.W.K. (1998), "Can guanxi be a source of sustained competitive advantage for doing business in China?", Academy of Management Executive, Vol. 12 No. 2, pp. 64-73.
- Wagner, H.C., Fleming, D., Mangold, W.G. and LaForge, R.W. (1994), "Relationship marketing in health", Journal of Health Care Marketing, Vol. 14 No. 4, pp. 42-47.
- Wang, F., Head, M. and Archer, N. (2000), "A relationship-building model for the Web retail marketplace", Internet Research: Electronic Networking Applications and Policy, Vol. 10 Issue 5.
- Webster, F.E. (1994), "Market-Driven Management: Using the New Marketing Concept to Create a Customeroriented Company", John Wiley and Sons, New York, NY.
- Weitz, B.A. (1981), "Effectiveness in sales interactions: a contingency framework", Journal of Marketing, Vol. 45, Winter, pp. 85-103.
- Wong, Y.H. and Chan, R.Y. (1999), "Relationship marketing in China: Guanxi, favouritism and adaptation", Journal of Business Ethics, Vol. 22 No. 2, pp. 107-118.
- Yau, O.H.M. (1995), "Consumer Behavior in China: Customer Satisfaction and Cultural Values, Routledge, London.
- Yau, O.H.M., Sin, L.Y.M., Lee, J.S.Y., and Tse, A.C.B. (1998a), "The development of a scale for measuring relationship marketing orientation", Working Paper RCCM99-01-0, Chinese Management Research Centre, City University of Hong Kong, Hong Kong.
- Yau, O.H.M., McFetridge, P.R., Chow, R.P.M., Lee, J.S.Y., Sin, L.Y.M. and Tse, A.C.B. (2000), "Is relationship marketing for everyone?", European Journal of Marketing, Vol. 34 Issue 9/10, pp. 309-566.
- Yeung, I.Y.M. and Tung, R.L. (1996), "Achieving business success in confusion societies: the importance of guanxi (connections)", Organizational Dynamics, Autumm, pp. 54-65.

# THE PROPENSITY TO PAY DIVIDENDS: THE CASE OF THAI LISTED FIRMS

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#### ABSTRACT

This paper investigates the propensity to pay dividends of the listed firms in the developing capital market of Thailand. It adopts similar methodology to Fama and French (2001) and explores the propensity to pay dividends given the particular characteristics of firms. These characteristics include profitability, investment opportunities and size. The findings suggest that the propensity to pay dividends slightly decline in pre-crisis, largely decline during crisis, but is resumed later in post-crisis period.

#### INTRODUCTION

Firms with profitability have choices of either paying their profit as dividends or keeping them as earnings to make investment in the future. However, dividends are normally taxed at higher rate than interest payment. Despite this fact, some firms still pay dividends (Black 1976). Fama and French (2001) called this the propensity to pay dividends.

Dividends could be viewed as a cushion during bad times, or when stock prices fall (Lintner 1956, Gwilym, Morgan and Thomas 2000). Also dividends provide investors with some control over the management of firms, thus, reducing agency costs. Dividend payments provide information to investors on the current and future performance of the firm, external financing, as well as the true value of firms (Bhattacharya 1979, 1980; Asquith and Mullins 1983; John and Williams 1985; Miller and Rock 1985; Richardson, Sefcik and Thomas 1986; Healey and Palepu 1988).

However, recently, Fama and French (2001) showed that the propensity to pay dividends of the listed firms in the US has declined by showing that listed firms with given characteristics have lower propensity to pay dividends. This lower propensity results in lower percentage and number of firms that pay dividends (payers) in the market.

Therefore it is important to investigate whether this propensity to pay dividends has been lowered or is higher in Thailand amongst the dividend payers. Two important questions are raised: how has the propensity changed before and after the crisis, and how have the

changes in propensity affected the dividend pattern. This paper endeavors to investigate and answer these questions.

This paper applied the secondary data technique, thus, publicly listed firms on the SET (Stock Exchange of Thailand) were selected. Listed firms were classified depending on their dividend action in time t (present time) and t-I (last period). The discussion on the propensity to pay dividends of the dividend payers applied the summary statistics technique.

This paper is organized as follows: (1) literature review (2) methodology (3) analysis and discussion (4) conclusion and implication.

#### LITERATURE REVIEW

It is suggested by many researchers that dividend policy and dividend payment behaviour are affected by the characteristics which are profitability, investment opportunities and size of the listed firms (Tobin 1958; Gordon 1962, 1963; Higgin 1972; Fazzari, Hubbard, and Peterson 1988; Fama and French 1995, 1997, 1998, 1999, 2001; La Porta et al 2000; Wetherilt and Weeken 2002).

Given these characteristics, Fama and French (2001) investigated further and found that listed firms in the US have lower willingness or so called propensity to pay dividends. They added that firms with characteristics of payers, high profitability (Y<sub>1</sub>) and low investment opportunities (E<sub>1</sub> and dA<sub>2</sub>), tend not to pay dividends.

Their summary statistics results suggested that the lower propensity to pay results from explosion of new lists and the changing nature of new and existing firms (Fama and French 2001). Investors are more willing to hold the shares of growth firms with low or even negative profitability. They, however, suggested that firms become less likely to pay dividends, whatever their characteristics (Fama and French 2001).

#### Thailand: Asian Economic Crisis

Commencing in Thailand, the Asian Economic Crisis affected most of the economies of South East Asia. The performance of firms listed on the Stock Exchange of Thailand, strong depreciation in the exchange rate, high level of financial instability and credit downgrading all created unfavorable investment environment in Thailand since 1997, thus, influencing the performance of listed firms, their characteristics and dividend policies. Large number of firms faced financial distressed and omitted paying out dividends.

#### METHODOLOGY

This paper applies causal research methodology which investigates the propensity to pay dividend of listed firms in the market using secondary data technique. Summary statistics are used to group listed firms into 4 dividend groups (1) payers (2) non-payers (3) former payers (4) never paid firms. While (1) payers are firms with positive dividends in time t, nonpayers are firms with no dividend in time t, (3) former payers are firms that do not pay dividend in time t but have paid in previous years, and (4) never paid firms are firms that have never paid dividends. New lists are firms which were listed in time t. Later, (1) payers and (2) non-payers in the last period (t-1) are categorized according to their dividend payment behavior in the present period (t). For payers they are categoried into (1.1) payers that continue to pay

dividends (1.2) payers that stop paying dividends and (3) payers that delist. For non-payers they are categorized into (2.1) non-payers that start paying dividends (2.2) non-payers that do not pay dividends and (2.3) non-payers that are delisted (Fama and French 2001).

The study covers the period of January 1990 to December 2002 (thirteen years). Only firms that are listed on the Stock Exchange of Thailand are included in the sample. These firms must provide full information on their financial statements (income statements and balance sheet) and trading information. The sample contains financial data of firms by calendar year on the total assets, total liabilities, common equities, average stock prices, shares outstanding, income before extraordinary items, interest expenses, dividend yields, dividend per share, preferred dividends, preferred stock value, par value and market capitalisation at the end of year t to obtain values for Y, E, and dA, Y, is a proxy for common stock earnings or profitability. E, represents earnings before interest that exceed investment outlays and dA, is the change in assets which represents the investment opportunities or asset growth (Fama and French 2001).

#### ANALYSIS AND DISCUSSION

#### **Empirical Findings**

Patterns in the payment of dividends are explored from 1990 to 2002. In 1990, 84.2 percent of listed firms paid dividends. The percentage of payers rose to its peak of 90.6 percent in 1992 and fell gradually to 71.5 percent in 1997. The percentage of payers fell to 28.4 percent in 1998. This figure was recorded a year after the Asian crisis. However, the percentage of firms paying dividends recovered slightly in 1999 (29.9 percent) and rose to 46.4 percent by 2002. However, the percentage of firms paying dividends in 2002 (46.4 percent) was well below the 1990 level (84.2 percent) (table 1).

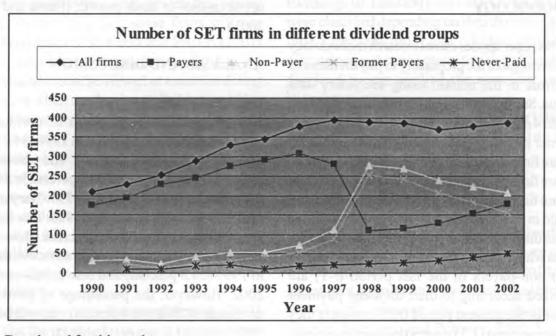
Table 1: Counts and Percentage of SET firms in Different Dividend Groups

Counts of													
SET firms	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All Firms	209	228	254	288	328	344	378	393	388	385	368	376	386
New Lists		45	38	33	38	23	34	4	3	4	11	7	20
Percent of													
SET firms	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Payers	84.2	84.6	90.6	85.1	83.8	84.3	81.0	71.5	28.4	299	35.3	40.7	46.4
Non-Payer	15.8	15.4	9.4	14.9	16.2	15.7	19.6	28.5	71.6	70.1	64.9	593	53.6
Former-Pay	er	10.1	5.1	8.0	95	128	14.6	229	65.2	629	56.5	48.7	40.2
Never-Paid		53	43	6.9	6.7	29	5.0	5.6	6.4	73	84	10.6	13.5
New Lists		19.7	15.0	11.5	11.6	6.7	9.0	1.0	0.8	1.0	3.0	19	52
New Lists													
that Pay		822	73.7	51.5	526	826	73.5	50.0	33.3	0.0	273	57.1	20.0

Source: SET (1990, 1993, 1996, 1999, 2002a)

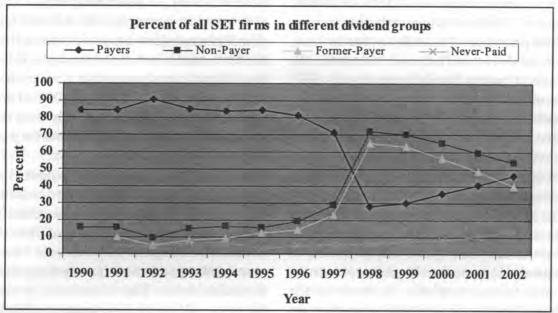
**Note:** Payers paid dividends in time t while non-payers did not. Non-payers are divided into two sub-groups, namely, former payers (firms that do not pay in time t but paid in the previous year) and firms that have never paid dividends. New lists are firms which were listed in time t and new lists that paid dividends are classified as payers.

Figure 1: The Number of SET Firms in Each Group



Source: Developed for this study

Figure 2: Percentage of All SET Firms in Different Dividend Groups



Source: Developed for this study

The number of listed firms increased sharply from 200 firms in 1990 to about 400 firms in 1997. Table 1 indicates that the number of listed firms in the sample declined to below 400 immediately after the crisis. This figure increased slightly and stood at 386 firms in 2002. However, the current number of listed firms is still below the figure for 1997. The number of firms paying dividends increased from almost 200 in 1990 to more than 300 firms in 1996. However, the rate of increase in the number of payers has declined. The number of firms which pay dividends has partly recovered although it was still below 200 firms in 2002.

The number of firms which did not pay dividends before the crisis (the figure was less than 100) was consistently less than the number of payers. However, the number of firms which did not pay dividends rose sharply from 112 in 1997, to a peak of 280 in 1998. This figure has declined slowly since 1998, although it remained slightly above 200 in 2002. Fama and French (2001) suggested that firms which do not pay dividends can be classified into two groups, former payers and firms which have never paid dividends. Former payers are firms that do not pay dividends in the present year (time t) but paid dividends in a previous year. Figure 1 indicates that the number of former payers (before and after the crisis) is similar to the number of non-payers. In addition, the number of firms which have never paid dividends was relatively small in 1990. The number of non-payers and former payers increased sharply in 1997 and peaked in 1998

(see figure 1). This increase in the number of nonpayers and former payers can be attributed to the Asian Economic Crisis. Indeed, a strong decline in the number of firms which pay dividends also appears to result from the crisis.

A trend that has emerged since the crisis is that the number of firms that have never paid dividends accounts for an increasingly larger share of the non-payer group (see figure 1). It appears that firms that were listed between 1997 and 2002 are more likely to have never paid dividends. Also most of the non-payers (former payers are the majority of this group) were forced to cease paying dividends due to financial distress arising from the crisis. This view is consistent with the findings of Fama and French (2001). Former payers are likely to be distressed and have not paid dividends in time t. However, it remains to be seen whether non-payers and former payers will pay dividends in the future.

As stated earlier, the percentage of firms which paid dividends decreased from 84.2 percent in 1990 to 46.4 percent in 2002. Before the Asian Economic Crisis (1990-1996), the percentage of payers declined slightly from 84.2 percent in 1990 to 81.0 percent in 1996. However, the percentage of payers fell sharply from 71.5 percent to 28.4 percent during 1997 and 1998. In 1999, the percentage of payers increased slightly to 29.9 percent. Indeed, the percentage of payers has continued to rise and stood at 46.4 percent in 2002. This figure is about 20 percent higher than the figure recorded during the crisis, although it remains

about 40 percent lower than 1990. The trends in the percentage of payers indicate (1) in the long-term, the payment of dividends appears to be disappearing because the percentage of listed payers has declined, and (2) in the short-term (the pre-crisis period), the percentage of payers has declined slightly. This outcome may be an early indicator of the financial collapse which occurred in 1997, and (3) in the short-term (post-crisis period), the percentage of firms paying dividends has rebounded from the low point recorded during the crisis and may rise to pre-crisis levels in the future.

The decline in the percentage of dividend payers may also result from growth in the non-payer group due to new listings. Before the crisis, the number of firms expanded by more than 10 percent per annum due to new listings (see table 1). However the percentage of new listings declined to less than one percent of the total number of listed firms during the crisis and currently stands at about 5.2 percent. Table 1 indicates that some newly listed firms paid dividends, although the percentage of these firms fluctuated between 1990 and 2002. The percentage of new firms that paid dividends stood at 82.2 percent (1991),

73.3 percent (1992), 51.5 percent (1993), 52.6 percent (1994), 82.6 percent (1995), 73.5 percent (1996) and 50 percent in 1997. After the crisis, less than 30 percent of new lists paid dividends. In addition, the percentage of new firms that paid dividends was lower than the total percentage of payers in all years with the exception of 1998 and 2001. Therefore, it appears that new firms are less likely to pay dividends and this partly explains the decline in the percentage of payers between 1990 and 2002.

Table 2 presents the dividend behaviour of payers in year *t*-1 and non-payers in year *t*-1 undertaken in time *t*. The table is divided into three parts. The first part presents behaviour in year *t* of firms that paid dividends during the previous year. These firms continued to pay dividends, ceased paying or were forced to delist. The second part presents the behaviour of firms that were non-payers in time *t*-1. These firms commenced paying dividends, remained a non-payer, or were delisted from the stock exchange. The last part shows the percentage of non-payers that commenced paying dividends in time *t*. The table also indicates if these firms were former payers, or if they have never paid dividends.

Table 2: What Happens in Year t to SET Firms that Do and Do not Pay Dividends in Year t-1?

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Continue to Pay	78.4	88.1	93.0	93.5	91.3	91.4	81.7	38.4	75.5	89.6	92.3	95.4
Stop Paying	13.1	6.7	5.7	6.1	6.2	6.6	17.0	59.4	23.6	5.2	6.9	3.9
Delist	0.6	0.5	0.0	0.0	0.4	0.3	0.0	3.0	0.0	3.5	0.0	0.0
What Happens in Year to	to Firms tha	t Do N	ot Pay	Divide	nds in	Yeart	-1					
Start Paying	54.5	91.4	45.8	55.8	35.8	16.7	24.3	0.9	11.2	8.9	11.7	12.1
Do not Pay	12.1	2.9	54.2	44.2	62.3	83.3	64.9	94.6	84.2	83.3	84.9	82.5
Delist	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4	4.1	1.3	2.2
Percent of Non-Payers in	Year t-1 tha	at Star	Payin	g in Ye	ar t-1							
All Non-Payers (t-1)	54.5	91.4	45.8	55.8	35.8	16.7	24.3	0.9	11.2	8.9	11.7	12.1
Former Payers	63.6	11.4	29.2	7.0	15.1	20.4	1.4	27.7	8.6	10,0	9.6	0.0
Never Paid	33.3	20.0	70.8	37.2	1.9	13.0	0.0	0.0	0.0	0.4	1.7	0.0

Source: SET (1994, 1997, 2000, 2002a)

Note: Firms that continue to pay were payers in year t-1 and continue to pay dividends in time t. Firms that cease paying dividends are firms that were payers in time t-1, but non-payers in time t. Firms that delist are firms that were payers in time t-1 but delisted in time t.

Table 2 shows the likelihood that payers and non-payers of the last period (t-1) will continue to pay, commence or cease paying dividends in this year. Firms which paid dividends last year (t-1) tend to continue paying dividends in year t. Before the crisis, almost 90 percent of the payers continued to pay dividends (table 2). In 1997, however, the percentage of payers in the previous year (t-1) that continued to pay  $(in \ t)$  fell to 81.7 percent and to 38.4 percent during 1998. After the crisis, the percentage of payers in the previous period, that continued to pay in the next period, increased to 75.5 percent in 1999, 89.6 percent in 2000, 92.3 percent in 2001 and finally 95.4 percent in 2002.

Firms which paid dividends before the crisis, but did not pay during the crisis, ceased paying dividends at the rate of 59.4 percent and delisted at the rate of 3 percent in 1998. Before the crisis, the percentage of payers that ceased paying dividends was about 10 percent per annum. However, this figure rose to 17 percent in 1997 and peaked at 59.4 percent in 1998. In addition, the percentage of payers that delisted in the next period (t) was less than one percent per annum before the crisis, but rose to 3 percent in 1998. Finally, after the crisis, a greater proportion of firms which paid dividends continued doing so while less ceased paying and delisted. This indicates that the market is recovering.

Firms that did not pay dividends in the last period commenced paying at the rate of 91.4 percent in 1991 and 45.8 percent in 1992. This indicates that the vast majority of firms possessed a high propensity to pay, or resumed paying dividends at this time. However, this figure fell to 35.8 percent in 1994 and to less than one percent in 1998. Finally, after the crisis, this figure increased to above 10 percent, although, it is still lower than the percentage of non-payers that commenced paying dividends before the crisis. In summary, less firms re-commenced paying dividends after the crisis.

Before the crisis, non-payers appeared less willing to commence paying dividends in the next period (decreasing their propensity to pay dividends). The percentage of non-payers that continued to avoid this payment in the next period also supports this finding (see table 2). After 1993, a large proportion of non-payers continued to avoid paying dividends, even though it was still several years before the crisis. In addition, only 0.9 percent of non-payers commenced the payment of dividends in 1998. This figure increased to 12.1 percent in 2002, indicating

that the market was recovering and also shows a high propensity to pay dividends by former non-payers.

The last part of table 2 indicates that, former payers resumed the payment of dividends more frequently than firms that have never paid dividends. This view supports the earlier discovery that former payers omit the payment of dividends but do not intend to cease the payment on a permanent basis. The summary of statistical analysis by Fama and French (2001) suggests that former payers are distressed firms which ceased paying dividends to preserve their cash.

#### SYNOPSIS

A preliminary analysis of the summary statistics reveals that the percentage of firms which paid dividends started to decline before the crisis, and fell sharply during the crisis. The percentage of payers rose slightly after the crisis, but remains much lower than the level recorded before the crisis. It also appears that payers were less likely to continue the payment of dividend during the crisis. The analysis suggests that the propensity to pay dividends of existing payers is lower.

As stated earlier, the percentage of non-payers has increased over time and increased sharply immediately after the crisis. Most of the non-payers were former payers which were forced to avoid the payment of dividends due to the crisis. In addition, it appears that non-payers were less willing to recommence paying dividends. This supports the proposed explanation for the observed decline in the percentage of payers; non-payers are less likely to re-commence paying dividends. Consequently, the total number of payers is smaller and represent a smaller proportion of the total number of firms.

Many new firms were listed on the SET before the crisis and a large proportion of these firms did not pay dividends. The percentage of new firms that paid dividends was less than the percentage of listed firms that paid dividends, in most years (see table 1). Therefore, new lists usually do not pay dividends and the denominator (total number of listed firms) is increasing over time, while the numerator (the total number of payers) is becoming smaller leading to a decline in the percentage of payers.

#### The Decline in Propensity to Pay Dividends

Fama and French (2001) suggested that given the characteristics of firms, they will be less likely to pay dividends (Fama and French 2001). Therefore, it is important to investigate changes in propensity to pay dividends of listed firms since 1991. Three factors are considered to identify the propensity to pay dividends. Y<sub>t</sub> is a proxy for common stock earnings (representing the profitability), E<sub>t</sub> represents earnings before interest that exceed investment outlays and dA<sub>t</sub> is the change in assets (representing investment opportunities and asset growth) (Fama and French 2001).

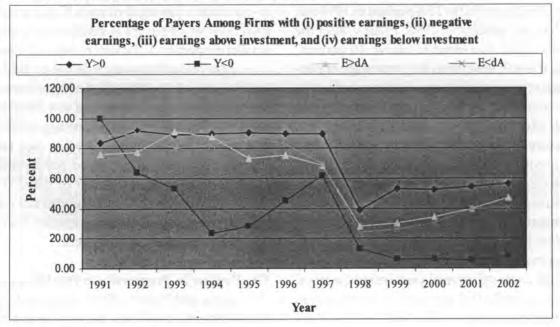
A firm's propensity to pay dividends is expressed by a time series plot in figure 3. This figure shows the percentage of dividend payers among (1) firms with positive common stock earnings (Y>0) (2) firms with negative common stock earnings (Y<0) (3) firms with earnings before interest that exceed investment outlays (E<sub>1</sub>>dA<sub>1</sub>) and (4) firms with earnings before interest which are lower than investment outlays (E<sub>1</sub><dA<sub>2</sub>) (Fama and French 2001). Firms with earnings before investment, which are higher than the growth in their assets have low investment opportunities and are low growth firms. Likewise, firms with earnings before investment which are lower than changes in their assets, are considered growth firms (Fama and French 2001).

Figure 3 indicates that most firms with positive common stock earnings (83.93 percent) paid dividends in 1991 and 100 percent of firms with negative earnings also paid dividends. In addition, 91.7 percent of firms with Y>0 paid dividends in 1992

although this figure declined after 1992. This figure fell to its minimum level in 1998, when only 38.19 percent of firms with positive earnings paid dividends. Furthermore, in 1999, 13.10 percent of firms with negative earnings paid dividends. Importantly, the percentage of firms with positive earnings that paid dividends almost doubled from 39.19 percent in 1998 to 56.7 percent in 2002. This analysis suggests that firms with positive earnings exhibited a small decline in the propensity to pay dividends before the Asian Economic Crisis (96.95 percent to 91.26 percent). During the crisis, (1997 to 1998), firms with Y>0 exhibited a substantial decline in the propensity to pay dividends (89.92 percent in 1997 to 39.19 percent in 1998). It appears that firms with positive earnings were not willing to pay dividends during the crisis. Firms with negative earnings were also less willing to pay dividends during the crisis. However after the crisis, the propensity to pay dividends of these groups has increased. The propensity to pay of firms with Y,>0 increased from 39.19 percent in 1998 to 56.7 percent in 2002, while the propensity to pay of firms with Y<sub>t</sub><0 increased from 5.76 percent in 1999 to 7.78 percent in 2002. In short, the firms in the sample are more willing to pay dividends if they have positive earnings, or negative earnings after the crisis. This finding was also supported by the descriptive statistics.

Similarly, before the crisis, firms with earnings before interest which are higher, or lower than changes

Figure 3: Percentage of Payers Among Firms with (1) Positive Earnings (2) Negative Earnings (3) Earnings above Investment, and (4) Earnings Below Investment



Source: Developed for this research

in their assets (investment) exhibit a slight decline in the propensity to pay dividends from 76.25 percent to 75.43 percent (when E,>dA,) and 88.59 percent to 83.25 percent (when E, <dA,). During the crisis, firms with E,>dA, and E,<dA, exhibited a significant decline in the propensity to pay dividends from 69.01 percent to 28.53 percent and 69.66 percent to 24.36 percent respectively. After the crisis, both types of firms exhibit an increase in the propensity to pay dividends. The propensity to pay of firms with earnings higher than investment increased from 30.2 percent in 1999 to 47.52 percent in 2002. Firms with lower earnings than investment, payers of this group (E < dA) accounted for 26.62 percent in 1998 and this increased to 40.72 percent in 2002 (figure 5.7). These findings suggest that the Asian Economic Crisis also influenced the propensity to pay dividends of listed firms.

#### CONCLUSION AND IMPLICATION

The results suggest that irrespective of whether firms have high or low profitability and high or low investment opportunities, they demonstrated a lower propensity to pay dividends before the crisis. The propensity to pay dividends of these types of firms, declined significantly during the crisis, although this

has gradually recovered since the downturn. However, the percentage of payers with positive earnings in recent years (2002) has been lower than the figure which was observed before the crisis. This indicates that firms with high profitability and investment opportunities now have a lower propensity to pay dividends than in the past.

The findings from this paper could be used to compare with the existing literature of propensity to pay dividends and provide additional support for findings of Fama and French (2001). The research could also be used as a tool for SET (Stock Exchange of Thailand) and SEC (Securities Exchange Commission) to provide an early detection of an increase, or decrease in the number of payers and non-payers in the market, an upward or downward trend in the payment of dividends and changes in the propensity to pay dividends in the next period.

For investment practice, this research provides a warning system for the firms that may change their dividend paying behaviour. It could also be used a tool for investors in the stock selection process by providing insight on the expected return. It cautions analysts to be aware that the famous Dividend Discount Model (DDM) could possibly be obsolete and they should be seeking for new and better stock valuation methods.

#### References

- Asquith, P. & Mullins, D.W. Jr. 1983, 'The Impact of Initiating Dividend Payments on Shareholders' Wealth', Journal of Business, vol. 56, no. 1, February, pp. 77-96.
- Bhattacharya, S. 1979, 'Imperfect Information, Dividend Policy, and "The Bird in the
- Hand" Fallacy', Bell Journal of Economics, vol. 10, no. 1, Spring, pp. 259-270.
- Bhattacharya, S. 1980, 'Nondissipative Signaling Structures and Dividend Policy', *Quarterly Journal of Economics*, vol. 95, no. 1, August, pp. 1-24.
- Black, F. 1976, 'The Dividend Puzzle', Journal of Portfolio Management, vol. 2, no. 2, Winter, pp. 5-8.
- Brealey, R.A. & Myers, S.C. 2000, Principles of Corporate Finance, 6th edition, Irwin McGraw-Hill, London.
- Bringham, E.F., Gapenski, L.C. & Ehrhardt, M.C. 1999, Financial Management, Theory and Practice, 9th edition, Dryden Press, Fort Worth, Texas.
- Emory, C.W. 1995, Business Research Methods, 5th edition, Irwin, Homewood, Illinois.
- Fama, E.F. & French, K.R. 1995, 'Size and Book-to-Market Factors in Earnings and Returns', Journal of Finance, vol. 50, no. 1, March, pp. 131-155.
- Fama, E.F. & French, K.R. 1997, 'Dividends, Debt, Investment and Earnings', Working Paper, Graduate School of Management, University of Chicago, Chicago.
- Fama, E.F. & French, K.R. 1998, 'Value versus Growth: The International Evidence', Journal of Finance, vol. 53, no. 6, December, pp. 1975–1999.
- Fama, E.F. & French, K.R. 1999, 'Testing Tradeoff and Pecking Order Predictions about
- Dividends and Debt', Working Paper, Sloan School of Management, MIT.
- Fama, E.F. & French, K.R. 2001, 'Disappearing Dividends: Changing Firms Characteristics or Lower Propensity to Pay?', Journal of Financial Economics, vol. 60, no. 1, April, pp. 3-44.
- Fazzari, S., Hubbard, R.G. & Petersen, B.C. 1988, 'Financing Constraints and Corporate Investment', Brookings Papers on Economic Activity, pp. 1141-1195.
- Gordon, M.J. 1962, The Investment, Financing and Valuation of the Corporation, Richard D. Irwin, Homewood, Illinois.
- Gordon, M.J. 1963, 'Optimal Investment and Financing Policy', Journal of Finance, vol.18, no. 2, May, pp. 264-72.
- Healey, P.M. & Palepu, K.G. 1988, 'Earnings Information Conveyed by Dividend Initiations and Omissions', Journal of Financial Economics, vol. 21, no. 2, September, pp. 149-275.
- Higgins, R.C. 1972, 'The Corporate Dividend-Saving Decision', *Journal of Financial and Quantitative Analysis*, vol. 7, no. 6, December, pp. 1527-1541.
- John, K. & Williams, J. 1985, 'Dividends, Dilution, and Taxes: A Signalling Equilibrium', Journal of Finance, vol. 40, no. 4, September, pp. 1053-1070.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2000, 'Agency problems and Dividend Policies Around the World', *Journal of Finance*, vol. 55, no. 2, June, pp. 859-874.
- Miller, M.H. & Rock K, 1985, 'Dividend Policy Under Asymmetric Information', Journal of Finance, vol. 40, no. 4, September, pp. 1,031-1,051.
- Petty, J.W. et al. 2000, Financial Management, 2nd edition, Prentice Hall, Sydney, New South Wales.
- Reilly F.K. & Brown K.C. 2000, 'Investment Analysis and Portfolio Management', 6th edition, Harcourt College Publishers, Fort Worth, Texas.
- Reilly F.K. & Norton, E.A. 1999, Investment, 5th edition, Dryden Press, Fort Worth, Texas.
- Richardson, G., Sefcik, S.E. & Thompson, R. 1986, 'A Test of Dividend Irrelevance Using Volume Reaction to a Change in Dividend Policy, *Journal of Financial Economics*, vol. 17, no. 2, April, pp. 313-333.
- SET 1990, Fact Book 1990, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1993, Fact Book 1993, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1994, Fact Book 1994, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1996, Fact Book 1996, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1997, Fact Book 1997, Publication Department, The Stock Exchange of Thailand, Bangkok.

- SET 1999, Fact Book 1999, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 2000, Annual Report, Investor Relations and Communications Department, The Stock Exchange of Thailand, Bangkok.
- SET 2002a, *Annual Report*, Investor Relations and Communications Department, The Stock Exchange of Thailand, Bangkok.
- Tabachnick, B.G & Fidell, L. 2001, Using Mutivariate Analysis, 4th edition, McGraw-Hill, New York.
- Ticehurst, G.W. & Veal, A.J. 2000, Business Research Methods: A Managerial Approach, Longman, French Forest, New South Wales.
- Tobin, J. 1958, 'Liquidity Preference as Behaviour Towards Risk', Review of Economic Studies, vol. 25, no. 67, February, pp. 65-86.
- Wetherilt, V. & Weeken, O. 2002, 'Equity Valuation Measures: What Can They Tell Us?', Quarterly Bulletin, Bank of England Financial Stability Review, Monetary Instruments and Markets Division, Winter, pp. 391-403.
- Zikmund, W.G. 2000, Business Research Methods, 6th edition, Dryden Press, Fort Worth, Texas.

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