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Corporate Image and Reputation in the Shipping Industry in Four Asian Countries: Republic of Korea, China, Japan, and Thailand

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Abstract— **This study aims to analyze the perceptions regarding shipping companies' corporate image and reputation in Republic of Korea, China, Japan, and Thailand. For this study, the shipping industry is confined to the bulk and container shipping sectors to prevent confusion arising from the different sectors. An international questionnaire survey was administered in each country. The participants were asked to report their perceptions on eight indicators of corporate image and seven indicators of corporate reputation relating to the shipping companies. Descriptive analyses and a one-way between-groups analysis of variance (ANOVA) were conducted using SPSS 20. Findings show that there are significant differences in perceptions concerning corporate image and reputation among four countries. Some cases show significant differences in the analyses in line with demographic characteristics. While China shows the highest scores in most variables, Korea is revealed to have the lowest scores. The results indicate the need to develop programs for improving the external positive perceptions of the shipping companies, as well as to broaden the scope of marketing activities targeting the general public. This study is of critical importance as it discusses relatively ignored but important issues by conducting comparative research in four major Asian countries comprehensively, particularly targeting samples rarely considered in the empirical shipping-related studies despite their significance to academic development. Further research is required to demonstrate the effectiveness of the findings by applying the measures in different national contexts with a more diverse group of samples.**

Keywords— *Corporate Image, Corporate Reputation, Comparative Analysis, ANOVA, Shipping Industry*

1. Introduction

In recent years, corporate image and reputation have come to play an important role in corporate competitiveness. Having a superior image and reputation can increase a firm's profit margin, trust, employee confidence, loyalty, investor support, and community favor, leading to outstanding relationships with customers and business partners. The shipping industry, however, has a very low image, and can even be said to suffer from a negative image created by poor operation with inferior vessels and unprofessional seafarers. According to [24], investigation of the image of shipping as reported by some media, shipping-related events seem to be generally ignored as press headlines. In other words, journalists in the general media are likely to be indifferent towards reporting incidents from the shipping sector, except for disasters in coastal shipping and ferry industries in certain situations. Considering the tremendous contribution of shipping to global trade and economy, it is essential for it to develop a favorable image as a sustainable transport mode attractive to not only stakeholders but also the general public, who show no interest in shipping.

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For these reasons, [13] carried out a comparative study on upper secondary school students in Greece, Sweden, and Norway to measure their image in terms of shipping as a future career. In this study, important image constructs were developed, including (1) rewards, (2) significance of industry, (3) ships as a place of work and living, (4) environment, (5) CSR of the shipping industry, (6) family, (7) career shift, (8) risk, and (9) employer–employee relations, suggesting that "reward" and "ships as a place of work and living" are the most important criteria for all pupils while students in Norway have a better attitude towards shipping than those in Sweden and Greece. In addition to image, despite the necessity of improving reputation in the shipping industry, few studies have examined these factors in the shipping industry in exploratory or thorough ways.

Since the Asian shipping industry is significantly superior position than other market players, four Asian countries were chosen to identify and compare perceptions of the shipping companies' image and reputation, that is, three major shipping countries in Northeast Asia— Republic of Korea (hereafter Korea), China, and Japan in addition to Thailand, one of the leading shipping countries in Southeast Asia. In terms of each country's shipping industry, Korea, China, and Japan were found to have common features; shipping industry growth has mainly coincided with each country's period of strong economic growth. For instance, the majority of Korean shipping companies, except for Hanjin Shipping, were established under the 1960–1970 era of economic growth, whereas Chinese shipping companies were founded, led by the Chinese government, starting in the 1980s. In particular, China is gaining a competitive advantage over other countries in global bulk and container markets through the merger of two state-owned shipping companies, COSCO and China

Shipping Group, in 2015. Japan's shipping industry showed strong growth in the 1950s and 1960s; hence, it can be said that Japan has the longest history of shipping industry involvement among the three countries. During this period, the shipping business in Japan has been diversified into container, bulk, tankers, and car carriers, compared with that in Korea and China [15].

In contrast, Thailand's fleet is growing fastest among the Southeast Asian countries. However, they have limitations due to shipping-related laws that allow only Thai flagged vessels to operate in the domestic freight transport, as well as regulations on Thai people's share in domestic shipping companies in the era of global competition. Despite this, Thailand is inclined to be stable during the difficult period due to their policies. Considering the different situations prevailing in these four countries, a cross-comparison of their respective shipping industries can shed light on larger issues of economic growth. By doing this, from an academic perspective, a variety of educational curricula can be formed to strengthen shipping companies' image and reputation, and from the practical perspective, the scope of shipping companies' marketing strategies, which are currently limited to the B2B context, can be broadened to the general public.

The basic aim of this study is to evaluate and compare the perceptions of university students about shipping companies' image and reputation in Korea, China, Japan, and Thailand. The general background of this study is introduced in the first section of the research, followed by the theoretical second section, which discusses the literatures on corporate image and reputation. The third section of this study outlines research method, and the main empirical analysis results are presented in the fourth section. The last section is a conclusion including

implications.

2. Literature Review

2.1 Corporate Image

Corporate image can refer to either (1) the actual corporate image, focusing on the real perception of external stakeholders from the marketing viewpoint or (2) the desired image concentrating on the firm's goals regarding how external stakeholders recognize the firm [9]. While defining and operationalizing the concept of corporate image continues to face inconsistencies, corporate image is generally described as "the overall impression made on the minds of the public about a firm" [18, p.228] and "an evaluative judgment of the total perception of the corporation" [16, p.515]. Corporate image is said to be composed of functional attributes related to tangible characteristics and emotional attributes reflecting psychological characteristics [14]. Feelings and attitudes towards a firm derived from the emotional attributes are a result of individual experiences with a firm and the information processing of functional indicators of image: people create a corporate image through analyzing and combining firm's attributes. A uniform image is preferable for each company, but stakeholders, including shareholders, employees, and customers, possess different images even within the same market according to their experiences and interactions with the company [4]. Therefore, various communication channels need to be provided to produce coherent and favorable images [20].

A positive corporate image would generate higher customer willingness to use the company's products and services and also to increase customer satisfaction and loyalty to their firm [1]. It positively impacts future investment and recruitment and can also be used to control the impact of competitors. The benefits of a corporate image are ultimately associated with higher profits. For example, it has been found that the impact of corporate image on customer loyalty is influenced by high switching costs [27]. [18] confirmed that a strongly positive corporate image associated with corporate reputation increases customer loyalty. In addition, [8] identified that a corporate image tends to be more favorable when associated with a positive company's corporate logo, as portrayed by the corporate name, design, and typeface. [19] analyzed the influence of service brand extensions, empirically proving that a corporate brand's image changes according to perceived service extension quality.

2.2 Corporate Reputation

Together with corporate image, the concept of corporate reputation has garnered more interest in the past few decades as a source of competitive advantages. Corporate reputation refers to "an estimation of the consistency over time of an attribute of an entity" [10, p.18] and "a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to all of its key constituents when compared with other leading rivals" [7, p.72], highlighting the cumulative and relative features of the definition. Considering the existence of various definitions and types, corporate reputation can be evaluated subjectively based on individual aggregate experience regarding how people interact with a firm about its product and service quality over time, a firm's marketing activities, corporate image or identity built already. In this regard, corporate reputation of a company is not the same among its interested parties, depending on who assesses it and in what context.

Growing interest among researchers on the concept of corporate reputation can be seen in numerous studies carried out in

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various fields, such as those focusing on measurement issues [21] and [26] and in particular, the causal relationships with other constructs [11, 17, 28, 18]. For instance, [11] empirically verified the positive association between advertising effects, composed of persuasive and informative aspects of CSR initiatives, and corporate reputation as well as brand equity using data collected from 421 policyholders with major life insurance companies in Taiwan. [17] demonstrated the significant effects of corporate reputation with CSR on industrial brand equity and brand performance by investigating 179 purchasing managers of manufacturing and service companies. Corporate reputation is demonstrated to play a significant role in customer relationship management (CRM) performance according to [28], who studied customers of Chinese stock broking firms and a bank. [18] revealed that higher corporate reputation and image are correlated with higher degrees of customer loyalty.

Similar to corporate image, a positive reputation takes time to develop, as it depends on continuous successful relationships with a firm's targeting group. However, reputation can be easily and quickly damaged from negative actions. Thus, building credibility is essential to meeting external expectations and can be achieved by fulfilling declared promises and meeting stated intentions [18]. Compared with corporate image, which can be built in a short time, corporate reputation requires relatively more time to generate. As a crucial intangible asset, a positive corporate reputation brings many competitive advantages, eventually leading to higher profits, as well as build barriers to competitors. In addition to these elements, trust, word-of-mouth, commitment, and customer willingness to help the firm and other customers have been adopted in previous studies as outcomes of having a favorable reputation.

3.   Method

For this study, container and bulk shipping sectors that dominate the maritime trades were targeted to prevent variations arising from different perceptions of diverse sectors, including cruises and ferries, in the shipping industry. Despite the fact that container shipping companies are increasingly paying attention to corporate image and reputation, it is argued that more efforts are needed. In particular, bulk shipping companies tend to emphasize on reducing operating costs while other actions that can prevent negative externalities, including environmental and social damage, were overlooked, consequently producing adverse public perceptions toward the industry [6]. By limiting the sectors studied, the internal validity and reliability of the results can also be enhanced [25].

Although a quantitative technique was mainly employed as a data-collection method, a qualitative technique, i.e., expert interviews, was supplemented to improve the validity of the study. The questionnaire was constructed effectively following the nine-step approach of development of validation of a questionnaire suggested by [2]. The questionnaire can be mainly divided into two sections: (1) respondent information, including gender, educational background, major, and shipping industry experience and (2) an evaluation part, containing two key constructs. The measures for corporate image and reputation found from relevant literatures were validated by interviews. Eight items for image and seven items for reputation were drawn from [18, 19, 28, 26, 17, 27, 11, 16, 21, 5, 8] and then modified for clarity.

A total of 538 students were participated in this study from four countries. The students' perceptions, which have seldom been investigated in shipping industry-related studies, are significant in many

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aspects. It can be an opportunity for students to explain their opinions regarding shipping companies' image and reputation based on their experience, for educators to diagnose their teaching quality and find ways to improve educational effectiveness, and for practitioners working for shipping companies to acquire important data on their activities [13].

4.   Results

4.1   Ranking

The results are demonstrated in Table 1. In terms of corporate image, IMAGE8, "Shipping companies are professional," attained the highest mean score for all countries except Thailand, whose first-ranked attributes are IMAGE5, "Shipping companies are successful and self-confident," and IMAGE7, "Shipping companies are open and responsive to their customers," with the same average of 3.63. This result supports the conclusion that students from major shipping countries in Northeast Asia have a different perspective of the shipping industry from students in Thailand, one of the major Southeast Asian countries. Because of the B2B nature of the shipping industry, students could not possess full understanding of this industry. However, students seem to regard the shipping industry as being professional due to the well-known fierce competition between the three countries in Northeast Asia and its significant contribution to each country's economy. In addition, this result may also be attributed to the necessity of graduating from Maritime University to become marine officers.

However, the trait of ethical operations has been selected as the least satisfactory attribute in Korea. This result might be influenced by the fraud and corruption associated with the April 2014 ferry accident that occurred in Korea. In China, shipping companies have a lower image than in other industries. In China, construction, media, automobiles, and manufacturing are gaining much importance as major industries that make up almost 44% of China's GDP and create 11% of China's jobs. As a result, it can be said that the shipping industry's image is relatively lower than the images of these industries considering GDP ratios and job-creation portion. In the case of Japan and Thailand, the lowest score was found for attributes related to having an innovative and pioneering image. This reflects the nature of the shipping industry having a derived demand to support the national strategic industry.

In measuring the mean for corporate reputation, REPU2, "Shipping companies are highly reputable," for Korea, REPU3, "Shipping companies are reliable," for China, and REPU1, "I have a good feeling about the shipping companies," for both Japan and Thailand were selected as the most satisfactory attributes. While second- and third-ranked attributes differ among the four countries, it is remarkable that REPU5, "Shipping companies offer high quality service," has been selected as one of the top three attributes for China and Korea but the lowest attribute in Japan's case. As revealed in the result of REPU7, which has been selected as third highest, Thailand has better reputation than other industries while this attribute has the lowest score in China. Notably, REPU4,

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Table 1. Ranking

Variable			Korea		China		Japan		Thailand	
			M	R	M	R	M	R	M	R
Corporate Image	IMAGE1	Shipping companies are companies with a good image.	3.11	4	3.73	3	3.51	2	3.60	3
	IMAGE2	Shipping companies provide a safe form of transportation.	3.30	2	4.05	2	3.51	2	3.48	5
	IMAGE3	Shipping companies have a better image than other companies in different industries.	3.08	5	3.28	8	3.35	5	3.46	6
	IMAGE4	Shipping companies are innovative and pioneering.	2.98	6	3.38	7	2.77	8	3.34	8
	IMAGE5	Shipping companies are successful and self-confident.	3.19	3	3.50	5	3.45	4	3.63	1
	IMAGE6	Shipping companies conduct their business in an ethical way.	2.84	8	3.66	4	3.15	7	3.49	4
	IMAGE7	Shipping companies are open and responsive to their customers.	2.85	7	3.49	6	3.17	6	3.63	1
	IMAGE8	Shipping companies are professional.	3.84	1	4.19	1	4.15	1	3.43	7
		Average	3.15		3.66		3.38		3.51	
Corporate Reputation	REPU1	I have a good feeling about shipping companies.	3.37	2	3.67	3	3.83	1	3.57	1
	REPU2	Shipping companies are highly reputable.	3.38	1	3.56	5	3.57	4	3.44	4
	REPU3	Shipping companies are reliable.	3.15	4	3.83	1	3.74	2	3.56	2
	REPU4	Shipping companies are environmentally responsible.	2.94	7	3.37	6	3.51	5	3.31	7
	REPU5	Shipping companies offer high-quality services.	3.28	3	3.68	2	3.34	7	3.42	5
	REPU6	Shipping companies are socially responsible.	3.02	6	3.59	4	3.72	3	3.42	5
	REPU7	I believe that the reputation of shipping companies is better than that of other companies in different industries.	3.08	5	3.32	7	3.36	6	3.52	3
		Average	3.17		3.57		3.58		3.46	

Note: M: Mean, R: Ranking

"Shipping companies are environmentally responsible," did not reach the top three attributes in any examined country.

Compared with a company's image, reputation takes a relatively longer time to build. Thus, according to the results, it is necessary to build a better reputation in Korea and Thailand through eco-friendly activities. In addition, shipping companies in China must build a reputation together with image by emphasizing the industry's importance to the Chinese economy through comparison with other industries. Shipping firms in Japan need to try to build a reputation associated with differentiated services tailored to customer needs as well as promote their services widely.

4.2   Differences

ANOVA was conducted to explore the differences in corporate image among the four countries. The results of comparing the means of eight attributes across the four countries, as shown in Table 2, revealed the following:

- For IMAGE1, China had the highest average of 3.73 while Korea had the lowest average of 3.11
- For IMAGE2, China also had the highest average of 4.05 while Korea again had the lowest

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average of 3.3

- For IMAGE3, Thailand had the highest average of 3.46 while Korea had the lowest average of 3.08
- For IMAGE4, China had the highest average of 3.38 while Japan had the lowest average of 2.77
- For IMAGE5, Thailand had the highest average of 3.63 while Korea had the lowest average of 3.19
- For IMAGE6, China had the highest average of 3.66 while Korea had the lowest average of 2.84
- For IMAGE7, Thailand had the highest average of 3.63 while Korea had the lowest average of 2.85
- For IMAGE8, the average of China is highest with 4.19 while Thailand has the lowest average of 3.43

Above all, most scores on image-related attributes in China are highest except for three image attributes (i.e., IMAGE3, 5, and 7). Korea was found to have the lowest scores for image attributes, except for IMAGE4, which was lowest in Japan, and IMAGE8, which was lowest in Thailand. These results can be utilized for each country to develop specific marketing strategies to improve the industry's poor image in each country by targeting the country-specific areas of poor perceptions.

Statistically significant differences were found at the p < 0.05 level for all attributes in the four countries, with different F-values. The comparison of the overall average of eight image attributes across the four countries indicated that China has the highest score of 3.66, followed by Thailand (3.51), Japan (3.38), and Korea (3.15). There was a statistically significant difference at the p < 0.05 level, with F-value = 53.3 and p = 0.001. Post hoc

comparisons were then made with Scheffe's test (p < 0.05 significance level). The result proved that Korea is significantly different from China, Japan, and Thailand whereas Japan and Thailand do not vary significantly from each other.

Table 2. Mean Difference of Corporate Image

Attribute	K	C	J	T	F-value (p-value)
IMAGE1	3.11	3.73	3.51	3.6	17.67(0.001)
IMAGE2	3.3	4.05	3.51	3.48	18(0.001)
IMAGE3	3.08	3.28	3.35	3.46	6.69(0.001)
IMAGE4	2.98	3.38	2.77	3.34	8.3(0.001)
IMAGE5	3.19	3.5	3.45	3.63	7.75(0.001)
IMAGE6	2.84	3.66	3.15	3.49	30.32(0.001)
IMAGE7	2.85	3.49	3.17	3.63	25.35(0.001)
IMAGE8	3.84	4.19	4.15	3.43	13(0.001)
Average	3.15[c]	3.66[a]	3.38[b]	3.51[b]	53.3(0.001)

Note: [abcd] indicate the results of Scheffe's test (Sig. level α=0.05),
K: Korea, C: China, J: Japan, T: Thailand

ANOVA was conducted to explore the differences of corporate reputation among the four countries. According to the results of comparing the means of 7 attributes across four countries, indicated in Table 3, the following results can be presented:

- For REPU1, Japan had the highest average of 3.83 while Korea had the lowest average of 3.37
- For REPU2, Japan had the highest average of 3.57 while Korea had the lowest average of 3.38
- For REPU3, China had the highest average of 3.83 while Korea had the lowest average of 3.15
- For REPU4, Japan had the highest average of 3.51 while Korea had the lowest average of 2.94
- For REPU5, China had the highest average of 3.68 while Korea had the lowest average of 3.28
- For REPU6, Japan had the highest average of 3.72 while Korea had the lowest average of 3.02
- For REPU7, Thailand had the highest average of 3.52 while Korea had the lowest average of 3.08

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Interestingly, most attributes had the highest scores for reputation (four out of seven attributes) in Japan. Considering that Japan's shipping industry has the longest history out of the four countries, the results are quite reasonable as reputation takes a longer time to build than image. However, even if the overall average of Japan is higher than others, it should be noted that it is only slightly higher than China. In contrast, Korea shows the lowest scores for all variables.

There were statistically significant differences at the p < 0.05 level for six attributes in the four countries, with different F-values; the exception was REPU2, which showed no statistically significant difference at the p < 0.05 level for the four countries, at F-value = 1.34 and p = 0.262. The comparison of the overall average of seven reputation attributes across the four countries indicated that Japan has the highest score of 3.58, followed by China (3.57), Thailand (3.46), and Korea (3.17). There was a statistically significant difference at the p < 0.05 level, with F-value = 73.51 and p = 0.001. Despite reaching statistical significance, the actual difference in mean scores between Japan and China is quite small. Post hoc comparisons were then made with Scheffe's test (p < 0.05 significance level). The result confirmed that Korea is significantly different from China, Japan, and Thailand whereas China, Japan, and Thailand do not differ significantly from each other.

Table 3. Mean Difference of Corporate Reputation

Attribute	K	C	J	T	F-value (p-value)
REPU1	3.37	3.67	3.83	3.57	6.22(0.001)
REPU2	3.38	3.56	3.57	3.44	1.34(0.262)
REPU3	3.15	3.83	3.74	3.56	23.1(0.001)
REPU4	2.94	3.37	3.51	3.31	10.26(0.001)
REPU5	3.28	3.68	3.34	3.42	5.45(0.001)
REPU6	3.02	3.59	3.72	3.42	17.71(0.001)
REPU7	3.08	3.32	3.36	3.52	6.64(0.001)
Average	3.17[b]	3.57[a]	3.58[a]	3.46[a]	73.51(0.001)

Note: [abcd] indicate the results of Scheffe's test (Sig. level α=0.05),
      K: Korea, C: China, J: Japan, T: Thailand

4.3   Differences by Demographic Characteristics

4.3.1   Gender Differences

According to the gender difference analysis in Table 4, first, regarding corporate image, the average for men in Korea (3.16) and Japan (3.38) is revealed to be slightly higher than that for women. In contrast, the average for women in China (3.67) and Thailand (3.54) is shown to be slightly higher than that for men. There was no statistically significant difference at the p < 0.05 level for all four countries. In terms of men's evaluation of corporate image, China has the highest average of 3.63 while Korea has the lowest average of 3.16. There was a statistically significant difference at the p < 0.05 level for the four countries. In addition, for women's evaluation of corporate image, China has the highest average of 3.67 while Korea has the lowest average of 3.11. There was a statistically significant difference at the p <0.05 level for the four countries. According to the results of Scheffe's test, for men, only China differs from Korea. For women, Korea is different from China and Thailand while China also differs from Japan.

Regarding corporate reputation, the average for men in Korea (3.22), China (3.59), and Japan (3.59) is revealed to be higher than that for women. In contrast, the average for women in Thailand (3.50) is shown to be higher than that for men. No statistically significant difference was found at the p < 0.05 level for the all four countries. In terms of men's evaluation of corporate reputation, both China and Japan have the highest average of 3.59 while Korea has the lowest average of 3.22. There was a statistically significant difference at the p < 0.05 level for the four countries. In addition, for women's evaluation of corporate reputation, China has the highest average of 3.54 while Korea has the lowest average of 3.06. A statistically significant difference exists at

the p < 0.05 level for the four countries. According to the results of Scheffe's test, for men, Korea differs from China and Japan. For women, Korea differs from China, Japan, and Thailand but those three countries do not differ from each other.

Table 4. Mean Difference by Gender

Factor	Gender	K	C	J	T	F-value (p-value)
Corporate Image	Male	3.16[b]	3.63[a]	3.38[b]	3.47[b]	3.057 (0.045)
	Female	3.11[c]	3.67[a]	3.25[bc]	3.54[ab]	6.736 (0.001)
	t-value (p-value)	0.314 (0.758)	−0.209 (0.838)	0.725 (0.48)	−1.133 (0.276)	
Corporate Reputation	Male	3.22[b]	3.59[a]	3.59[a]	3.42[ab]	6.657 (0.002)
	Female	3.06[b]	3.54[a]	3.52[a]	3.50[a]	6.417 (0.002)
	t-value (p-value)	1.494 (0.161)	0.434 (0.672)	0.396 (0.699)	−1.23 (0.242)	

Note: [abcd] indicate the results of Scheffe's test (Sig. level α=0.05),
K: Korea, C: China, J: Japan, T: Thailand

4.3.2 Educational Background Differences

According to the educational background difference analysis in Table 5, regarding corporate image, for Korea, the average for undergraduate students (3.11) is shown to be highest, but no statistically significant difference was found at the p < 0.05 level. For China, the average for Master's students (3.74) is highest, but no statistically significant difference was found at the p < 0.05 level. For Japan, Master's students had the highest average (3.50), but with no statistically significant difference at the p < 0.05 level. In the case of Thailand, as no PhD students participated in this survey, simply the mean of undergraduate and Master's students were compared, and Master's students (3.61) were found to have a higher average than undergraduate students (3.50), but with no statistically significant difference at the p < 0.05 level.

In the analysis according to educational background, undergraduate students in China (3.67) have the highest average while those in Korea (3.11) have the lowest, a finding statistically significant at the p < 0.05 level. For Master's students,

those in China (3.74) have the highest average while those in Korea (2.97) have the lowest; this finding is statistically significant at the p < 0.05 level. For PhD students, those in China (3.31) and Japan (3.31) have the highest averages, while those in Korea (3.00) have the lowest. However, there was no statistically significant difference at the p < 0.05 level. According to the results of Scheffe's test, for undergraduate students, China differs from Japan and Korea, and Korea differs from Thailand. For Master's students, only Korea is different from China while there is no difference between PhD students.

Regarding corporate reputation, for Korea, the average of undergraduate students (3.06) is highest, but no statistically significant difference was found at the p < 0.05 level. For China, the average for undergraduate and Master's students (3.54) is shown to be highest but not statistically significant at the p < 0.05 level. For Japan, the average for Master's students (3.71) is highest, and there was a statistically significant difference at the p < 0.05 level. However, careful interpretation is needed as only one Master's student participated in the survey. In case of Thailand, as no PhD students participated in this survey, only the average of undergraduate and Master's students were compared, indicating that Master's students (3.52) have a higher average than undergraduate students (3.50), with no statistically significant difference found at the p < 0.05 level: t = −0.47, p = 0.653.

In the analysis according to educational background, undergraduate students in China (3.54) have the highest average while those in Korea (3.06) have the lowest, a finding that was statistically significant at the p < 0.05 level. For Master's students, those in Japan (3.71) have the highest average while those in Korea (2.98) have the lowest; again this finding was statistically significant at the p

< 0.05 level. For PhD students, those in China (3.41) have the highest average while those in Korea (2.86) have the lowest one. However, no statistically significant difference was found at the p < 0.05 level. According to the results of Scheffe's test, for undergraduate students, Korea differs from China, Japan, and Thailand. For Master's students, Korea is different from China and Japan, while there is no difference between PhD students.

Table 5. Mean Difference by Educational Background

Factor	Educational Background	K	C	J	T	F-value (p-value)
Corporate Image	Under-graduate	3.11[c]	3.67[a]	3.25[bc]	3.54[ab]	6.764 (0.001)
	Master	2.97[b]	3.74[a]	3.50[b]	3.61[ab]	3.114 (0.042)
	PhD	3.00[a]	3.31[a]	3.31[a]	-	0.994 (0.387)
	F/t-value (p-value)	0.493 (0.618)	2.268 (0.128)	0.202 (0.818)	−1.242 (0.235)	
Corporate Reputation	Under-graduate	3.06[b]	3.54[a]	3.52[a]	3.50[a]	6.458 (0.002)
	Master	2.98[b]	3.54[a]	3.71[a]	3.52[b]	5.818 (0.004)
	PhD	2.86[a]	3.41[a]	2.93[a]	-	2.606 (0.101)
	F/t-value (p-value)	2.008 (0.163)	0.785 (0.471)	8.037 (0.003)	−0.47 (0.653)	

Note:[abcd] indicate the results of Scheffe's test (Sig. level α=0.05), K: Korea, C: China, J: Japan, T: Thailand

4.3.3   Major Differences

According to the major difference analysis in Table 6, for corporate image, the average for shipping majors in Korea (3.16) and Japan (3.41) is revealed to be higher than those for other majors. In contrast, the average for other majors in China (3.68) and Thailand (3.52) is shown to be higher than that of shipping majors. However, no statistically significant difference was found at the p < 0.05 level for the four countries. In terms of shipping majors' evaluation of corporate image, China has the highest average of 3.63 while Korea has the lowest average of 3.16, with no statistically significant difference found at the p < 0.05 level for the four countries. In addition, for other majors' evaluation of corporate image, China has the highest average of 3.68

while Japan has the lowest average of 3.03; in this case, a statistically significant difference was found at the p < 0.05 level for the four countries. According to the results of Scheffe's test, for students majoring in shipping, Korea is different from all three countries, while there is no difference between Japan and Thailand. For students majoring in other subjects, China differs only from Japan.

For corporate reputation, the average for shipping majors in all four countries is revealed to be higher than that of other majors. There was statistically significant differences at the p < 0.05 for Japan, whose t-value is 4.398 with p = 0.001, and Thailand, whose t-value is 2.59 with p = 0.024, but no statistically significant differences for Korea and China. In terms of shipping majors' evaluation of corporate reputation, Japan has the highest average of 3.64 while Korea has the lowest average of 3.20, with a statistically significant difference found at the p < 0.05 level for the four countries. In addition, in other majors' evaluation of corporate reputation, China has the highest average of 3.56 while Korea has the lowest average of 3.07, a statistically significant finding at the p < 0.05 level for the four countries. According to the results of Scheffe's test, for students majoring in shipping, Korea differs from the other three countries and for students majoring in other subjects, China differs from Korea and Japan while Korea is different from Thailand as well.

Table 6. Mean Difference by Major

Factor	Major	K	C	J	T	F-value (p-value)
Corporate Image	Shipping	3.16[a]	3.63[c]	3.41[b]	3.43[b]	2.772 (0.06)
	Others	3.07[b]	3.68[a]	3.03[b]	3.52[b]	4.387 (0.012)
	t-value (p-value)	0.523 (0.609)	−0.296 (0.771)	1.361 (0.195)	−1.26 (0.228)	
Corporate Reputation	Shipping	3.20[b]	3.57[a]	3.64[a]	3.6[a]	9.279 (0.000)
	Others	3.07[c]	3.56[a]	3.11[bc]	3.45[b]	9.4 (0.000)
	t-value (p-value)	1.126 (0.282)	0.109 (0.915)	4.398 (0.000)	2.59 (0.024)	

Note:[abcd] indicate the results of Scheffe's test (Sig. level α=0.05), K: Korea, C: China, J: Japan, T: Thailand

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4.3.4   Shipping Industry Experience Differences

According to difference analysis of shipping industry experience in Table 7, for corporate image, the average of respondents with shipping industry experience in Japan (3.38), Thailand (3.71), China (4.38) is higher than that of respondents with no shipping industry experience. In contrast, the average of respondents with no shipping industry experience in Korea (3.15) is shown to be higher than that of respondents with shipping industry experience. However, the result is limited as only one student with industry experience in China participated in the survey. In addition, except for China whose t-value is 3.41 with p = 0.005 and Thailand (t = 2.248, p = 0.041), no statistically significant differences were found at the p < 0.05.

In terms of corporate image evaluations made by respondents with prior shipping industry experience, China has the highest average of 4.38 while Korea has the lowest average of 3.14, a finding with a statistically significant difference at the p < 0.05 level for the four countries. In addition, corporate image evaluations by those without prior shipping industry experience, China has the highest average of 3.64 while Korea has the lowest average of 3.15; a statistically significant difference was found at the p < 0.05 level for the four countries. According to the results of Scheffe's test, for students who have prior experience in the shipping industry before, China differs from Korea and Japan, and for students lacking prior experience in the shipping industry, China is only different from Korea.

For corporate reputation, the average for respondents with prior shipping industry experience in China (4.00) and Thailand (3.78) is higher than for respondents with no shipping industry experience. On the contrary, the mean for participants without

shipping industry experience in Korea (3.18) and Japan (3.59) is higher than that for respondents with shipping industry experience. However, similar to China, there was only one Japanese respondent who has shipping experience joined in the survey. Except for Thailand, whose t-value is 3.326 with p = 0.006, no statistically significant differences were found at p < 0.05.

In terms of corporate reputation evaluations by respondents with prior shipping industry experience, China has the highest average of 4.00 while Korea has the lowest average of 3.05. A statistically significant difference at the p < 0.05 level was found for the four countries. In addition, for corporate reputation evaluations by respondents with no prior shipping industry experience, Japan has the highest average of 3.59 while Korea has the lowest average of 3.18. A statistically significant difference at the p < 0.05 level was found for the four countries. According to the results of Scheffe's test, for students with prior shipping industry experience, China differs from Korea, and for students with no prior experience, China differs from Korea while Korea also differs from Japan.

Table 7. Mean Difference by Shipping Industry Experience

Factor	Experience	K	C	J	T	F-value (p-value)
Corporate Image	Yes	3.14[b]	4.38[a]	3.38[b]	3.71[b]	6.995 (0.001)
	No	3.15[b]	3.64[a]	3.37[b]	3.49[b]	3.506 (0.028)
	t-value (p-value)	−0.042 (0.967)	3.41 (0.005)	0.008 (0.994)	2.248 (0.041)	
Corporate Reputation	Yes	3.05[b]	4.00[a]	3.29[b]	3.78[b]	4.034 (0.019)
	No	3.18[b]	3.56[a]	3.59[a]	3.43[b]	9.518 (0.001)
	t-value (p-value)	−1.673 (0.129)	1.394 (0.189)	−1.034 (0.337)	3.326 (0.006)	

Note: [abcd] indicate the results of Scheffe's test (Sig. level α=0.05), K: Korea, C: China, J: Japan, T: Thailand

5.   Conclusion

This exploratory study investigating student perceptions of shipping

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companies' image and reputation is significant compared with other existing studies, which only focus on the three major shipping countries in Northeast Asia, Korea, China, and Japan, because this study expands the scope of existing research by including Thailand. Based on the analysis results, this study proposes implications along two dimensions, one for industry and the other for education use. At practical level, first, there is a need to strengthen marketing strategies by extending activities to cover not only other businesses (shippers) but also the general public, including students. This is of major significance to attract competitive employees who are seeking future careers in shipping, as supported by [13]. For this type of marketing, shipping companies' CSR activities can be introduced in commercial advertisements at a firm level and it can be utilized at a national level by developing policies to improve the industry's image and reputation. Furthermore, well-established and active CSR initiatives from other industries that reflect the shipping industry's features can be benchmarked. For example, [3] developed key CSR performance criteria that can be employed in the international maritime shipping sectors. This consists of mainly four areas: environmental responsibility, social responsibility, CSR governance, and collaborative responsibility, with 50 specific sub-factors. These areas and factors can be diversified according to the country-specific circumstances. Europe has already initiated such an effort as a part of the KNOWME project. Here, CSR has been identified as a crucial concept that enhances the shipping companies' performance. It is also seen as an important marketing communication strategy for improving the shipping industry's image.

Second, social media is widely used now among all generations and can be actively utilized to increase the appearance of shipping companies and increase public awareness. Social media also makes it easier and faster to get more frequent feedback from the public. Moreover, by making good use of social media, it is possible to develop the community in which the shipping company operates. [12], working for Helix Media Pte. Ltd, has emphasized the impact of social media in shipping industry news, particularly for negative accidents or crises and also provided ways to use social media wisely in the shipping context. Again, in this regard, the analysis results can be used to boost the industry's image in countries where its average is low. Thirdly, the most crucial step is to develop each company's corporate brand identity beyond PR and advertising activities. This requires a clear definition of the vision, mission, and values of the company. In addition, a distinctive logo and slogan should be created that can be used to effectively communicate with customers. Although this is not yet popular in the shipping industry, Maersk and DNV have developed their own brands, which clearly convey their respective visions of their companies [22]. [23] has also argued that a branding strategy is an effective way to solve the shipping industries' low image and reputation issues. Here, support of corporate executives is vital to such efforts' success.

At education level, teaching regarding the industry's history and significance to international trade, highlighting its contribution to each country's economic development, seems to be a good approach to improve the shipping industry's image and reputation. Korea, China, and Japan are fiercely competing to become the logistics hub in Northeast Asia, and Thailand, as one of the leading shipping industry countries in Southeast Asia, also shows the region's fastest growth rate in terms of feet. Therefore, efforts to include such content in class should be able to raise awareness of the shipping industry.

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Third, practitioners and entrepreneurs engaged in the shipping industry can be invited to host seminars to present the latest industry news. This will most likely bring a synergy effect in education. Fourth, academic bridge programs targeting students, such as site tours, will be a good idea. Above all, financial support from the government is necessary for developing a new curriculum and materials, as well as training and retraining faculties.

References

[1] Andreassen, T. W., Lindestad, B., *"Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise"*, International Journal of Service Industry Management, Vol. 9, No. 1, pp. 7-23, 1998.

[2] Churchill, G. A., Iacobucci, D., *Marketing research: methodological foundations*, Thomas Learning, South-Western, 2002.

[3] Coady, L., Lister, J., Strandberg, C., Ota, Y., *"The role of corporate social responsibility (CSR) in the international shipping sector, A phase 2 research paper"*, The Northern European Symposium on CSR in Shipping, Copenhagen, Denmark, 12 November, 2013.

[4] Dowling, G. R., *"Measuring corporate images: A review of alternative approaches"*, Journal of Business Research, Vol. 17, No. 1, pp. 27-34, 1988.

[5] Eberle, D., Berens, G., Li, T., *"The impact of interactive corporate social responsibility communication on corporate reputation"*, Journal of Business Ethics, Vol. 118, No. 4, pp. 731-746, 2013.

[6] Fafaliou, I., Lekakou, M., Theotokas, I., *"Is the European shipping industry aware of corporate social responsibility? The case of the Greek-owned short sea shipping companies"*, Marine Policy, Vol. 30, No. 4, pp. 412-419, 2006.

[7] Fombrun, C., *Reputation*, John Wiley & Sons, Ltd., New York, 1996.

[8] Foroudi, P., Melewar, T. C., Gupta, S., *"Linking corporate logo, corporate image, and reputation: An examination of consumer perceptions in the financial setting"*, Journal of Business Research, Vol. 67, No. 11, pp. 2269-2281, 2014.

[9] Hatch, M. J., Schultz, M., *"Relations between organizational culture, identity and image"*, European Journal of Marketing, Vol. 31, No. 5/6, pp. 356-365, 1997.

[10] Herbig, P., Milewicz, J., *"The relationship of reputation and credibility to brand success"*, Journal of Consumer Marketing, Vol. 10, No. 3, pp. 18-24, 1993.

[11] Hsu, K. T., *"The advertising effects of corporate social responsibility on corporate reputation and brand equity: Evidence from the life insurance industry in Taiwan"*, Journal of Business Ethics, Vol. 109, No. 2, pp. 189-201, 2012.

[12] Ion, E. *"Social Media and Shipping"*, Article in Helix Media published in August 2014.

[13] Jensen, A. K., Bergqvist, R. Y., Hjelle, H. M., Lekakou, M. B., *"The image of shipping–perceptions of pupils in upper secondary schools in Sweden, Norway, and Greece"*, International Association of Maritime Economists, Marseille, France, 3-5 July, 2013.

[14] Kennedy, S. H., *"Nurturing corporate image"*, European Journal of Marketing, Vol. 11, No. 3, pp. 120-164, 1977.

[15] Kim, T. S., *"Rediscovery of Korea, China, Japan: Comparison of national economy and industrial competitiveness and its implications"*, Mirae Asset Research Centre, May 2015.

[16] Kuo, C. W., Tang, M. L., "*Relationships among service quality, corporate image, customer satisfaction, and behavioral intention for the elderly in high speed rail services*", Journal of Advanced Transportation, Vol. 47, No. 5, pp. 512-525, 2013.

[17] Lai, C. S., Chiu, C. J., Yang, C. F., Pai, D. C., "*The effects of corporate social responsibility on brand performance: The mediating effect of industrial brand equity and corporate reputation*", Journal of Business Ethics, Vol. 95, No. 3, pp. 457-469, 2010.

[18] Nguyen, N., Leblanc, G., "*Corporate image and corporate reputation in customers' retention decisions in services*", Journal of Retailing and Consumer Services, Vol. 8, No. 4, pp. 227-236, 2001.

[19] Pina, J. M., Martinez, E., De Chernatony, L., Drury, S., "*The effect of service brand extensions on corporate image: An empirical model*", European Journal of Marketing, Vol. 40, No. 1/2, pp. 174-197, 2006.

[20] Plummer, J. T., "*How personality makes a difference*", Journal of Advertising Research, Vol. 40, No. 6, pp. 79-83, 2000.

[21] Sarstedt, M., Wilczynski, P., Melewar, T. C., "*Measuring reputation in global markets—A comparison of reputation measures' convergent and criterion validities*", Journal of World Business, Vol. 48, No. 3, pp. 329-339, 2013.

[22] Somerville-Ryan, G., "*Building a shipping brand*", Splash24/7.com, 20 November, 2013.

[23] Somerville-Ryan, G., "*Marketing 101 (Brand Development) for shipping companies*", Splash24/7.com, 17 February, 2015.

[24] Theotokas, I., Bissias, I., "*A touch of salt: the image of shipping in newspapers of the UK*", WMU Journal of Maritime Affairs, Vol. 13, No. 2, pp. 177-190, 2014.

[25] Voss, G. B., Voss, Z. G., "*Strategic orientation and firm performance in an artistic environment*", Journal of Marketing, Vol. 64, No. 1, pp. 67-83, 2000.

[26] Walsh, G., Beatty, S. E., Shiu, E. M., "*The customer-based corporate reputation scale: Replication and short form*", Journal of Business Research, Vol. 62, No. 10, pp. 924-930, 2009.

[27] Wang, C. Y., "*Service quality, perceived value, corporate image, and customer loyalty in the context of varying levels of switching costs*", Psychology & Marketing, Vol. 27, No. 3, pp. 252-262, 2010.

[28] Wang, Y., Kandampully, J. A., Lo, H. P., Shi, G., "*The roles of brand equity and corporate reputation in CRM: a Chinese study*", Corporate Reputation Review, Vol. 9, No. 3, pp. 179-197, 2006.