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An Investigation of Shippers’ Satisfaction and Behaviour towards Corporate Social Responsibility in Maritime Transport

ABSTRACT

Anchoring on the theory of planned behaviour (TPB), the current paper investigates the moderating influences of shippers’ corporate social responsibility (CSR) beliefs on their satisfaction and behaviour towards shipping firms’ involvement in CSR. It also analyses organisational and environmental factors that shape shippers’ CSR beliefs. Survey data were obtained from 276 shippers with business offices located in Singapore, and analysed using multi-sampling approach and linear regression modelling. The results show that shippers with strong CSR beliefs derive greater satisfaction, and exhibit stronger behavioural intentions towards shipping firms’ involvement in CSR. In addition, shippers’ CSR beliefs are influenced by shippers’ organisational characteristics such as (1) firm’s age, (2) firm’s size, (3) degree of internationalisation, (4) types of products shipped, and environmental factors such as (5) perceived environmental and social threats, (6) perceived level of competition, and (7) level of CSR practices in headquarters. The results contribute to TPB research application in both B2C and B2B contexts, and motivate changes to the current marketing and communication practices of shipping firms.

Keywords: Theory of Planned Behaviour, Corporate Social Responsibility, Beliefs, Satisfaction, Behavioural Intentions, Shippers

1. INTRODUCTION

Corporate Social Responsibility (CSR) in maritime transport is defined as ‘the integration of social and environmental concerns in the business operations of shipping firms and in the interaction with stakeholders on a voluntary basis’ (Pawlik et al., 2012 p. 206). CSR in maritime transport is gaining importance in view of the rising pressure exerted by shippers who are implementing CSR themselves, and are using it as a criterion for carrier selection or the award of tenders (Matthews, 2010; Pruzan-Jorgensen and Farrag, 2010).

From the shippers’ perspective, CSR can improve their satisfaction with the services of the appointed shipping firm (Yuen et al., 2016a). This could translate to positive behavioural
intentions such as positive word of mouth, repurchase intention, loyalty, and willingness to pay price premiums for a shipping service (Schniederjans and Starkey, 2014; Shin and Thai, 2015). Consequently, these positive behavioural intentions contribute to the long-term market and financial performance of shipping firms (Drobetz et al., 2014; Shin and Thai, 2016).

However, an underlying assumption of the existing research on CSR in maritime transport is the homogeneity of shippers (Schniederjans and Starkey, 2014; Shin and Thai, 2015; Shin and Thai, 2016). Existing research assumes that shippers’ receptivity towards CSR practised by shipping firms is invariant, or in other words, does not vary across contexts. The current paper argues against this assumption. In the general literature, it was found that several factors moderate customers’ receptivity towards a firm’s CSR. They are company-cause fit ¹ (Koschate-Fischer et al., 2015), brand familiarity (Perera and Chaminda, 2013), spatial distance between customers and CSR initiatives, internal versus external information source (Groza et al., 2011), and proactive versus reactive CSR (Park and Kim, 2016). These factors are anchored on the theory of customer attribution, which holds that customers’ favourability towards a firm’s CSR is contingent on attributions they make regarding the firm’s motives (Walker et al., 2010). For instance, a customer has the tendency to view and react to CSR practised by a firm more positively if the firm’s CSR activities are perceived to be consistent with its scope of operations, or a firm’s involvement in CSR to be proactive rather than reactive.

The current paper differentiates from the mainstream research that is grounded on the theoretical lens of customer attribution. It aims to provide a finer, differentiated view of shippers’ satisfaction and behaviour towards CSR by anchoring on the theory of planned behaviour (TPB). The theory posits that an individual’s or entity’s intention to exhibit a behaviour is influenced by their belief systems which comprise their attitude, subjective norms, and control towards the behaviour. Amongst other behavioural theories, TPB is widely acknowledged for its efficacy in explaining the nuances of a behaviour (Han, 2015; Yuen et al., 2017b). Therefore, it can be argued as an appropriate theoretical lens that fits the aim of this study.

The central tenet of the paper is that shippers’ evaluation of (i.e. satisfaction) and behavioural response to shipping firms’ involvement in CSR are more positive if they view CSR to be congruent with their own belief systems. In addition, the current paper argues that a shipper’s belief system is jointly shaped by the configuration of its organisational characteristics and

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¹ Company-cause fit refers to customers’ perceived relatedness of a company’s CSR activities and its nature of business. For instance, it is deemed that Footlocker’s support of refurbishing public-school playground basketball backboards has greater company-cause fit than Nissan Corporation’s support of education (Barone et al., 2007).
external environment. Accordingly, these arguments will be further elaborated and tested using structural equation modelling-based multi-sampling approach, and multiple linear regressions.

The remaining parts of the paper are organised as follows. First, a research model that specifies the moderating influences of shippers’ CSR beliefs on the relationships between (1) perceived level of a shipping firm’s CSR, (2) perceived level of service quality, (3) satisfaction, and (4) behavioural intentions was developed. Subsequently, organisational and environmental factors influencing shippers’ CSR beliefs were proposed. Thereafter, the scales for operationalising the listed constructs were developed and an internet survey was administered to shippers in Singapore. Subsequently, the survey data were analysed. Finally, the results were presented and discussed, and conclusions were drawn.

2. LITERATURE REVIEW

2.1 Corporate Social Responsibility in Maritime Transport: A Review of Contemporary Research

Maritime transport is a business-to-business industry. There have been arguments that being positioned further away from end-consumers, shipping firms receive fewer benefits for implementing CSR since they are less scrutinised by the public, media, and shippers for their involvement in CSR (Fafaliou et al., 2006; Skovgaard, 2014). Pawlik et al. (2012) argued that shippers, which are generally business entities, are more rational and pragmatic in their selection and evaluation of services. Unlike end-consumers, shippers place greater emphasis on basic performance criteria such as quality and price over discretionary criteria such as CSR.

Despite such arguments, Drobetz et al. (2014) reported that a majority of shipping firms are addressing CSR at the visionary and strategic levels. Furthermore, a positive relationship was found between CSR and business performance (Lu et al., 2009; Yuen et al., 2016b). Their findings support the business case and the value of implementing CSR in maritime transport.

Although the implementation of CSR generates value to a wide array of stakeholders, most CSR research on maritime transport has focused on the perspectives of management (Hsueh, 2015; Lam, 2015; Lam and Lim, 2016; Yuen et al., 2016b, 2017a), shareholders (Drobetz et al., 2014; Lu et al., 2009), and employees (Kitada and Ölçer, 2015; Progoulaki and Roe, 2011; Sampson and Ellis, 2015). Despite the fact that shippers contribute to the main stream of
revenue for most maritime transport businesses, very little attention has been paid to shippers, and in particular, from the behavioural perspective. Within the limited literature (Schniederjans and Starkey, 2014; Shin and Thai, 2015; Shin and Thai, 2016), most studies have only provided an aggregated snapshot of shippers’ responses and behaviour towards CSR.

The current literature has not adequately explained the nuances in shippers’ attitude, responses, or behaviour towards CSR practised by shipping firms. Philipp and Militaru (2011) demonstrated that a shipper’s ecological purchasing behaviour is motivated by the shipper’s perceived compatibility between ecological and traditional logistics services, visibility of its ecological actions within the supply chain, and overall ecological strategy. Accordingly, the highlighted factors suggest differences in shippers’ behaviour towards CSR, which are influenced by their perception of CSR, management philosophy, and organisational and industrial context.

2.2 Shippers’ Satisfaction and Behaviour towards Corporate Social Responsibility: The Theory of Planned Behaviour

The aforementioned discussion calls for a theory-driven explanation for the differences in shippers’ behaviour towards CSR. The current paper builds on the well-established CSR-Satisfaction-Behavioural Intentions model (Figure 1). According to perceived value theory, CSR provides functional, emotional, and social values to shippers, which leads to satisfaction (Loureiro et al., 2012; Peloza and Shang, 2011; Yuen et al., 2016a). Subsequently, shippers’ satisfaction motivates behavioural intentions such as increased repurchase intentions and loyalty, suggesting a mediated relationship (Shin and Thai, 2015). Service quality is incorporated into the research model since it is a key contributor to satisfaction and an indirect motivator of behavioural intentions in the maritime transport context (Tuan, 2012). The inclusion is necessary as it was found that service quality interacts with CSR, and could potentially influence customers’ evaluation of behaviour towards CSR (Seo et al., 2015; Vecchio and Annunziata, 2015).

<INSERT FIGURE 1 HERE>

To account for differences in shippers’ evaluation and reaction towards shipping firms’ involvement in CSR, the current paper extends the existing research model by introducing “Shippers’ CSR Beliefs” as a moderator. The rationale is anchored on TPB, which posits that
belief systems comprising attitudes, subjective norms, and perceived behavioural control influence behavioural intentions and behaviours. According to TPB, customers possess a higher tendency to exhibit a specific behaviour if they view that behaviour to be congruent with their beliefs, and would result in a favourable outcome (e.g. attractive economic value or positive emotions). These beliefs are collectives of (1) attitude, (2) subjective norm, and (3) behavioural control.

Applying the theory to this context, the current paper defines shippers’ CSR beliefs as a collective of (1) their overall attitude towards CSR, (2) perceived pressures exerted by stakeholders (e.g. customers) to practise CSR, and (3) perceived ease or difficulty in engaging CSR (e.g. the availability of resources, time, and opportunities). Accordingly, the paper argues that shippers’ CSR beliefs moderate shippers’ satisfaction, and their behaviour towards a shipping firm’s involvement in CSR.

In the following subsections, the paper discusses and specifies the moderating influences of shippers’ CSR beliefs on the relationships between CSR, service quality, shippers’ satisfaction, and behavioural intentions.

2.2.1 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between CSR and Shippers’ Satisfaction

Adapting from the study of Anderson and Mittal (2000), the current paper defines shippers’ satisfaction as shippers’ overall evaluation of a service based on their total purchase and consumption experience with a shipping firm. This experience, which could be either positive, indifferent or negative, is formed based on their appraisal of functional (i.e. outcome) and process attributes that are attached to a shipping service, or associated with the service provider (e.g. brand).

The current paper argues that shippers with strong CSR beliefs derive greater satisfaction from shipping firms’ involvement in CSR. According to TPB, an individual’s or a firm’s belief system is influenced by (1) its overall attitude, (2) perceived pressures exerted by significant references (e.g. stakeholders), and (3) perceived ease of behavioural control. Applying TPB to this context, shippers with strong CSR beliefs or involvement would hold more positive attitudes towards CSR (Parsa et al., 2015). Secondly, shippers may be subjected to stronger institutional pressures (i.e. market, regulatory, and competitive
pressures) to be socially responsible and hence possess greater legitimacy and incentives to practise CSR (Chen et al., 2015; Govindan et al., 2014; Lai et al., 2013; Zhu et al., 2016; Zhu and Sarkis, 2007). Consequently, they would expect their downstream partners i.e. shipping firms to practise CSR and would place greater emphasis on evaluating shipping firms’ services based on their involvement in CSR (Lim et al., 2014).

In addition to the above arguments, perceived value theory suggests that shippers with strong CSR beliefs are expected to perceive greater utility on CSR attributes associated with a shipping service. For instance, they would dedicate more resources to search and gather the CSR information of shipping firms and are more aware of their involvement in CSR (Wong et al., 2014). They would also evaluate shipping firms’ involvement in CSR more favourably, and derive greater satisfaction from the firm’s CSR performance. Therefore, the following hypothesis is proposed.

\[ H_1: \text{The magnitude of the relationship between shipping firms’ involvement in CSR and shippers’ satisfaction is more positive for shippers with strong CSR beliefs than those with weak CSR beliefs.} \]

2.2.2 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between Service Quality and Shippers’ Satisfaction

It has been universally accepted that quality shipping services such as improved reliability, frequency, and customer service lead to shippers’ satisfaction (Chen et al., 2009). The existing literature suggests that customers with strong CSR beliefs are generally self-transcendence individuals (Janssen et al., 2014). They exhibit certain common traits such as benevolence and compassion, and are willing to sacrifice service quality for greater CSR performance in their evaluation of a product or service (Peloza and Shang, 2011). On the contrary, customers with weak CSR beliefs are argued to be self-enhancement individuals. They are associated with traits such as power and self-achievement, and are not willing to sacrifice service quality for greater CSR performance.

However, the aforementioned arguments are based on the perspectives of end-consumers and may not necessarily apply to business customers such as shippers. In a business-to-business (B2B) setting, customers’ product or service evaluation process is comparatively more complex, pragmatic, economically-motivated, and rational (Pai et al., 2015).
According to Pruzan-Jorgensen and Farrag (2010), service quality is a core attribute in shippers’ evaluation of maritime transport services. Conversely, CSR functions as a discretionary attribute and only contributes to satisfaction when all core attributes such as service quality and price have met their expectations. Findings from Yuen and Thai (2017) suggest that shippers are not willing to experience trade-offs in service evaluation, for example, compensating poor service quality with good CSR performance. In B2B contexts, this is most noticeable when the attribute to be compensated, such as service quality, is of critical importance to shippers.

These findings align with competitive signalling theory which suggests that sacrificing corporate ability (i.e. service quality) for better social and environmental performance conveys negative information to customers that a firm is misguided and misusing its resources (Luo and Bhattacharya, 2006). This may exclude the shipping firm from being selected or even considered by shippers. Therefore, the current paper proposes that a shipper’s CSR beliefs have no moderating effect on the relationship between service quality and shipper’s satisfaction.

\[ H_2: \text{The magnitude of the relationship between shipping firms’ service quality and shippers’ satisfaction does not differ between shippers with weak and strong CSR beliefs.} \]

2.2.3 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between Shippers’ Satisfaction and Behavioural Intentions

Behavioural intentions such as positive word of mouth, repurchase intention, and customer loyalty are direct consequences of satisfaction (Oliver, 2010). Meta-analyses show that the relationship is strong but reveal moderators that influence the relationship. The moderators can be classified into customer-related, relationship-related, and market place-related factors (Pollack, 2015; Seiders et al., 2005).

Customer-related moderators comprise factors such as personality, share of purchase and visits, and demographic variables such as age, income, gender, and economic orientation. Relationship-related moderators consist of factors relating to level of variety-seeking preference, level of interpersonal relationship with service provider, and length of relationship with service provider. Finally, market place-related moderators include factors such as switching costs, attractiveness of alternatives, and competitive intensity. These
factors have been shown to either motivate or demotivate satisfied customers to exhibit positive behavioural intentions.

Extending from the theoretical grounds of customer-related moderators, the current paper argues that shippers with strong CSR beliefs have a higher tendency to exhibit positive behavioural intentions when they are satisfied with the CSR activities of a shipping firm as compared to shippers with weak CSR beliefs. According to the cognitive dissonance theory, individuals or organisations constantly seek consistent cognitions to align with their beliefs and justify their behaviours (Shiu, 2015). To maintain internal consistency, shippers with strong CSR beliefs are more likely to view their satisfaction with a shipping firm’s involvement in CSR (i.e. a cognition) to be congruent with their beliefs, and hence, react to it more favourably (Deng and Xu, 2015; Jong and Meer, 2015). Comparatively, shippers with weak CSR beliefs are less likely to view their satisfaction with CSR to be congruent with their beliefs, and hence, respond to it less favourably. Therefore, the following hypothesis is proposed.

\[ H_3: \text{The magnitude of the relationship between shippers’ behavioural intention and shippers’ satisfaction is more positive for shippers with strong CSR beliefs than those with weak CSR beliefs.} \]

2.3 Organisational and Environmental Factors Influencing Shippers’ CSR Beliefs

At present, very little research has analysed factors that influence customers’ CSR beliefs, especially in a B2B context. The current paper builds on TPB to identify the factors. TPB posits that internal and external factors shape customers’ CSR beliefs, and subsequently, moderate their satisfaction and response towards shipping firms’ involvement in CSR. Both internal and external factors that could influence shippers’ CSR beliefs are reviewed, summarised, and explained in Table 1.

<INSERT TABLE 1 HERE>

In the context of maritime transport, internal factors relate to shippers’ organisational characteristics. The current paper proposes four variables that could influence shippers’ CSR beliefs. They are about the shipper’s organisation in terms of (1) firm’s age, (2) firm’s size, (3) degree of internationalisation, and (4) types of products shipped.
External factors refer to shippers’ external environment. They include (1) perceived environmental and social threats, (2) perceived level of competition, and (3) CSR practices in headquarters. Based on the explanations provided in Table 1, the current paper hypothesises that these variables influence shippers’ overall attitude towards CSR, perceived pressures exerted by significant referents such as their stakeholders to practise CSR, and/or perceived ease of practising CSR which, according to TPB, are factors underlying shippers’ CSR beliefs.

3. METHOD

3.1 Sampling and Data Collection Method

This study defines shippers as entities that buy maritime transport services for the carriage of goods by sea. In this regard, there are generally two types of shippers: (1) exporting manufacturers that own cargoes and engage a shipping company for the carriage of goods by sea, and (2) freight forwarders which do not own cargo but engage a shipping company for the carriage of goods by sea on behalf of a manufacturer. To test the hypotheses and examine the variables influencing shippers’ CSR beliefs, survey data were collected from the populations of exporting manufacturers and freight forwarders in Singapore. The sampling frame of this study was constructed from the online database of The Green Book Directory where information such as company name, contact person, and e-mail address, was obtained from the directory. A list of 2,433 companies was extracted from the directory.

The survey was administered electronically between the periods from April 2015 to June 2016. Invitation letters were electronically sent to the contact person of each company. The letter provides background information about the research, informs the methods to complete and return the survey, and assures the anonymity of participants and their affiliation. It was also indicated in the letter that, although no incentives have been offered, a summarised report will be sent to all participants who completed the survey to recognise their valuable input into this study. The letter also requests the recipients to forward it to a colleague who manages the logistics, strategy, or CSR of their firm.

Bi-weekly reminders were sent to the companies which have not responded. In the event of non-response after four months from the date of invitation, an alternative e-mail address of the company was sourced from its website or other online directories. Thereafter, a new invitation was sent to the company using the updated e-mail address.
At the end of June 2016, 276 completed surveys were received, and a response rate of 11.34% was achieved. The sample comprises 152 manufacturers and 124 freight forwarders. Approximately 72% of the respondents held managerial titles, and 63% of them possessed at least five years of working experience in their respective companies. These statistics indicate that the respondents are qualified to answer the survey questions on behalf of their companies.

3.2 Measurement Items and Scales Development

Table 2 presents the constructs, measurement items, and supporting literature that were used in the current study and survey. The constructs that were operationalised include CSR, service quality, shippers’ satisfaction, behavioural intentions, and shippers’ CSR beliefs.

For the operationalisation of CSR implemented by shipping firms, the current paper adopts the framework of Schreck (2009) which classifies CSR into five dimensions. They are employee CSR, community CSR, business ethics and corporate governance, customer CSR, and environmental CSR. Accordingly, two measurement items were obtained from Lu et al. (2009) and Shin and Thai (2015) to reflect each CSR dimension. The selected measurement items have been tested and shown to be valid and applicable to maritime transport. The respondents were asked to rate the perceived CSR performance of their main shipping company on a seven-point scale with ‘1’ equals ‘strongly disagree’ and ‘7’ equals ‘strongly agree’.

For the operationalisation of service quality, measurement items were obtained from Chen et al. (2009) and Yuen and Thai (2017) to reflect the five key dimensions of service quality in maritime transport. They are reliability, tangibles, responsiveness, empathy, and assurance. The respondents were requested to rate the perceived SQ performance of their main shipping company on a seven-point scale with ‘1’ equals ‘strongly disagree’ and ‘7’ equals ‘strongly agree’.

The measures for shipper’s satisfaction were adapted from the universal scale developed by Gronholdt et al. (2000), which captures various facets underlying satisfaction. The respondents were requested to rate their satisfaction with their main shipping company on a seven-point scale with ‘1’ equals ‘strongly disagree’ and ‘7’ equals ‘strongly agree’.
Behavioural intentions were operationalised by four measurement items relating to loyalty commitment and recommendations (Zeithaml et al., 1996). These items are commonly used by existing research, including those on transport, to measure behavioural intentions (Chen, 2016; Schniederjans and Starkey, 2014). The respondents were requested to rate their likelihood of performing the behaviours as reflected by the measurement items on a seven-point scale with ‘1’ equals ‘extremely unlikely’ and ‘7’ equals ‘extremely likely’.

The measures for CSR beliefs were adapted from Kim and Han (2010) to fit the maritime transport sector. Accordingly, four measurement items were selected to reflect shippers’ attitudes towards CSR, the perceived level of pressures applied by stakeholders to practise CSR, and the perceived ease of practising CSR. The respondents were requested to rate the items on a seven-point scale with ‘1’ equals ‘strongly disagree’ and ‘7’ equals ‘strongly agree’. Pertaining to shippers’ attitudes towards CSR, two measurement items concerning the desirability and pleasantness of implementing CSR are developed. The desirability of implementing CSR reflects how valuable implementing CSR is to a shipper in achieving its economic, societal, or environmental goals. In this regard, economic goals cover a wide array of financial objectives such as profit maximisation, revenue maximisation, or cost minimisation. On the other hand, for the pleasantness of implementing CSR, it reflects the altruistic goals of a company and the degree of congruence between implementing CSR and the values of a company.

Towards the end of the survey, the respondents were asked to describe their own firms’ characteristics and external environment. To measure firm’s age, an interval scale ranging from ‘1’ equals ‘0 to 10 years’, ‘2’ equals ‘10 to 20 years’, ‘3’ equals ’20 to 30 years’ and ‘4’ equals ‘>30 years’ was used. For firm’s size, a dichotomous scale with ‘0’ equals ‘≤200 employees’ and ‘1’ equals ‘>200 employees’ was employed (Tordesillas, 2011). For degree of internationalisation, an ordinal scale of ‘1’ equals ‘domestic’, ‘2’ equals ‘regional’, and ‘3’ equals ‘global’ was adopted. Domestic firms refer to shippers that only trade or operate locally in a country. Regional firms refer to shippers that have trades or operations restricted to a specific region such as South Asia. Global firms refer to internationalised firms that have trades or operations world-wide. For types of products shipped, an ordinal scale of ‘1’ equals ‘industrial goods’, ‘2’ equals ‘mixed’, and ‘3’ equals ‘consumer products’ was used. For the remaining variables, which include perceived environmental and social threats, perceived level of competition, and CSR practices in headquarters, a scale of ‘1’ which equals ‘extremely low’ and ‘5’ equals ‘extremely high’ was employed.
3.3 Confirmatory Factor Analysis

Confirmatory factor analysis was conducted to evaluate the reliability and validity of the measurement items presented in Table 2. Table 3 shows the factor loadings ($\lambda$) of the measurement items, average variance extracted, and composite reliability. Table 4 presents the constructs’ average variance extracted, correlation, and squared correlation.

As shown at the bottom of Table 3, the fit indices are within the thresholds as recommended by Hu and Bentler (1999). This indicates that the measurement model adequately reproduces the covariance matrix of the measurement items, indicating a good model fit. In addition, the composite reliability of each construct is above 0.70, which suggests reliability and internal consistency of the measurement items representing the constructs.

Construct validity is the extent to which a group of measurement items accurately reflect the construct that they intend to measure (Hair et al., 2010). To ascertain construct validity, both convergent and discriminant validity were examined. With reference to Table 3, the factor loadings of the measurement items are above 0.70 and the average variance extracted of each construct is above 0.50. This suggests that the measurement items of each construct share a high proportion (i.e. more than 50%) of variance in common, which indicates convergent validity. As shown in Table 4, the average variance extracted of a construct is greater than its square correlation estimates. This indicates that the construct accounts for more of the variance in its assigned measurement items than with other constructs, which suggests distinctiveness of constructs and, hence, discriminant validity.

Since this study involves analysing the aggregated responses from both exporting manufacturers and freight forwarders, several tests of mean differences using t-tests were conducted on the constructs from Table 2. The purpose is to evaluate the homogeneity of their responses and their effect on the study’s hypotheses. The results are not significant ($p > 0.05$) suggesting no differences in the perception or evaluation of the constructs. Hence, the hypotheses are unlikely to be influenced by the perception differences of the two sample groups.

3.4 Common Method Bias Analysis and Adjustments
Common method bias is expected in this research since data were collected using the same method (i.e. surveys) and in a specific geographical location (i.e. Singapore). To test common method bias, the fit indices of the measurement model (see footnotes of Table 3) were compared with the fit indices of a one factor model where all measures were loaded on a single factor. The fit indices of the one factor model are $\chi^2 = 1894.96$ ($p < 0.05$, df = 303), CFI = 0.70; TLI = 0.68; RMSEA = 0.19; SRMR = 0.20. The indices are considerably worse than those of the measurement model. Therefore, common method bias is not a major issue in this study.

4. RESULTS AND DISCUSSION

4.1 Multi-Sampling Analysis

The current paper hypothesises that shippers’ CSR beliefs positively moderate the link between perceived CSR of shipping firms and satisfaction ($H_1$), and between satisfaction and behavioural intentions ($H_3$). It also hypothesises that shippers’ CSR beliefs have no moderating effects on the links between perceived service quality and satisfaction ($H_2$).

Multi-sampling approach proposed by Vandenberg and Lance (2000) was employed to test these hypotheses. This approach involves splitting the data into two groups: (1) shippers with weak CSR beliefs (raw score < mean score), and (2) shippers with strong CSR beliefs (raw score > mean score). Thereafter, a series of invariance or equivalence tests were conducted by comparing the theoretical models (Figure 1) of both sample groups. The results are presented in Table 5.

A model (M1) was created to assess the combined fit of the theoretical models for shippers with weak and strong CSR beliefs. The fit of the combined model is sufficient ($\chi^2=544.62$, df=409, $p<0.05$, TLI = 0.98, CFI = 0.99), suggesting configural invariance. M1 serves as the baseline model for subsequent comparisons with other constrained models presented in Table 5.

The M2 model was created by adding equality constraints to the factor loading estimates across the sample groups in M1. Comparing the chi-square ($\chi^2$) fit of M2 and M1, the result is insignificant ($\Delta \chi^2=4.26$, df=18, $p>0.05$). This indicates that constraining the model from M1 to M2 does not result in a significant loss in model fit, and hence, supporting measurement
invariance. This suggests that the measurement items convey equivalent meaning to both sample groups.

Establishing measurement invariance is a prerequisite to testing structural invariance, which involves the test of equivalence in the structural path estimates of both sample groups. The M3 model was developed by adding equality constraints to all unidirectional structural path estimates across the sample groups in M2. Comparing the chi-square fit of M3 and M2, the result is significant ($\Delta \chi^2 = 11.91$, df=3, p<0.05), suggesting significant differences in at least one of the structural path estimates between both sample groups.

4.1.1 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between CSR and Shippers’ Satisfaction

A systematic procedure was adopted to test for equivalence in each of the structural path estimate across the sample groups. Firstly, the M3a model was created by applying an equality constraint on the link between CSR and shippers’ satisfaction in M2. The result reveals significant differences in the link between both sample groups ($\Delta \chi^2 = 6.90$, df=1, p<0.05). It was found that shipping firms’ involvement in CSR has a significantly larger effect on satisfaction in shippers with strong CSR beliefs ($\gamma = 0.47$, p<0.05) than those with weak CSR beliefs ($\gamma = 0.16$, p<0.05). Therefore, $H_1$ is accepted.

The finding is consistent with perceived value theory which, in this context, suggests that shippers with strong CSR beliefs perceive greater utility (i.e. functional, emotional, and social values) from shipping firms’ implementation of CSR. As compared to their counterparts, shippers with strong CSR beliefs are associated with holding positive attitudes towards practising CSR, subjected to greater scrutiny and pressures from stakeholder to practise CSR, and perceive greater ease or possess more resources to practise CSR (Kim and Han, 2010). In this regard, shippers with strong CSR beliefs would dedicate more effort to search and gather the CSR information of shipping firms and are more aware of their involvement in CSR (Wong et al., 2014). Subsequently, they would evaluate shipping firms’ involvement in CSR more favourably, and derive greater satisfaction from the firm’s CSR performance.

4.1.2 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between Service Quality and Shippers’ Satisfaction

Secondly, the M3b model was created by applying an equality constraint to the link between service quality and shippers’ satisfaction in M3a. Constraining M3a to M3b does not result in
a significant deterioration in model fit ($\Delta \chi^2= 0.83$, df=1, p>0.05), suggesting no significant difference in the link between both sample groups. The path estimates of the link for shippers with weak and strong CSR beliefs are 0.54 ($p<0.05$) and 0.48 ($p<0.05$) respectively. Therefore, $H_2$ is accepted.

The finding suggests that shippers’ CSR beliefs have no significant influence on their evaluation of service quality of shipping firms. This sheds light to shippers’ decision-making process concerning trade-offs in the competitive attributes of maritime transport services (i.e. service quality attribute versus CSR attribute). Although a few studies on end-consumers suggest that compromising the core performance of a product or service for greater social or environmental output is acceptable to customers with strong CSR beliefs (Golob et al., 2008; Peloza and Shang, 2011), the results show otherwise in the context of maritime transport. In general, shippers are business entities and are more economically motivated in evaluating services (Pawlik et al., 2012). Therefore, shippers with strong CSR beliefs are unwilling to sacrifice service quality for greater social and environmental benefits, and are unlikely to evaluate service quality less favourably than their counterparts. This supports competitive signalling theory, which suggests the pragmatism of consumers in processing and evaluating information relating to products and services attributes and performance (Green and Peloza, 2011; Luo and Bhattacharya, 2006).

4.1.3 The Moderating Influence of Shippers’ CSR Beliefs on the Relationship between Shippers’ Satisfaction and Behavioural Intention

Finally, the M3c model was created by adding an equality constraint on the link between shippers’ satisfaction and behavioural intentions in M3b. Constraining M3b to M3c yields significant results ($\Delta \chi^2= 4.18$, df=1, $p<0.05$), suggesting significant difference in the link between both sample groups. Accordingly, the path estimates of the link for shippers with weak and strong CSR beliefs are 0.23 ($p<0.05$) and 0.46 ($p<0.05$). Therefore, $H_3$ is accepted.

The finding reinforces the theory of cognitive dissonance which states that customers constantly seek cognitions (e.g. beliefs, attitude, opinion, experience, or satisfaction) that are consistent to motivate or justify a behaviour (Liu et al., 2016). To maintain internal consistency, shippers with strong CSR beliefs are more likely to view their satisfaction with a shipping firm’s involvement in CSR to be congruent with their beliefs. The consistency in cognitions reinforces their behavioural intentions and motivates them to react to CSR more favourably ($\gamma=0.46$, $p<0.05$). Comparatively, shippers with weak CSR beliefs are less likely
to view their satisfaction with CSR to be congruent with their beliefs, and hence, respond to CSR less favourably ($\gamma=0.23$, $p<0.05$).

### 4.2 Organisational and Environmental Factors Influencing Shippers’ CSR Beliefs

Grounded on TPB which posits that factors intrinsic and extrinsic to a firm shape its beliefs, a systematic review of the literature was conducted to identify variables influencing shippers’ CSR beliefs. The current paper hypothesises that a shipper’s organisational characteristics of; age ($H_4$), size ($H_5$), degree of internationalisation ($H_6$), types of products shipped ($H_7$), perceived environmental and social risks in operating countries ($H_8$), perceived level of competition ($H_9$), and level of CSR practices in headquarters ($H_{10}$) have positive effects on its attitude towards CSR, perceived pressures towards practising CSR, or perceived ease of practising CSR, which underlie the shipper’s CSR beliefs.

Using Ordinary Least Square method, shippers’ CSR beliefs were regressed on the seven variables. The results are shown in Table 6. As different scales were employed to measure each variable, the regression estimates were standardised to enable greater comparability.

<INSERT TABLE 6 HERE>

As shown in Table 6, the regression model is significant ($F=61.78$, $p<0.01$). Collectively, the seven predictors account for 68% of the variance in shippers’ CSR beliefs. The variance inflation factors (VIFs) of the predictors range from 1.06 to 1.33, which indicate that multicollinearity is not a major concern in the model.

The firm’s age has a positive, significant effect on shippers’ CSR beliefs ($b=0.27$, $p<0.05$), which results in the acceptance of $H_4$. Compared to young firms, mature firms exist in the market for a longer period. As a result, stakeholders (e.g. customers, the community, employees, shareholders) are aware of their presence and have greater expectations concerning the firms’ social and environmental contributions (Withisuphakorn and Jiraporn, 2016). Therefore, mature firms face greater institutional pressures and hold stronger beliefs to practising CSR.

It was also found that a firm’s size has a positive, significant influence on shippers’ CSR beliefs ($b=0.42$, $p<0.05$). Therefore, $H_5$ is accepted. In general, large firms possess slack resources which allow them to invest in CSR which often requires huge financial investments and effort (Brammer and Millington, 2008). On the other hand, small firms possess fewer
assets. They are often linked to survival and are constrained by limited financial resources and manpower (Lee, 2015). As a result, they may perceive and experience greater difficulty in practising CSR as compared to their counterparts.

The degree of internationalisation of a shipper also positively influences its CSR beliefs \((b=0.21, p<0.05)\). Hence, \(H_6\) is accepted. Compared to domestic and regional firms, global firms are exposed to greater operational risks resulting from the diverse and complex interactions between cultural, institutional, political, and competitive environments (Attig et al., 2016). In addition, global firms (or brands) are subjected to greater scrutiny and attention from the media and public. Consequently, global firms would perceive more benefits and be more motivated to practise CSR than domestic firms.

The types of products shipped also influence shippers’ beliefs \((b=0.09, p<0.05)\). Thus, \(H_7\) is accepted. The results suggest that shippers or manufacturers of consumer products possess stronger CSR beliefs than shippers of industrial goods. Institutional pressures exerted by end-consumers, the public, and media reduce as they propagate up the supply chain (González-Benito and González-Benito, 2010). Shippers of industrial goods are often located upstream in the supply chain. There is relatively less transparency in their activities compared to shippers of consumer goods, which have a direct contact with end-consumers. Therefore, there are more benefits and greater motivation for shippers of consumer goods to practise CSR.

The degree of environmental and social threats perceived by shippers also positively influences their CSR beliefs \((b=0.12, p<0.05)\). Therefore, \(H_8\) is accepted. Some examples of the threats are labour strikes and product boycott by consumers. CSR can mitigate the likelihood and impacts of these threats by garnering support and establishing good relationships with stakeholders (e.g. shareholders, government, customers, and employees) (Jo and Na, 2012). Shippers operating in an environment with high environmental and social threats have greater justification to practise CSR. This explains for the positive correlation between perceived degree of environmental and social threats and shippers’ CSR beliefs.

Shippers’ perceived level of competition positively influences their CSR beliefs \((b=0.08, p<0.05)\). Hence, \(H_9\) is accepted. In a highly competitive environment, firms are operating at their performance frontier where traditional bases of competition such as cost, quality, reliability, and speed are homogenous in the market. When managed strategically, practising CSR could differentiate a firm from its competitors (Flammer, 2015). However, in a less
competitive environment (e.g. an uncontested market), there are fewer reasons for firms to practise CSR to differentiate their products (Hull and Rothenberg, 2008).

Lastly, the level of CSR practices in headquarters also positively influences a shipper’s CSR beliefs ($b=0.12$, $p<0.05$). Thus, $H_{10}$ is accepted. The result indicates that shippers have stronger beliefs towards CSR when their headquarters are practising CSR. This suggests the interconnectedness of the headquarter and subsidiary companies in terms of their philosophy towards CSR. In general, subsidiary companies play a crucial role in executing and maintaining their global strategy, which includes their CSR strategy (Hah and Freeman, 2014). In this case, firms that are subsidiaries of a headquarter that actively engages CSR are compelled to practise CSR. On the contrary, subsidiaries of a headquarter that does not engage CSR are less compelled to practise CSR.

5. CONCLUSION

5.1 Summary of Findings

Anchoring on TPB, the current paper argues that a shipper’s CSR belief system, which comprises its attitude towards CSR, perceived pressures exerted by stakeholders, and perceived behavioural control, is central to moderating shippers’ evaluation of and behaviour towards shipping firms’ involvement in CSR. It also hypothesises that certain factors that relate to shippers’ internal and external environment are crucial in shaping their CSR beliefs.

The results reveal that shippers with strong CSR beliefs derive greater satisfaction and exhibit stronger behavioural intentions (e.g. loyalty, repurchase intentions, and positive word of mouth) when engaging shipping firms that are socially responsible. In addition, it was found that shippers with strong CSR beliefs are not willing to compromise SQ. They evaluate SQ with equal importance as compared to their counterparts.

The results also show that the organisational characteristics of a shipper, which include age (mature), size (large), degree of internationalisation (global firms), and types of products shipped (consumer products) positively correlate with its CSR beliefs. For the external environment of a shipper, factors comprising perceived environmental and social threats in operating countries, perceived level of competition, and level of CSR practices in headquarters were found to correlate with CSR beliefs.

5.2 Theoretical Contributions
The current paper contributes to the existing behavioural research on CSR in maritime transport, which is currently inadequate. Within the limited literature, existing research assumes that shippers’ attitude, beliefs, and behaviour towards shipping firms’ involvement in CSR are homogenous, and has only provided an aggregated view of the phenomenon. This assumption is queried and formally tested in this research. The main theoretical contribution of this paper is that it addresses the differences in shippers’ satisfaction and behaviour towards CSR by introducing the construct, shippers’ CSR beliefs, as a moderator of the CSR-Satisfaction-Behavioural Intentions model. The introduction of CSR beliefs is extended from TPB, which has been effective in explaining the motivation of an individual or a firm for exhibiting a specific behaviour.

The introduction of TPB provides an alternative theoretical angle to customer attribution theory, which has been commonly adopted by existing research to explain the differences in consumers’ behaviour towards CSR. In this context, customer attribution theory is concerned with how customers interpret a firm’s involvement in CSR by piecing together information e.g. past events, corporate reputation, social and environmental records until they arrive at a reasonable explanation for the firm’s involvement, and subsequently, exhibit a behaviour (i.e. positive, neutral, or negative) that is consistent with the explanation. The current paper views TPB as being complementary to customer attribution theory as TPB also addresses the antecedents of customers’ behaviour towards CSR but from the perspective of customers’ CSR beliefs, which encompass their overall attitude towards CSR, perceived pressures exerted by stakeholders to practise CSR, and perceived ease of practising CSR.

Another theoretical contribution of this paper is that it builds the theoretical model (Figure 1), which is deeply rooted on TPB, with complementary behavioural theories such as perceived value theory, competitive signalling theory, and cognitive dissonance theory. Accordingly, each theory is used to explain the moderating effects of CSR beliefs on the links between (1) perceived CSR and shippers’ satisfaction, (2) perceived SQ and shippers’ satisfaction, and (3) shippers’ satisfaction and behavioural intentions. The theoretical arguments are largely consistent with the empirical results of this paper.

Finally, the current paper contextualises the internal and external influences of customers’ CSR beliefs to the maritime transport industry where customers i.e. shippers are business entities rather than consumers. While ample research has been conducted from the consumers’ perspective, very little research has been conducted from the business customers’ perspective.
Many findings from B2C research are not directly applicable to B2B settings. The current paper contributes to this area by developing and proposing four organisational characteristics and three environmental factors that are pertinent to influencing shippers’ CSR beliefs.

**5.3 Managerial Implications**

The results of this paper have implications for the management of CSR in shipping firms. Firstly, after controlling for the effect of SQ, it was revealed that shipping firm’s involvement in CSR positively influences shippers’ satisfaction and subsequently, positive behavioural intentions. The statement holds true regardless of the CSR beliefs of shippers. This supports the business case for shipping firms to practise CSR. This implies that shippers are not operating in a closed system but rather an open system where their actions may have ramifications for the environment and society, resulting in the withdrawal of support from their stakeholders. Stakeholder interaction and support are vital in an open system, and the relationships with stakeholders can be improved through CSR.

The current paper suggests a proactive, value-driven approach to practising CSR. Shipping firms should employ a CSR strategy that constantly obtains feedback from their shippers concerning their social and environmental requirements prior to implementing or practising CSR activities. This would ensure their CSR strategy being relevant and provide identifiable, measurable value to shippers, which is central to influencing satisfaction. The CSR strategy of shipping firms should be specified and embedded in their vision, mission, and goal statements, which is a growing phenomenon among large shipping firms (Pawlik et al., 2012) to reinforce and communicate their commitment towards CSR to their management as well as customers.

Secondly, since managing the perception and expectations of shippers is also important in influencing satisfaction, shipping firms should concentrate on communicating their CSR activities to shippers. This is particularly important for service firms where there is less visibility of their CSR involvement compared to product firms. This applies to shipping firms since CSR messages cannot be attached to a shipping service attributing to its intangible nature. In this regard, CSR messages must be communicated to shippers via other indirect communication channels such as annual reports, newspaper, shareholder meetings, and webpages of the shipping firms. However, these communication channels are viewed to be ineffective as they require shippers to make effort to search for the CSR information of shipping firms. The current paper proposes the push-approach where newsletter, leaflets and
e-mails containing CSR information of the shipping firm can be directly sent to existing and potential customers. This eliminates the need for shippers to search for CSR information, and clearly manages the perception and expectations of the shippers concerning the shipping firm’s involvement in CSR.

Finally, shipping firms should prioritise their marketing or communication effort on CSR to shippers with strong CSR beliefs, which exhibit greater satisfaction and behavioural intentions towards CSR. Although the construct, CSR beliefs, is not observable, the current paper has identified four organisational characteristics and three environmental factors that are observable and correlate with CSR beliefs. Shipping firms could use some of these variables to predict and rank the CSR beliefs of their existing and potential customers. Subsequently, more resources could be committed to communicating and marketing the CSR involvement of a shipping firm to customers with strong CSR beliefs to elicit positive behavioural intentions, which will eventually translate to stronger business performance for the shipping firm.

5.4 Limitations and Recommendations

Despite the contributions, there are a few limitations of this research. The current paper has only conducted a behavioural study on shippers. Although shippers contribute to the main stream of revenue for shipping firms, other stakeholders such as employees (including seafarers), shareholders, suppliers, and port operators and authorities have considerable role in influencing the business performance of shipping firms. Future research could conduct similar behavioural studies on these stakeholders.

Another limitation of this research is that it only analyses the moderating effects of CSR beliefs on the CSR-Satisfaction-Behavioural Intentions model. Further studies can identify and discuss other moderators anchored on different theoretical lenses. A potential moderator can be shippers’ perceived value of CSR. To sum up, research on shippers’ satisfaction and behaviour towards CSR is limited. Conducting moderation studies enriches research in this area and provides explanations for the differences in shippers’ behaviour towards shipping firms’ involvement in CSR, and subsequently, managerial implications for shipping firms.

The last limitation of this research concerns the use of surveys to elicit responses from participants through self-reporting. As a result, the responses may suffer from some quality including accuracy issues, which affect the validity or reliability of the results. This indicates
that the results of this study should be interpreted with care. Nonetheless, this limitation has been, to some extent, addressed in this study via the design of the survey. The survey was targeted at individuals holding managerial roles. Given their role, they should possess sufficient knowledge to answer the survey questions accurately and reliably.
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behavior in social network games by exploring consumer cognitive dissonance and change


### Table 1. Organisational Characteristics and Environmental Influences of Shippers’ CSR Beliefs

<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>Explanation</th>
<th>Hypothesis and Proposed Effect on Shippers’ CSR Beliefs</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shippers’ Organisational Characteristics</td>
<td>1.1 Firm’s Age (Young versus Mature Firms)</td>
<td>As compared to young firms, mature firms are more financially stable with predictable performance and cash flows. In addition, having a longer history in the market, stakeholders are more aware of the firms’ existence, and form greater expectations of the firms’ contribution to the community and environment. These arguments suggest that mature firms have larger financial capacities and face greater institutional pressures to invest in CSR.</td>
<td>$H_4$ (Positive)</td>
<td>Withisuphakorn and Jiraporn (2016)</td>
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<td></td>
<td>1.2 Firm’s Size (Small versus Large Firms)</td>
<td>Large firms are proactively involved in CSR as they are subjected to greater stakeholders’ and media’s scrutiny. In addition, large firms generally value autonomy and this would mean practising CSR to stay ahead of the current legal or political requirements in their places of operations or trade. Conversely, small firms are usually linked with survival. Since CSR entails large amount of financial investments, small firms which are associated with limited financial capacities will tend to favour external forms of regulation (i.e. meeting the minimum political or legal requirements to operate), and are less inclined to practise CSR.</td>
<td>$H_5$ (Positive)</td>
<td>Lee (2015)</td>
</tr>
<tr>
<td>1.3 Degree of Internationalisation (Domestic versus Global Firms)</td>
<td>Operating in multiple foreign markets, international firms are exposed to high levels of complexity and operational risks which are caused by heterogeneous cultural, institutional, and competitive environments. As a result, global firms stand to benefit more from CSR to reduce negative externalities, strengthen their reputation, and avoid potential issues arising from regulations, activists, and socially-conscious customers. Consequently, they are more driven to practise CSR as compared to domestic firms.</td>
<td>H₆</td>
<td>Attig et al. (2016)</td>
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<tr>
<td>1.4 Types of Products Shipped (Industrial versus Consumer Shipments)</td>
<td>In general, pressures exerted by end consumers to practise CSR weaken as they propagate upstream into the value chain. As compared to manufacturers of consumer products, manufacturers of raw materials and intermediate products are positioned further upstream in the value chain. Their activities are hidden behind final producers’ trademarks, and are less visible and identifiable by end consumers. Therefore, manufacturers or shippers of industrial products receive less pressure or fewer benefits from practising CSR.</td>
<td>H₇</td>
<td>González-Benito and González-Benito (2010)</td>
<td></td>
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<tr>
<td>2. Shippers’ Environmental Factors</td>
<td>2.1 Perceived Environmental and Social Threats (Low versus High)</td>
<td>Environmental and social threats such as product embargo, litigation, and strikes have an adverse impact on firms’ profitability. CSR can be viewed as a form of window-dressing or risk management to mitigate the impacts of environmental and social risks through the generation of moral capital or goodwill. Therefore, firms which perceive higher amount of risks in their operations benefit more from practising CSR than those which perceive lower amount of risks.</td>
<td>H₈</td>
<td>Jo and Na (2012)</td>
</tr>
<tr>
<td>2.2 Perceived Level of Competition (Low versus High)</td>
<td>Firms operating in highly competitive environment may endorse and foster CSR which strengthens relationships with stakeholders. In addition, such firms can use CSR to differentiate themselves and establish a ‘soft’ trade barrier which penalises rivals that do not practise CSR. Conversely, firms operating in less competitive environment, for example, in an uncontested market, have fewer reasons to practise CSR.</td>
<td>$H_9$ (Positive)</td>
<td>Flammer (2015)</td>
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<tr>
<td>2.3 Level of CSR Practices in Headquarters (Low versus High)</td>
<td>Firms operating in a host country play an important role in representing their headquarters, and maintaining and executing their global strategy. As a result, firms’ CSR beliefs are positively influenced by the degree to which their headquarter incorporates CSR into its overall strategy or practises CSR.</td>
<td>$H_{10}$ (Positive)</td>
<td>Hah and Freeman (2014)</td>
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<tr>
<td>Construct</td>
<td>Measurement Items</td>
<td>Supporting Literature</td>
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<tr>
<td>Corporate Social Responsibility (CSR) a1</td>
<td>The shipping company provides training and education to develop employees’ skillsets</td>
<td>Schreck (2009)</td>
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<td></td>
<td>The shipping company pays employees fairly and according to industry standards</td>
<td>Turker (2009)</td>
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<td></td>
<td>The shipping company donates to charitable organisations</td>
<td>Lu et al. (2009)</td>
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<td></td>
<td>The shipping company offers educational scholarships and internships</td>
<td>Shin and Thai (2015)</td>
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<td></td>
<td>The shipping company applies high standards for disclosure, accounting, auditing, and social and environmental reporting</td>
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<td></td>
<td>The shipping company provides full transparency of its activities, structure, financial situation, and performance to the public</td>
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<td></td>
<td>The shipping company responds promptly and fairly to consumer disputes without undue cost or burden</td>
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<tr>
<td></td>
<td>The shipping company offers educational scholarships and internships</td>
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<td>The shipping company offers educational scholarships and internships</td>
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<td>The shipping company applies high standards for disclosure, accounting, auditing, and social and environmental reporting</td>
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<td></td>
<td>The shipping company provides full transparency of its activities, structure, financial situation, and performance to the public</td>
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<tr>
<td>Service Quality b1</td>
<td>The shipping company offers on-time-delivery of shipments</td>
<td>Chen et al. (2009)</td>
<td></td>
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<td></td>
<td>The shipping company maintains the condition and quality of shipments</td>
<td>Yuen and Thai (2017)</td>
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<td></td>
<td>The shipping company provides fast delivery of shipments</td>
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<td></td>
<td>The shipping company shows promptness, empathy, and reliability while communicating with us</td>
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<td></td>
<td>The shipping company ensures its claim handling procedures are user-friendly and fast</td>
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<tr>
<td>Shipper’s Satisfaction c1</td>
<td>The shipping company’s service has exceeded our expectations</td>
<td>Gronhholdt et al. (2000)</td>
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<td></td>
<td>Overall, my company is satisfied with the service of the shipping company</td>
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<td></td>
<td>The shipping company’s service is comparable to the ideal service my company has in mind</td>
<td>Zeithaml et al. (1996)</td>
<td></td>
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<tr>
<td>Shipper’s Behavioural Intention d1</td>
<td>We consider the shipping company as our first choice</td>
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<td></td>
<td>We would recommend the shipping company’s service to other companies</td>
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<td></td>
<td>We would encourage others to use the service of the shipping company</td>
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<td></td>
<td>We have positive things to say about the shipping company</td>
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<tr>
<td>CSR Beliefs</td>
<td>e1</td>
<td>My company views contributions to the society or environment as desirable</td>
<td>Kim and Han (2010)</td>
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<td></td>
<td>e2</td>
<td>My company views contributions to the society or environment as pleasant</td>
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<td></td>
<td>e3</td>
<td>My stakeholders would want us to engage in corporate social responsibility activities</td>
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<td></td>
<td>e4</td>
<td>My company has the resources, time, and opportunities to implement and pay for corporate social responsibility activities</td>
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</tbody>
</table>
### Table 3. Factor Loadings, Average Variance Extracted, and Composite Reliability of Measurement Model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measurement items</th>
<th>Factor loadings</th>
<th>Average variance extracted</th>
<th>Composite reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CSR</td>
<td>a1</td>
<td>0.70</td>
<td></td>
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<tr>
<td></td>
<td>a2</td>
<td>0.81</td>
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<td></td>
<td>a3</td>
<td>0.75</td>
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<td></td>
<td>a4</td>
<td>0.77</td>
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<td></td>
<td>a5</td>
<td>0.70</td>
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<td>0.53</td>
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<td></td>
<td>a6</td>
<td>0.70</td>
<td></td>
<td>0.74</td>
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<td></td>
<td>a7</td>
<td>0.75</td>
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<tr>
<td></td>
<td>a8</td>
<td>0.70</td>
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<td></td>
<td>a9</td>
<td>0.70</td>
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<td></td>
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<td></td>
<td>a10</td>
<td>0.72</td>
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<tr>
<td>2. Service Quality</td>
<td>b1</td>
<td>0.73</td>
<td></td>
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<td></td>
<td>b2</td>
<td>0.73</td>
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<td></td>
<td>b3</td>
<td>0.79</td>
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<td>0.57</td>
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<td></td>
<td>b4</td>
<td>0.80</td>
<td></td>
<td>0.87</td>
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<tr>
<td></td>
<td>b5</td>
<td>0.71</td>
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<tr>
<td>3. Shipper’s</td>
<td>c1</td>
<td>0.72</td>
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<tr>
<td>Satisfaction</td>
<td>c2</td>
<td>0.72</td>
<td></td>
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<tr>
<td></td>
<td>c3</td>
<td>0.77</td>
<td></td>
<td>0.54</td>
</tr>
<tr>
<td>4. Behavioural</td>
<td>d1</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention</td>
<td>d2</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d3</td>
<td>0.87</td>
<td></td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td>d4</td>
<td>0.84</td>
<td></td>
<td>0.89</td>
</tr>
<tr>
<td>5. CSR Beliefs</td>
<td>e1</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e2</td>
<td>0.70</td>
<td></td>
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<tr>
<td></td>
<td>e3</td>
<td>0.76</td>
<td></td>
<td>0.55</td>
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<tr>
<td></td>
<td>e4</td>
<td>0.75</td>
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<td>0.83</td>
</tr>
</tbody>
</table>

Notes: chi-square fit=324.77 (df=289, p<0.05), TLI=0.99, CFI=0.99, RMSEA=0.019 (90% confidence level=0.01; 0.38), SRMR=0.028.

### Table 4. Average Variance Extracted, Correlations, and Squared Correlations of Constructs

<table>
<thead>
<tr>
<th>Construct’s ID</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.53&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.05&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0.14</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2</td>
<td>0.22&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.57</td>
<td>0.27</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>3</td>
<td>0.37</td>
<td>0.52</td>
<td>0.54</td>
<td>0.10</td>
<td>0.21</td>
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<tr>
<td>4</td>
<td>0.10</td>
<td>0.11</td>
<td>0.31</td>
<td>0.67</td>
<td>0.10</td>
</tr>
<tr>
<td>5</td>
<td>0.11</td>
<td>0.11</td>
<td>0.46</td>
<td>0.31</td>
<td>0.55</td>
</tr>
</tbody>
</table>
Notes: a values in the main diagonal represent the average variance extracted of the constructs 
b values below the main diagonal represent the correlation of the constructs 
c values above the main diagonal represent the squared correlation of the constructs
Table 5. Results of Invariance Tests

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>TLI</th>
<th>CFI</th>
<th>Nested Models</th>
<th>$\Delta\chi^2$</th>
<th>$\Delta$df</th>
<th>$\chi^2$ difference test</th>
<th>Weak CSR Beliefs*</th>
<th>Strong CSR Beliefs*</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Configural Invariance</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>M1. Baseline</td>
<td>544.62</td>
<td>409</td>
<td>1.33</td>
<td>0.98</td>
<td>0.99</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td><strong>Measurement Invariance</strong></td>
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</tr>
<tr>
<td>M2. Equal loadings</td>
<td>548.88</td>
<td>427</td>
<td>1.29</td>
<td>0.99</td>
<td>0.99</td>
<td>2-1</td>
<td>4.26</td>
<td>18</td>
<td>p &gt; 0.05</td>
<td>-</td>
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<td>-</td>
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<tr>
<td><strong>Structural Invariance</strong></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>M3. Equal loadings, structural path estimates</td>
<td>560.79</td>
<td>430</td>
<td>1.30</td>
<td>0.99</td>
<td>0.99</td>
<td>3-2</td>
<td>11.91</td>
<td>3</td>
<td>p &lt; 0.05</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Partial Structural Invariance</strong></td>
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</tr>
<tr>
<td>M3a. CSR $\rightarrow$ SAT</td>
<td>555.78</td>
<td>428</td>
<td>1.30</td>
<td>0.98</td>
<td>0.99</td>
<td>3a-2</td>
<td>6.90</td>
<td>1</td>
<td>p &lt; 0.05</td>
<td>0.16*</td>
<td>0.47*</td>
<td>$H_1$ accepted</td>
</tr>
<tr>
<td>M3b. SQ $\rightarrow$ SAT</td>
<td>556.61</td>
<td>429</td>
<td>1.30</td>
<td>0.98</td>
<td>0.99</td>
<td>3b-3a</td>
<td>0.83</td>
<td>1</td>
<td>p &gt; 0.05</td>
<td>0.54*</td>
<td>0.48*</td>
<td>$H_2$ accepted</td>
</tr>
<tr>
<td>M3c. SAT $\rightarrow$ BI</td>
<td>560.79</td>
<td>430</td>
<td>1.30</td>
<td>0.99</td>
<td>0.99</td>
<td>3c-3b</td>
<td>4.18</td>
<td>1</td>
<td>p &lt; 0.05</td>
<td>0.23*</td>
<td>0.46*</td>
<td>$H_3$ accepted</td>
</tr>
</tbody>
</table>

Note: * standardised path estimates
* p < 0.05
## Table 6. Predictors of Shippers’ CSR Beliefs

<table>
<thead>
<tr>
<th>Themes</th>
<th>Variables (x_i)</th>
<th>Standardised regression estimates (b_i)</th>
<th>t-values (t)</th>
<th>Hypotheses</th>
</tr>
</thead>
</table>
| **Shippers’ Organisational Characteristics** | Firm’s age 
(1 = 0 – 10; 2 = 10-20; 3 = 20-30; 4 = >30) | 0.27                                   | 5.87         | H_4 accepted |
|                               | Firm’s size 
(0 = small; 1 = large) | 0.42                                   | 9.45         | H_5 accepted |
|                               | Degree of internationalisation 
(1 = national; 2 = regional 3 = global) | 0.21                                   | 4.70         | H_6 accepted |
|                               | Types of products shipped 
(1 = industrial goods; 2 = mixed; 3 = consumer products) | 0.09                                   | 2.23         | H_7 accepted |
| **Shippers’ Environmental Factors** | Perceived environmental and social threats in operating countries 
(1 = low; 2 = average; 3 = high) | 0.12                                   | 2.85         | H_8 accepted |
|                               | Perceived level of competition 
(1 = low; 2 = average; 3 = high) | 0.08                                   | 2.02         | H_9 accepted |
|                               | Level of CSR practices in headquarters 
(1 = low; 2 = average; 3 = high) | 0.12                                   | 2.63         | H_10 accepted |
|                               | R^2                                                                            | 0.68                                   |               |            |
|                               | Adjusted R^2                                                                  | 0.67                                   |               |            |
|                               | F                                                                              | 61.78                                  |               |            |
|                               | Sig. F                                                                        | <0.01                                  |               |            |

Note: VIF of variables range from 1.06 to 1.33.
Note: Bolded paths are hypothesised relationships. Non-bolded paths have been investigated by previous research. The ‘+’ sign indicates positive relationship.

Figure 1. The Proposed Theoretical Model