

Customer Orientation, Channel Member Relationship and Company Performance – The Mediating Effect of Contractor-Supplier Commitment in the Construction Industry

Noorhanaliza Mohtar^{#1}, Sofiah Abd Rahman^{*2}

[#] *Arshad Ayub Graduate Business School, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*

^{*} *Institute of Business Excellence, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*

¹ hana.mohtar@gmail.com

² sofiahab@uitm.edu.my

Abstract— Construction is a major industry throughout the world which is not only related to its size but also to its role in economic growth. While its contribution to nation-building is significant, in practice, the industry is still typically managed along traditional lines, within a complex and yet fragmented network of the supply chain. As a result, evidences have shown that the construction industry has not been keeping pace with the rest of the economy. Building from the marketing perspective, this paper argued that performance is very much linked to the practice of becoming customer oriented, building relationship among channel partners and exhibiting strong commitment. This study, thus, examined these relationships in a more coherent and integrated approach from the construction industry supply chain in Malaysia. The objective is to establish an association between these constructs and their dimensions on this linkage. The quantitative method was used to test the relationship between the four constructs. The analysis was conducted using Partial Least Square (PLS) technique. The findings revealed that Customer Orientation and Channel Member Relationship have positive effects on Company Performance and Contractor-Supplier Commitment mediates the relationship between Customer Orientation, Channel Member Relationship and Company Performance. Future study should explore more on this to gain better insights which could add another body of knowledge in the construction industry and further propel the Malaysian CI contribution to GDP.

Keywords— *Malaysia, Construction Industry, Customer Orientation, Supply Chain Management, Channel Member Relationship, Commitment, Company Performance*

1. Introduction

The construction industry is an economic investment and its relationship with economic

development is well posited. Many studies have highlighted the significant contribution of the construction industry to national economic development [34]. While the construction industry's contribution to nation-building is significant, however, it is still typically managed along traditional lines, fragmented, with an unfavourable culture, poor quality and low productivity [26]; [5];[33]. Thus, it is not a surprise that this industry has been criticised for not keeping pace with other economic sectors [14]; [38].

Construction can be a fragmented industry with each discipline protecting its self-interest. The channel members are placed in adversarial roles with diverse individual goals and objectives [26]. In exercising their rights, the channel members are forced to take positions and become defensive. The net result is that the industry's performance suffers, and construction is viewed as inefficient [37]. Yet, there seems to be a lack of empirical studies that measure customer orientation in relation to contractor suppliers' commitment. Customer orientation is a requirement for a successful business operation, but there is not enough indication to support this relationship in the construction industry [42].

Therefore, it is appropriate to study the link between customer orientation, integrative channel member relationship and company performance as well as Contractor-Supplier commitment in the construction industry in Malaysia. Another contribution of this study is establishing the mediating effect of channel members in this model. After the supplier committed to the contractor, then the relationship can give a positive impact on the implied acceptance in the company's performance which leads to positive results. This evaluation was led to

greater satisfaction among the channel members.

The construction process is highly complex [2], involving different parties in projects with the aim of creating value by fulfilling customer requirements [6]. [2] further stress the fact that the construction industry even could be considered as the industry containing the most complex processes. The performance of construction processes is not clearly defined in literatures [39], however, there are authors that have defined some characteristics of construction processes [2]; [4]; [39]; [16]. In addition to the complexity brought up by [2], the nature of construction is a dynamic process, where the contractor's interpretation of the product may not be aligned with the client's vision, making the process even more complex [16].

2. Literature Review

The influence of customer orientation on company performance has been proved by the positive link between customer orientation and performance [35]; [28]; [3]. Customer orientation involves organisational processes focused on the external market environment so companies with this orientation are in a better position to respond to emerging market needs [35]; [32].

The marketing and strategic management literature highlight that customer orientation is an important consideration in the implementation of business strategies [28]. According to [35], customer orientation refers to the organisational culture that most effectively and efficiently creates the necessary behaviour for the creation of continuous superior performance for the business. They posited that performance-related behaviour includes customer orientation, competitor orientation and inter-functional coordination. In other words, companies need to take a proactive attitude in doing business and be responsive to customer needs and market changes in order to remain competitive.

Customer-orientation company are concerned about establishing and maintaining relations with customers to achieve high performance [19]. Customer orientation, which involves offering solutions (products and services supporting the deliveries) that match the customers' needs, promotes commitment in the business relationship [48]; [51].

Contractor-supplier commitment, which refers to a channel member's emotional attachment, identification with, and involvement in the

company [28], plays an important role in organisational behaviour. Contractor supplier commitment gives channel members a common goal that binds the individual to the company [36]. As part of a successful team, channel members believe they are making an important contribution to the company's success. Several authors [28]; [8] have stated for more studies exploring this relationship.

In addition, these literatures discuss that companies in developing countries tend to adopt strategic actions on a fragmentary basis and this can lead to unsuccessful integration of various strategies. Hereafter, it is appropriate to study the link between customer orientation, contractor supplier commitment and company performance in the construction industry in Malaysia. Another contribution of this study is establishing the effect of this model when the supplier committed to the contractor, the relationship will give a positive impact on the implied acceptance in the company's performance which will lead to positive results. This evaluation will lead to greater satisfaction among the channel members.

3. Methodology

Simple Random Sampling Technique was used in this study. In this technique, the population at first has been divided into meaning full segments; thereafter subjects are drawn in proportion to their original numbers in the population. This technique was chosen because it is the most efficient among all probability designs. All groups are adequately sampled and comparisons among groups are possible.

In order to establish the size of the survey population, databases from the Construction Industry Development Board (CIDB) Malaysia was referred to [9]. This produced an initial listing of a sampling frame that comprises 69,257 contractors, regardless of the categories, which ranges from G1-G7. The target population was defined as all G7 building and construction contractors that were listed with the CIDB Malaysia. However, only those registered within Peninsular Malaysia and classified as 'active' will be counted as the target population for this study. Then, contractors with the status other than 'active', such as 'dormant', 'in-active' and 'new' will be excluded from the sampling frame. With reference to the CIDB database, there are 5,961 contractors listed as G7 group as for September 2015 [9]. However, this study only focused on those under G7 that are categorised under 'Building and Construction' and

under 'active' criterion from Selangor and Wilayah Persekutuan. Apparently, based on the screening process result, the number of contractors that belong to this category was only 2,678. Detailed classification of contractors is shown in Table 1 while Table 2 shows the number of contractors by grade.

CIDB has also categorised the contractors that have registered with them by grade from G1 to G7 based on the contractor's tendering capacity and paid-up capital (refer Table 1). In this study, the decision to choose G7 as target respondents was partly due to the nature of the relationship with their suppliers. Larger organisations (contractors) were found to be more of a structural bonding (business-like approach) in their conduct when dealing with their suppliers apart from social bonding [40].

The previous discussion highlighted those G7 contractors and his building materials suppliers were selected as a target population for this study. In this case, a total of 500 questionnaires were distributed to G7 building contractors in Peninsular Malaysia, following the list provided by CIDB Malaysia [9]. This sample size (335) was determined based on [29] sampling table ("Research Methods for Business: A Skill Building Approach" as cited in [46]). It was suggested that if the population reaches 2,500, the sample size must be 335. Out of 335 questionnaires distributed to the selected respondents, 241 were returned. However, only 235 questionnaires were classified as usable and valid for this study. The breakdown of the population, sample size, and questionnaire response rate are depicted in the next Table 3.

Table 1: Grades of Enrolment of Contractors by CIDB Based on Paid Up Capital and Tendering Capacity

Contractor Grades of Registration	Tendering Capacity (RM)	Paid-up Capital	Size of Organisation
G7	No Limit	RM 750,000 (£150,000)	Large
G6	Not exceeding 10 million	RM 500,000 (£100,000)	
G5	Not exceeding	RM 250,000	Medium

	5 million	(£50,000)	Small
G4	Not exceeding 3 million	RM 150,000 (£30,000)	
G3	Not exceeding 1 million	RM 50,000 (£10,000)	
G2	Not exceeding 500,000	RM 25,000 (£5,000)	
G1	Not exceeding 200,000	RM 5,000 (£1,000)	

Notes: Taken from CIDB Malaysia (2015)

Table 2: Enrolled Contractors according to Grades

Contractor Grades of Enrolment	Total Contractor Enrolled	Size of Organisation
G7	5,961	Large
G6	1,549	
G5	4,558	Medium
G4	3,283	
G3	9,045	Small
G2	11,605	
G1	33,256	
Total	69,257	

Notes: Taken from CIDB Malaysia (2015)

Table 3: Total Number of Population, Sample Size, and Response of the Study

Population	Sample Size	Responses/Cases
2,678	335	235 (70%)

The study adapted scales from well-established literature and previous study as a basis of questions for the survey. The questionnaire used in this study came from several studies. It was a combination of adopted questions of previous literature and new questions that were developed based on the literature and suggestions from academicians and practitioners. All the questions were close-ended for the 7-point Likert scale which was used to determine the agreement to a question. All measurements were adopted and adapted from [28] for Customer Orientation scale; [24] for Contractor-Supplier Commitment scale and from [10] for Company Performance scale. The used of a 7-point Likert scale as the scale for the present study was supported by [40] in which this Likert

scale was seen to improve the scale reliability without scarifying its psychometric properties.

This study chose the PLS approach for its advantages over the covariance approach. The advantages of this soft-modeling approach include theoretical conditions, measurement conditions, distributional considerations, and practical considerations [15]. PLS is an exploratory methodology that relies on the data. First, the measurement model tested followed by the evaluation of the structural model. To test the significance of the path coefficients and the loadings, a bootstrapping technique was used [21]. First, confirmatory factor analysis was conducted to test the reliability and validity of the measures. To assess the reliability of the reflective constructs, the composite reliabilities and average variance extracted were computed [17].

4. Results and Discussion

Table 4 presents the reliability coefficients. The construct reliabilities for the reflective constructs are all above the ideal level of 0.80 for almost all constructs [33], and extracted variances are above the cut-off level of 0.50 [20]. The convergent validity (i.e. the extent to which the items are truly a homogeneous set of indicators of the underlying reflective construct) was assessed using the factor loadings. Most of the standardized factor loadings are higher than 0.70 and significant at p-values of 0.01 (see Table 4), which offers evidence of the convergent validity of the reflective measurements.

Table 4: Measurement Model

Construct	Average Variance Extracted (AVE)	Composite Reliability
Customer Orientation	0.571	0.841
Channel Member Relationship	0.894	0.628
Commitment	0.793	0.919
Company Performance	0.616	0.951

We proceeded to examine the discriminant validity of the constructs by using two methods. First by using [17], in which the square root of average variance extracted (AVE) of any two constructs should be larger than the correlation coefficient between the constructs [17]. The results show that all pairs of the reflective constructs fulfilled this requirement the higher outer loading values indicate the associated indicators have in common and all items must be statistically significant. Outer loading between 0.4 and 0.70 should be eliminated from the scale only when removal of the indicators leads to an increase in the CR or AVE above the suggested threshold value. However, 0.70 is considered close enough to 0.708 to be acceptable [21]. Indicators with very low outer loading (below 0.40) should be removed from the construct [20]. The results showed that factor loading from 6 items failed to exceed the cut-off point of 0.70 and consequently was eliminated. The loadings were all above 0.70. These results indicate that each item did load significantly on its respective construct. The analysis supports a high degree of discriminant validity with respect to the constructs involved.

The effect sizes (f^2) were also assessed in this study. As asserted by [50], the p-value used is to inform either the effect exists, the p-value will not reveal the effect. This study reported both the substantive significant (effect size) and statistical significance (p-value). [21] stated that the change in the R^2 value should also be examined and reported. By evaluating this report, we can examine R^2 change by evaluating whether the omitted exogenous construct has a substantive impact on the endogenous construct. In measuring the effect size, this study used [11] as a guideline i.e. the values of 0.02 are small, 0.15 is medium and 0.35 is a large effect. All of the values of q^2 are small in producing the R^2 but the structural model has predictive relevance as all of the Q^2 values are > 0 as stated by [21] and [17]. The Q^2 i.e. the predictive relevance of the model is examined using the blindfolding procedure. All the two Q^2 values for Commitment (COM) are 0.228 and Company Performance (CP) is 0.150 are more than 0 indicating that the model has sufficient predictive relevance.

In this study, hypotheses were developed between the constructs to test the significance level, t-statistics for all paths are generated using Smart PLS3.0 bootstrapping function. Based on the

assessment of the path coefficient which has been tested in this study, all relationships are supported and found to have t -value ≥ 1.645 , thus significant at 0.05 level of significance. Specifically, all the supported relationships explain 27% and 33% of the variance in company performance. The R^2 value of 0.272 and 0.326 is above the 0.26 value as suggested by [11] which indicates a substantial model.

The relationship between customer orientation (CO) and Contractor-Supplier commitment (COM) relationship was analysed further. The intelligence generation (IOG) and Contractor-Supplier commitment (COM) ($b = 0.329$, $p < 0.01$) was positive and significant supporting H1a. Next, the relationship between the dissemination of intelligence (IOD) and Contractor-Supplier commitment (COM) ($b = -0.191$, $p < 0.05$) was negative and significant supporting H1b. Then, the relationship between company-wide responsiveness (CWR) and Contractor-Supplier commitment (COM) ($b = -0.242$, $p < 0.01$) was positive and significant supporting H1c.

Next, the relationship between channel member relationship (CMR) and Contractor-Supplier commitment (COM) was analysed further. The trust (TRT) and Contractor-Supplier commitment (COM) ($b = -0.021$, $p > 0.05$) was negative and not significant in supporting H2a. Thus, H2a was rejected. Next, the relationship between commitment (CMT) and Contractor-Supplier commitment (COM) ($b = 0.159$, $p < 0.05$) was positive and significant supporting H2b. Then, the relationship between co-operation (COO) and Contractor-Supplier commitment (COM) ($b = 0.122$, $p > 0.05$) was positive but not significant in supporting H2c. Hence, H2c was rejected.

Then, the relationship of Contractor-Supplier commitment mediates all the dimensions of customer orientation (IOG, IOD, and CWR) and channel member relationship (TRT, CMT and COO) and company performance (CO) at different level of effect size status construct showed a positive impact and significant ($b=0.522$, $p < 0.01$) and thus H3 was supported.

Next, the relationship between customer orientation (CO) and company performance (CP) relationship was analysed further. The intelligence generation (IOG) and company performance (CP) ($b = 0.172$, $p < 0.01$) were positive and significant supporting H4a. Next, the relationship between the

dissemination of intelligence (IOD) and company performance (CP) ($b = -0.099$, $p < 0.05$) was negative but significant supporting H4b. Then, the relationship between company-wide responsiveness (CWR) and company performance (CP) ($b = 0.126$, $p < 0.01$) was positive and significant supporting H4c.

Then, the relationship between channel member relationship (CMR) and company performance (CP) was analysed further. The trust (TRT) and company performance (CP) ($b = -0.011$, $p > 0.05$) was negative and not significant in supporting H5a. Thus, H5a was rejected. Next, the relationship between commitment (CMT) and company performance (CP) ($b = 0.083$, $p < 0.05$) was positive and significant supporting H5b. Next, the relationship between co-operation (COO) and company performance (CP) ($b = 0.064$, $p > 0.05$) was positive but not significant in supporting H5c. Hence, H5c was rejected.

Similarly, a customer-oriented company leads to a sense of pride in belonging to the company in which all departments and channel members work toward the common goal of satisfying customers. This relationship can be partly explained by the fact that a customer-oriented approach stimulates teamwork and unites channel members in a common purpose. This study finding on the relationship between customer orientation and contractor supplier commitment also aligned with finding from [43] which suggested that higher levels of customer orientation result in both high levels of contractor supplier commitment and company performance.

Thus, customer orientation affects channel member commitment directly as well as indirectly through employee satisfaction. The reason behind this relationship might be that external customer satisfaction cannot be achieved without the fundamental contribution of the employees who provide the service. It is the employees who stay focused on customer's needs and customer orientation is one of the ways of creating the work environment which initiates and maintains the work culture that may aid to produce the appropriate behaviour of employees by making them satisfied [23].

5. Conclusion

The Malaysian construction industry is showing a growing concern to be successful not

only in the domestic market but also internationally. To achieve this inspiration, greater emphasis is being placed on 'best practices' such as customer orientation, and SCM, with Co-operation and coordination, play a critical role. From the perspective of construction management, the issue of management and integration in managing the complexity of the construction supply chain is considered crucial. In fact, quite a number of reports and studies highlighted the same concern. Though there is a wide agreement over the benefits of collaboration and coordination as a useful construction project management strategy, this perspective is somewhat weakened by a lack of rigorous, verifiable evidence to support the claims that are made [47]. Moreover, studies by [52] and [53] draw attention to the waste and problems in the construction supply chain due to the interdependency largely interrelated with causes in other stages of the supply chain. Such problems normally lead to construction delays that eventually incur additional costs [52]; [45].

This is critical due to the nature of the construction supply chain which limits the construction industry to bluntly adopt a successful managerial approach or best practices (such as SCM) used by other industries. There is a need to rectify selected areas in the construction supply chain that are suitable for these best practices. Based on the understanding of the nature of the construction supply chain, in this present study, it was identified that there is room for best practices to be materialised especially in the process of construction building materials. In line with this, the present study was carried out in order to investigate the link between customer orientation, channel member relationship, Contractor-Supplier commitment and company performance in the building construction industry.

By developing customer orientation, channel member relationship and Contractor-Supplier commitment to each other's needs and improving communication and co-operation, a stronger relationship should emerge which ultimately will create a closer bonding between supplier and contractor. This is itself could be self-perpetuating, because if stronger relationships ultimately improve customer satisfaction, it is also probable that the effect will be reciprocated.

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