

Impact of Sourcing Strategies to Sourcing Performance with The Moderation Effect of Partnership Quality

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INTRODUCTION

Nyamasege and Biraori (2015) suggested testing the impact of sourcing strategies, quality standards and procurement regulations on supply chain management effectiveness. However, this suggestion was narrowed down to test the impact of sourcing strategies to sourcing performance with the moderation effect of partnership quality. Gaining performance from sourcing is truly a matter of life or death to majority of the companies as more than 45 percent and 65 percent of companies' revenue come from purchased materials and services (Jacoby, 2005).

Choosing the most suitable sourcing strategy depends on the organization's strategic objectives and characteristics as well as its supply chain. Once a sourcing strategy has been chosen, the actual ordering procedures can take place (Rijkema et. al, 2014). Additionally, partnership quality is considered an integral part of business in which most of the time transactions formed and succeeded due to the trust, commitment and cooperativeness of partners in a bilateral exchange. To the perspective of Social Exchange Theory (SET), sourcing can be explained through contractual governance. With respect to the role of partnership quality, it does not produce economic benefits alone, and it only commences once the resource exchange is started. Thus, it aligns to the subsistence of shared responsibilities and mutual benefits in an exchange (Lawler, 2001).

Subsequently, literature highlights that quality standards and supply chain proximity exert a significant influence on the performance measures (Narasimhan, 2005). In line with the findings of Narasimhan it was understood that impact of quality standards and supply chain proximity need to be kept constant in order to carry out an effective test to measure the impact of sourcing strategies to sourcing performance.

Thereby, a framework was established to test the impact of sourcing strategies to sourcing performance with the moderation effect of partnership quality. Main contribution of this study is to address sourcing performance which was not addressed in previous literature.

Due to the fact that this study is planning to assess the sourcing performance of a bilateral exchange a single buyer-supplier relationship is taken as the unit of analysis. Thus, apparel industry in Sri Lanka is selected as the population. However, the pre-study shows that not all firms are operating with equal domain. Thereby, only two internationally operating substantially large firms were selected as they engage in the business for a long period of time with equally competitive competencies. Thereby, Brandix and MAS were selected.

LITERATURE REVIEW

This section includes prior studies which were done on the research concepts identified. Accordingly, sourcing strategy refer to sourcing strategy encompasses a variety of factors, including the number of suppliers that will be contracted, the type of relationship that will be pursued with suppliers, and the type and conditions of contracts that will be negotiated (Van Weele, 2009 cited from Rijpkema et. al 2004). Whilst partnership quality refers to a reciprocal interactive, inter-organizational relationship to achieve shared goals' (Lee and Kim (1999), Lee (2001) and Byramjee et al., (2010). Sourcing performance can be defined as quality of buying products/materials at the right quality, in the right time and right place, from the right source, at the right price (Supatn 2009). Quality standards can be defined as the function which aims to measure and improve the production and marketing processes and the product and information flow in order to provide products according to specification (Faria-Fernandes et al., 2009). Moreover, supply chain proximity refers to quality expectations in a buyer-supplier relationship, as information sharing and trust between buyer and supplier, and aspects related to centralized planning in JIT (Narasimhan, 2005).

Sourcing performance

Two aspects of production sourcing performance that are most likely to lead to satisfaction are on-time delivery and better quality (F-Y. Tam; K-L. Moon, S-F. Ng and C-L. Hui, 2016).

Sourcing strategy

Sourcing strategy refer to the method of sourcing with regard to different raw materials sourced by the entity. Sourcing aids the adoption of a proper production strategy is regarded as a strategic approach that firms can use to maintain their comparative and competitive advantages (Elmuti and Kathawala, 2000; Sheth 1996; Villa 1998; Zeng 2000). Single sourcing is often preferred to multiple sourcing because of an imminent cutting of costs. Single supplier-buyer relationships offer different cost advantages. As volumes are not split between different sources, the buyer has the opportunity of negotiating better purchasing conditions (Ellram and Billington, 2001; Buttack, 2001; Brierly, 2001).

QUALITY STANDARDS

Quality of incoming materials involved not only careful attention to incoming inspection procedures for purchased inputs from suppliers, but also deliberate evaluations of vendors' quality performance and supplier selection based on criteria beyond only lowest price (Forker 1997).

Improving the quality of supply chain processes leads to cost reductions, improved resource utilization and improved process efficiency (Beamon and Ware, 1998; Vladimirov, 2011). Despite the potential advantages of quality controls (Baird et al., 2011), small firms might be unwilling or find it hard to implement them (Mikkola, 2008).

Supply chain proximity

Supply chain proximity is referred to as 'physical closeness of the buying and supplying firm and the JIT measures taken by firms for improved, synergistic performance' (Narasimhan, 2005).

Partnership quality

The Partnership Quality construct consists of three latent variables (i.e. Cooperativeness, Trust and Commitment) (Lee 2001; Han et. al. 2008; Chang et. al. 2008; Lahiri et. al. 2009; Lai et. al. 2009)

A partnership's quality explains the reciprocal behavior and relational norms in an exchange process (Sun et. al. 2002).

Social Exchange theory (SET)

Social exchange is conceptualized as a joint activity of two or more actors in which each actor has something the other values. The implicit or explicit task in exchange is to generate

benefit for each individual by exchanging behaviors or goods that actors cannot achieve alone (Lawler, 2001; Thibaut and Kelley 1959; Homans 1961; Emerson 1972b). Although different views of social exchange have emerged, theorists agree that social exchange involves a series of interactions that generate obligations (Emerson, 1976). Within SET, these interactions are usually seen as interdependent and contingent on the actions of another person (Blau, 1964).

METHODOLOGY

This study used apparel manufacturers in Sri Lanka exporting to foreign markets in order to investigate the aforementioned conceptual framework. Only two firms were selected based on key attributes such as common competencies, industrial purchasing patterns, industrial buyers in the downstream supply chain, contribution to the export income of Sri Lanka. Thus, Brandix and MAS group of companies were finalized for the further investigation. The buyer-supplier relationships in each purchasing item taken as the unit of analysis. Therefore, data were collected from purchasing staff responsible for purchasing activities pertaining to the different sourcing categories of Brandix and MAS group of companies.

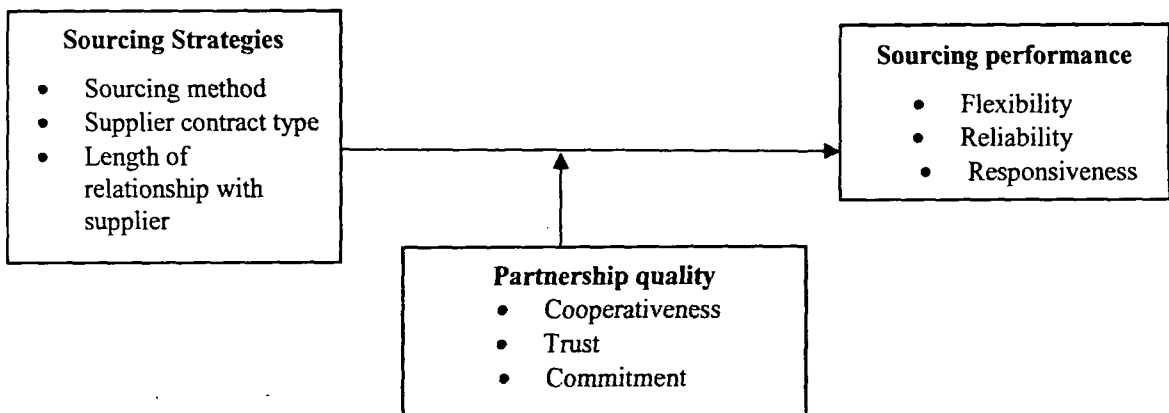


Figure 1: Research Framework

Data analysis

Data analysis performed using IBM SPSS 20. Initially data cleaning was performed where partnership quality, sourcing performance, quality standards missing values were replaced with median values due to normality distribution violated. Supply chain proximity missing values were replaced by mean values due to the normality distribution condition fulfilled. Additionally, outliers identified using a boxplot and eliminated. Multivariate assumptions

were checked for all variables which were measured through scale data and these assumptions are satisfied.

Demographic profile

Founded in 1972 Brandix employ over 47,000 associates across 42 manufacturing locations in Sri Lanka, India and Bangladesh. Supply chain department was contacted to obtain responses and thereafter, personnel responsible for the sourcing of different purchasing categories were approached to fill three questionnaires for each category signifying three buyer-supplier relationships. Moreover, MAS which was approached to get further responses was established in the year 1987 and is a conglomerate with \$1.6 Bn investment. It is headquartered in Sri Lanka with 48 manufacturing facilities located across 15 countries. There are over 79,000 people employed in MAS operations.

Based on responses, majority suppliers selected by companies were based on Tender/ Request for Proposal and in majority instances both companies have been maintaining a relationship of more than 5 years with their suppliers. Moreover, all concepts using Likert scales as the measurement approach show a mean of more than 4, which is the midpoint and thereby, majority responses above satisfaction level.

Instrumentation

In totality, there are 31 questions which test the entire model. However, the breakdown of questions for the concepts are as follows:

Concept	Dimensions	Indicators	Scale	Reference
Sourcing strategy	Sourcing method	Sourcing method used	Nominal	Burke et. al. (2006)
	Supplier selection	Supplier selection method	Nominal	
	Supplier relationship	Length of the relationship with the supplier	Ordinal	Park (2001)
Partnership quality	Cooperativeness	Ability to comply with each other's requests	1 -7 Likert scale	Lee 2001; Lahiri. et. al. (2009)
		Ability of sharing info impacting each other		
		Ability of sharing knowledge on core business practices		
		Capability to share benefits and risks of the business		
	Trust	Sincere at all times		Adapted Han et. al. 2008;
		Friendly nature of the relationship		
Ability to make decisions favoring both parties		Lan et. al. 2009		

	Commitment	Willingness to continue the relationship		
		Maintaining promises		
		Strong committed relationship		
		Doing the best to maintain a good relationship		
Quality standards		How important is it that suppliers need to investigate causes of nonconformance and take corrective actions for assuring that suppliers' products and services conform to your specifications		Narasimhan & Nair (2005)
		How important is it that suppliers need to maintain a facility-wide, documented preventive maintenance program for assuring that suppliers' products and services conform to your specifications		
		How important is it that suppliers need to ensure that purchased product and materials conform to their specifications for assuring that suppliers' products and services conform to your specifications		
		Willingness to work toward continuous improvement		Lo and Yeung (2006)
		Willingness to organize quality improvement activities		
Supply chain proximity		How important is aiding your suppliers to increase their JIT capabilities in your supply chain management efforts		Narasimhan & Nair (2005)
		How important is locating closer to your customers in your supply chain management efforts		
		How important is requiring suppliers to locate closer to your firm in your supply chain management efforts		
Sourcing performance	Reliability	Capability of item being delivered according to specification and comply with delivery time		Hwang et. al. 2008
	Flexibility	Ability for the company to achieve at least up to 20% increase in delivery quantity		

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		Willingness to work toward continuous improvement		Lo and Yeung (2006)
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		How important is locating closer to your customers in your supply chain management efforts		
		How important is requiring suppliers to locate closer to your firm in your supply chain management efforts		
Sourcing performance	Reliability	Capability of item being delivered according to specification and comply with delivery time	Hwang et. al. 2008	
	Flexibility	Ability for the company to achieve at least up to 20% increase in delivery quantity		

		Able to gain satisfactory % increase in delivery quantity providing short notice		
		Ability to reduce order quantity in the PO without a penalty charge		
	Responsiveness	Value of obtaining an acceptable lead time		

FINDINGS

This study is based on 45 buyer-supplier relationships of which 30 responses are from Brandix and 15 responses from MAS Group of companies.

Cronbach reliability analysis based on responses resulted in a very low score for supply chain proximity which gave the researcher the impression that supply chain proximity isn't internally consistent. However, when considering corrected item-total correlation none of the items are less than 0.25 and deletion of any of the items wouldn't result in an increase in Cronbach alpha than the overall Cronbach figure of the variable. Thereby, supply chain proximity isn't eliminated from the model.

Tests of Between-Subjects Effects

Dependent Variable: Sourcing performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.619 ^a	3	.206	.189	.903
Intercept	.288	1	.288	.264	.612
SourcingMethod	.000	0	.	.	.
SelectionMethod	.462	1	.462	.423	.521
Length	.010	1	.010	.009	.924
SourcingMethod * SelectionMethod	.000	0	.	.	.
SourcingMethod * Length	.000	0	.	.	.
SelectionMethod * Length	.010	1	.010	.009	.925
SourcingMethod * SelectionMethod * Length	.000	0	.	.	.
Error	28.381	26	1.092		
Total	29.000	30			
Corrected Total	29.000	29			

a. R Squared = .021 (Adjusted R Squared = -.092)

Above ANCOVA table suggest that the model has a whole isn't significant thereby, no significant relationship between sourcing strategies and sourcing performance.

Tests of Between-Subjects Effects

Dependent Variable: Sourcing performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10.346 ^a	6	1.724	2.126	.089
Intercept	.009	1	.009	.011	.917
SourcingMethod	.000	0	.	.	.
SelectionMethod	.005	1	.005	.006	.941
Length	.682	1	.682	.841	.369
SourcingMethod *					
SelectionMethod * Length *	9.737	4	2.434	3.001	.039
Partnership					
Error	18.654	23	.811		
Total	29.000	30			
Corrected Total	29.000	29			

^a R Squared = .357 (Adjusted R Squared = .189)

However, when partnership quality is incorporated into the model as a moderator it is evident that there is significant relationship between sourcing strategies and sourcing performance.

Tests of Between-Subjects Effects

Dependent Variable: Sourcing performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10.704 ^a	8	1.338	1.536	.204
Intercept	.017	1	.017	.020	.890
SourcingMethod	.000	0	.	.	.
SelectionMethod	.034	1	.034	.039	.845
Length	.249	1	.249	.286	.598
SourcingMethod *					
SelectionMethod * Length *	8.967	4	2.242	2.573	.068
Partnership					
Quality	.211	1	.211	.242	.628
Proximity	.134	1	.134	.154	.699
Error	18.296	21	.871		
Total	29.000	30			
Corrected Total	29.000	29			

^a R Squared = .369 (Adjusted R Squared = .129)

Inclusion of controlling variables: quality standards and supply chain proximity led to no significant relationship between sourcing strategies and sourcing performance with moderation by partnership quality. Hilman (2011) who studied the impact of sourcing strategies to organizational performance in the Malaysian context indicated a positive relationship among the two variables. Farias (2016) identified a systematic relationship between sourcing strategies and the productivity of the firm although this relationship is not explained. In line with current findings it can be stated that literature suggest a significant relationship between sourcing strategies to firm performance and productivity. Therefore, it can be assumed that sourcing strategies have a positive impact to sourcing performance. Although in most cases what elements led to this relationship isn't clearly identified.

CONCLUSION

In the Sri Lankan context, as far as two of the major apparel giants: Brandix and MAS are concerned certain elements of sourcing strategies such as relationship length have a significant relationship with sourcing performance. Additionally, a significant relationship exists between sourcing strategies and sourcing performance with the moderation effect of partnership quality. However, supply chain proximity and quality standards result in no significant relationship even with the moderating effect of partnership quality to sourcing strategies and sourcing performance as these two controlling factors directly impact sourcing performance.

The future studies can extend the explanation by including the impact of sourcing strategies to organizational performance with sourcing performance. Since this study focus solely on front-runners to the contribution of export income in Sri Lanka: Brandix and MAS there is the difficulty of generalizing the findings obtained from this research study to the entire apparel industry of Sri Lanka.

Finally, this study identified that multiple sourcing strategies lasting more than five years with supplier selection done using tender/ RFP tend to enhance sourcing performance provided firms emphasize on high quality buyer-supplier partnerships.

Keywords: Sourcing performance, Sourcing strategies, Partnership quality, Quality standards, Supply chain proximity

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