

Supply Chain Practices in the Extent of Retailer-Supplier Integration¹

*Atul Chaturvedi, **Dr Sujay Madhukar Khadilkar

*Research Scholar, **Research Supervisor*

Department of Management,

Himalayan University,

Itanagar, A.P.

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ABSTRACT

Introduction: Companies are always looking for methods to reduce their input costs in order to obtain a competitive edge, and purchases make up 75% of their operating budget. Businesses must meet the demands of quickness, ease, and dependability.

Aim of the study: the main aim of the study is to Supply Chain Practices In the Extent Of Retailer-Supplier Integration

Material and method: A quantitative survey approach was used to gather data from a large, randomly selected sample of participants, with the aim of examining retailer-supplier interactions and the supply chain performance of retail businesses.

Conclusion: The research sheds light on the need of connecting integration and company success by analyzing the several variables necessary for an efficient and unified retail supply chain.

INTRODUCTION

Supply Chain Practices and Competitive Advantage

By coordinating the activities of a company's internal departments with those of its suppliers, customers, and other channel members, supply chain management (SCM) boosts the competitiveness of the whole enterprise. Companies are always looking for methods to reduce their input costs in order to obtain a competitive edge, and purchases make up 75% of their operating budget. Businesses must meet the demands of quickness, ease, and dependability. There's a chance it may help us save money, get more done, and take less of a chance with our business, giving us an edge over the competition. Time, quality, cost, efficiency, and diagnostic indicators were separated out as separate categories for measuring a company's competitiveness.

The ability to effectively react to and gather information about client requests offers organizations an edge over the competition, as shown in the study by Ramdas and Speakman (2000) on the elements that determine the performance of a company's supply chain. Hyland and Beckett (2002) suggested that in order for businesses to keep up with the competition, they needed to invest heavily in internal learning that improved existing processes while also incorporating novel ones.

Retailing Sector

Simply put, retail is a social and economic system that facilitates the exchange of goods and services for a small monetary consideration, matching the needs of people as the ultimate consumers with those of producers and farmers in a way that not only provides for people's basic needs but also encourages the adoption of novel ways of living, thereby contributing to greater social cohesion and economic growth. Retail comes from the French verb retailer,

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which means "to cut a portion off" or "to divide mass" in English. Therefore, it exemplifies direct interaction with the client. Retailing, as defined by Amit and Kameshvari, includes a wide range of endeavors aimed at bringing products and services directly to end users for non-business purposes, such as private usage in the home. Retailers do this by stocking enormous quantities but providing customers with just a tiny fraction of those items (2012: 466).

Need for the Study

In order to thrive in today's competitive and complicated business climate, most companies are actively working to alter one or more of their most fundamental business processes. Customers' requirements and expectations are becoming more elusive. The problem is that buyers have a lot of options, many of which are of comparable quality and cost. When it comes to putting a company's plan into action, the supply chain process is perhaps the most crucial back-end function. Profitability and competitiveness are two of the many KPIs that are determined by it. This means that the supply chain might be the optimal operational framework for a transformational process. Supply chain transformation and its integration with overall business development objectives provide unique difficulties for each organization.

LITERATURE REVIEW

Basuki, Mahmud (2021) In order to provide a service, improve product quality, and keep costs down, businesses use dynamic supply chain management (SCM) systems. Where LSC implements a lean distribution network, waste is eliminated while output is maximized, lowering costs and boosting competitiveness. While QM refers to the internal context of a company, SCQM refers to the exterior context of a supply chain. This means that producers, shippers, and consumers alike may all profit from the technology behind modern supply chain management (SCM) thanks to advances in supply chain network architecture.

Cheng, Kelvin (2021) Online shopping's popularity in the retail sector keeps on rising. Various parties now place a higher value on it due to the expansion of online shopping as a whole. When it comes to retail, e-commerce will play a significant role since it opens up a new door for international trade and has the potential to become a widely adopted business practise. Retail e-commerce has advanced rapidly in recent years thanks to a confluence of factors like mobile technology, the widespread use of smartphones, and the spread of the Covid-19 virus. Although it has contributed to economic development and allowed for the expansion of businesses, it has also exposed several obstacles and repercussions for companies that specialise in e-commerce.

Madhani, Dr. Pankaj (2021) Both rich and developing countries rely heavily on retailing for their economies, making it a very significant sector of the global economy. Effective retail Supply Chain Management is required since retailers are the last links in a supply chain and the last destination for items and consumers (SCM). Due to fluctuating and unexpected client demand, today's retail supply chains operate in an increasingly complicated, competitive, and risky business environment. Therefore, retail SCM must strengthen its emphasis on the consumer.

Nawaz, Waqas (2020) The methodological framework included a quantitative approach, an explanatory style, a correlational layout, a convenience sample, and a multiple linear regression analysis. Research shows that the quality and quantity of information given, as well as the quality of the connections formed with important suppliers, have a significant influence on the performance of organizations, with the exception of delay. Due to the low response rate (n=211), the revalidation of variables was skipped in this study. Second, the complexity of the SCM concept, which includes the network of firms participating in production and distribution, makes it impossible to explore the whole sector in single research. Managers are urged to fortify relationships with their suppliers to improve the efficacy of their operations. Managers should encourage open lines of communication and collaboration between their suppliers and their clients.

Ying, Song & Sindakis, Stavros & Aggarwal (2020) The majority of studies devoted to big data analytics have focused on improving the underlying infrastructure. Understanding consumer connections and experiences, among other things, via the use of big data analytics has been the subject of study. However, there is a dearth of studies that investigate the effects of big data management on retail business performance and consumer happiness. By using analytics, retailers can see a complete view of their business, customers, and operations regardless of whether they are doing business in-store, online, or both.

METHODOLOGY

A quantitative survey approach was used to gather data from a large, randomly selected sample of participants, with the aim of examining retailer-supplier interactions and the supply chain performance of retail businesses. The calibre of respondents is crucial to the success of any empirical investigation. Participants in a survey are counted on

to have in-depth understanding of a number of different subject areas. The respondents in this survey are presumably well-versed in many facets of retail operation, knowledge that may be used to better integrate the respondents' operations either internally or with their partners'. It is anticipated that the responses will be representative of a wide range of regions, sectors, and business sizes, making for highly generalizable conclusions. The goal of quantitative research is to make generalizable judgements about the designated target population by providing statistical facts and estimations concerning correlations between constructs of study interest. The study setting, survey methodology, and response rate boosters are all described here in detail for the empirical design.

RESULTS

Measurement Results (Retailers)

Here we report the findings from the Retailer Version instrument validation across nine primary constructs: Information Technology, Agreed-Upon Business Performance, Satisfactory Business Performance, and Level of Retailer-Supplier Integration. The preceding section detailed the instrument evaluation approach for each construct.

1. Extent of Retailer-Supplier Integration

Correction of the item total correlation (CITC) and initial reliability analysis are used to exclude potentially problematic items from the section and ensure the data is unidimensional. Table 4.1 shows that the CITC for anything labelled "Collaboration and Partnership (RCP)" is more than 0.4. Cronbach's Alpha was calculated to be 0.91 at the end.

Table 4.1 Purification for Extent of Retailer-Supplier Integration (Retailer Version)

Items	Corrected Item-Total Correlation	Cronbach's Alpha
Collaboration and Partnership (RCP)		
Partnership of Supplier retailer in R & D	0.61	0.91
Partnership of Supplier retailer in procurement	0.64	
Partnership of Supplier retailer in "Inventory management"	0.76	
Partnership of Supplier retailer in product manufacturing	0.75	
Partnership of Supplier retailer in product manufacturing	0.73	
Partnership of Supplier retailer in supply software implementation	0.74	
Partnership of Supplier retailer in common use of 3rd party logistical service	0.48	
supplier retailer partnership length	0.75	
feedback of supplier regarding partnership	0.75	

Fit indices for the first iteration of the model are wildly off-base (Table 4.2). Based on the ideas presented, we continued with additional model refinement, which included checking for convergent validity. Nine RCP items are shown in the table below, all of which have low initial model fit indices.

Table 4.2 Model Fit Indices for Extent of Retailer-Supplier Integration (Retailer Version)

Items	Initial model fit	Final model fit
Collaboration and Partnership (RCP)		
R&D	GFI= 0.64	GF1=0.9
Procurement	AGFI- 0.28	AGFI=0.34
“Inventory management”	RMSEA=0.52	RMSEA=0.09
Product manufacturing		
Supply chain design		
Supply chain software implementation *		
Mutual utilization of third -party logistical services		
Supplier retailer partnership length		
Feedback of supplier regarding partnership		

2. Information Technology

Corrected item-total correlation (CITC) analysis and initial reliability analysis were used to weed out irrelevant items, improving reliability and ensuring unidimensionality. The CITC for everything included in this section under "Strategic Planning (RSP)" (Table 4.3) was more than 0.4. Overall, Cronbach's Alpha was calculated to be 0.93. CITC values greater than 0.4 were identified for the segment labeled "Operations Planning (ROP)". We calculated a final Cronbach's Alpha of 0.92.

Table 4.3 Purification for Information Technology (Retailer Version)

Items	Corrected Item-Total Correlation	Cronbach's Alpha
“Strategic Planning (RCP)”		
“Collaborative planning and demand forecasting”	0.7	0.93
“Budget planning”	0.57	
“Investment planning”	0.81	
“Technology justification”	0.82	
“Competitor analysis”	0.72	
“Network planning and design”	0.83	
“Negotiations”	0.83	
“Industry analysis”	0.75	
“Data communication”	0.83	
“Organisation wide communication network services”	0.62	
“Organisation wide messaging services”	0.71	
“Operations Planning (ROP)”		
“Material requirement planning”	0.77	0.92
“Techno commercial biddings”	0.58	
“Purchasing management”	0.73	
“Production planning and control”	0.74	
“Inventory management”	0.75	
“Sales management”	0.74	
“Customer relationship management”	0.68	
“Supplier relationship management (your suppliers)”	0.84	
“Distribution management”	0.74	

Table 4.4 displays the first model fit indices, which reveal a poor correlation with reality. Based on the ideas presented, we continued with additional model refinement, which included checking for convergent validity. Model fit findings for Strategic Planning (RSP) and Operational Planning (ROP) are shown in the table below. Eleven items with poor first model fit indices fall under RSP's scrutiny.

Following is a table containing the final findings of the model fitting process.

Table 4.4 Model Fit Indices for Information Technology (Retailer Version)

Items	Initial Model Fit	Final Model Fit
"Strategic Planning (RCP)"		
"Collaborative planning and demand forecasting"	GFI= 0.90	GFI= 0.93
"Budget planning"	AGFI= 0.86	AGFI= 0.89
"Investment planning"	RMSEA= 0.09	RMSEA= 0.06
"Technology justification"		
"Competitor analysis"		
"Network planning and design"		
"Negotiations"		
"Industry analysis"		
"Data communication"		
"Organisation wide communication network services"		
"Organisation wide messaging services"		
"Operations Planning (ROP)"		
"Material requirement planning"	GFI= 0.91	GFI= 0.96
"Techno commercial biddings"	AGFI= 0.85	AGFI= 0.93
"Purchasing management"	RMSEA= 0.1	RMSEA= 0.05
"Production planning and control"		
"Inventory management"		
"Sales management"		
"Customer relationship management"		
"Supplier relationship management (your suppliers)"		
"Distribution management"		

The results of the discriminant validity analysis are shown in Table 4.5. High levels of discriminant validity among the concept are indicated by statistically significant differences between X2 values for the pair at the $p < 0.001$ level.

Table 4.5 Pair-wise Comparison of X2 values for Information Technology (Retailer Version)

Retailer Version (Section 11)			
Construct	RSP		Diff.
	Free	Fix	
RSP			
ROP	459.249	535.238	75.989

CONCLUSION

The research sheds light on the need of connecting integration and company success by analysing the several variables necessary for an efficient and unified retail supply chain. There has to be a rethinking of the way suppliers and retailers work together in order to create a relationship between integration and business success, with measurable

goals. The research also found that it is important to correlate integration with performance. The role of information technology should be that of facilitator. The results also reveal that IT has a major influence on company success, thus it's possible to draw a line from IT integration to financial results. In order to create a long-lasting, mutually beneficial relationship between suppliers and retailers, IT is essential.

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