



The Effects of Customer and Supplier Co-Ordination on Value Chain Performance

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ABSTRACT

The role of Customer and Supplier in the Value Chain is changing rapidly in the context of Global Competitiveness. Unlike ever before the markets have become competitive and Product life cycle have become short. In view of the new product innovations, open markets and state of the art technology, Customer is more informed and Quality conscious. There is a continuous challenge for the Organizations to re-design the Value Chain for competitive performance. Customer and Supplier Co-ordination play a vital role in facilitating this process. The present article investigates the effects of Customer and Supplier Co-ordination on value chain performance in Indian Retail Industry. Value chain Performance is taken as a composite construct of product quality, product innovation, product flexibility and Product Delivery. The Co-ordination Theory is used to formulate the conceptual model and two sets of related Hypothesis are tested using statistical analysis. Survey Method is used to collect the data from Logistics and Supply chain Managers from Retail Organizations operating in India. The Results have indicated key Coordination areas to improve competitiveness in Indian Retail Sector

Keywords: *Competitiveness, Customer And Supplier Co-Ordination, Product Life Cycle, Value Chain.*

I. INTRODUCTION

The Indian Retail sector is all set to experience revolutionary changes and Global competitiveness. Unlike ever before the customer is more informed and product conscious. The recent amendments in Government Retail policy 2013, and Infrastructure development has posed a challenge for the Retail Industry. In the present Global scenario, the Retail Organizations have a choice to select Suppliers for their products and the customers are spread across the Globe with diverse product taste and preferences. The design of Value chain is important for Retail Organizations to survive and compete in Global scale operations. "The revolution under way will be driven not by changes in production but by changes in coordination." (Malone/Rockart, 1991,[1]). The Organizations of Coordination supported business relationships with internal and external integration - ranks amongst the most important capabilities businesses will need in the 21st century (Osterle et al.,2000,[2]). Businesses today seek design models for the engineering, implementation and further development of Coordination supported business relationships. The Coordination among Customer and Supplier plays an important role in enhancing the value chain performance of an Organization. Neither transaction cost theory, network theory, network economics nor any other of the theories examined provide comprehensive help in answering practical questions of Coordination related issues in Value chain. Network theory, for example, describes business networks as an organizational form between market and hierarchy, provides a comprehensive description model of the design areas of a network and considers the business unit or the networked enterprise as the primary unit of reference. However, a finer degree of granularity is required for describing and ultimately for designing appropriate Value chain for Organizations. The present Research article attempts to close the gap between existing theoretical tools and practical issues, and thus highlights the Coordination model of business relationship.

2. LITERATURE REVIEW

Initially The Organization Theory by (Barnard,1938,[3]) has identified the importance of Co-ordination in achievement of Organization Goals and he further argued that ‘when ends have been adopted, the co-ordination of acts, as means to these ends is in itself an essentially logical process’ (Barnard 1938, p.186[3]). However the importance of Co-ordination is almost invisible and its value is recognized only in the process of on-going transactions.

Table 1: Literature Review

S.no	Related Areas of Coordination	Authors
1.	Organization Theory and Co-ordination	Barnard(1938)
2.	Co-ordination and Interdependence	Malone and Crowston(1994)
3.	Supply chain & Interdependent activities	Crowston(1997)
4.	Types of Co-ordination	March and Simon(1958)
5	Organization Structure	Thompson(1967)
6	Interdependence and Conflict	Victor and Blackburn (1987).
7	Co-ordination mechanisms& Interrelationships	Bailetti <i>et al.</i> 1994).
8	Inter-Departmental Co-ordination	Adler (1995)

Table 2(a): Literature Review: Supplier Coordination

S.No	Author	Control Variable	Finding
1	Petersen et al (2005)	Stage of integration and supplier's level of responsibility	Relationship between project team effectiveness and design quality is stronger in the case of earlier supplier involvement. Project team effectiveness is positively associated with design and financial performance, regardless of supplier's level of responsibility
2	Koufteros <i>et al.</i> (2005)	Uncertainty, equivocality, platform development strategy	Supplier product integration improves quality in high equivocality environments. Supplier process integration improves product innovation capabilities in low equivocality environment
3	Devaraj <i>et al.</i> (2007)	Firm size, industry type	There is an indirect relationship between eBusiness technologies and supplier integration that leads to better cost, quality, flexibility, and delivery performance
4	Jayaram (2008)	Firm size, market stability	Supplier integration affects performance (product cost, conformance quality, design quality, and time-to-market) under market stability conditions.

Table 2(b): Literature Review: Customer Coordination

S.no	Author	Control Variable	Finding
1	Koufteros <i>et al.</i> (2005)	Uncertainty, equivocality, platform development strategy	Customer integration has an indirect impact on quality through the effects on product innovation, especially in high equivocality environments.
2	Das et al.(2006)	Types of coordination	Customer/Market coordination,I.T coordination, Logistics Coordination, Supplier Coordination, Purchasing Coordination impact on Performance
3	Frohlich & Westbrook (2001)	Linkage with Customers and Suppliers	Integration with Suppliers and Customers has a direct impact on performance
4	Enkel et al.(2005)	Customer Integration and Market Needs	Integration with Customer results in better product quality

(Malone and Crowston, 1994,[4]) defines Co-ordination Mechanism as the process of managing dependencies within activities. The problem of Co-ordination has been investigated by various Researchers and Practitioners and ultimately a common concept of interdependence as a pre-requisite to Co-ordination has been identified. The process of interdependence among the partners to the value chain precedes Co-ordination Mechanism. The Co-ordination problems arise from Dependencies that act as constraints in the process of task achievement and Co-ordination mechanisms are essential to overcome these problems.

(Crowston, 1997,[5]) The acquisition and creation of Resources play a vital role in performing various interdependent activities within the supply chain. The various types of Co-ordination identified are: Co-ordination between two tasks, Co-ordination between two resources, Co-ordination between a task and a Resource. In the Organizations the type of coordination which operates is a function to the extent whereby the situation is standardized. Tasks are then interdependent if they access the same resources. Tasks are performed by resources (e.g. personnel) on the one hand and consume resources on the other. According to (Crowston ,1994[4]) resources are all subjects and/or objects which come into contact with a task. Examples of resources are machines, tools, storage spaces and employees. The resource information takes on a special role in this article. This is due to the fact that while it obeys the laws of information processing and thus, unlike raw materials for example, is reusable and divisible, it can also depict all other resources for coordination purposes According to (Osterle,1995,[6]) processes are coordinated exclusively by means of outputs. By virtue of this fact, coordination must therefore be an output or part of an output in the sense of the above definition. Consequently, the potential of inter-organizational networking lies in suitable design of the coordination capability (networkability) of outputs and all associated design areas such as process, IT, people, organization structure and culture. Business Process Reengineering and integrated information systems have already shown how potentials arising from the organization of internal dependencies can be realized.

Table 3:Customer-Supplier Coordination Areas through Information Sharing

Coordination Areas	Customer Integration	Supplier Integration
Supply Chain Management	Downstream Integration upto the number of end Consumers	Upstream Integration upto the number of Product Suppliers
Information Coordination	Customer Market Research Information	Supplier involvement in Product Research Information
Logistics&Distribution Coordination	Customer Satisfaction in view of Product Delivery	Supplier Networking and Distribution Cost
Dynamic Markets Coordination	Customer Relationship strategies	Earlier Supplier Involvement in Product Design
Relationship Management	Customer Relationship Management Strategies	Supplier Relationship Management Strategies
Infrastructure	Efficiency through well-equipped technologies	Distributed Enterprise Resource Planning systems

(March and Simon,1958,[7]) The two types of Coordination viz: coordination by plan is based on pre-established and calculated schedules and coordination by feedback involves transmission of new product information and market demand. The type of organization structure, centralized versus decentralized also facilitates the coordinated action of interdependent elements (Thompson,1967[8]). The concept of task interdependence is the extent to which the relationship between groups could be categorized into one of the three patterns of workflow that exist between them, namely pooled, sequential and reciprocal. As such, the coordination mechanisms corresponding to these types of interdependence have been identified

as being standardization of rules, planning and scheduling, and mutual adjustment (Thompson,1967[8]). (Van de Ven *et al.* 1976,[9]) added the fourth type of interdependence, the work unit of a team, and proposed that uncertainty and team size are additional determinants of coordination. They also claim that as interdependence level increases, the need for group coordination also increases. To accommodate the different types and levels of interdependence between functions, two distinct aspects of coordination, namely the amount of interdependence and the amount of conflict between functions, were proposed by (Victor and Blackburn,1987[10]).

(Thompson's,1967,[8]) typology was extended by (Malone and Crowston, 1994,[4]) who suggested different kinds of dependencies, such as shared resources, producer/consumer relationship, simultaneity and task/subtask, and corresponding coordination mechanisms that can be used to manage them. The effectiveness of coordination mechanisms depends on a shared view of coordination structure because it facilitates the visibility of the interconnections between assignment of individual responsibilities and their interrelationships to achieve some organizational objectives (Bailetti *et al.* 1994,[11]). More specifically, (Adler,1995,[12]) argued that, since the objective of coordinating design and manufacturing departments is to ensure an acceptable fit between product design and manufacturing process parameters, the most efficient interdepartmental coordination mechanism is that which is able to deal with the uncertainty of this product/process fit at least cost to the organization. In this paper, we take this argument to the interfirm level since the interdependencies also arise between firms, e.g. between a buyer and its suppliers. Thus, coordination becomes an even critical issue as there is typically more than a single governing authority within a supply chain that establishes the best coordination mechanism among supply chain partners in order to achieve their mutual goals.

2.1 Research Hypothesis Formulation

While the literature on supply chain integration has offered several types of coordination, such as customer/market coordination, information coordination, logistics and distribution coordination, supplier coordination, and purchasing coordination (Das *et al.* 2006,[13]), our focus in this paper is on supplier and customer coordination. Lately, research has shown that effective supplier coordination is a key factor for manufacturers to remain competitive in today's global competition. In consistence with (Frohlich and Westbrook,2001,[14]) question of whether it is more important to link with suppliers, or link with customers or link with both, we are also interested in studying customer coordination as well as supplier coordination. It is well-known that customer integration involves determining customer requirements and tailoring internal activities to meet these requirements (Koufteros *et al.* 2005,[15]). Moreover, early customer integration leads to a stronger relationship with the partner, a better understanding of market needs, fewer errors in the early development process and a better product quality (Enkel *et al.* 2005,[16]). Applying this framework, the following Hypothesis is formulated to determine how supplier and customer coordination will influence value chain performance.

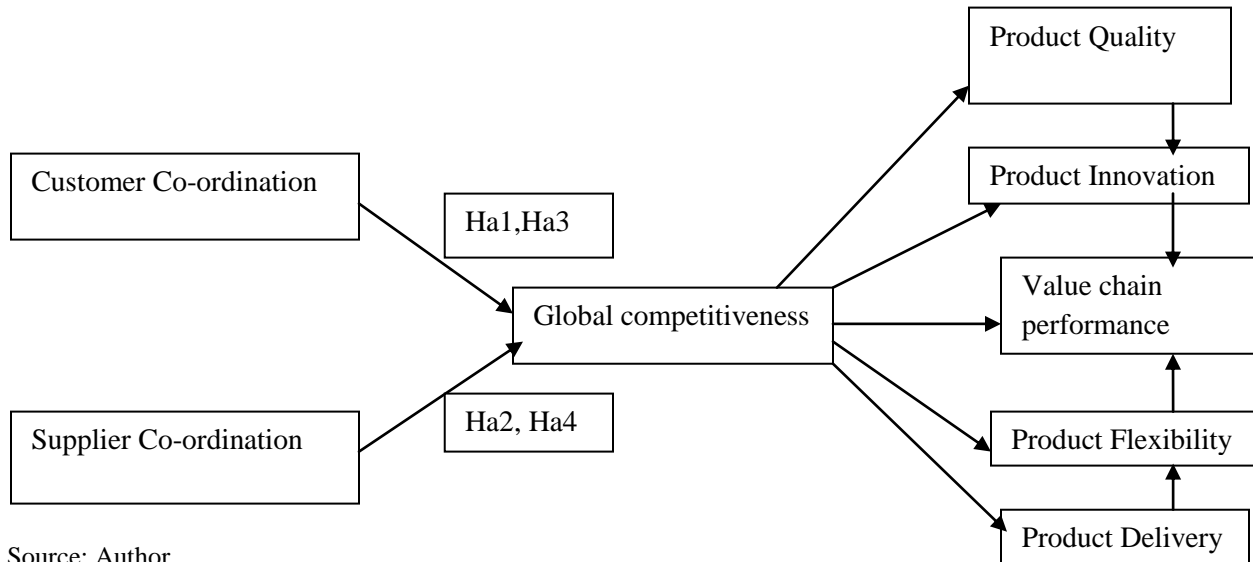
2.2 Hypothesis Testing

Ha1: Customer Co-ordination is positively related to Product Quality
Ho1: Customer Co-ordination is not positively related to Product Quality

Ha2: Supplier Co-ordination is positively related to Product Innovation
Ho2: Supplier Co-ordination is not positively related to Product Innovation

- Ha3: Customer Co-ordination is positively related to Product flexibility
Ho3: Customer Co-ordination is not positively related to Product Flexibility
- Ha4: Supplier Co-ordination is positively related to Product Delivery
Ho4: Supplier Co-ordination is not positively related to Product Delivery

2.3 Hypothesis



Source: Author

Figure: 1 Hypothesis Model

3. RESEARCH DESIGN AND METHODOLOGY

The Survey Method and the Sampling procedures were followed similarly as in the case of (Dillman,2000,[17]) and (Churchill,1979,[18]). The drafted Questionnaire was pre-tested with Retail Consultants, Academicians and Practitioners in the Retail Industry. The Questionnaire has been modified for Research practicality with the target sample size as suggested by the Practitioners and Supply Chain Professionals. This study uses a seven-point scale Likert Scale for Constructs of independent variables(Customer Co-ordination and Supplier Co-ordination) and Dependent variable (Value chain performance) which is a composite construct of Product Innovation, Product quality, Product Service and Delivery to collect the information from the target respondents. The Information and data was obtained through a Questionnaire survey from Value chain, Logistics and Channel Management, Purchasing managers who had thorough knowledge and experience of Value chain practices followed in respective Retail Organizations. These respondent managers were asked to rate their Value chain practices in relation to understanding of Customer and Supplier Co-ordination in view of the Global Competitiveness and its impact on Value chain Performance. After one month, 146 responses were received and with subsequent follow up to the remaining “non-respondents” additional 51 completed surveys were finalized from the Survey. This led to a total 180 completed surveys, representing a very encouraging response rate of about 45%.In order to test for the presence of non-response bias, comparisons were made between survey answers from early respondents (within 1 month) and late respondents. A multivariate t-test yielded no significant mean difference between the early and late respondents at the 0.05 significance level. Therefore it suggests that non-response bias is negligible in the study.

3.1 Questionnaire and Variables Measurement

A preliminary pretest was conducted before the questionnaire was finalized to reduce measurement error (Churchill, 1979). Consistent with previous studies (Ward et al., 1996; Vickery et al, 2003; Shah and Ward, 2003,[19]), we used perceptual measures of operational performance. Academicians suggest that perceptual measures of performance should be used when firms may be unwilling or unable to provide objective financial measures. Areas of a firm's operational strategy such as supplier coordination or customer coordination are often integrative in nature and also measured by multi-item scale.

3.1.1 Dependent Variable: Value Chain Performance

Value chain performance is taken as a composite construct of product innovation, product quality, product flexibility and product delivery .In the questionnaire, the respondents were asked to "rate Organization performance, relative to important key operational issues with respect to product flexibility, volume flexibility, process flexibility, new product development, product reliability, product design modification, product durability, product standardization, quality (conformance to specifications)". These items were measured on 7-point Likert scales with 1="poor" to 7="excellent". The averages of the first three and the next three items above were used to measure product quality (Cronbach's alpha=0.7762) and innovation (Cronbach's alpha=0.6345) respectively.

3.1.2 INDEPENDENT VARIABLES: SUPPLIER COORDINATION AND CUSTOMER COORDINATION

Customer Coordination and Supplier Coordination are taken as Independent Variables and the target respondents were asked to rate their degree of acceptance with the following statements. Supplier Coordination is measured by the average response rate in (1) Implementing Supplier Rating System and Continuous Improvement Process, (2) Implementing Long Term Agreements linked to Incentive & Recognition Systems , (3) Rewarding Top Suppliers through Best value selection and Supplier Management process, (4) Facilitating open Product communication and meeting Delivery schedules, (5) Reducing Supplier costs and Total cost of Ownership, (6) Facilitating Upstream Integration with value chain partners .(Cronbach's alpha=0.7671). Customer coordination is measured by the average response rate in (1)Sharing New product Development with Customers, (2) Demand forecasting through Customer buying behavior , (3) Taking Feedback on Customer Satisfaction in terms of Product Quality and Product Delivery,(4)Implementing Customer Relationship strategies , (5) Frequency of Customer Visits and rating Customer Services,(6) Facilitating Downstream Integration with value chain partners (Cronbach's alpha=0.6242). These items were measured on 7-point Likert scales with 1="strongly disagree" to 7="strongly agree". Note that all dependent and independent variables displayed composite reliability values (Fornell and Larcker 1981,[20]) in excess of the 0.60 minimum for exploratory studies (Van de Ven and Ferry 1978, Churchill 1979, Flynn *et al.* 1990,[21]). All dependent, independent variables are standardized (subtracted from the mean and then divided by the standard deviation of the original) before interaction terms between independent and Dependent variables , as suggested in (Aiken and West,1991, [22]). These ease the interpretation of results substantially. Tables 4 and 5 present the summary statistics and correlation matrix of the original variables.

Table 4: Descriptive Statistics of Item Variables

S.No	Construct Item	Mean	S.D
1	Continuously in Contact with Customers regarding Product preference	5.86	1.18
2.	Customers product choice taken into consideration for stock maintenance	4.92	1.78
3.	Customers feedback is taken on product quality,product innovation and product flexibility	5.72	1.36
4.	Long term Relationship and Trust with Suppliers	5.86	1.42
5.	Customer Relationship Management Strategies with Customers	5.82	1.38
6.	Effective Co-ordination within the Value chain	5.24	1.40
7.	Application of Information technology to improve value chain performance	5.90	1.32
8.	Product Quality	5.26	1.50
9	Product Innovation	5.60	1.70
10	Product Flexibility	5.82	1.46
11	Product Delivery and Service	5.20	1.50

Note: All the variables are standardized with the mean and standard deviation

Table 5: Correlation Matrix of Item Variables

Construct Item	Name	CC1	CC2	CC3	CC4	CC5	CC6	P1	P2	P3	P4	P5
Continuously in Contact with Customers regarding Product preference	CC1											
Customers product choice taken into consideration for stock maintenance	CC2	0.32										
Customers feedback is taken on product quality,product innovation and product flexibility	CC3	0.42	0.29									
Long term Relationship and Trust with Suppliers	CC4	0.34	0.08	0.40								
Customer Relationship Management Strategies with Customers	CC5	0.36	0.03	0.36	0.85							
Effective Co-ordination within the Value chain	CC6	0.31	0.02	0.22	0.42	0.45						
Application of (I.T) to improve value chain performance	P1	0.29	0.03	0.19	0.38	0.18	0.16					
Product Quality	P2	0.08	0.06	0.12	0.22	0.16	0.15	0.49				
Product Innovation	P3	0.12	0.17	0.06	0.21	0.15	0.09	0.46	0.28			
Product Flexibility	P4	0.30	0.14	0.21	0.24	0.14	0.14	0.12	0.09	0.08		
Product Delivery and Service	P5	0.34	0.16	0.32	0.21	0.18	0.24	0.14	0.13	0.15	0.72	

Note: All variables are standardized with the mean and S.D
 Cronbach's alpha for the two co-ordination measures: 0.7762(Supplier co-ordination) and 0.6345(Customer co-ordination)

4. ANALYSIS AND RESULTS

The Hypotheses associated with the model presented in Fig. 1 were tested using multiple regression procedure with contingency effects (Aiken and West 1991[22]). The results for Product Quality and Innovation are presented in Table 6, while those for Product Flexibility and Product Delivery are presented in Table 7. Overall our model results are highly significant, as indicated by the R-square values and F-statistics in both equations.

Table 6: Regression Analysis of Supplier-Customer Co-ordination on Product Quality and Innovation

Item Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value
Global competitiveness			-0.08035	-1.52	-0.11645	-1.72***				
Value chain performance							-0.16325	-2.62	-0.13425	-2.45**
Independent										
Supplier Co-ordination	0.15729	2.32**	0.15092	2.26**	0.14923	2.14**	0.15820	2.40**	0.16552	2.45**
Customer Co-ordination	0.12927	1.55	0.15236	1.84***	0.14482	2.11**	0.16892	2.32**	0.17556	2.55**
Interactions										
Supplier Co-ordination & Global Competitiveness					0.03108	0.38				
Customer Co-ordination & Global Competitiveness					-0.12482	-1.78***				
Supplier Co-ordination & Value Chain performance									0.18572	2.40**
Customer Co-ordination & Value Chain performance									-0.06182	-0.82
R ²	0.0542		0.0632		0.0802		0.0872		0.1139	
F-value of R ²	5.32*		4.45*		3.80*		6.65*		4.82*	
ΔR ²					0.03				0.0352	

*p<0.01; **p<0.05; ***p<0.10

Table 7: Regression Analysis of Supplier-Customer Co-ordination on Product Flexibility and Delivery

Item Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value	Beta-Coef	t-Value
Global competitiveness			-0.09242	1.59	0.13365	1.92	-0.00312	-0.052		
Value chain performance									-0.02472	-0.40
Independent										
Supplier Co-ordination	0.18125	2.26**	0.18754	2.35**	0.17416	2.25**	0.18092	2.32**	0.17825	2.32**
Customer Co-ordination	0.35279	4.75*	0.33257	4.2*	0.31675	3.62*	0.32675	4.12*	0.35245	4.31*
Interactions										
Supplier Co-ordination & Global Competitiveness					-0.15245	-1.62***				
Customer Co-ordination & Global Competitiveness					-0.00582	-0.054				
Supplier Co-ordination & Value Chain performance									0.08235	0.81
Customer Co-ordination & Value Chain performance									0.11206	1.15
R ²	0.1325		0.1423		0.1605		0.1325		0.1502	
F-value of R ²	15.52*		11.12*		7.11*		10.12*		7.11*	
ΔR^2					0.01				0.0182	

*p<0.01; **p<0.05; ***p<0.10

In order to test our hypotheses, a hierarchical regression approach is adopted to examine the importance of each of the independent variables and Dependent variables (Tabachnick and Fidell 1996,[23]). First, the independent variables representing Customer coordination and Supplier coordination are entered (see first column labeled Model 1 in Tables 6 and 7). Then the Dependent variable Value chain performance which is a composite construct representing Product Quality and Innovation and its interactions with Customer coordination and Supplier coordination are entered in sequence (see Models 2 and 3 respectively). This allows us to study the gaining importance of Product quality and innovation in terms of Customer choice which may influence the effectiveness Organizations supplier and customer coordination programs as hypothesized earlier. Similarly, the Dependent variable Value chain performance representing Product Flexibility and Delivery and its interactions with Customer coordination and Supplier coordination are entered in sequence (see Models 4 and 5 respectively). In all regression model analyses, the variance inflation factors were found to be close to 1 (less than 1.5), thus indicating that multi-collinearity among independent and Dependent variables was not a problem.

As can be seen in Model 2 of Table 6, Customer coordination displayed a significant influence on Product Quality and Innovation , thus providing support for Ha1. Similarly, Model 2 of Table 7 showed that supplier coordination is significantly related to product flexibility and Delivery providing strong support for Ha3. Taken together, these results empirically demonstrate the importance of supplier coordination in predicting product flexibility and Delivery performance.

As regards customer coordination, Model 2 of Table 7 showed a moderate effect on product flexibility and Delivery , thus providing support for Ha3. These results empirically demonstrate the importance of customer coordination in predicting Product flexibility and Delivery performance.

5. DISCUSSION AND MANAGERIAL IMPLICATIONS

In this paper, we investigated the effects of two types of coordination on Value chain performance in the context of Indian Retail Industry. More specifically, we examined the effects of Customer Co-ordination and Supplier Coordinatio on four dimensions of value chain performance viz: product Quality , Product Innovation, Product Flexibility and Product Delivery . Our results confirmed the positive impact of supplier coordination on Product flexibility and Delivery performance found by (Devaraj *et al*,2007,[24]). That is, supplier coordination enhances a firm's ability to handle nonstandard orders that impact the manufacturing process, especially when the demand is increasing. Our results show that supplier coordination influences quality performance, thus confirming previous studies (Devaraj *et al*. 2007, Koufteros *et al*. 2005,[24]). This is particularly significant in the context of Indian Retail Industry ,whereby the Government of India has further amended the (Government Retail Policy 2013,[28]) and opened the way for Global Retailers to operate even in tier II cities in India .Whereas (Koufteros *et al*.,2005,[25]) study indicated that customer coordination has an indirect impact on quality through the effects on product innovation, our study demonstrates a direct impact on quality performance. Similarly, as predicted, customer coordination was found to influence flexibility performance. The collaboration between a firm and its customer reduces production uncertainty, making the firm more responsive to customer demands. Thus, our most important contribution in this study is that both forms of coordination, i.e, supplier coordination and customer coordination are positively and significantly important affecting both product quality and flexibility performance. This is also consistent with (Fisher,1997,[26]) work that both forms of coordination typify different supply chain configurations. The positive effect on quality performance is typical of a functional supply chain, whereas the positive effects on flexibility performance are typical of a responsive supply chain.

The Results indicate the main effects and strong impact of Customer – Supplier Coordination on Value chain performance in Indian Retail Industry. The concept of Supply Chain Coordination with respect to Indian Retail Industry is at its nascent stage and it is of immense significance to cite that the present study is among the few to highlight strong empirical support for effective Customer-Supplier coordination in influencing value chain performance. Among Customer- Supplier Coordination to have effective Value chain performance it is important to design appropriate Supply chain coordination upstream (Supplier Integration) and Supply chain coordination Downstream (Customer Integration).The present Research has important contributions to existing Literature in the areas of Supply chain coordination particularly with reference to Indian Retail Industry.

6. CONCLUSION AND FUTURE RESEARCH

The present Research study has highlighted the Customer-Supplier Coordination in enhancing value chain performance in the context of Indian Retail Industry. The Research further supports the existing literature on Coordination theories for emerging Industry like Indian Retail Industry. The Research study specifically highlights the both forms of Coordination, Customer and Supplier Coordination and its role in improving value chain performance which is a composite construct of product quality, product innovation, Product Flexibility and Product Delivery. The Research findings have made significant managerial recommendations to Indian Retail Organizations which are desirous of integrating their supply chains with Global Organizations. The limitations to the study are that we could include Customer Supplier Coordination mechanisms as an empirical data collection, since data collection in Indian Retail Industry is a challenging task. In terms of the Data usage, we use perceptual Data, when compared to the more desirable objective Data. More or less, we do not believe that this is due to the cause of unreliability in the interpretation of statistical results. The present Research on Customer-Supplier Coordination can be extended in various ways in future to examine its effects on value chain performance. The operations of many Indian Retailers are going to be Global in the near future. The Coordination mechanisms in other emerging economies, and (BRIC Nations,[27]) may be examined to design better Supply chain mechanism for Indian Retail Industry and new influential variables like Government policy, environmental concerns, Resource availability, Talent pool availability may be further examined to contribute to the upcoming Indian Retail Sector. With the announcement of Retail Policy 2013, the Indian Retail Industry is all set to face cut throat competition from domestic and foreign retailers. The Retail Organizations may all set to benefit from the present study, from the Global nature of research findings in terms of coordination mechanisms which enhance competitiveness in Retail Industry.

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