

# INFORMATION SHARING: A KEY SURVIVAL PLATFORM FOR MARKETERS

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**Abstract** *This paper dives deep into the information sharing and communication keys that abet a lot to the business partners and entities. The study is concentrated on the data collected from 152 wholesalers operating in district Udhampur in J&K State. A self-developed questionnaire was prepared to gather the respective response. The KMO, BTS, and Cronbach Alpha value enhanced the validity and reliability of the construct. CFA was also applied to confirm the construct and its values revealed significant results. The results of hierarchical linear regression statistical tool revealed that information sharing and communication leads to development of competitive strength among business partners, and information sharing and communication also assist in fixing contract items, discounts, and profit margins as represented by its  $p$  values ( $p < .05$ ).*

**Keywords** *Information, Communication, Sharing, Business, Small Scale Industries, Wholesalers*

## INTRODUCTION

Information deals with communicating with other person or party or member, anything listened or heard or read. Information now-a-days is recognised as a catalyst for business growth and survival. The raw data so collected, when polished and circulated to the desired users, often designate itself as information. The modern business hovers around information as its information era that encompasses incessant flow of information for the smooth running of the business. Information sharing and communication provide rapid access to the required information which in turn improves operational efficiency (Dyer, 1996), better quality designs (Takeishi, 2001), ensuring a proper cover to uncertainty (Daft & Lengel, 1986), enhancement of delivery schedule (Brown & Eisenhardt, 1995). Information sharing and communication enhance effectiveness of firms (Zailani & Rajagopal, 2005; Li *et al.*, 2002). Suppliers, wholesalers, and retailers share useful market information with each other which enhances the overall confirmatory scenario (Humphreys *et al.*, 2004). Information sharing to a larger extent provides wider extent for proper inventory management, shortens order fulfillment cycles, drives process reengineering and brings coordination and cooperation (Hult *et al.*, 2004; Lee *et al.*, 2004). Apt information sharing among business partners results in shorter cash flow cycle times, reduced logistics and material purchasing costs (Lee & Whang, 2000), improved customer responsiveness (Lummus & Vokurka, 1999). Information sharing enhances operational efficiency and brings in appropriate cost control in performing business activities (Eccles & Pyburn, 1992; Medori & Steeple,

2000). Information sharing and communication spotlight on achievement in company goals and strategies and even stress on timely availability of relevant information to ensure the market flexibility (Medori & Steeple, 2000). The overall impact of information sharing so identified yet is that it really assists in reducing costs, improves delivery performance, ensures speedy decisions, improves quality and flexibility, and disseminates distinguished customer service at a lowest possible cost (Fawcett & Clinton, 1996).

## REVIEW OF LITERATURE

Larson & Kalchitsky (2000) assessed the impact of EDI and variety of other media (phone, fax, face-to-face, email, and Internet) used for information sharing on buyer-supplier relations and performance. The research revealed that information quality has a positive significant impact on buyer-supplier relations and better relations result in improved lead time performances while bar-coding and EDI had no impact either on relations or performance. Further, it was noticed that face-to-face and telephone were strongly preferred for strategic communication while phone and fax were preferred for tactical communication. Personal or direct media (face-to-face and phones) are significantly more for strategic, as opposed to tactical communication while electronic media (EDI, email and Internet) enjoy greater use for tactical over strategic communication. The study suggests that timely and accurate information exchange makes for closer buyer-supplier relationships and closer relationships improve lead time performance.

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McLaren *et al.* (2004) developed an empirically supported model of the organisational capabilities enabled by Supply Chain Management Information Systems (SCMIS) by collecting evidences from an exploratory case study of three large firms in the electronic manufacturing industry of Canada. The results demonstrated that effective use of SCMIS reduces buffer inventory stocks, reduces lead times, increases sales, coordinates information between internal and external customers, and improves customer service.

Wagner & Buko (2005) examined the linkages and relationships with customers, competitors and suppliers to acquire, disseminate and ultimately use market information as inputs to the firms' innovative process. The knowledge sharing variables in the construct were satisfaction, communication and resource commitment, degree of knowledge sharing, tactness, and control variables. The results of t-test revealed that the means for knowledge sharing (KS) "customer" and KS "supplier" are significantly higher than KS "research". The frequency of communication with network partners is positively related to satisfaction but relationship between degree of knowledge sharing with research institution and satisfaction was not significant.

Larson & Dhariwal (2005) highlighted the use of information communication media in supply chains involving small versus large suppliers. The statistical results indicated that buyers' relationships with large suppliers are rated significantly more collaborative due to more sharing of information, risk, rewards, and commitment as compared to relationships with small suppliers. Other joint activities such as continuous improvement, strategic business planning, development of information system, product development, and inventory management are more a part of relationships with large suppliers. The study suggested that relationships can be cultivated through superior product quality or delivery, helping small suppliers to transform dependence into interdependence with large customers and by developing win-win strategy between buyers and suppliers for reducing transaction costs, more certain access to critical resources, reliable customer based, and quality/cost improvements driven by buyers-suppliers cooperation.

Jeong & Hong (2007) developed a theoretical model linking customer orientation, interactive system infrastructure, supply chain practices and performance, outcomes through individual firms and through supply chains. A customer-oriented firm requires customer driven network attitude i.e. customer-closeness, customer flexibility, and customer accessibility to meet multiple customer requirements such as quality, delivery, and costs. The IT infrastructure provides innovative, timely and collaborative problem solving capabilities characterised by strong communication linkages, resource planning, and relationship tools.

The present study establishes the context of information sharing and its benefits accrued to 152 wholesalers operating

in District Udhampur of J&K State and selling the products of small scale units operating under DIC (SIDCO & SICOP) Udhampur.

## RESEARCH HYPOTHESIS

The research proposes the following hypotheses:

**H1:** Information sharing and communication lead to development of competitive strength among business partners.

**H2:** Information sharing and communication assist in fixing contract items, discounts and profit margins.

## OBJECTIVE OF THE STUDY

The main objective of the study is to dive deep into information platform in order to know the benefits it accrues the business organisations.

## THE RESEARCH FRAMEWORK

The research framework of the present study is enlisted below:

### Sampling and Data Collection

152 wholesalers were contacted for the study and only those wholesalers were contacted who were selling the products of small scale firms functioning in Udhampur district of J&K State. 152 wholesalers were approached out of which 127 responded representing an effectual response rate of 83.55%.

### Sampling Technique Applied

For obtaining data for the study, snowball/ referral sampling was applied. The number of wholesalers identified under cement (12), pesticide (12), steel (12), battery/ lead/ alloy (12), menthol (1), guns (3), conduit pipes (2), gates/ grills/ varnish (15), maize/ atta/ dal mills (22), and miscellaneous (30). Some of the major wholesalers contacted were: Surbhi enterprises, M/s Raj Battery Corporation, M/s DBN Traders, M/s Swastik Enterprises, M/s Binothia Hardwares, Allied Agencies, Devika Agencies, Samgam Automobiles, M/s Inder Medical, ESS ESS Traders etc.

### The Survey Instrument

A self-developed questionnaire was prepared after consulting academicians, industrialists, experts, and extensive review of literature. Questionnaire composed of general information and 9 statements of information sharing. Statements

in the questionnaire were in descriptive form, ranking, dichotomous, open ended and five -point Likert scale, where 1 stands for strongly disagree and 5 for strongly agree.

## Collection of Data

Three to four visits were adhered for collecting primary response from respondents (wholesalers). Secondary information was approached by visiting libraries and Internet in order to surf information. The main journals taken into consideration were Journal of Marketing Science, International Journal of Supply Chain Management, International Journal of Logistics Management, Nice Journal of Management etc. Various multivariate tools such as mean, standard deviation, hierarchical linear regression were used to test hypotheses and coming to enlightened inferences.

## Reliability and Validity of The Instrument

**Reliability:** The alpha reliability of the factor so obtained came to be (0.943) is higher than the criteria of 0.77 obtained by Gordon & Narayanan (1984) indicating excellent and satisfactory internal consistency (Table 1).

**Validity:** The factor obtained alpha reliability higher to 0.50 and satisfactory KMO value at 0.871, indicating significant construct validity of the construct (Hair *et al.*, 1995).

## DATA ANALYSIS AND INTERPRETATION OF RESULTS

The data so collected from wholesalers (the subject matter of the study) were subjected first of all to factor analysis in order to reduce the unwanted statements i.e. for data reduction and for data purification. By applying factor analysis the raw data were scrutinized by anti-image, KMO value, Bartlett's Test of Sphericity and ( $p$ -value = 0.000), in order to mention and obtain suffice common variance and correlation matrix (Dess *et al.*, 1997; Field, 2000). After reducing the statements with the assistance of anti-image and with process R-Mode Principal Component Analysis (PSA) with Varimax Rotation, the actual figure represented 5 statements out of total 9 statements which were initially portrayed in the construct (Information sharing). The initials rounds did not give any KMO value but with incessant application of factor analysis for date purification the KMO value appeared in fourth round as (0.871) which seems to be acceptable, significant and appealing. Besides KMO, the Bartlett Test of Sphericity (1338.065) indicated high acceptable value with 90 as degree of freedom explained. Further, factor loadings of the statements were found reliable with conservative criteria, hence consequential to appropriate factor solution using Kaiser Criteria (i.e. eigen value  $\geq 1$ ) with 29.692% of

the total variance explained. The factor loadings represent the appropriateness of the variables in the factors, the factor loadings encompassed values between 0.763 to 0.853 indicating good and significant values. The communality for all 5 items emerged to be valuable and fluctuated within 0.747 to 0.924 thereby indicating high degree of linear association among the variables. The factor encompassed with its statements emerged is divulged in Table 1. A brief description of factor and its statements emerged are as under:

## Factor (Information Reimbursements)

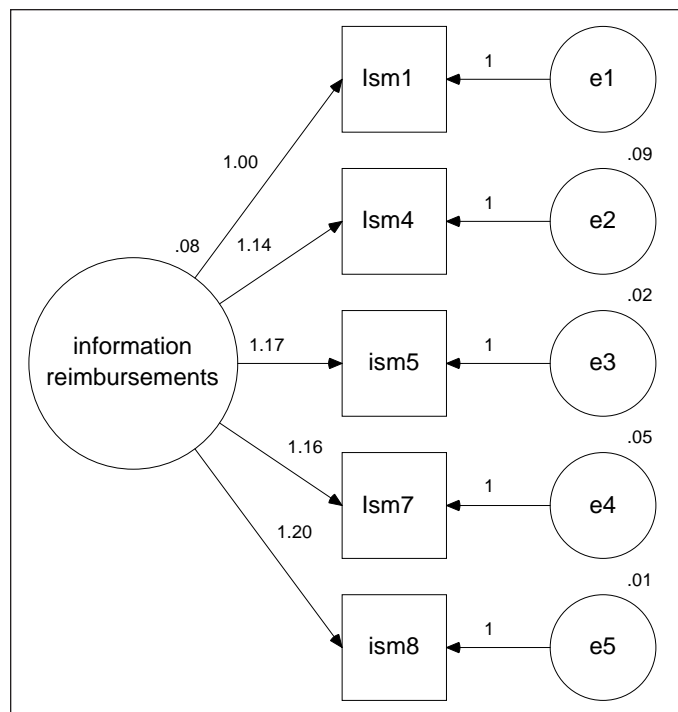
The factor, information reimbursements, contains five eminent statements gathered after data purification with the assistance of factor analysis. All the statements were key representations of information and its volatile role played. The eminent statements were "Qualitative information improves SC decisions", "Intra and inter organisational communication enhances efficiency", "Information sharing and exchange is vital for competitive strength", "Diverse markets can be reached by proper information sharing", and "Assists in fixing contract items, discounts and margins". The mean values of all the five statements encompassed within 4.20 to 4.49 representing magnificent values. The factor loadings ranged within .763 to .853. The factor loadings for each statement is: Qualitative information improves SC decisions (.853), Intra and inter organisational communication enhances efficiency (.848), Information sharing and exchange is vital for competitive strength (.801), Diverse markets can be reached by proper information sharing (.792), and Assists in fixing contract items, discounts and margins (.763). The statement "Qualitative information improves SC decisions" materialised with uppermost factor loadings and the statement "Assists in fixing contract items, discounts and margins" emerged to be the weakest among all with low factor loading. The communalities varied from .747 - .924 indicating significant values and high degree of linear association among the variables. The communalities for each statement is: Qualitative information improves SC decisions (.852), Intra and inter organisational communication enhances efficiency (.747), Information sharing and exchange is vital for competitive strength (.901), Diverse markets can be reached by proper information sharing (.922), and Assists in fixing contract items, discounts and margins (.924). The statement "Assists in fixing contract items, discounts and margins" supplemented with highest communality and the statement "Intra and inter organisational communication enhances efficiency" emerged to be the weakest but communalities of all variables indicated appealing, significant and noticeable values for the construct. The basic purpose of information reimbursement stands for the reason that wholesalers needs updated information as they act as the basic intermediary

between manufacturers and retailers. They have repository of information gathered from retailers and latest information regarding upcoming brands and recent addition/ alterations in products from manufacturers.

### Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was applied on information sharing construct, which consisted of five indicators, viz., Qualitative information improves SC decisions, Intra and inter organisational communication enhances efficiency, Vital for competitive strength, Diverse markets can be reached by proper information sharing, and Assists in fixing contract items, discounts and profit margins. This model has been found to have a good fit (RMSEA=.150, GFI= .93, AGFI= .81, CFI=.97, NFI=.95 and TLI=.94) (Table 2). All regression weights are above 0.50, thus it becomes clear that all measured variables are the significant contributors of this construct.

**Figure 1: Measurement Model of Information Sharing**



### Regression Analysis

Table 3 represents output from regression analysis in order to educe the impact of information sharing on competitive strength. The linear regression model summary revealed the values of R, R<sup>2</sup>, Adjusted R<sup>2</sup>, Standard error of estimate, ANOVA value (F), Beta value, t value and significance level.

The model summary explained:

R = .807 i.e. 80% strong and positive association between information sharing and competitive strength.

R<sup>2</sup> = .710 i.e. 71% of variation in information can be explained from competitive strength.

Adjusted R<sup>2</sup> = .644 i.e. if another independent variable is added, the value of R<sup>2</sup> will augment.

β = .321 i.e. significant relationship of independent variable with dependent variable.

F = 50.356 i.e. significant at 5% confidence level.

t = 11.677 i.e. acceptable and significant value.

Significance level = .000 i.e. p < .05.

Hypothesis H1 is accepted i.e. “Information sharing and communication lead to development of competitive strength among business partners”.

In Table 4, p < .05 (.000) and t is 14.567 portrays significant and acceptable values. The hypothesis H2 got proved that “Information sharing and communication assists in fixing contract items, discounts and profit margins”. The values depicted in table proved to be significant and valid for hypothesis testing. R value i.e. .747 revealed 74% of association between information sharing and fixing discounts and profit margins. R-Square value of .624 indicates that 62% of variation in information can be explained from discounts and profit margins. Adjusted R square of the model is .601 which quotes that the R-square will increase if some variable is added. Beta value is significant at .422. F-value is significant: 47.745 at 5% confidence level.

### CONCLUSION

The paper brings unsullied imminence to the already available literature as information is considered as a vital link in the firms’ growth, progress, and development. Information sharing and communication encompass numerous benefits to the parties involved such as wholesalers can obtain prospective demand information from retailers, the recent market trends, customers tastes and preferences, the upcoming changes in the habit pattern or in product modifications and so on. The present research focuses on the importance of information sharing conducted on 152 wholesalers and lays down that qualitative information improves SC decisions, intra and inter organisational communication enhances efficiency, vital for competitive strength, diverse markets can be reached by proper information sharing, and information sharing assists in fixing contract items, discounts and profit margins with acceptable mean values and standard deviation. The CFA manifested acceptable and significant results which confirmed the construct. The results of hierarchical linear regression statistical tool revealed that information sharing

**Table 1: Results Screening Factor Loadings and Variance Explained after Scale Purification (Rotated Component Method) for Information Sharing (Wholesalers' Perspective)**

Factor-wise Dimensions	Mean	SD	FL	Eigen Value	Variance Explained %	Cumulative Variance %	Comm-unity	$\alpha$
Information reimbursements	4.26	.437		8.928	29.693	29.693		.9432
1. Qualitative information improves SC decisions	4.29	.460	.853				.852	
2. Intra and inter organisational communication enhances efficiency	4.40	.494	.848				.747	
3. Vital for competitive strength	4.21	.414	.801				.901	
4. Diverse markets can be reached by proper information sharing	4.21	.414	.792				.922	
5. Assists in fixing contract items, discounts and profit margins	4.20	.404	.763				.924	

Footnotes: KMO Value = .871; Bartlett's Test of Sphericity = 1338.065, df = 90, Sig. = .000; Extraction Method Principal Component Analysis; Varimax with Kaiser Normalisation; Rotation converged in 5 iterations; 'FL' stands for Factor Loadings, 'SD' for Standard Deviation and ' $\alpha$ ' for Alpha.

**Table 2: Results of CFA Fit Indices**

CONSTRUCT	CMIN/DF	GFI	AGFI	CFI	NFI	TLI	RMSEA
Information	2.634	0.938	0.815	0.972	0.956	0.944	0.150

**Table 3: Regression Model Summary**

Model	R	R <sup>2</sup>	AdjustedR <sup>2</sup>	Std. Error of Estimate	F value ANOVA	Sig. level	$\beta$	t	Sig. level
1.	.807	.710	.644	.3465	50.356	.000	.321	11.677	.000

a. Predictors: (Constant), Competitive strength

b. Dependent Variable: Information sharing

**Table 4: Regression Model Summary**

Model	R	R <sup>2</sup>	AdjustedR <sup>2</sup>	Std. Error of Estimate	F value ANOVA	Sig. level	$\beta$	t	Sig. level
1.	.747	.624	.601	.4523	47.745	.000	.422	14.567	.000

a. Predictors: (Constant), Assists in fixing contract items, discounts and profit margins

b. Dependent Variable: Information sharing

and communication leads to development of competitive strength among business partners. Information sharing and communication also assist in fixing contract items, discounts and profit margins. From the practical perspective the wholesalers should frequently obtain information regarding customers changing behaviour in terms of their tastes, likings, disliking, preferences, habits etc. and share or disseminate it frequently to the manufacturers. To a larger extent, wholesalers should develop an information hub in which they can regularly and frequently exchange relevant information.

## LIMITATIONS

This study has been conducted on wholesalers operating in district Udhampur. Business relationships develop with the passage of time with incessant exchange of possible relevant information; therefore it would be more appropriate to conduct such studies at the medium and large scale level.

The findings of the study is constrained to the response given by wholesalers of district Udhampur of Jammu & Kashmir state, so results drawn cannot be comprehensive for medium or large wholesalers operating in other parts of country having deviating business milieu.

## FUTURE RESEARCH

Most of the findings are wavering unless verified in any transcribe studies. Thus, a research avenue is opened for further support in different regions or country context.

The study can be extended to different types of business intermediaries like manufacturers, retailers, business agents and on large scale wholesalers.

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