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Can Supply Chain Management Practices Influence Customer Satisfaction and Loyalty?

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Abstract

Supply chain management (SCM) practices and responsiveness have gained importance in recent years, as they have a great impact on customer satisfaction and loyalty. This study aims to determine the effects of SCM practices and responsiveness on customer satisfaction and loyalty in specific business units in Chennai. 300 purchase managers at supermarkets were selected on convenience basis and assessed using the structured questionnaire. Reliability and validity tests were conducted. Factor analysis involving EFA, CFA, and structural equation modeling has been used to identify the impact of SCM practices and supply chain responsiveness (SCR) on customer satisfaction and loyalty. Second-order structural equation modeling was used to test the hypotheses. The results indicated that SCM practices and SCR are said to be positively related to customer satisfaction and loyalty. The study concludes that SCM practices enhance customer satisfaction and loyalty in supermarkets. The study endorses that customer satisfaction and customer loyalty can be enhanced by the joint efforts of suppliers and procurement managers.

Keywords: Supply Chain Responsiveness, Customer Loyalty, SCM Practices, Customer Satisfaction

Introduction

Business units focus on providing value additions both in terms of products and services to the customer in the midst of taut competition. Supply chain management (SCM) practices are viewed as a tool to enhance profits, customer satisfaction and, in turn, customer loyalty. Planning, executing and monitoring the operations of the supply chain practices are considered as effective tools to satisfy customer requirements efficiently. Enhancing supply chain practices and supply chain responsiveness (SCR) is viewed as an effective tool to increase the efficiency of business performance. Ritchie and Brindley (2000) in their article titled '*disintermediation, disintegration and risk in global supply chain*' states that stifling competition can be controlled if organizations can think ahead of their competitors. Suhong Lia, Bhanu Ragu-Nathanb, T.S. Ragu-Nathanb and S. Subba Rao B (2009) opines that today organizations have realized that it is not enough to improve efficiencies within the business units, but need to refurbish their SCM practices to handle competition and increase profitability. A gliding transition from domestic markets to global markets and retail shopping to online shopping customers' expectations has changed from lower prices to wider choices at better quality. This has forced businesses to revamp their SCM and SCR practices. Thus, this paper aims at understanding the impact of SCM and SCR on customer satisfaction and consumer loyalty.

Rationale

SCM practices, responsiveness, customer satisfaction and loyalty are considered today as strategic tools for organization's success due to the following reasons:

Primarily, Rajwinder Singh (2013) in his article has identified 19 key performance indicators of SCM practices based on strong review of literature. Moreover, Akhilesh Barve (2011) states that success of supply chain systems lies in the art of creating responsiveness and grasping the nuances of uncertainty. SCM practices culminate the flow of goods and information amid organizations' right of procurement of raw materials to distribution of finished products as resonated by Handfield and Nichols, (2002). Secondly, fluctuations in demands, supplies and modified customer expectations have forced firms to be responsive (Somuyiwa et al., 2011). Thus, the supply chains systems are expected to be proactive to the changes in the marketplace so as to withstand competition. Thirdly, Aswin Naldi Sahim, Nik Kamariah Nik Mat

(2016) reverberated that the government needs to focus on alignment and distribution, as the key to success and survival lies in getting the right product, at the right price, at the right time to the customers. Fourthly, according to Thatte (2007), supply chain attentiveness lays emphasis on operation system responsiveness, which focuses on the ability of firm's manufacturing system to address changes in customer demand. It also focuses on logistic process responsiveness, which addresses the changes in customer demands by focusing on transformation, distribution and warehousing. Fifthly, Allen and Wilburn (2002) ricocheted that customer satisfaction results in customer loyalty, which is exhibited by repeated purchase behavior. Sixthly, Fornell (1992) concludes in his article that a positive feedback by word-of-mouth and repeated purchases are the outcomes of customer satisfaction. Seventhly, there are two reasons which attempt to satisfy customers need. The first one being reestablishment which gives the customer a sense of relief. The second one being augmentation, which fulfills the desire. Finally, effective SCM provides benefits such as customer satisfaction and enhanced performance by integrating their external supplier-firm-customer relationships and internal operational practices (Ou et al., 2010). Further, Marwah (2014) in his article lists the factors responsible for supply chain performance that leads to competitiveness. There has been a series of research work done to integrate both information and material flows seamlessly across the SCM practices and SCR as an effective competitive weapon; but, this study focuses on studying the impact of such practices on customer satisfaction and loyalty.

Research Gaps

On the basis of review of literature, there is scope for research in the dominion of SCM practices, SCR, customer satisfaction and customer loyalty.

Thus, the research gaps are:

- Relationships between SCM practices and SC responsiveness.
- Lack of integrated framework of customers satisfaction and customer loyalty.

Objectives

- To identify the aspects that is considered in SCM practices and SCR.
- To classify the factors that contribute to customer's satisfaction.
- To study the effect of customers' satisfaction on customer loyalty.
- To develop an adapt scale for the above constructs and evaluate the cogency and dependability for each of these constructs.
- To test the theoretical framework.

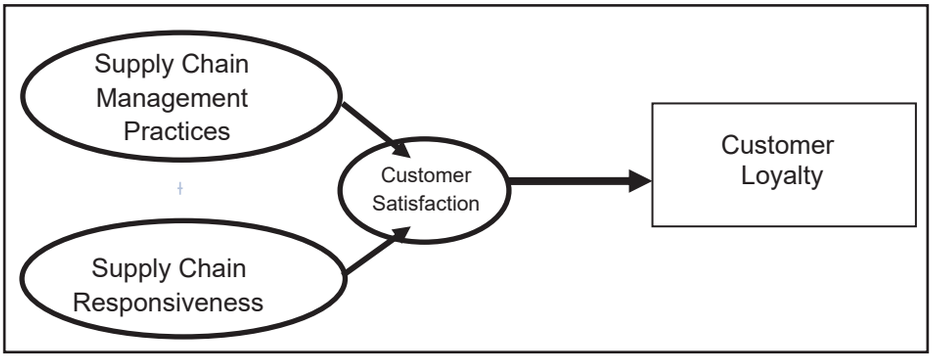

Fig. 1: Conceptual Framework

The concepts that are explored in this study are SCM practices that cover supplier affiliation, customer affiliation and knowledge sharing. SCR includes amenability, adaptability and availability. SCM practices and SCR lead to customer satisfaction and customer loyalty.

Conceptual Model and Hypotheses Development: The model of the research is developed based on the conceptual framework in which three main constructs and their components are integrated together as shown in Fig. 1. The path between the constructs and the

components represents the hypothetical relationship to be verified using a structural equation model.

Research Methodology

Primary data has been collected through survey and secondary data is used in the study.

Research Instrument: A structured questionnaire following Likert's five-point scale was designed and used as a research instrument to measure SCM practice, SCR, customer satisfaction and customer loyalty. Caution was executed in ensuring confidentiality of the data collected for the purpose of the study. The questionnaire was adopted from previous studies and reworked to suit the study. The questionnaire was tested using a pilot survey.

Sampling Details: The sample for this study includes 300 managers at supermarkets in Chennai. Convenience method of sampling was deployed for selecting the sample for the study.

Limitations of the Study

The study is restricted to only 300 respondents from the city of Chennai and, hence, these findings of the study cannot be generalized.

Respondent's Details

In this study, data is collected from 300 managers who were involved in the functions of purchase, transportation and storing at supermarkets in Chennai.

Statistical Tools

Exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modeling (SEM) are used to analyze the data. EFA was used to identify the number of factors. To substantiate the nascent factors, CFA was used. CFA deals with measurement models on the relationship between covert variable and perceived measure. SEM technique was used to analyze a structural theory. KMO, Bartlett's test and rotation component matrix were used for SCM practices and SCR on customer satisfaction and loyalty constructs. In CFA, measurement model was used as a confirmatory tool for testing the measurement theory. CFA resulted in three factor model for SCM practices, SCR, customer satisfaction and customer loyalty. SEM was used to test the hypotheses by discovering the relationship between the components of SCM practices, SCR on customer satisfaction and customer loyalty. In SEM, four constructs and twelve factors were used to run the model.

Pilot Study

The pilot study was conducted to validate the questionnaire and to confirm the feasibility of the study. The personal interaction with supermarket managers who are exposed to various facets gave the output for the study. Out of these factors, predominant factors were extracted through ranking process of mean values. The numerical values of the total scores of each factor were arranged in the descending order and the most indispensable factors were established. The filled up questionnaires were collected from 60 respondents and the Cronbach's Alpha Criterion was applied to test the reliability. The reliability is measured through the Cronbach's Alpha method to verify the concurrent variance for all the items regarding SCM practices, SCR, customer satisfaction and customer loyalty. The Cronbach's alpha scores are .860, 827, .804 and .830, respectively, which show that the primary data field is highly favorable to conduct the research with high variances of 86%, 82.7%, 80.4% and 83%, respectively, for the prime factors. These values are above the standard values of .75, which indicates that the statements are acceptable.

Table 1: Cronbach's Alpha Reliability Table

Measure	No. of Statements	Range	Cronbach Alpha	Variance
Supply Chain Management Practices	16	1-5	.860	86%
Supply Chain Responsive-ness	15	1-5	.827	82.7%
Customer Satisfaction	10	1-5	.804	80.4%
Customer Loyalty	12	1-5	.830	83%

Source: Computed Data

Findings

The results provide valuable insights into the SCM factors, SCR factors, customer satisfaction and customer loyalty. Table 2 presents demographic details of the respondents.

Table 2: Demographic Details

Personal Profile Variables	Respondents Details	Number of Respondents	Percentage of Respondents
Age	25-35	36	12
	36-45	66	22
	46-55	102	34
	Above 55	96	32
Total		300	100
Gender	Male	255	85
	Female	45	15
Total		300	100
Educational Background	Post Graduates	78	26
	Graduates	192	64
	Professional Qualified	30	10
Total		300	100

Source: Computed Data

- *Age:* 12% of the respondents were in the age group of 25 to 30 followed by 22% of respondents in the age group of 36-45, followed by 34% in the age group of 46-55 and 32 % above 55 years of age.
- *Educational Background:* Postgraduates respondents were 26%, professionally qualified respondents were 10% and 64% of the respondents were graduates.
- *Gender:* 85% respondents were male and female respondents accounted for only 15%.

Factor Analysis

Factor analysis is a tool of multivariate analysis that is based on the inter-relationship between a set of variables. By applying factor analysis, numerous variables are analyzed such that it can be explained in a single factor. De Groot et al. (1982) states that factor analysis is a tool used to group the variables under suitable criteria.

SCM practices, SCR, Customer Satisfaction and Customer Loyalty

EFA using a Varimax rotation was used to summarize the items into an underlying set of SCM practices, SCR, customer satisfaction and customer loyalty. All the factor loadings below 0.5 were ignored under the principal component analysis method.

Table 3: Kaiser-Meyer-Olkin and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		SCM Practices	SCM Responsiveness	Customer Satisfaction	Customer Loyalty
		.851	.777	.772	.803
Bartlett's Test of Sphericity	Approx.Chi-Square	1771.103	1445.831	833.509	1053.038
	Df	120	105	45	66
	Significance	.000	.000	.000	.000

Source: Computed Data

(Kaiser, 1970) [11] Kaiser-Meyer-Olkin and Bartlett's Test of sphericity provide information about the factorability of the data. It is a test used to examine the appropriateness of factor analysis. The KMO measure of sampling adequacy value is 0.851, 0.777, 0.772 and .803 as in Table 3 and Bartlett's test of sphericity with approximate Chi-Square value is 1771.103, 1445.831 833.509 and 1053.038, respectively. This implies that the number of statements to ascertain SCM practices SCR, customer satisfaction and loyalty are adequate and responses perfectly satisfy the normal distribution. These values are statistically significant at 5% level. Therefore, it can be concluded that

the sample size of the research is adequate for the factors and all the variables can be considered for the research.

Supply Chain Management Practices

It is found that 16 variables pertaining to SCM practices are reduced into three prime factors – supplier affiliation, customer affiliation and knowledge sharing with total variance of 54.574. These factors also possess individual variances: 25.909%, 16.400% and 12.264%. The emergent factors are presented below. The Eigen values above one were noted for these three factors. Table 4 shows the rotated component matrix, which is a matrix of the factor loadings for each item onto each factor. This matrix contains the information calculated after rotation.

Table 4: Factor Analysis - Supply Chain Management Practices

Sr. No.	Variable	Factor Loading	Name Given to the Factor
F1	Quality is a primary criteria in selecting suppliers	.784	Supplier Affiliation
	Solve problems jointly with suppliers on a continuous basis	.753	
	We have helped our suppliers to improve their product quality	.695	
	Facilitate suppliers with quality improvement programs	.661	
	Suppliers are a part of our planning and goal- setting activities	.616	
	Suppliers are encouraged in new product development	.604	
F2	Customers play a vital role in setting quality standards	.812	Customer Affiliation
	customer satisfaction is measured and evaluated continuously	.746	
	Customer expectations to be fulfilled is our primary goal	.624	
	Customers are provided valuable assistance	.623	
	relationship with our customers is top on the priority list	.600	
F3	Changing needs are communicated to trading partners in advance	.702	Knowledge Sharing
	Our trading partners share proprietary information with us	.643	
	Keep us fully informed about issues that affect our business	.612	
	We mutually share core business processes & business knowledge	.587	
	Informed about events or changes that may affect business	.552	

Extraction Method: Principal Component Analysis

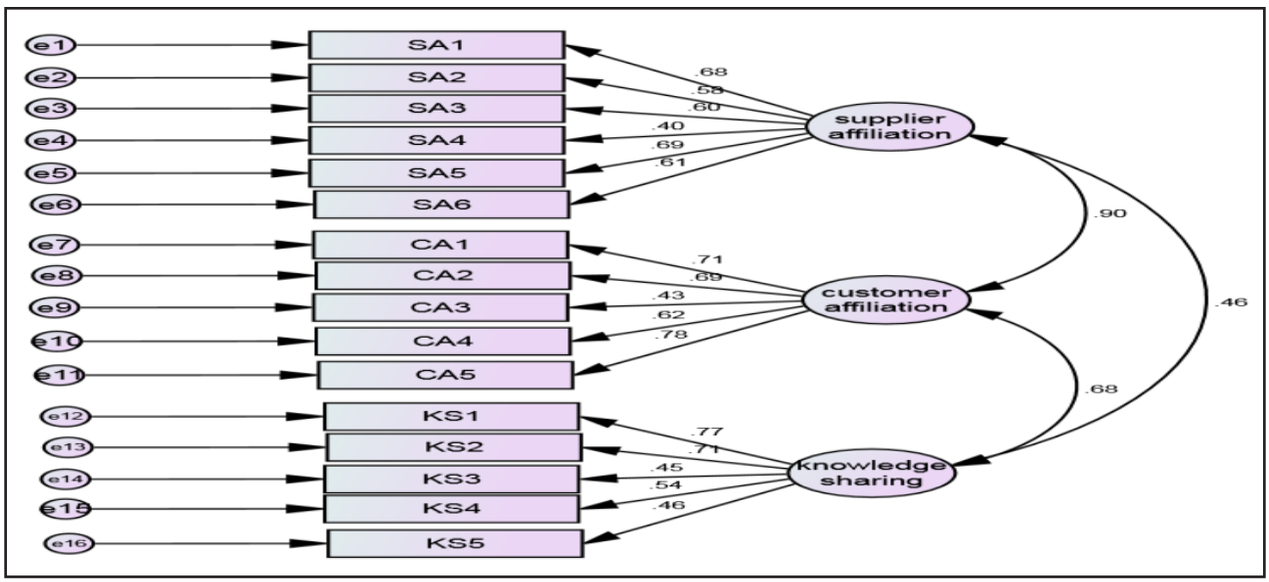

Fig. 2: Measurement Model: Standardized Estimates Supply Chain Management Practices

Confirmatory Factor Analysis - Supply Chain Management Practices

To test the validity of the scales AMOS was used. AMOS is statistical software and it stands for analysis of a moment structures. The data were selected for assumptions of CFA. CFA resulted in three factor model for Supply chain management practices. The data is presented with the help of the measurement model as in Fig. 2. Single-headed arrows represent direct dependents. Double-headed arrows reveals that supplier affiliation has a significant effect on customer affiliation and customer affiliation has an effect on knowledge sharing. The study reveals that suppliers are looked upon as partners in meeting customers changing requirements. Thus, customers' requirements are shared with the suppliers in order to facilitate the availability of goods to customers at the requisite place and time. Thus, the success of SCM practices lies in collaborating relationship with suppliers and customers. The CFA provided a satisfactory fit to the data as indicated in Table 5. All estimated loadings such as GFI, AGFI, CFI, NFI, RMA and RMSEA were significant.

Table 5: Supply Chain Management Practices

Measure	Threshold
Chi-square/df (CMIN/DF)	2.345
P-value for the model	.000
Goodness-of-Fit Statistic (GFI)	.912
Adjusted Goodness-of-Fit Statistic (AGFI)	.901
Comparative Fit Index (CFI)	.961
Normed-Fit Index (NFI)	.952
Tucker-Lewis index (TLI)	.960
Incremental Fit Index (IFI)	.982
Root Mean Square Residual (RMR)	0.51
Root Mean Square Error of Approximation (RMSEA)	0.57

SCR: It is found that 15 variables pertaining to SCR are reduced into three predominant factors with total a variance of 51.622%. These factors also possess individual variances, 27.043%, 13.499%, and 11.080%. The Eigen values were above one for the three factors observed. Therefore, it can be concluded that the variance is sufficient enough to validate the factors. The factors ascended out of the variables are presented in Table 6.

Table 6: Supply Chain Responsiveness

Sr. No.	Variable	Factor Loading	Name Given to the Factor
F1	Responding rapidly to changes in demand volume	.828	Amenability Responsiveness
	Responds rapidly to changes in product demands	.770	
	Accelerates customer orders	.689	
	Changes procurement processes to address demands	.659	
	Rapidly adjusts capacity to address demand fluctuations	.611	
F2	Responds rapidly to unexpected demand fluctuations	.726	Availability Responsiveness
	Rapidly adjusts storage capacity to address demand fluctuations	.695	
	Uses varies transport carriers to address demand fluctuations	.608	
	Rapidly accommodates special customer requests	.586	
F3	Suppliers can adopt to changes in volume with short notice	.782	Adaptability Responsiveness
	Suppliers change product mix in a short time	.698	
	Suppliers accommodate our requests consistently	.659	
	Suppliers supply on-time	.584	
	Suppliers can accelerate delivery as per our requests	.567	
	Suppliers provide quick inbound logistics to us	.548	

Extraction Method: Principal Component Analysis

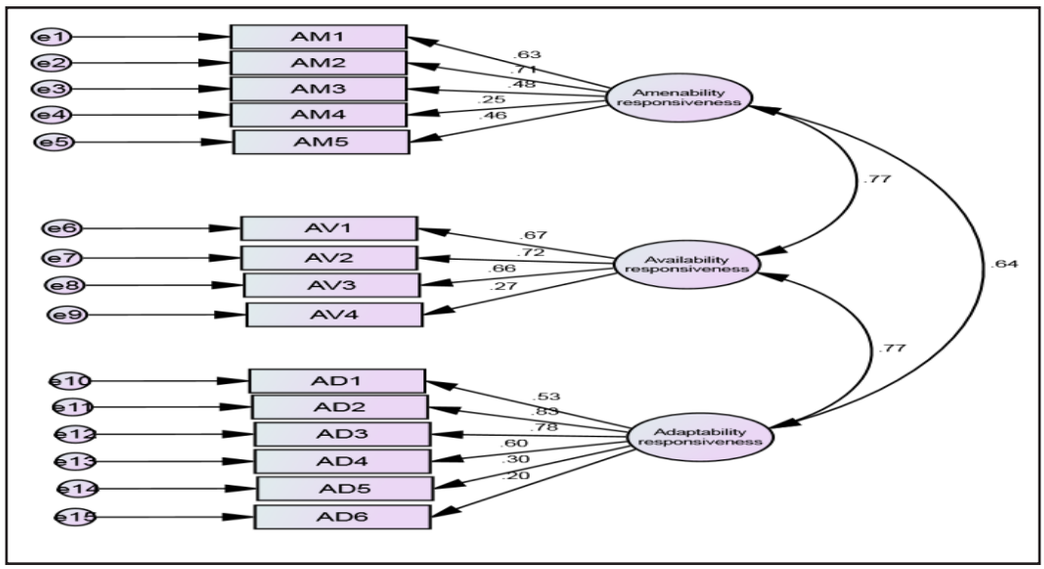

Fig. 3: Measurement Model Standardized Estimates - Supply Chain Responsiveness

Confirmatory Factor Analysis - Supply Chain Responsiveness

To test the validity of the scales AMOS was used. The data were selected for assumptions of CFA. The data is presented with the help of the measurement model as in Fig. 3. For the SCR scale, CFA results revealed that the three-factor model. Single-headed arrows represent direct dependents. Double-headed arrows reveal that suppliers need to be proactive in assimilating the customers' requirements from the market trend and reactive in their approach to ensure that they are able to adapt to such changes and fulfill the customer requirements rapidly. The CFA provided a satisfactory fit to the data as indicated in Table 7. All estimated loadings such as GFI, AGFI, CFI, NFI, RMA and RMSEA were significant.

Table 7: Supply Chain Responsiveness

Measure	Threshold
Chi-square/df (CMIN/DF)	2.625
P-value for the model	.000
Goodness-of-Fit Statistic (GFI)	.917
Adjusted Goodness-of-Fit Statistic (AGFI)	.913
Comparative Fit Index (CFI)	.956
Normed-Fit Index (NFI)	.951
Tucker-Lewis index (TLI)	.964
Incremental Fit Index (IFI)	.974
Root Mean Square Residual (RMR)	.051
Root Mean Square Error of Approximation (RMSEA)	.055

Customer Satisfaction Factors

It is found that 10 variables pertaining to customer satisfaction are reduced into three predominant factors with total variance of 60.784%. These factors also possess individual variances, 25.344%, 17.768% and 17.672%. The Eigen values above 1 are detected for these factors. Therefore, it can be clinched that validation of factors in the study is done with adequate variances. The emergent factors are presented in the following Rotated Component Matrix (Table 8).

Table 8: Customer Satisfaction Factors

Sr. No.	Variable	Factor Loading	Name Given to the Factor
F1	Competitive prices	.814	Reasonable Price
	New products	.774	
	Product that meet client needs at reasonable price	.767	
F2	Reliable products	.813	Outstanding Products
	Durable products	.785	
	Quality products	.769	
	Customized products	.698	
F3	On time delivery	.890	Proper Delivery
	Dependable delivery	.791	
	Readiness to deliver on in at required place	.552	

Extraction Method: Principal Component Analysis

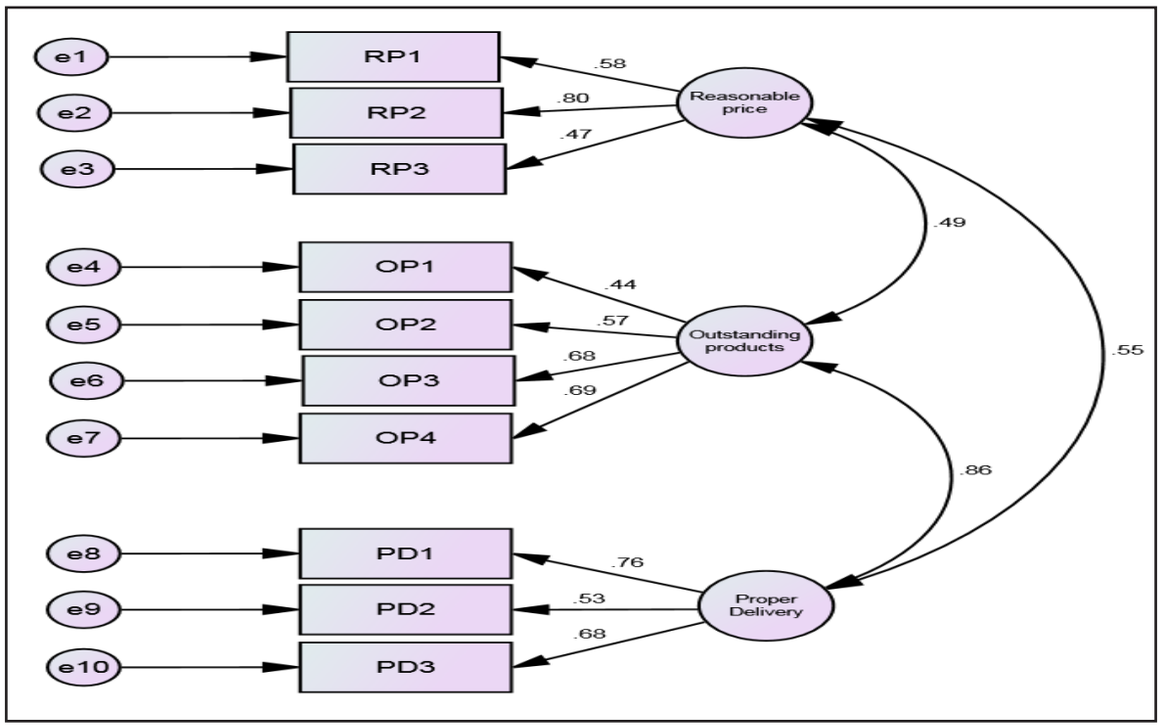

Fig. 4: Confirmatory Factor Analysis - Customer Satisfaction

Confirmatory Factor Analysis - Customer Satisfaction

To test the validity of the scales AMOS was used. The data were selected for assumptions of CFA. For the customer satisfaction scale, CFA results revealed that the three-factor model. The data is presented with the help of the measurement model as in Fig. 4. Single-headed arrows represent linear dependents. Double-headed arrows reveal that standard product made available at the requisite timings and at reasonable price brings about customer satisfaction. Thus, customer satisfaction is an outcome of the SCM practices and SCR, as it deals with enabling customers receive right goods at the right place at rational prices. The CFA provided a satisfactory fit to the data as indicated in Table 9. All estimated loadings

such as GFI, AGFI, CFI, NFI, RMA and RMSEA were significant.

Table 9: Model Fit Customer Satisfaction

Measure	Threshold
Chi-square/df (CMIN/DF)	2.120
P-value for the model	.000
Goodness-of-Fit Statistic (GFI)	.945
Adjusted Goodness-of-Fit Statistic (AGFI)	.980
Comparative Fit Index (CFI)	.965
Normed-Fit Index (NFI)	.927
Tucker-Lewis index (TLI)	.965
Incremental Fit Index (IFI)	.956
Root Mean Square Residual (RMR)	.050
Root Mean Square Error of Approximation (RMSEA)	.049

Customer Loyalty Factors

It is found that twelve variables pertaining to customer loyalty are reduced into three predominant factors with total variance of 56.509. These factors also possess individual variances, 26.334%, 19.342% and 10.833%. The Eigen values above 1 are noticed for the factors. The variable loadings are measured using Rotated Component Matrix. The Rotated Component Matrix shows twelve statements have been extracted into three principal factors, namely, quality, accessibility and positive attitude. These factors are explained in Table 10 with the respective variables.

Table 10: Customer Loyalty

Sr. No.	Variable	Factor Loading	Name Given to the Factor
F1	Quality products made available	.770	Quality
	Value for the price paid is reasonable	.732	
	Neatly sorted and packed	.675	
	Details of ingredients specified in the label.	.622	
F2	I like this company's products	.821	Positive Attitude
	They offer good service	.796	
	Provide ample information on new arrivals	.675	
	I will revisit to purchase from this outlet and recommend to my friends and relatives	.507	
F3	Centrally located	.761	Accessibility
	Easily available at many outlets	.574	
	Wide variety of options available.	.509	

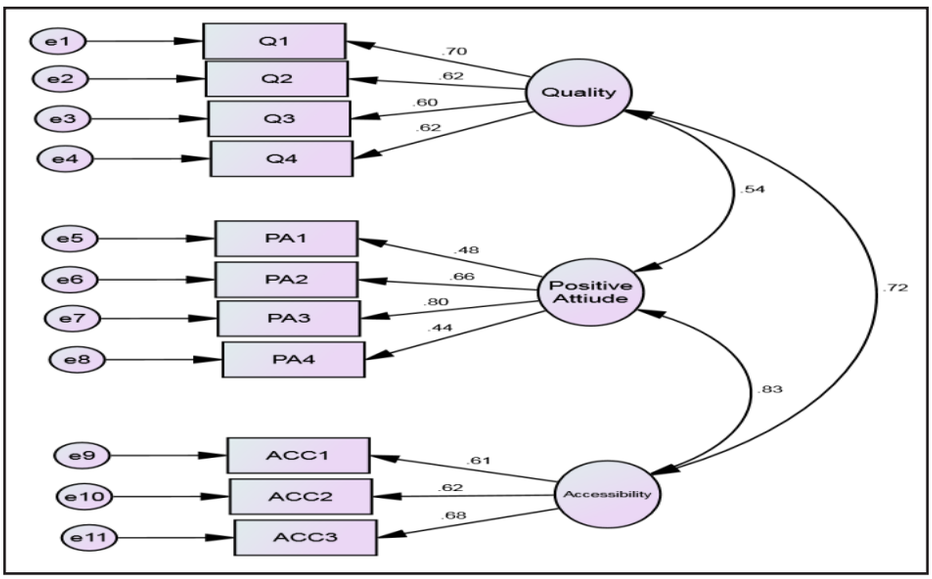

Fig. 5: Measurement Model: Standardized Estimates - Customer Loyalty

Confirmatory Factor Analysis - Customer Loyalty

To test the validity of the scales AMOS was used. The data were selected for assumptions of CFA. The data is presented with the help of the measurement model as in Fig. 5. The results revealed a three-factor model namely quality, positive attitude and accessibility. Single-headed arrows represent linear dependency of factors identified. Double-headed arrows connected in the path diagram reveal that perceived quality has a significant effect on positive attitude and positive attitude on accessibility. The CFA provided a satisfactory fit to the data as indicated in Table 11. All estimated loadings such as GFI, AGFI, CFI, NFI, RMA and RMSEA were significant.

Table 11: Customer Loyalty

Measure	Threshold
Chi-square/df (CMIN/DF)	2.993
P-value for the model	.000
Goodness-of-Fit Statistic (GFI)	.989
Adjusted Goodness-of-Fit Statistic (AGFI)	.934
Comparative Fit Index (CFI)	.948
Normed-Fit Index (NFI)	.968
Tucker-Lewis index (TLI)	.974
Incremental Fit Index (IFI)	.954
Root Mean Square Residual (RMR)	.054
Root Mean Square Error of Approximation (RMSEA)	.050

Structural Equation Modeling for Ascertaining the Impact of SCM practices and Supply Chain Responsiveness on Customer Satisfaction

The relationship of supply chain management practices and supply chain responsiveness on customer satisfaction and the relationship of customer satisfaction on customers' loyalty was tested using structural equation modeling approach. SEM is an adroit method of assessing the measurement error where it can be incorporated commonly in observed and latent variables. Therefore, the association among measured variables such as supplier affiliation, customer affiliation knowledge sharing, amenability, availability, adaptability and the latent variable customer satisfaction and customer loyalty is assimilated in the model. Fig. 6 elucidates the SEM model based on the standardized regression coefficients. The research hypotheses have been chronicled on the source of the model fit summary, which is given below. Thus, the following research hypotheses are proposed.

Testing of Hypotheses

H1: SCM practice is positively related to customer satisfaction.

H2: SCR is positively related to customer satisfaction.

H3: Customer satisfaction is positively related to customer loyalty.

Thus, it can be inferred from Fig. 6 that the coefficients of customer satisfaction to customer loyalty are 1.11, which signifies that every increase in customer's satisfaction will result in customer loyalty. Consequently, the hypotheses are positively related.

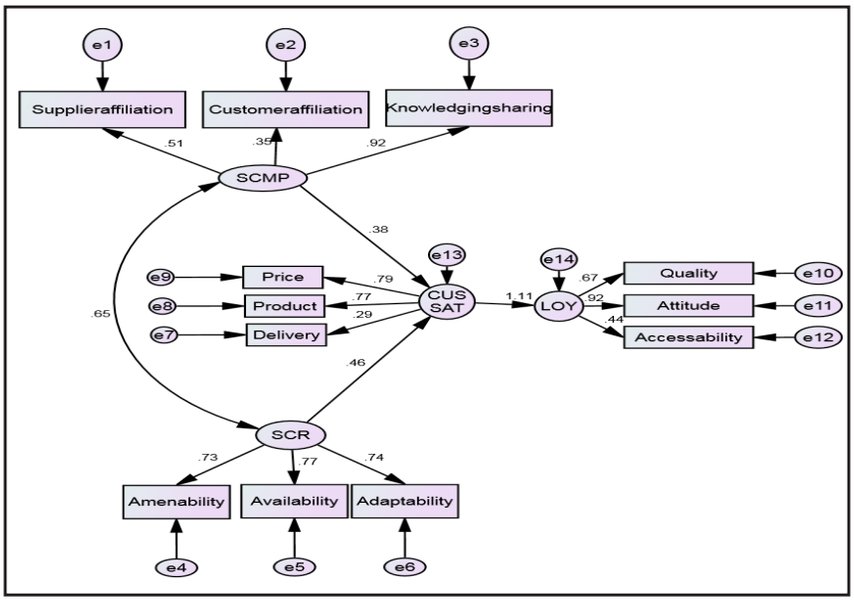

Fig. 6: Conceptual Model

Table 12 shows the model fit summary of the research model. It is understood that the significance value of p is .000, which is less than 0.05 which is a perfect fit. The goodness fit index and adjusted goodness fit index values are more than .90, which indicates it is an acceptable model fit. The value of comparative fit index is .90, which also represents a worthy fit to the model and the values of RMR and RMSEA are .050 and .049, respectively, which specifies that it is also an acceptable model. Thus, the hypothesis customers' satisfaction will be positively related to customer loyalty is accepted.

Table 12: Conceptual Model Fit

Measure	Threshold
Chi-square/df (CMIN/DF)	1.198
P-value for the model	.000
Goodness-of-Fit Statistic (GFI)	.981
Adjusted Goodness-of-Fit Statistic (AGFI)	.894
Comparative Fit Index (CFI)	.897
Normed-Fit Index (NFI)	.902
Tucker-Lewis index (TLI)	.901
Incremental Fit Index (IFI)	.894
Root Mean Square Residual (RMR)	.050
Root Mean Square Error of Approximation (RMSEA)	.049

Table 13 summarizes the effect of SCM practices and SCR on customer's satisfaction on customer's loyalty. It is observed that the unstandardized regression coefficient of customers' satisfaction is 3.44, which signifies the effect over customer loyalty by considering that the other variables are not having an influence over customer loyalty. The estimate denotes that customer loyalty will increase by 3.44 for every unit rise in customer's satisfaction at the given level of significance. Thus, this shows that firms need to improve the quality of their products and treat their customers' royally such that they become loyal and recommend their products to others and indulge in repeated purchases. The unstandardized coefficient value of knowledge sharing is 1.36, Sharing customers requirements (knowledge sharing) to the suppliers in the right time will enable suppliers to meet the requirements of the customers. Thus knowledge sharing is an important factor in supply chain management practices. Likewise, suppliers who are able to adapt themselves as per the customers' requirements are said to be highly responsive 1.15. Similarly, customers who perceive quality products (1.35) at reasonable price (6.3) are said to exhibit customer loyalty. Knowledge sharing plays a vital role in supply chain management practices followed by supplier affiliation and customer affiliation. The research highlights that information sharing has strong influence on SCM practices; therefore, the more the information shared the greater the advantage. Based on these findings, supermarket managers should capitalize on knowledge sharing effectively, such that SCR is increased and, in turn, increases customer satisfaction.

Table 13: SEM for Testing the Conceptual Framework

Constructs and Measures	Standardized	Unstandardized	P- Sig Value
Customers' satisfaction ---- customers loyalty	1.11	3.44	<0.001
SCM practices – customer satisfaction	.38	0.9	<0.001
SCM practices --- customer satisfaction	.46	0.9	<0.001
Supply Chain Management Practices			
Supplier affiliation --- SCM practices	.51		
Customer affiliation----SCM practices	.35	.49	<0.001
Knowledge sharing ---- SCM practices	.92	1.36	<0.001
Supply Chain Responsiveness			
Amenability --- SC responsiveness	.73		
Availability --- SC responsiveness	.77	1.10	<0.100
Adaptability --- SC responsiveness	.74	1.15	<0.001
Customer Satisfaction			
Price --- customer satisfaction	.79	6.3	<0.001
Product --- customer satisfaction	.77	5.7	<0.100
Delivery--- customer satisfaction	.29		
Customer Loyalty			
Accessibility – Customer loyalty	.44		
Quality - Customer loyalty	.67	1.35	<0.100
Attitude – Customer loyalty	.92	.64	<0.001

Computed Data

Implications

SCM practices aim at generating value to customers thereby satisfying customers. The findings reveal that good relationship with suppliers expedites superior quality products and fewer time lags between ordering goods and receiving the same. The article has suggested that the alliance that supermarket managers have with their suppliers and their ability to share the necessary information about their customers' requirements play vital roles in creating customer satisfaction and loyalty. SCM practices and responsiveness integrate supplier affiliation and knowledge sharing to enhance customer affiliation. This includes reaching for the same goals while focusing on customer service, as well as building and maintaining long-term relationships with suppliers through communication and building trust, adaptability and commitments in the long run. It is a prerequisite for business outlets to attract customers to make repeated purchases again and again. There are a number of "pull" factors, which appeal to a customers' wants and needs that provoke them to purchase from a supermarket. Good quality, reasonable price and availability of the same are said to stimulate the people to buy. Interaction with customers enables supermarket managers to manage demand and thereby enhance customer satisfaction with the help of SCM practices. Moreover, supermarket managers should ensure that their suppliers are well informed about their customers' expectation as well as feedback, if any, to enable them to handle the same effectively. This study indicates that the associations of supermarket managers with suppliers and customers have a positive effect on customer satisfaction and loyalty. The study concludes that a SCM practice brings about customer satisfaction in the supermarkets. The study recommends that there is need for supermarkets to work collaboratively with suppliers in order to increase customer satisfaction and enhance performance. This strongly supports the findings of the earlier studies. The findings are in line with that of Singh and Power (2009) ricochets that relationships with customers are said to increase profits and customer satisfaction. Zebrine et al. (2007) opines that customer satisfaction is a gauge of profitability. The main focus of business outlets is to satisfy the customer. Customers' expectations are largely dependent on the elasticity of the supply chain practices (Rad, 2008). They further state that perceived product price and quality also play an important role in customers' loyalty.

Conclusions

This study was conducted to identify the major factors influencing the customers to shop at supermarkets in Chennai. The study attempts at reconnoitering the association between SCM practices and SCR. This study has identified that knowledge sharing as a tool for SCR. The research framework divulges that SCM practices and SCR have an impact on customer satisfaction and loyalty. *First*, it proposed a conceptual framework that SCM practices were identified as knowledge sharing, supplier affiliation and customer affiliation. *Second*, the findings demonstrate to the practitioners that the vital components of responsiveness is amenability, availability and adaptability. Third, this study provides a practical and useful tool for managers at supermarkets to reconcile customers' expectation and SCM practices. Fourth, this study provides conceptual and prescriptive literature regarding SCM practices, SCR, customer satisfaction and customer loyalty. The results also support to the claim that better of SCM practices and SCR increases customer loyalty.

References

Allen, D. R., & Wilburn, M. (2002). *Linking customer and employee satisfaction to the bottomline: A comprehensive guide to establishing the impact of customer and employee satisfaction on critical business outcomes*. ASQ Quality Press: USA.

Barve, A. (2011). Impact of supply chain agility on customer satisfaction. International Conference on E-business, Management and Economics, *IPEDR* (Vol. 3, pp. 325-329). IACSIT Press Hong Kong.

Marwah, A. K. (2014). A confirmatory study of supply chain performance and competitiveness of Indian manufacturing organizations. *International Journal for Quality Research, 8*(1), 23-38.

Sahim, A. N., & Nikmat, N. K. (2016). Supply chain management performance of subsidized fertilizer in Indonesia: From perspective planning, distribution and human factor. *Journal of Logistics Management, 5*(1), 16-21. doi:10.5923/j.logistics.20160501.03

Degroot M. H., Ferber, R., Frankel, M. R., Seneta, E., Watson, G. S., Kotz, S., et al. (Eds.). (1982). *Encyclopedia of statistical sciences: Faa' Di Bruno's*

formula to hypothesis testing. New York: John Wiley and Sons.

Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, *56*(1), 1-21.

Handfield, R. B., & Nichols, E. L. (2002). Introduction to supply chain management, New Jersey: Prentice-Hall, Inc Ritchie, B., & Brindley, C. (2000). Disintermediation, disintegration and risk in the SME global supply chain. *Management Decision*, *38*(8), 575-583.

Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika, 35,* 401-415.

Ou, C. S., Liu, F. C., Hung, Y. C., & Yen, D. C. (2010). A structural model of supply chain management on firm performance. *International Journal of Operations & Production Management*, *30*(5), 526-545.

Rad, M. H. (2008). Lead time reduction. A case study of BEAB Etikett & system AB.

Singh, R. (2013). Modeling supply chain performance: A structural equation approach. *International Journal of Information Systems and Supply Chain Management, 6*(4), 18-41.

Ritchie B., & Brindley, C. (2000). Disintermediation, disintegration and risk in the SME global supply chain. *Management Decision, 38*(8), 575-583.

Singh, P. J., & Power, D. (2009). The nature and effectiveness of collaboration between firms, their customers and suppliers: A supply chain perspective. *Supply Chain Management: An International Journal, 14*(3), 189-200.

Somuyiwa, A. O., Adebayo, I. T., & Akanbi, T. A. (2011). Supply chain performance: An agile supply chain driven by information system (is) capabilities. *British Journal of Arts and Social Sciences, 1*(2), 125-135.

Suhong, L., Subba Rao, S., Ragu-Nathan, T. S., & Ragu-Nathan, B. (2009). Development and validation of a management instrument for studying supply chain management practices. *Journal of Operations Management, 23*, 618-641.

Thatte A. A. (2007). *Competitive advantage of a firm through supply chain responsiveness and supply chain management practices.* Published PhD Dissertation. University of Toledo.

Zerbini, F., Caru, A., & Cugini, A. (2007). The cost of customer satisfaction: A framework for strategic cost management in service industries. *European Accounting Review,* (16), 499-530.