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INTERPLAY AMONG CUSTOMER SATISFACTION (CARRYOVER), REPURCHASE INTENTION AND CUSTOMER LOYALTY: AN ANALYSIS THROUGH HIERARCHICAL LINEAR MODELING.

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Abstract

This paper intends to explore the influence of Customer Satisfaction (Carryover [CSC] on repurchase intention (RI). To evaluate that, it is hypothesized that CSC influences RI that in turn goes on to influence customer loyalty (CL). Data were collected from 325 customers of 3 major modern retail chains in India. A mediation and moderation analysis was utilized along with hierarchical linear modeling to achieve these objectives. Results showed that a) CSC significantly influences RI and CL. b) RI mediates between CSC and CL and c) CSC moderates the relationship between RI and CL.

I. INTRODUCTION

There is no dearth of research on influence of repurchase intention on CS and CL and customer focus that eventually leads to multiple organizational outcomes (Parasuraman, Zeithaml, & Berry, 1994; Fisk, Brown, & Bitner, 1993). Companies have always been involved in investing a considerable amount of money and effort in outcomes like a requisite level of employee efficiency and employee focus with constructs like RI and CL that in turn have been revealed to have predicted how long an organization will be able to make sense for customers (Anderson & Sullivan, 1993; Lee, Lee, & Yoo, 2000; Parasuraman, Zeithaml, & Berry, 1994). The major reason why these constructs have been widely explored is that these have been found to be correlated among themselves in more than one ways and eventually these boils down to CL (Dagger & Sweeney, 2006). There has not been doubt ever that a firm should never value addition of new customer over the

patronage of existing customers as it has been proved that it is more profitable to put efforts on keep on satisfying the customers that are already with you. Though the figures may vary but a slight increase in number of customers with an existing patronage may result in a disparate profitability (on firm’s side) in comparison to a situation where the firm tries to add some more customers to the kitty (Dabholkar, 1995; Oliver, 1993). So that makes this interesting to explore the interplay of RI in relation concerning CSC and CL. There is no unanimity on what leads to what with regard to the level of service delivery and CSC. There is some work that has proved that service delivery influences CSC (Bagozzi, 1981; Lovelock et al. 2011) and the other work found CSC to be influencing service delivery (Delgado-Ballester, 2004; Schurr & Ozanne, 1985). It is important to understand the relation in right way to develop the hypothesize the model. So this study intends to test a) the influence of CSC on RI and CL with mediation of RI between CSC and CL. b) Moderation of CSC in the relation concerning the RI and CL.

II. INDIAN RETAIL INDUSTRY

Indian retail industry has been the flagship industry of overall Indian economic ecosystem due to its pace it has gathered in the last decade or so. As a result of one of the biggest middle class in the world driving its growth, it has gained a steady traction. And it is evident from the fact that the central government has changed FDI limits at least on two occasions to attract much needed foreign funding in this sector.

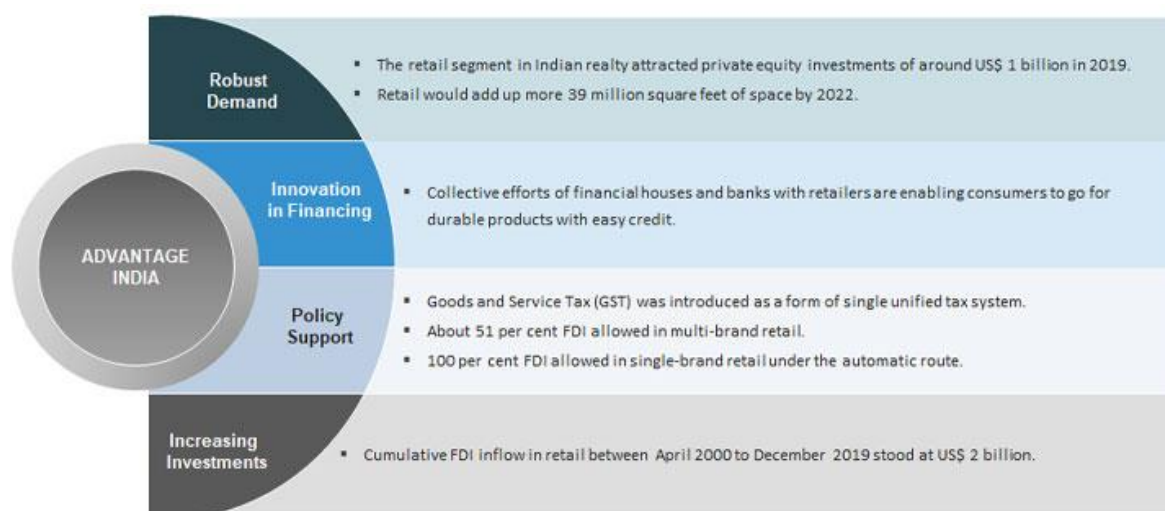


Figure 1: Factors driving Indian retail sector

As per an industry report, Indian retail industry is growing at a CAGR of 11 per cent and is going to sustain this momentum for some years to come. There are many factors that fuelled this growth like growing middle class in numbers and disposable income, a consistent push of the government by relaxing FDI limits and home grown investment. All these factors are

expected to drive this sector further and it is expected to reach to a level of close to US\$ 1.1 trillion by the end of year 2020.

III. THEORETICAL BACKGROUND AND HYPOTHESIS TESTING

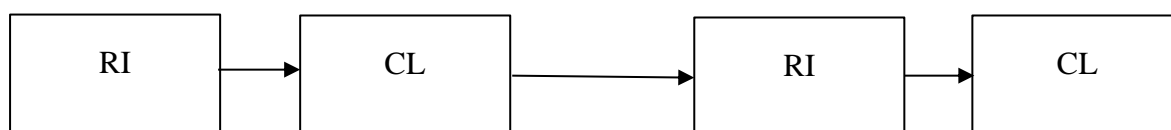
This section presents the interplay among constructs of interest like CSC, RI and CL followed by development of the model and hypotheses being framed.

Relationship between CSC and RI

CS and RI have been widely explored in relation to some other constructs like service quality, service delivery, customer focus and a variety of other organizational outcome and employee effectiveness and even employee productivity (Schr & Ozanne, 1985; Bolton & Drew, 1991). RI is the tendency to intend to continue to patronize with the existing service provider. There is no data to suggest such levels in Indian retail industry but it has been widely explored in an Indian retail setup (Leisen & Hyman, 2004) where this patronage has been proved to be resulting as a result of customer satisfaction and service quality (Statia, Li, & Choi, 2013). The reasons can be many. One of the reasons can be the effort from the side of retailer to have existing customers on board all the time through efforts like distinct loyalty programs (Declerck & Bogaert, 2008). Another reason can be the fact there is a huge completion with not only in terms of presence of home grown players and international players across formats. One more reason is the fact that suggests that it is more profitable to have your existing customers on board in comparison to an effort to make new ones although retailers very well comprehend the significance of putting efforts to not only retain existing ones but make efforts make fresh customers (Zhang & Chen, 2008 ; Yi & Gong, 2006).

Amidst all that there is still some debate going on the association between service quality and customer satisfaction as to what leads to what. Like (Reichheld and Sasser, 1990) went on to prove that CSC influences service quality and the relation between these two construct in turn may affect the relationship between CSC and RI. This was claimed to be not true by (Parasuraman, Zeitaml, and Berry, 1988) that went on to prove that it is not in a way that it was asserted by (Bolton and Drew, 1991). Despite the fact that there is a lot of debate concerning this relationship but a large number of studies have recently proved that CSC leads to service quality and RI (Doney and Cannon, 1997) across services.

Figure 2. Indirect Carryover Model of Customer Loyalty and Repurchase Intention



So the author intends to test the following hypotheses.

H₁: CSC positively and significantly affects RI.

H₂: CSC positively and significantly affects CL.

Relationship between RI and CL

The association between RI and CL is widely explored but its exploration in the context of how it can be moderated by CSC is in its initial stage of exploration. It is quite evident and it makes a perfect sense that RI is a result of efforts from the retailer’s side at multiple levels to ensure that a customer again intends to buy from the retailer and keep on having his patronage with it (Parasuraman, Zeitaml, and Berry, 1988). These levels can be multifold. One such level can be where the retailer develops a loyalty program. Loyalty programs are one of the primary reasons of patronage and research on it suggest that out of total patronage 55 per cent can be attributed to loyalty programs. Loyalty programs put customers into a situation where they perceive that my patronage will consistently result in a specific amount of savings. Other reasons can be the level of service quality and delivery. If retailers are not selling national brands and private labels in a right proportion then service quality and delivery come to the rescue of the retailer to differentiate it from other retailers.

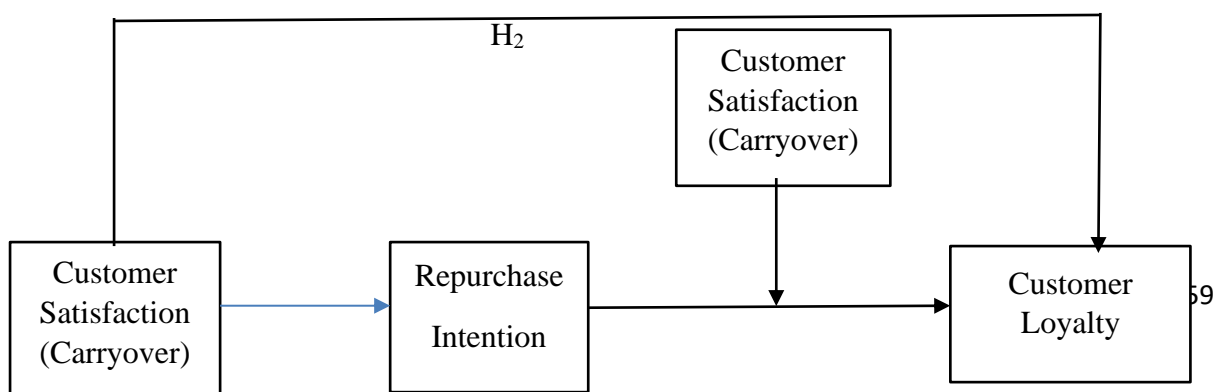
Patronage has been theorized as something that is a resultant of some facets of behavior that lead to RI (Cronin & Taylor, 1992). CSC has been explained to be leading to CL through RI (Collier & Bienstock, 2006). There are some studies that explored these two constructs without any mediator also. For instance (Mittal, Kumar, & Tsiros, 1999; Bagozzi, 1981) that carried out a study in a service setup proved that a number of factors may lead to RI which directly leads to CL. In order to enhance the propensity to repurchase the retailers try to improve on all dimensions of service quality as proposed by (Wolter et al. 2017). Any half effort on a dimension or two out of five may result in faulty setup and that may not result in CL. Not only CSC leads to RI but the association between RI and CL has also been proved to be moderated by CSC. So author intends to test the following hypotheses

H₃: RI positively and significantly affects CL.

H₄: RI mediates the relationship between CSC and CL.

H₅: CSC moderates the relationship between RI and CL in such a way that high level of customer satisfaction will lead to a stronger relationship.

Figure 3. Hypothesized model



H₁H₃

IV. RESEARCH METHODOLOGY

Following conceptualizing of CL by (Oliver, 1993), data were collected from 325 customers who have been associated with the same retailer for past at least two years of three major organized retailers in India. Data was collected using a five point Likert scale. To measure CS, a scale by (Parasuraman, 1985) is used and CL is measured using (Stoian and Tugulea, 2012). RI was measured using a scale by (Parasuraman, 1988). Following a two-step approach hypothetical and measurement models were tested using IBM AMOS 20.0. Using confirmatory factor analysis (CFA), first the measurement model was evaluated followed by testing of proposed model using structural equation modelling (SEM). To know CSC can be grouped at unit level, intra class correlation coefficients and Rwg(j) values were used as recommended by (James et al., 1993). To test the moderation effect a two-step model (Zhao and Cavusgil, 2006) was used.

V. DATA ANALYSIS

Examining the measurement model

As a first step the assumption of normality was examined. Outliers were removed in order to have skewness and kurtosis in range (-0.434-0.354) and (0.337-0.444) which were not actually in range. After fulfilling the assumption of normality two procedural measures were undertaken to control common method variance as recommended by (Podsakoff et al., 2003; Tehseen et al., 2017).

Construct Validity

All factor loading were found in range (above 0.5) as recommended by (Hair et al., 2010). A required level of linearity was found on account of all R² values being above 0.2. All AVE values were found to be above 0.5 which is considered as threshold so it can be inferred that convergent validity is established. Discriminant validity was also established on account of square root vales of all AVEs well below inter construct correlations (Fornell and Larcker, 1981). On account of convergent and discriminant validities being established, construct validity was assumed to be established. See table 1.

Data Aggregation

Rwg(j) [a measure of within-group consensus and agreement] and ICC (1) [which is inter construct correlation] respectively were used to calculate restricted within-unit variance as recommended by (LeBreton and Senter,

2008) and (Bliese, 2000). CSC was aggregated at unit level on account of values of both these indices above the threshold cutoffs.

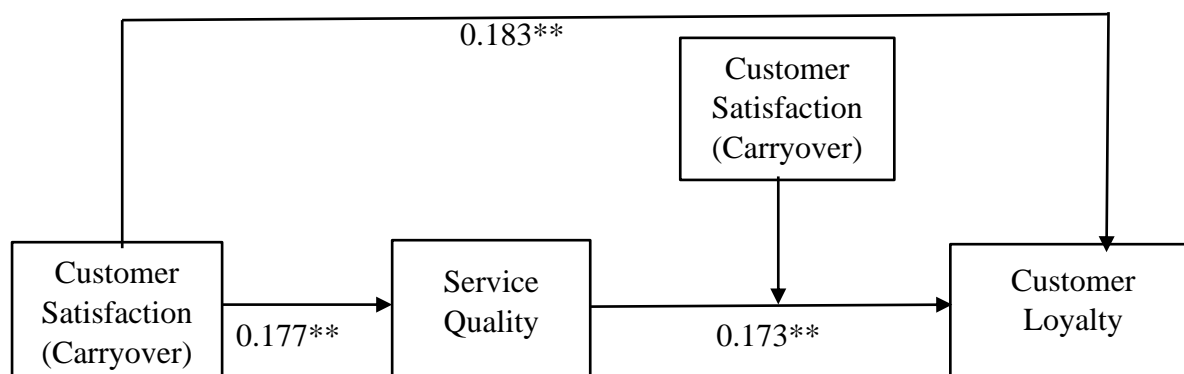
Table 1: Construct Validity

Construct	Items	Factor Loadings	R ²	AVEs	CCRs
CL	CL1	0.824	0.679	0.594	0.897
	CL2	0.745	0.555		
	CL3	0.829	0.687		
	CL4	0.774	0.599		
	CL5	0.698	0.487		
	CL6	0.745	0.555		
CS (Carrvoer)	CS1	0.837	0.701	0.61	0.903
	CS2	0.752	0.566		
	CS3	0.813	0.661		
	CS4	0.761	0.579		
	CS5	0.779	0.607		
	CS6	0.738	0.545		
RI	RI1	0.753	0.567	0.564	0.866
	RI2	0.774	0.599		
	RI3	0.719	0.517		
	RI4	0.763	0.582		
	RI5	0.745	0.555		

Testing hypothesized model

All major fit indices [$\chi^2 = 318.102$; GFI = 0.578; CFI = 0.559; TLI = 0.898; NFI = 0.785; RMR = 0.029; RMSEA = 0.037] were well within the acceptable limits so it is inferred that there is a good fit between data and the model. 64.2% of the variance was explained by CSC in RI. RI explained a variance of 56.7% in CL whereas CSC shown a variance of 59.2% in CL.

Figure 4. SEM Results



With figures as ($\beta_1 = 0.181$, $t = 2.597$; $p < 0.05$) it can be inferred that CSC positively and significantly explains RI so H_1 is accepted. CSC also

positively and significantly influences CL ($\beta_1 = 0.189, t = 3.152; p < 0.05$). RI too explains CL positively and significantly ($\beta_1 = 0.169, t = 3.114; p < 0.05$)

Table 2: SEM Results

Hypothesis	Path	Path Coefficients (Standardized)	t-Values	Result
H1	CSC-RI	0.181	2.597**	Accepted
H2	CSC-CL	0.189	3.152**	Accepted
H3	RI-CL	0.169	3.114**	Accepted

Bootstrapping was used to measure the mediation effect of RI on the relationship involving CSC and CL.

Table 3: Bootstrapping Results Customer Satisfaction (Carryover)

Total Effect	Standardized Path Coefficients (Effect Size)	p-Vaules
Total Effect	-0.511	0.024
Direct Effect	-0.183	0.011
Indirect Effect	-0.285	0.027

The total effect of CSC on CL is found to be significant [(effect size = -0.511, $p = 0.024$)]. With figures as [(effect size = -0.183, $p = 0.011$)] and [(effect size = -0.285, $p = 0.027$)] direct and indirect effect is also found to be significant. See table 3.

Results were cross validated using hierarchical liner modelling.

Table 4: Hierarchical Linear Modelling Results

	Repurchase Intention	Customer Loyalty		
	Model 1	Model 2	Model 3	Model 4
	λ (SE)	λ (SE)	λ (SE)	λ (SE)
Customer Satisfaction (C)	0.33 (0.11)*	0.39 (0.17)*	0.37 (0.15)	1292 (0.47)
Repurchase Intention			0.33 (0.05)*	0.27 (0.06)*
Repurchase Intention X Customer Loyalty				0.45 (0.15)*
R ²	0.27	0.29	0.23	0.25

H₁ is accepted on account of CSC positively affecting RI ($\lambda = 0.33; p < 0.05$, Model 1). It can be inferred that H₂ is accepted too as CSC positively affects CL ($\lambda = 0.39; p < 0.05$, Model 2). With figures as ($\lambda = 0.37; p <$

0.05, Model 3) H_3 is also accepted. With that it is proved that RI completely mediates between CSC and CL. So we may infer that H_4 is accepted too. It was found that the high carryover effect of customer satisfaction will lead to a stronger relationship between RI and CL ($\lambda = 0.45$; $p < 0.05$, Model 4). So H_5 is also accepted.

VI. DISCUSSION AND SCOPE FOR FUTURE RESEARCH

Results revealed that the CSC leads to intention to repurchase and also moderates the relationship between RI and CL. Results also reveal that RI leads to CL. In such a scenario where CSC is so significant that its effect carry over to the next transaction, it becomes so very important for the service provider to pay attention to the factors that influence the carryover effect. The factors that contribute to carryover effect are the same that affect intention to purchase for the very first time without any history of patronage like brand image, service delivery and all dimensions of service quality. To do that service provider has to look at the gap between brand identity and brand image and what leads to that gap. That gap needs to be filled and for that the retailer need to look at the data of all the transactions of customer with that retailer and if possible customer should be reached to know more about that gap. There can be various strategies one of which can be a right proportion of national brands and private labels or right merchandising. All of this put together may help the retailer to achieve a desired level of business that is expected out of customer on the basis of his profile.

VII. LIMITATIONS OF THE STUDY

Patronage develops over a period of time. Many a times it happens that a customer defect s from brand A to B and then from B to A. So a cross sectional design can't completely help to get to know about how that relationship developed over a period of time. In the absence of that the dynamics of the relationship can't be ascertained. Although this study tried to overcome this gap by cross validation of results through hierarchical linear modelling but the generalizability of the study can be affected by this fact. So a longitudinal study can be a right approach to look at interplay among CSC, RI and CL.

VIII. CONCLUSION

Needless to say that CL in its standard form is not what a firm is always interested in. As there can be consistent service encounters where the monetary value is not enough for an organization to sustain. Recency and frequency are important in profiling customers in RFM analysis but the most important facets of RFM analysis is monetary value. So retailer must undertake strategies that can help improve the level of patronage with the help of factors that lead to a desired combination of recency, frequency and monetary value. A retailer or any service provider for that matter should not miss on strategic view of RFM analysis that deals with working on all those factors that can affect the overall value while retailers profile their

customers through RFM analysis which are service delivery, customer satisfaction, service quality, a right merchandising keeping in mind the right proportion of national brands to private labels and a right loyalty program.

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