

Impact of Covid-19 on Service-Profit Chain: An Exploratory Study on Indian Auto Industry

Suhas Das

PhD research scholar in Institute of Management Studies, Devi Ahilya Vishwavidyalaya, Indore, India

Ajit Upadhyaya

Professor in Prestige Institute of Management and Research at Devi Ahilya Vishwavidyalaya, Indore, India

Rajiv Gupta

Professor in Institute of Management Studies, Devi Ahilya Vishwavidyalaya, Indore, India

Abstract

There is no dearth of literature exploring impact of COVID-19 on various facets of consumers, businesses and economy at large. This exploratory study attempts to assess - how it may affect consumer's preference of 'place of purchase', thereby impacting Service Profit Chain (S-PC), specific to Indian car industry. Assessments were done at two different time frames i.e. pre & amidst this pandemic for customer satisfaction and consumer's online purchase intentions i.e. 'place preference'. We also assessed consumer's attitude towards vehicle purchase in the second phase of this study. Statistical analysis revealed COVID-19 so far has neither eroded customer satisfaction nor will impact 'place preference' and thus S-PC. Also there is heterogeneity in views on advancing or deferring purchases. Researchers and practitioners are however advised to take this study forward as consumer's behaviours may change based on their resilience and also to other product categories as these findings may differ for high & low consumer involvement products.

Keywords: COVID-19; Consumer Behaviour; Service-Profit Chain; Customer Satisfaction; Purchase Intention.

INTRODUCTION

COVID-19 Pandemic has gradually paralyzed nations after nations and led to fundamental changes in the political, economic, social, and technological landscape. Businesses such as transport, retail, hospitality, malls, schools, etc in most of the countries were closed which has affected their economies. Market sentiments were quite evident in stock

markets around the globe. Of late, impacted businesses were coming back on track, amidst concern due to new traces of virus knocking the doors.

In India, lot of private firms took steps like salary cut or staff layoff affecting many families leading to change in consumer’s spending behaviour not only for luxury items but also for items of daily needs. Depending upon the nature of work, while few are still working from home many had to step out. Priorities for the business houses in this unprecedented unpredictable dynamic situation are employee’s safety, grabbing opportunities & hedging threats. Those who will anticipate and prepare themselves better will take the lead.

In a classic article, ‘Putting the Service-Profit Chain to Work’, Heskett *et al.* (1994) quoted that ‘frontline workers and customers need to be the centre of management’s concern’. Representation of their model as shown in fig 1, depicts internal service quality influences employee satisfaction which further influences their retention & productivity and ensures better delivery of value. It further leads to higher customer satisfaction and influences their loyalty, stimulating profit & growth.

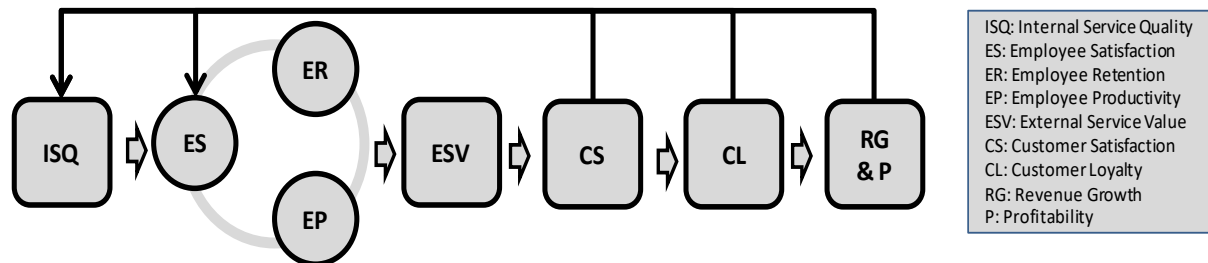


Fig.1. The links in the Service-Profit Chain

Numerous studies have been done on impact of COVID-19 on consumers, supply chain, economy etc, however, how it has impacted the retail side of automotive business has received relatively limited attention. Automotive industry being considered a barometer of economic growth, we focused our attention on to it, specifically on the consumer and employee side of the Indian car segment. Both these stakeholders being the main elements of the service-profit chain model, this study evaluates - whether consumer’s preference of ‘place of interaction for business transaction’ will shift permanently post lockdown i.e. will consumer prefer online purchase over traditional way of vehicle purchase. In case it happens, the strength between interlinks in the S-PC will change drastically. Manufacturers and retailers (car dealers in our context), will get impacted in several ways such as – showroom size, customer foot-falls, employee count to manage showrooms, employee-customer interaction mode, stocking level of vehicles at showrooms, credit policy etc. and of course the profitability. Additionally, we studied the impact of COVID-19 so far, on customer satisfaction and also tried to assess consumer’s attitude towards advancing or deferring purchases due to various reasons like lesser disposable income, more lucrative offers by manufacturers, social distancing priorities during mobility etc.

LITERATURE REVIEW

COVID-19 pandemic is having a catastrophic effect on employment and earnings in India as well as globally. Verma A (2020) cited ILO’s estimate that 81% amongst 3.3 billion global work-forces are currently affected by partial or full workplace closures. This has

impacted consumer's behaviour severely. Durante & Laran (2016), puts on record that consumers who experience a stressful situation assign their resources strategically to adjust with their environment. They may show increased or decreased saving behaviour depending upon their priorities and perceived necessities. Statistics across nations have shown shifting signs of consumer spending behaviour since the outbreak. Chronopoulos et al. (2020), shared their finding from Great Britain that discretionary spending continued declining since incubation to lockdown period, although at a varied pace demographically. Their literature suggests that consumers respond to negative shocks by reducing spending. However, there is a consistent or increased spending in few areas such as food, groceries, internet usage etc. In China, as pointed out by Craven M et al. (2020), while demand has dropped, it has not disappeared and consumers have shifted toward online shopping for most of the things. Reeves et al. (2020) too had similar observation from US market.

COVID-19 drove businesses to make substantial digital transformations, making many workplace operations virtual. Kim R.Y (2020) quoted cases of digitally ready automobile companies who had online car sales & services such as Carvana, CarMax, and Copart, which reported increased shareholder value amidst this hard hit phase. Carvana offered "touchless" delivery of cars, inducing both workforce & customer to go for digital transformation. Living through the pandemic, some consumer behaviour might be long-lasting even after the situation eases. He also quoted a recent survey, that discretionary spending might come down as almost by 60% respondents voted to cut spending on consumer electronics or vehicles.

Jones et al.,(2020) in their study reported that leading stock markets like Dow Jones, FTSE, Nikkei representing consumer's sentiments had a sharp dip during Mar-Apr'20. Share prices of technology companies such as Zoom, Netflix, Amazon have shot up as more people rely on video conference calls to hold meetings or get tasks done. Indian stock market too shows similar trend with sensex sliding from ~42K in Jan'20 to ~32K in Jun'20. Rajamohan et al.,(2020) revealed that there is a significant impact on auto sector index price movements after the COVID-19 in India. Most of the foreign investors moved from equity to other mode such as gold and other commodities. Various analysts have drawn optimistic, pessimistic and most likely estimates for auto industry to recover to pre COVID-19 situation. Hofstätter et al., (2020) quoted in McKinsey's report that depending on the region, it may take up to 4 years to recover to pre-COVID-19 levels.

Service-Profit Chain philosophy put forth by Heskett et al in 1994, still is the most widely used framework to study Employee-Customer-Profitability relationship as quoted by Bhaskar & Khera (2013). Managing it well can be a differentiator leading to competitive advantage for the organization. Numerous studies were carried out to test linkages within the S-PC, bringing in different perspectives. Anderson & Mittal (2000), Silvestro & Cross (2000), and Bulgarella (2005) contributed further on it. Although conceptually strong, because of multiple linkages practically S-PC is a complex one to implement, monitor and control.

RESEARCH OBJECTIVES AND HYPOTHESIS

Amongst several studies on COVID-19 impact, no literature was found on its impact on Service-Profit Chain. With reference to the background, it is clear that COVID-19's influence on any of the element of S-PC linkage will affect the overall relationship. For our study, we have picked Customer Satisfaction element from this model. Customer Satisfaction

is not just about satisfaction with the product, but also about the non product experiences. Accordingly an unified robust questionnaire specific to passenger car segment was derived encompassing both Sales & Service areas.

We specifically tried to assess, if COVID-19 will have a permanent impact in consumer’s behaviour specific to “place preference”. Secondly, whether this pandemic has eroded customer satisfaction so far and finally, whether consumers will advance or defer their purchases because of this pandemic. We also captured consumer preferences on areas such as designing their own car by picking and choosing features they wish; buying cars just over a phone call; pick & drop for service interventions etc.

Based on above context, following are the hypotheses for this study --

- H₁:** COVID-19 will have no significant impact on Service-Profit Chain through mediation of ‘place preference’ of a consumer.
- H₂:** Customer Satisfaction will remain unaltered during pandemic phase
- H₃:** Consumers will withhold purchase of vehicles leading to long business recovery period.

METHODOLOGY AND DATA COLLECTION

Questionnaire suited to passenger car segment, based on 5 point Likert scale was framed with specific questions on ‘place preference’ and ‘purchase intentions about preponement or postponement’, apart from customer satisfaction assessment questions encompassing both Sales & Service areas. Non probabilistic convenience sampling technique was adopted to reach out to probable respondents eliciting data through google forms.

Study was carried out at two different time frames. First phase survey was conducted between Dec’19 to Jan’20 (pre-COVID) as a part of another study. Total 257 responses were considered for our analysis from 271 responses. Second phase study was conducted between May’20 to Jun’20, wherein we went back to our earlier respondents of Phase-1 and could get 124 responses out of which 107 was found usable. 79% respondents were male while 21% were females together representing 55 different models from 16 brands of cars.

ANALYSIS AND RESEARCH FINDINGS

Reliability of customer satisfaction scale was checked using SPSS Version-27 and found to be very robust with Cronbach’s alpha value of 0.966, ref table 1. However, it fails the Shapiro-Wilk test of Normality for both pre and post data, significance value being less than 0.05, ref table 2.

Table 1: Reliability Check

Case Processing Summary – Customer Satisfaction				Reliability Statistics	
		N	%	Cronbach's Alpha	N of Items
Cases	Valid	105	98.1	0.966	27
	Excluded ^a	2	1.9		
	Total	107	100.0		
a. Listwise deletion based on all variables in the procedure.					

Table 2: Normality Check

	Shapiro-Wilk		
	Statistic	df	Sig.
C-Sat Phase1	.940	107	0.000
C-Sat Phase2	.973	107	0.026

Considering nature of study, sample size and methodology adopted to collect data, non-parametric tests 'Related-Samples Wilcoxon Signed Rank Test' was deemed appropriate to analyse CSI_PRE and CSI_POST data. Ref table 3, as significance value is found to be more than 0.05, it can be concluded that there is no significant difference between median of Customer Satisfaction Index in Pre and Post situations. Hence the hypothesis is retained, which means Customer satisfaction has not eroded during this period.

Table 3: Hypothesis Check (H₁) - Related-Samples Wilcoxon Signed Rank Test

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig. ^{a,b}	Decision
1	The median of differences between C-Sat P1 and C-Sat P2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.716	Retain the hypothesis
a. The significance level is .050.				
b. Asymptotic significance is displayed.				

Related-Samples Wilcoxon Signed Rank Test Summary	
Total N	107
Test Statistic	2579.000
Standard Error	286.323
Standardized Test Statistic	.363
Asymptotic Sig.(2-sided test)	.716

Same is applied to analyse Pre and Post ONLINE_Purchase data. Here also, as significance value is found to be more than 0.05, it can be concluded that there is no significant difference between median of Consumer's behaviour on Online Purchase in Pre and Post situations i.e. our hypothesis is retained. Ref table 4. This means Indian consumers will continue to prefer the traditional way of purchasing and would not migrate to online mode of vehicle purchasing.

Table 4: Hypothesis Check (H₀) - Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
ONLINE_Purchase_2 - ONLINE_Purchase_1	Negative Ranks	34 ^a	35.68	1213.00
	Positive Ranks	34 ^b	33.32	1133.00
	Ties	39 ^c		
	Total	107		
a. ONLINE_Purchase_2 < ONLINE_Purchase_1				
b. ONLINE_Purchase_2 > ONLINE_Purchase_1				
c. ONLINE_Purchase_2 = ONLINE_Purchase_1				

Test Statistics ^a	
	ONLINE_Purchase_2 - ONLINE_Purchase_1
Z	-.250 ^b
Asymp. Sig. (2-tailed)	.803
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

We also analysed consumer’s responses on – whether he would be advancing or deferring the purchase due to COVID-19. Ref. table 5.

Table 5:

Advancing Purchase					
		Freq.	Percent	Valid Percent	Cum. Percent
Valid	NO	70	65.4	65.4	65.4
	YES - Better offers in market	8	7.5	7.5	72.9
	YES - Other reasons	16	15.0	15.0	87.9
	YES - To avoid / minimize usage of public transport or rental transport	13	12.1	12.1	100
	Total	107	100.0	100.0	

Deferring Purchase					
		Freq.	Percent	Valid Percent	Cum. Percent
Valid	NO	74	69.2	69.2	69.2
	YES - Due to lesser disposable income	14	13.1	13.1	82.2
	YES - Other reasons	15	14.0	14.0	96.3
	YES - To minimize interacting with peoples	4	3.7	3.7	100.0
	Total	107	100.0	100.0	

Out of 107 respondents, 31.8% of them are deferring their vehicle purchase plan. Lesser disposable income being the primary reason. However almost comparable numbers i.e. 34.6% consumers are advancing their vehicle purchase plan to avoid / minimize usage of public transport/ rental mode transport for self or family. Better deals getting offered in market is another reason to advance the purchase. This behaviour is quite different that US market where 60% consumers are deferring as cited by Kim R.Y (2020). This also challenges the analysts who have estimated business volumes to return to pre COVID level not before four years.

CONCLUSIONS

Starting with disbelief and thinking that it could happen to others and not me, people have gradually realized and started believing that it is not going to end soon. With uncertain future, consumer confidence has eroded and new normal is getting established. We are already seeing changed way of doing things with greater emphasis on remote working, digital collaboration, workplace hygiene etc. While some of them will go back to earlier way of working but few may continue with the new normal.

Going by the results of our study, it's evident that consumer's preference for 'Place' i.e. moving to online platform for purchasing a vehicle will not happen significantly. Also, Customers Satisfaction so far between pre pandemic and amidst pandemic has not changed. Considering the mediating effect of this on Service-Profit Chain it can be concluded that our hypotheses H₁ and H₂ will be retained. It is interesting to note that almost equal numbers of consumers are advancing or deferring their purchase decisions nullifying each other's effect to a great extent, which means our hypotheses H₃ is rejected.

PRACTICAL IMPLICATIONS, FUTURE SCOPE OF RESEARCH AND LIMITATIONS

Amidst the uncertainty and speculations that this new normal will become the permanent normal, this study shown that it may not be so and things will return back to earlier way of life. This report will encourage retail business houses and channel partners to have more patience as they navigate through this crisis and not take hurried decisions. However, it should be kept in mind that different sectors have got affected differently and so will be their revival. Some sectors, like aviation, tourism, and hospitality, will see lost demand while other sectors may see delayed demand. Being a very emotionally challenging life event for most of the people, Companies will have to ensure 'taking care of their employees' and 'staying close to their customers'. They not only need to decide immediate 'way of doing business' but also short and long term 'way of doing business' post pandemic.

This being an exploratory study the sample size was small and carried out only for Indian car industry, picking up just one element of Service-Profit Chain (S-PC). Researchers and practitioners may explore other elements of S-PC and in other sectors too. As we are still in the midst of pandemic, the outcome of subsequent studies may differ depending upon the resilience of the people. As our sample was too much heterogeneous representing 55 different models from 16 brands ranging from budget to luxury one, it may be possible that consumers from different price bracket behave differently which was not covered in this study and future researchers may explore it.

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