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Frame Work of Nudge a New Marketing Tools of Modern Times in Car Marketing and Effect of Demographics on It

Manish Ishwardayal Gupta
Sr. Manager, Department of Marketing, M/s Delphi TVS Diesel Systems Ltd, Tamil Nadu, India
Ph.D. Research Scholar, Department of Management Studies, Pacific Academy of Higher
Education and Research University, Pratap Nagar Extension, Debari, Udaipur, Rajasthan, India
Dr. Nitin Manohar Joshi
Director, Department of Management Studies, Vidya Prasarak Mandal's, Dr. V.N. Bedekar
Institute of Management Studies, Jnanadweepa, Chendani Bunder Road, Thane, Maharashtra, India

Abstract:
Use of Nudge a marketing tool is gaining acceptance in field of education, sustainability, hospitality, safety and marketing. This study is a descriptive research based on secondary data and field research on car marketing in India. The main issue resolved by Nudge is that it makes the user feel importance, remove confusions in decision making, makes features appear beneficial and useful in perception. Nudges are present everywhere product we use as being a part of product and choice architecture, the world is moving from traditional marketing concepts to value and retention focused marketing due to change in market from monopolistic market to highly liberalised market. The aim of study was to find Nudges in cars features and how it adds value perception in cars marketing and the effect of demographics on them. Indian car market also experienced this change over from monopolistic market to highly liberalised market for cars with almost all car players putting plants in India and each competing to get customers. Today's marketing issues being that in spite thousands of new product launches every year, most product fail in market, as same are using older marketing ideas, only few succeed, and those succeeding in becoming market leaders are those with most nudges. Nudge had been used in industry knowingly or unknowingly, to study same car marketing industry was chosen

Keywords: Nudge, Cars, look, feel and do good framework.

1. Introduction

Nudge Theory is a concept in behavioural science, political science and economics which argues that positive reinforcement and indirect suggestions to try to achieve non-forced compliance can influence the motives, incentives and decision making of groups and individuals alike at least as effective if not more effective that direct instruction, legislation or enforcement.

The heart of nudge theory is the NUDGE, originally defined by Richard Thaler and Cass Sunstein (2008) as follows:

A nudge is a choice architecture that alters people's behaviour in a predictable way without forbidding any options or significant changing their economic incentives. To be counted as pure nudge, the intervention must be easy and cheap to avoid.

A Nudge is a gentle push via choice architecture to alter people's behaviour. A choice architect is a person who has the responsibility for organizing the context in which people make decisions. They are the people who design the user- friendly environment. A good system of choice architecture helps people in improving their ability to choose and select options that will make them better off. The features on cars or on marketing tools are choices which act as Nudge, Nudges remove the biases, makes decision making easier and act till the subtlety remains on same and competitors have not caught up in market.

2. Value and Retention Focused Frame Work of Nudge in Look, Feel and Do Good

Nudges are being used to increase value perception in frame work of look, feel and do good, as all people want is to look good, feel good and to use products in which they are safer. 7ps of car nudges can be put in look, feel and do good frame work as follows:

Sr. no.	Look	Feel	Do good
1	Low price of car	Power steering, adjustable steering, AMT (Automatic manual transmission)	Horn
2	Colour of cars	Key less entry in cars	Seat belt indicator via light or noise signal
3	Dashing display lights on vehicle in car showrooms	Remote starting of car	Safety seat for child
4	Personality endorsement	Parking assist cameras on cars	ABS (Anti-lock braking), ESP (Electronic stability program)
5	Green tag stickers on car (look green in society)	Driving Modes like economic, city and sport	Eco-pedal
6	Car as a safer, faster and tireless mode of transport	Start Stop, button starting car	Global navigational system assisted lo-jack security product
7		LED lights and Intelligent light system	Auto emergency braking, smart Cruise control
8		Multitasking like playing music, GPS navigation, attending tele call, sms etc.	Congestion tax
9		Follow me home feature of headlamp	Lottery of car drivers who do not over speed.
10		Near Field Communication(NFC) &Radio frequency identification(RFID)	Direction indicators
11		Price difference between fuel coupled with engines technology	Taller body of car
12		Resale value fixing at time of buying a car, 3years/5 years after its use	Certified driving schools for removing fear of driving and promoting car sales
13		Car purchase scheme: upfront advance & lower EMI	Warranty period
14		Pleasant ambience at car show room by displays and soft music	Free insurance and lower EMI schemes in December every year
15		Advertisement highlighting features	Tie up with car finance companies
16		Signboards at Car showrooms	Tubeless tyres as standard tyres
17		Mileage stickers on cars giving saving per year (US EPA stickers)	Distance meter after vehicle touches reserve fuel
18		Incentives benefits & usefulness of car is focused by sales person	Drivers biometrics: blood alcohol, BP, glucose level, fatigue
19		Endorsement by family and close friends	
20		Comparative with other cars	
21		Smaller hatchbacks cars act as nudge for larger sedan cars	
22		Company show rooms and company service stations	
23		Availability of car at showroom nearby	
24		Scratch free car delivery	
25		Labels on spare parts	
26		Trained dealer sales staff in after service handling	

Table 1: Nudges can be put in look, feel and do good frame work

3. Literature Review

Thaler and Sunstein (2008) explain that humans have biases and we blunder often in making decisions, have temptations, follow sometimes herd mentality. They have given examples 0f nudges in automobile field mainly in safety area, vehicle features, and vehicle and insurance choices. The short form of NUDGE: incentives, understanding mappings, Defaults Give feedback, Expect errors, structured complex choices.

Neelamegham (2004) has done a case study on MUL.

Mullainathan (Nov 2009) has highlighted about how nudges can solve social issues, where last mile issues are always there.

The speakerEliassons (Sept 2012) talks about experiences of Sweden Stockholm where nudges were used order to solve traffic congestion in 2006.

Hansen & Jaspersen (2013) thinking as per Kahneman noble laureate is either automatic (Type 1) or reflective (Type 2), transparent and non-transparent.

Ly, Mazar, Zhao& Soman (March 2013) describe framework of nudges share some common characters.
The factors like operational cost, bottlenecks, reach, adoption, risk, user habits etc. involved should be looked into in nudges. (Ly, Mazar, Zhao& Soman (March 2013)),
Dolan, Hallsworth, Halpers, King, Metcalfe & Vlaev (March 2, 2010) came out with a frame work of called MINDSPACE framework of influences.
Camilleri & Larrick (2013) state in automobile field use of nudges in labels scales.
Menon & Jagathyraj (May 2012) have by a structured diagram explained the factors in car purchase decision making.
Shende (Feb 2014) in his study on the consumer's behaviour the complexities in car purchase.
As perSubadra, Murugeshan, Ganpati (Dec 2010) in car marketing factors influencing sales are driving comfort, fuel economy, spare parts availability, price, etc.
Sinaravelu (Dec 2011) studied the influence of source of information to buy a car which media is better, repurchase behaviours of buyers and influence of special features of cars on car sales.
As per Kaul (2010) experimental marketing seeks to make consumer experience richer by multiple facilities and senses.
 As per author Kapoor (2004) in liberalised era brand loyalty does not exists only perceived value loyalty exits. The author mentions about a new segment Look, Feel and do good.

3.1. Importance and Objective of Proposed Investigation
All car manufacturers are using choice architecture as USP (Unique selling proposition) on the products they are selling, the intention of the study is to search for following:
- Find how some of these choices can acts as nudges in cars.
- To study how nudges, create values in cars.
- To study effect of demographics factors on nudges.

4. Research Methodology
The research methodology adopted for the study comprised of following:
- Descriptive research is based on secondary data on Nudge, literature reviews on the topic and on observations in car market.
- Quantitative research based on field survey via structured questionnaire on nudges in cars in 5 districts of Maharashtra Mumbai, Pune, Nashik, Aurangabad and Nagpur. The sample was chosen based convenience sampling on new car consumers found in showrooms and societies. The questionnaire was administered to 490 new car consumers in urban areas of these 5 districts.
- Parametric testing using SPSS software used as sample used are some to some extent random

4.1. Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.833	0.785	63

Table 2

In the study 63 variables were studied, Cronbach's alpha value 0.833 was seen in the study, for the standardised items Cronbach's alpha0.785 was seen for the refined scales as reliable and consistent. As Cronbach's alpha value above 0.8 is considered to be reliable for basic research, hence data collected is demonstrating highly reliability

4.2. T Test –Hypothesis testing

One-Sample Test						Remark (H0: μ=3; H1: μ>3)
	Test Value = 3					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper	
There are Nudges in cars	39.158	489	.000	1.19184	1.1320	1.2516	P value=0.00 is less than α= 0.05, t value 39.15very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudges features are Benifitical	37.048	489	.000	1.06939	1.0127	1.1261	P value=0.00 is less than α= 0.05, t value 37.04 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudges Features removes bottleneck	24.473	489	.000	.93673	.8615	1.0119	P value=0.00 is less than α= 0.05, t value 24.47 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudges features makes life/work easier	28.637	489	.000	.99796	.9295	1.0664	P value=0.00 is less than α= 0.05, t value28.63very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudges features will last long	22.676	489	.000	.91020	.8313	.9891	P value=0.00 is less than α= 0.05, t value 22.67very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
if known earlier on the nudge features your decision will remain same	19.862	489	.000	.81224	.7319	.8926	P value=0.00 is less than α= 0.05, t value 19.86very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
People want- more nudges features in cars.	28.012	489	.000	1.07959	1.0039	1.1553	P value=0.00 is less than α= 0.05, t value 28.01very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudge features increase the Value of car in terms of look good	33.133	489	.000	1.10000	1.0348	1.1652	P value=0.00 is less than α= 0.05, t value 33.13very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudge features increases the Value of carin terms of feel good	39.607	489	.000	1.17143	1.1133	1.2295	P value=0.00 is less than α= 0.05, t value 39.60very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Nudges features increases the Value of carin terms of do good	36.057	489	.000	1.17755	1.1134	1.2417	P value=0.00 is less than α= 0.05, t value 36.05 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Effectiveness of Nudges features can be increased by higher education	29.755	489	.000	1.02041	.9530	1.0878	P value=0.00 is less than α= 0.05, t value 29.75 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Effectiveness of Nudges features can be increased by a Movement. (Campaign)	20.679	489	.000	.80816	.7314	.8850	P value=0.00 is less than α= 0.05, t value 20.67very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Effectiveness of Nudges features can be increased by a regulation.	30.226	489	.000	1.06735	.9980	1.1367	P value=0.00 is less than α= 0.05, t value 30.22very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true

Table 3

t distribution approaches Z distribution with large sample size, compared value of t will be same as Z value, p value in all above is found to be 0.00 (two tailed) which is less than 0.05, t test values also be very high , we can conclude from above to reject null hypothesis,(Null hypothesis being H0: μ=3;alternate hypothesis H1: μ>3) , making alternate hypothesis to be true, hence we can say that nudges are there is cars, people find nudges to be benifitial in cars , the nudges remove fears and confusions in cars, nudges makes life easier for car drivers, nudges as people will last long in cars, even if people are told of nudge effect of features on cars they will still go for these nudge features in cars, people want more and more such nudge features on cars , nudge features increases the value of cars in perceptions of look good, feel good and do good (safety), the effective ness of nudge features can be increased by higher education, movements promoting same (social campaigns) and by government regulations.

One-Sample Test							
	Test Value = 4						Remark (H0: μ=4; H1: μ<4)
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
					Lower	Upper	
Importance of a look good feature like Price in purchase of car	-45.970	489	.000	-1.92245	-2.0046	-1.8403	P value=0.00 is less than α= 0.05, t value 45.97very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a look good feature like Colour in purchase of car	-31.427	489	.000	-1.30204	-1.3834	-1.2206	P value=0.00 is less than α= 0.05, t value 31.42very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a look good feature like display in purchase of car	-10.239	489	.000	-.54286	-.6470	-.4387	P value=0.00 is less than α= 0.05, t value 10.23 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a look good feature like personality endorsement in purchase of car	-6.477	489	.000	-.41224	-.5373	-.2872	P value=0.00 is less than α= 0.05, t value 6.477 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a look good feature like green tag/sticker in purchase of car	-14.004	489	.000	-.75510	-.8610	-.6492	P value=0.00 is less than α= 0.05, t value 14.00 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a look good feature like car as a safe mode of transport in purchase of car	-44.227	489	.000	-2.00000	-2.0889	-1.9111	P value=0.00 is less than α= 0.05, t value 44.22very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like steering features in purchase of car	-51.929	489	.000	-2.08980	-2.1689	-2.0107	P value=0.00 is less than α= 0.05, t value 51.92very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like parking assist features in purchase of car	-33.336	489	.000	-1.60204	-1.6965	-1.5076	P value=0.00 is less than α= 0.05, t value 33.33very high, hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like keyless entry features in purchase of car	-24.354	489	.000	-1.31633	-1.4225	-1.2101	P value=0.00 is less than α= 0.05, t value 24.35very high, hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like driving modes features in purchase of car	-19.293	489	.000	-1.11837	-1.2323	-1.0045	P value=0.00 is less than α= 0.05, t value 19.29 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like button start features in purchase of car	-18.539	489	.000	-1.13265	-1.2527	-1.0126	P value=0.00 is less than α= 0.05, t value 18.53 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like LED light features in purchase of car	-20.682	489	.000	-1.19592	-1.3095	-1.0823	P value=0.00 is less than α= 0.05, t value 20.68 very high than table value 1.96,Hence null Hypothesis H0 is rejected

						& alternate Hypothesis H1 is true
Importance of a feel good feature like multitasking features in purchase of car	-38.355	489	.000	-1.84898	-1.9437	-1.7543	P value=0.00 is less than α= 0.05, t value 38.35very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like follow me home head lamp features in purchase of car	-27.749	489	.000	-1.28163	-1.3724	-1.1909	P value=0.00 is less than α= 0.05, t value 27.74very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like fuel price difference(Petrol/diesel/cng) features in purchase of car	-48.159	489	.000	-1.87551	-1.9520	-1.7990	P value=0.00 is less than α= 0.05, t value 48.15very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like resale value features in purchase of car	-45.095	489	.000	-1.85918	-1.9402	-1.7782	P value=0.00 is less than α= 0.05, t value 45.09very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like EMI features in purchase of car	-32.714	489	.000	-1.64082	-1.7394	-1.5423	P value=0.00 is less than α= 0.05, t value 32.71very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like showroom ambience features in purchase of car	-20.328	489	.000	-1.00612	-1.1034	-.9089	P value=0.00 is less than α= 0.05, t value 20.32very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like advertisement features in purchase of car	-22.147	489	.000	-1.06122	-1.1554	-.9671	P value=0.00 is less than α= 0.05, t value 22.14 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like signboard features in purchase of car	-15.589	489	.000	-.74490	-.8388	-.6510	P value=0.00 is less than α= 0.05, t value 15.58 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like mileage sticker features in purchase of car	-24.187	489	.000	-1.19796	-1.2953	-1.1006	P value=0.00 is less than α= 0.05, t value 24.18very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like endorsement by family/friends in purchase of car	-33.167	489	.000	-1.53878	-1.6299	-1.4476	P value=0.00 is less than α= 0.05, t value 33.16very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like comparative with other cars features in purchase of car	-43.929	489	.000	-1.63061	-1.7035	-1.5577	P value=0.00 is less than α= 0.05, t value 43.92very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like labels on spares as features in purchase of car	-24.323	489	.000	-1.18367	-1.2793	-1.0881	P value=0.00 is less than α= 0.05, t value 24.32 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like double a.c. features in purchase of car	-16.960	489	.000	-.85714	-.9564	-.7578	P value=0.00 is less than α= 0.05, t value 16.96very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a feel good feature like space and head height features in purchase of car	-47.451	489	.000	-1.85306	-1.9298	-1.7763	P value=0.00 is less than α= 0.05, t value 47.45very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like horn features in purchase of car	-47.475	489	.000	-2.08367	-2.1699	-1.9974	P value=0.00 is less than α= 0.05, t value 47.47very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good	-55.139	489	.000	-2.17143	-2.2488	-2.0941	P value=0.00 is less than α= 0.05, t value

feature like airbag features in purchase of car							55.13very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like seat belt indicator features in purchase	-51.904	489	.000	-2.11020	-2.1901	-2.0303	P value=0.00 is less than α= 0.05, t value 51.9very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like safety child seat features in purchase of car	-38.409	489	.000	-1.86531	-1.9607	-1.7699	P value=0.00 is less than α= 0.05, t value 38.40very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like safe braking features in purchase of car	-56.599	489	.000	-2.24082	-2.3186	-2.1630	P value=0.00 is less than α= 0.05, t value 56.59very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like taller body features in purchase of car	-34.493	489	.000	-1.66122	-1.7559	-1.5666	P value=0.00 is less than α= 0.05, t value 34.49very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like warranty/ extended warranty features in purchase of car	-51.051	489	.000	-1.99796	-2.0749	-1.9211	P value=0.00 is less than α= 0.05, t value 51.05very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like free insurance features in purchase of car	-43.309	489	.000	-1.67347	-1.7494	-1.5975	P value=0.00 is less than α= 0.05, t value 43.3 very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like distance meter feature features in purchase of car	-54.850	489	.000	-1.91224	-1.9807	-1.8437	P value=0.00 is less than α= 0.05, t value 54.85very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true
Importance of a do good feature like tubeless tire features in purchase of car	-56.126	489	.000	-2.12245	-2.1968	-2.0481	P value=0.00 is less than α= 0.05, t value 56.12very high than table value 1.96,Hence null Hypothesis H0 is rejected & alternate Hypothesis H1 is true

Table 4

p value in all above is found to be 0.00 (two tailed) which is less than 0.05, t test values also be very high , we can conclude from above to reject null hypothesis,(Null hypothesis being **H0: μ=4**; alternate hypothesis **H1: μ<4) ,** making alternate hypothesis to be true. In look good features in cars price, colour of car, display of cars, personality endorsement, green tag/ stickers and car as safer mode of transport are important. In feel good features like steering(power steering, adjustable steering, AMT), keyless entry ,parking assist, driving modes ,button start, LED light, multitasking (GPS, music system , s.m.s , tele-call ,navigation etc.), follow me home headlamp, price difference between fuel prices and engine technology, resale value, EMI scheme, show room ambience, advertisement, signboard, mileage stickers, endorsement by family and friends, comparative with other cars, labels on spare parts, double air conditioner., interior space and head lamp are important features. In do good features(safety) like horn, airbags, seatbelt indicator, safety child seat, braking features, taller body, warranty, free insurance, distance meter, tubeless tires are important features.

4.3. Rank Order Analysis

Rank		Look Good Frequency	Feel Good Frequency	Do Good Frequency
Valid	1.00	44	87	359
	2.00	85	327	78
	3.00	361	76	53
	Total	490	490	490

Table 5

Factor	Summarized rank order	Ranked by customer
Look good	1297	3
Feel Good	969	2
Do good	674	1

Table 6

Rank order analysis shows that people rank 1st do good features i.e. safety features in a car, then 2nd feel features and lastly on the looks features.

4.4. Anova Analysis on Demographic Factors

Descriptive								
There are nudge features in cars and age								
Age	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(20-30 Years) 1	100	4.0700	.38284	.03828	3.9940	4.1460	3.00	5.00
(31-40 Years) 2	170	4.0529	.72375	.05551	3.9434	4.1625	1.00	5.00
(41-50 Years) 3	117	4.3419	.69682	.06442	4.2143	4.4695	1.00	5.00
(51 and above) 4	103	4.3689	.71387	.07034	4.2294	4.5085	1.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 7

ANOVA						
There are nudge features in cars and age						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	10.628	3	3.543	8.147	.000	p value 0.00 is lower than α=0.05, hence we reject null hypothesis H0 , F value in table is F3-∞=2.6< F=8.147, H1 accepted, difference in mean cannot be attributed to a chance
Within Groups	211.339	486	.435			
Total	221.967	489				

Table 8

There are nudge features in cars and Sex								
Sex	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(Male) 1.00	455	4.2044	.68655	.03219	4.1411	4.2676	1.00	5.00
(Female) 2.00	35	4.0286	.45282	.07654	3.8730	4.1841	3.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 9

ANOVA						
There are nudge features in cars and Sex						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	1.005	1	1.005	2.219	.137	p value is 0.137> than α=0.05, hence we accept null hypothesis H0 , F value in table is F1-∞=3.84>F=2.219, H0 accepted, difference in mean can be attributed to a chance
Within Groups	220.963	488	.453			
Total	221.967	489				

Table 10

There are nudge features in cars and education								
Education	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(Less than graduate) 1	35	4.2286	.54695	.09245	4.0407	4.4165	3.00	5.00
(Graduate) 2	186	4.0968	.71379	.05234	3.9935	4.2000	1.00	5.00
(Post graduate) 3	267	4.2547	.65661	.04018	4.1756	4.3338	1.00	5.00
(above PG) 4.00	2	4.0000	.00000	.00000	4.0000	4.0000	4.00	4.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 11

ANOVA						
There are nudge features in cars and education						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	2.856	3	.952	2.112	.098	p value is 0.098> than α=0.05, hence we accept null hypothesis H0 , F value in table is F3-∞=2.60>F=2.112, H0 accepted, difference in mean can be attributed to a chance
Within Groups	219.111	486	.451			
Total	221.967	489				

Table 12

There are nudge features in cars and income								
Income	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(5-10 Lacs/annum) 1	263	4.0114	.73870	.04555	3.9217	4.1011	1.00	5.00
(10-20 Lacs/annum) 2	158	4.3418	.51441	.04092	4.2609	4.4226	2.00	5.00
(20-30 Lacs/annum) 3	55	4.5818	.49781	.06712	4.4472	4.7164	4.00	5.00
(30 Lacs & above) 4	14	4.3571	.49725	.13289	4.0700	4.6442	4.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 13

ANOVA						
There are nudge features in cars and income						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	20.861	3	6.954	16.805	.000	p value 0.00 is lower than α=0.05, hence we reject null hypothesis H0 , F value in table is F3-∞=2.6< F=16.805, H1 accepted, difference in mean cannot be attributed to a chance
Within Groups	201.106	486	.414			
Total	221.967	489				

Table 14

There are nudge features in cars and Purchased when								
Purchased When	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(within 1 month) 1	7	4.0000	.00000	.00000	4.0000	4.0000	4.00	4.00
(soon in 6 months) 2	28	3.8214	.81892	.15476	3.5039	4.1390	1.00	5.00
(within 1 year) 3	165	4.0364	.63333	.04930	3.9390	4.1337	1.00	5.00
(purchased > 1 year) 4	290	4.3207	.65813	.03865	4.2446	4.3968	1.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 15

ANOVA						
There are nudge features in cars and Purchased when						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	12.903	3	4.301	9.998	.000	p value 0.00 is lower than α=0.05, hence we reject null hypothesis H0 , F value in table is F3-∞=2.6< F=9.998, H1 accepted, difference in mean cannot be attributed to a chance
Within Groups	209.065	486	.430			
Total	221.967	489				

Table 16

There are nudge features in cars and vehicle purchase no.								
Vehicle Purchased no.	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(1st Vehicle) 1	251	4.1036	.61092	.03856	4.0276	4.1795	1.00	5.00
(2nd Vehicle or more) 2	239	4.2845	.72371	.04681	4.1923	4.3767	1.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 17

ANOVA						
There are nudge features in cars and vehicle purchase no.						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	4.008	1	4.008	8.973	.003	p value 0.003 is lower than α=0.05, hence we reject null hypothesis H0 , F value in table is F1-∞=3.84< F=8.973, H1 accepted, difference in mean cannot be attributed to a chance
Within Groups	217.959	488	.447			
Total	221.967	489				

Table 18

There are nudge features in cars and Finance source								
Finance Source	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(Company Financed) 1.00	80	4.1125	.67494	.07546	3.9623	4.2627	1.00	5.00
(Own Source) 2.00	201	4.1692	.64903	.04578	4.0789	4.2594	1.00	5.00
(Partly from finance source) 3.00	209	4.2440	.69530	.04809	4.1492	4.3388	1.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 19

ANOVA						
There are nudge features in cars and Finance source						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	1.176	2	.588	1.297	.274	p value is 0.274> than α=0.05, hence we accept null hypothesis H0 , F value in table is F2-∞=2.99>F=1.297, H0 accepted, difference in mean can be attributed to a chance
Within Groups	220.791	487	.453			
Total	221.967	489				

Table 20

There are nudge features in cars and Car size								
Car Size	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
(micro L<3.2m) 1	40	4.1250	.93883	.14844	3.8247	4.4253	1.00	5.00
(compact car segment 3.6m<L<4m) 2	296	4.1689	.55709	.03238	4.1052	4.2326	1.00	5.00
(Super compact 4<L<4.25m) 3	64	4.2188	.60340	.07542	4.0680	4.3695	2.00	5.00
(Executive & premium 4.5m<L<4.7m) 4	34	4.5588	.50399	.08643	4.3830	4.7347	4.00	5.00
(Luxury & Coupe segment) 5	11	4.6364	.50452	.15212	4.2974	4.9753	4.00	5.00
(SUV, LUV & MUV segment) 6	45	3.9778	1.09729	.16357	3.6481	4.3074	1.00	5.00
Total	490	4.1918	.67374	.03044	4.1320	4.2516	1.00	5.00

Table 21

ANOVA						
There are nudge features in cars and Car size						
	Sum of Squares	df	Mean Square	F	Sig.	RemarkH0:µ1=µ2=µ3=µ4=µ5 ;H1: at least two means are not equal
Between Groups	9.195	5	1.839	4.183	.001	p value 0.001 is lower than α=0.05, hence we reject null hypothesis H0 , F value in table is F6-∞=2.09< F=4.183, H1 accepted, difference in mean cannot be attributed to a chance
Within Groups	212.772	484	.440			
Total	221.967	489				

Table 22

Cross tabulation done between demographic factors like age, sex, education, annual income, vehicle when purchased, no. of vehicle, source of finance, car size and Nudge there in car, analysis of variance of their means(Anova) shows that means between populations (H0:µ1=µ2=µ3=µ4=µ5; H1: at least two means are not equal) are same in Sex, education and in source of finance and same can be

attributed to a chance. i.e. H0 is true in for Sex, education and in source of finance and same is due to chance. For rest of factors like age, annual income, vehicle when purchased, no. of vehicle, car size the varianceat least two between means are not same i.e. H1 is true.

5. Conclusions
From the analysis of the above data we can conclude that, there are nudge features in cars, which are beneficial to us as they remove our confusions in decision making and make life and work easier. People perceive that these nudges will last long, people want more such nudges. People also say that if they knew nudges change our behaviour they will still follow herd mentality and their decision will remain same. These nudges in car add value in car in terms of look, feel and do good (safety).The effectiveness of these nudge features can be increased by higher education, movement (social campaign) and by government regulation. We rank do good (safety) nudges as most important, then feel nudges and look nudges in cars. The variance in means between only sex, education and source of means are same.

From above analysis we can say that Nudges when put on 7ps (marketing mix) of marketing, change a traditional marketed product to value and retention focused marketed product by improving value perceptionin look, feel and do good perception.

The main issue resolved by Nudge is that it makes the user feel importance, remove confusions in decision making, makes features appear beneficial and useful in perception. The heart of Nudge are product and feature innovations, where it is felt that, Necessity is mother of all inventions; Nudge makes us feel the importance of features on choice architecture. Whether we like or not we are living in world full of nudges and there is no neutral architecture the current products have nudges and choices as per the architect of that product , we now live in world full of technology, we are impacted by technology like media, internet, wireless blue tooth, radio frequency technologies, our behaviours are changing as we use more and more of technology where touch and feel is more important, study of Nudge in automobile field can be used by car manufacturers on making better automobile for the community, which connects with people instantly and make the automobile successful in market. To consumers the study of nudges in automobile field is important so they become aware on technology their or choices there for them to know and satisfy their hidden needs.

Combining psychology, marketing and art with tools of scientific methods Nudge can be made to solve the social life issues like first mile and last mile issues.

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