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CARMELIGHT

Special Edition
for National Conference

DEMYSTIFYING CONSUMER BEHAVIOUR FROM THE LENS OF ECONOMICS & PSYCHOLOGY



Organized by

DEPARTMENT OF ECONOMICS & PUBLIC POLICY
&
DEPARTMENT OF PSYCHOLOGY

Mount Carmel College, Autonomous
58, Palace Road, Bengaluru - 560052

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EDITORIAL MESSAGE

Since its inception, the study of Consumer Behaviour is seen as a confluence of Behavioural Psychology and Behavioural Economics. It is now well established that consumer behaviour in the real world is not solely guided by economic variables and consumer choices in real life are influenced by various psychological factors and the emanating subjective biases.

This conference is a collaborative effort of the Department of Economics & Public Policy and Department of Psychology to enhance the understanding of Consumer Behaviour and offer a common intellectual platform to students and young scholars to examine various contours of Consumer Behaviour from the dual lens of Psychology and Economics.

Many people have contributed towards making this Conference a reality and we personally thank all of them for their constant support and contribution. First and foremost, we would like to express our gratitude to the Chief Patrons - Sr. M Albina, Director, Dr. Sr. Arpana, Secretary & Treasurer, MCES and Dr. George Lekha, Principal for giving us an opportunity to organize a National Conference in the stated theme. We would like to thank our Advisory Committee members – Dr. Suma Singh, Registrar - Academics & Dr. Hamsa N, Dean – Humanities & Social Sciences for their constant guidance and encouragement.

Our appreciation to all the authors and contributors of papers without whose cooperation, this edition would not have been possible. Our heartfelt thanks to Dr. Kavitha Singh and the Inhouse Journal Committee – to help and facilitate us to release this special edition on time.

Editorial Board

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Do behavioural nudges promote efficient and responsible use of pesticides? Experimental evidence from paddy fields of Eastern India

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ABSTRACT

This study was undertaken to understand the impact of nudges on the pesticide consumption, paddy yield, profitability and efficiency in paddy production in the Kalahandi district of Odisha state. Randomly two villages (i.e. Regdimal and Narla) were selected from the study area, and in each village, 40 paddy-producing households were selected at random (by using random number tables of STATA-15). Randomly, Regdimal village was selected as a treatment/intervention village (by tossing a coin). Accordingly, two nudges were introduced to the treated households. The first nudge was focused on reducing the cognitive load of the farmers in the calculation of the appropriate strength of the pesticide and the second nudge was a visual info-graphic poster that helps to remind them of the ill effects of overuse of pesticides and the use of integrated pest management practices (IPM) in paddy production. The required primary data were collected for two panels i.e. in June, 2019 (baseline) and March, 2020 (end line). The collected data was curated and then analysed by using appropriate statistical and econometric tools like descriptive statistics, regression analysis, cost and returns analysis, stochastic production function, and difference-in-difference technique. The intervention has positively impacted in increase in the paddy yield by 11.10 quintals/ha. The variable cost was decreased by ₹3,111 per hectare mainly due to the reduction in use of pesticides by around 549g a.i./ha (insecticides by around 519g a.i./ha), reduced cost of pest management by ₹1100/ha. The combination of increased yield and reduced variable costs has resulted in increased net returns by ₹23,595/ha. The interventions given to the treatment group of farmers acted as drivers of change in terms of proper resource utilisation by altering the production behaviour of the farmers. This study demonstrated that there exists a huge scope in harnessing the potential of behavioural economics tools to democratically (or voluntarily) convince farmers for the sustainable use of agrochemicals.

INTRODUCTION

Crop protection seeks to reduce or minimize crop losses caused by hazardous pests like weeds, insects and diseases. Pesticides, among other technologies, have played a significant role in increasing agricultural output in recent decades. Pesticides are now one of the most important and necessary inputs in modern agriculture (Tilman *et al*. 2002) and application of chemical pesticide is one of the common methods used by the farmers for controlling different pests, diseases, weeds and other plant pathogens encountered in the field with an objective to reduce or eliminate yield loss and boost the quality of production. A comprehensive analysis by Cooper and Dobson, 2007, has addressed many

advantages of pesticide usage, however, on the downside, insufficient, inefficient, and irresponsible application of pesticide contributes to negative externalities for the society which could be in the form of surface and groundwater contamination, degradation of ecosystem and biodiversity, development of resistance and resurgence of targeted pests, etc. Impeccably, pesticides should be deadly to the intended species, but that is not the case. In Punjab, intensive use of pesticides has resulted in genetic hazards (like DNA damage and chromosome mutation) were reported among the agricultural workers and farmers (Kaur *et al*. 2011). Rampant usage of pesticides has led to the decrease in the non-targeted pests and or beneficial insect population which in turn has led to increasing outbreak or resurgence of insect pest population. Their side effects, on the other hand, can be a significant environmental health risk factor due to their proven capacity to induce a wide range of negative health and environmental repercussions. Concerns over the adverse impacts of pesticides have risen exponentially and, as a result of growing public perception, the use of pesticides has played a central role in public discourse and policy agendas. Reducing the adverse effects and threats of pesticides on human health and the environment has been a common aim, although one of the most daunting environmental policy goals in many countries (Skevas *et al*. 2012).

During the last decade, a new policy tool has piqued policymakers' interest. Behavioral interventions in the form of nudging are increasingly being examined in many public policy contexts, in addition to traditional policy methods. According to Thaler and Sunstein (2008) who introduced the concept, a nudge is "any aspect of choice architecture that alters behavior in a predictable way without forbidding alternatives or significantly changing economic incentives" (Thaler and Sunstein, 2008). Nudging has become a popular policy tool in various domains, such as health economics (Arno and Thomas, 2016), tax compliance (Bobek *et al*., 2007) or environmental protection (Sunstein and Reisch, 2014). Recently, nudging is not only implemented to improve the welfare of the individual but also to reduce negative externalities in terms of environmental pollution, which is also referred to as green nudging (Schubert, 2017). Human beings are often subjected to cognitive biases and bounded rationality; farmers are no way an exception. This inclination towards decision making ability arises due to social interactions one is subjected to. Studies like Benartzi *et al*. 2017; Barnes *et al*. 2013; Peth *et al*. 2018; Thaler and Sunstein 2008; Schubert 2017; Duflo *et al*. 2010 have shown that nudging will help in finding a satisfactory solution by easing the cognitive load of decision-making ability of the managers (farmers are the managers in Indian context). So, in order to promote better decision making in the field of agriculture cognitive heuristic methods were used as nudges. In this backdrop, present study aims to quantify the impact of imposed non-pecuniary intervention on the pesticide usage, costs and returns from paddy production system.

II METHODOLOGY

1. Sample design

The selection of the study area was purposive and Western undulating zone (WUZ) of Odisha was selected as it is a major paddy producing region of the state. It consists of two districts Nuapada and Kalahandi out of which Kalahandi district was selected purposively because (i) it a major district of the region consist of 13 blocks and considered as the rice bowl of the state (ii) 92.46% of the cereal cultivating area is under paddy cultivation (iii) Frequent outbreak of Brown Plant Hopper (BPH) and other paddy pest in the region due to the favourable climate (i.e. extreme hot, moist and sub-humid climate) for pest outbreak and (iv) farmers behaviour in indiscriminate use of pesticides in paddy pest management.

Multistage random sampling was employed to select the block, village and sample households. WUZ (Western Undulating Zone) of Odisha consists of 18 blocks of which 5 blocks comes under Nuapada district and 13 blocks are in Kalahandi district. Out of these 18 blocks 'Narla' block was selected by using the random number tables of STATA-15. Similarly, Narla and Regdimal villages were randomly selected out of 183 villages of Narla Block. Regdimal village was randomly selected (by tossing a coin) for the planned interventions (treatment). Treatment at village level reduces the chances of cross contamination and unintended spill-over effects to the control farmers.

2. Source and nature of data

The required primary data were collected from 80 sample respondents for two panels. i.e. before intervention (baseline) during June, 2019 and after intervention (endline) during March, 2020.

3. Description of interventions

Before planning the treatments, a rapid field survey was implemented in the study area to understand the major challenges in paddy pest management. From the Garette Ranking analysis it was found the farmers struggle in preparing required concentration of spray solution. Also, farmers perceive that spraying higher dose of chemicals results in immediate and efficient control of pests in current period and also in future (which may not be always true). These factors may have led to the indiscriminate use of pesticides. Further, farmers in developing economy are irrationally using chemical pesticides (Kariathi et al.

2016; Manchini et al. 2005; Parsa et al. 2014) may be due their cognitive biases, heuristics and bounded rationality.

3.1. Nudge-I (Cognitive Nudge)

BPH is a major pest of paddy crop in the area, causing high damage if left unchecked. Buprofezin 25% SC specifically effective in control of BPH (recommended dose is 2ml per litre of water) was repacked in a convenient small quantity of 10 ml pack and twenty such packs were distributed to treated farm which can be easily diluted with 100 litres of water (almost all household own a *Balti* of 10 litres capacity) to prepare 0.05% strength of spraying solution sufficient for a single spray of half acre paddy crop anda broad-spectrum insecticide 'acephate 95% S.G' (recommended dose 1.5g per litre of water) was repacked in a 7.5g pouch and Twenty pouches were given to each treatment farm to prepare100 litres of 0.14% strength of spray solution.

The reasons behind this nudge are, (i) It may help the farmers to overcome the bounded rationalities like cognitive limitations, time, heuristics and information asymmetry (ii) Chemical distributed were just sufficient for a single spray of half acre of paddy land and it can demonstrate that just right concentration of chemical is sufficient to control the insect pests.

3.2. Nudge-2 (Visual Nudge)

An Oriya info-graphic poster (Fig.1) was created to educate farmers about BPH, covering morphology, damage, scouting, management practices, outbreak causes, and pest control strategies. Emphasis was placed on the ill-effects of pesticide overuse. The aim of this nudge was to engage the automatic system of the mind(system-I), making frequent reading unnecessary but encouraging regular viewing. Farmers were advised to display the poster prominently in homes, such as next to the wall clock, mirror, television, or under pictures of their gods.



Figure 1: Infographic poster (Visual nudge)

4. Analytical tools

Following analytical tools were used to achieve the study objectives.

4.1. Descriptive statistics

Tabular analysis was carried out to compile costs and returns for paddy cultivation, pesticide usage pattern and insect pest control costs faced by the farmers in paddy cultivation. In order to allow for a clearer analysis and understanding of the results, descriptive statistics and ANOVA have been carried out where relevant.

4.2. Cost and returns analysis

Cost analysis was used to calculate the cost and returns associated in paddy cultivation which include both variable and fixed cost. The variable cost of inputs (seed, farm yard manure, fertilizer, and plant protection chemicals), labour cost, irrigation cost and interest on working capital. Fixed cost includes depreciation on farm implements, rental value of land, land revenue and interest on fixed capital. The total cos of cultivation of paddy in rupees per hectare was arrived using the following expression.

$$\text{Total cost of cultivation of paddy} = \frac{\text{Total fixed cost + total variable cost}}{\text{Area under paddy cultivation in hectare}}$$

Cost per quintal of paddy production was worked out out by dividing total cost by the total production of main product.

Gross return including the gross value of main product and by product imputed on the basis of post-harvest prices prevailing in the selected study area. Net return was computed by subtracting the cost of cultivation from gross returns.

4.3. Difference-in-Difference

Difference in differences (DiD or DD) is a statistical technique used in econometrics and quantitative research in the social sciences that attempts to mimic an experimental research design using observational study data, by studying the differential effect of a treatment on a 'treatment group' versus a 'control group' in a natural experiment. It calculates the effect of a treatment (i.e., an explanatory variable or an independent variable) on an outcome (i.e., a response variable or dependent variable) by comparing the average change over time in the outcome variable for the treatment group, compared to the average change over time for the control group. The change in the outcome that takes place in the comparison group is taken as what would have happened to the treatment group in the absence of the intervention. Therefore, subtracting the change

in the outcome observed in the comparison group from that observed in the treatment group gives the measure of impact. The effects of all factors that do not change over time or that do not affect changes over time are thereby eliminated from the impact estimate. Many determinants of program placement or participation can be expected to be rather time invariant (White and Raitzer, 2017).

From the figure 2, single difference (SD) impact is $SD = Y_E^1 - Y_E^0$ and DiD is the difference between the changes over time for the two groups. In other words, it is based on subtracting the changes from baseline (before intervention) to end-line (after intervention) for the comparison group from the changes from baseline to end-line for the treated group is

$$DiD = (Y_E^1 - Y_B^1) - (Y_E^0 - Y_B^0)$$

DiD removes any difference in the indicator between treatment and comparison groups which was present at baseline, and this is useful because these differences are obviously not a result of the intervention. It also removes the effects of general trends affecting both treated and comparison observations (White and Raitzer, 2017).

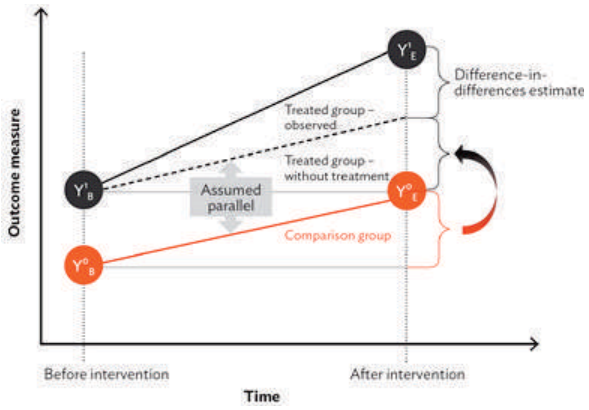

Figure 2. Difference-in-Difference approach

Source: White and Raitzer, 2017.

Empirical DiD model

The following difference in difference model was employed in the study.

$$y_{jt}^i = \delta_0^i + \delta_1^i A_j^i + \delta_2^i T_t^i + \delta_3^i A_j^i T_t^i + e_{jt}$$

Where,

$i \in$ {Frequency of pesticides, quantity of pesticides, technical efficiency, paddy yield, variable cost, net returns and cost of insect pest management}

δ_1^i is the treatment group effects

δ_2^i is the time fixed effects

δ_3^i is the effect of intervention

A_j^i is dichotomous variable equal to 1 if factor 'i' of farmer 'j' belongs treatment group

T_t^i is dichotomous variable that take value 1 if factor 'i' of farmer 'j' is from second year.

III. RESULTS AND DISCUSSIONS

Pesticide use pattern before and after intervention

Table 1 illustrates the pesticide application pattern in the cultivation of paddy during the kharif-2018 season (before treatment) and during the kharif-2019 (after intervention). Various insecticides, including acephate, buprofezine, dinotefuran, imidacloprid, carbosulfan, chloropyriphos, and cypermethrin, were employed to combat insect pests. Pyrazosulfuronethyl and tricyclazole were utilized as weedicides and fungicides, respectively.

Irrespective of the time period (i.e., before and after intervention) and group (i.e., control and treatment) out of total pesticides used insecticides constituted the majority of share (88 to 85%), followed by fungicides (12 to 13%) and weedicide (1 to 2%).

Regarding insecticides, the combination of chloropyriphos + cypermethrin was the most frequently applied, followed by acephate, carbosulfan, buprofezine, imidacloprid, and dinotefuran, in both the control and treatment groups.

During the baseline period, the t-test comparing the overall usage of pesticides, insecticides, weedicide, and fungicides indicated no significant difference between the control and treatment groups in terms of the pattern of pesticide utilization. However, t-test was used in value (₹/ha) of pesticides used to check the significance of difference between control and treatment group. It indicated that there was a significant difference in the use of overall pesticides between control and treatment group. Difference in the use of weedicide and insecticide was found to be statistically significant. However, difference in the use of buprofezine, dinotefuran and carbosulfan was non-significant. These results sharply deviate from the t statistics of kharif-2018 where most of the results were statistically non-significant i.e., following a parallel trend.

Intra-group temporal dynamics in pesticide usage

The hazard classification recommended by the World Health Organization (WHO) was employed to assess the risk associated with the pesticides used by farmers during the study period. Following the intervention, farmers in the control group applied 1978.85g a.i./ha of class-II pesticides, 324.94g a.i./ha of class-III, and 23.46g a.i./ha of class-IV pesticides. Comparing the periods before intervention (BI) and after intervention (AI), there was an increase in the

use of class-II chemicals (0.68%) and class-III chemicals (2.93%) in the control group, while the use of class-IV chemicals decreased by 2.86%. The total pesticide usage in the control group increased by 0.95% during the AI period, indicating a natural temporal tendency towards higher pesticide use (Table 2).

Table 2 Intra-group temporal dynamics in use pesticides (WHO classification of pesticides)

WHO Chemical Classification[1]	Control Group			Treatment Group		
	BI (ga.i./ha)	AI (g a.i./ha)	% Change	BI (ga.i./ha)	AI (g a.i./ha)	% Change
Moderately hazardous (Class-II)	1965.41	1978.85	0.68	1972.41	1361.24	-30.99
Slightly hazardous (Class-III)	315.68	324.94	2.93	300.35	214.37	-28.63
Unlikely to present acute hazard in normal use Class-IV	24.15	23.46	-2.86	25.51	26.5	3.88
Total pesticides	**2305.24**	**2327.25**	**0.95**	**2298.27**	**1602.11**	**-30.29**

Note: BI is before intervention; AI is after intervention

In contrast, farmers in the treatment group utilized 1361.24g a.i./ha of class-II pesticides, 214.37g a.i./ha of class-III pesticides, and 26.50g a.i./ha of class-IV pesticides. An intragroup temporal comparison among treatment farmers revealed a reduction in the use of class-II chemicals by 30.99% and class-III chemicals by 28.63%. However, the use of class-IV chemicals increased by 3.88%. Overall, there was a 30.29% reduction in pesticide usage between the BI and AI periods in the treatment group. This analysis suggests that the planned interventions implemented in the treatment group not only counteracted the natural temporal tendency for higher pesticide usage but also encouraged farmers to minimize pesticide use.

Table 1 Pesticide use pattern

Sl. No.	Plant Protection Chemicals	Before intervention					After intervention				
		Control		Treatment		't' stats [Value (₹)]	Control		Treatment		't' stats [Value (₹)]
		Quantity (gai/ha)	Value (₹/ha)	Quantity (gai/ha)	Value (₹/ha)		Quantity (gai/ha)	Value (₹/ha)	Quantity (gai/ha)	Value (₹/ha)	
Insecticide											
a.	Acephate 95% SG (Class-II)	642.41 (31.85)	852.73 (15.30)	639.92 (31.93)	873.88 (15.23)	-0.3587^{NS}	655.67 (31.89)	897.55 (16.48)	451.88 (33.19)	661.93 (16.30)	2.4746**
b.	Buprofezine 25% SC (Class-III)	268.94 (13.33)	644.36 (11.56)	252.02 (12.57)	626.08 (10.92)	0.0846^{NS}	276.56 (13.45)	660.48 (12.13)	184.37 (13.54)	473.33 (11.66)	1.6830^{NS}
c.	Dinotefuran 20% SG (Class-III)	46.74 (2.32)	1311.09 (23.54)	48.33 (2.42)	1468.17 (25.60)	0.1456^{NS}	48.38 (2.35)	1275.08 (23.41)	30.00 (2.20)	974.00 (23.99)	1.7419^{NS}
d.	Imidacloprid 350 SC (Class-II)	60.97 (3.02)	677.83 (12.16)	59.104 (2.95)	678.34 (11.82)	-0.0584^{NS}	61.67 (3.00)	689.44 (12.66)	39.45 (2.90)	457.20 (11.26)	9.3411***
e.	Carbosulfan 25% EC (Class-II)	281.23 (13.94)	1233.58 (22.14)	283.75 (14.16)	1217.32 (21.23)	0.6840^{NS}	268.36 (13.05)	1115.29 (20.48)	208.19 (15.29)	947.99 (23.35)	0.4786^{NS}
f.	Chloropyriphos 50 % EC + Cypermethrin 5% EC (Class-II)	716.90 (35.54)	852.06 (15.30)	721.86 (35.97)	872.18 (15.20)	-0.0693^{NS}	745.65 (36.26)	809.19 (14.86)	447.74 (32.88)	545.72 (13.44)	3.0484**
Total insecticides		**2017.19 [87.50]**	**5571.65 [78.79]**	**2004.98 [87.24]**	**5735.97 [78.51]**	**0.4446^{NS}**	**2056.29 [88.36]**	**5447.03 [79.02]**	**1361.63 [84.99]**	**4060.17 [73.88]**	**6.7836*** **
Weedicide											
g.	Pyrazosulfuron Ethyl 10% WP (Class-IV)	24.15 [1.05]	731.33 [10.3]	25.51 [1.11]	759.46 [10.40]	0.1665^{NS}	23.46 [1.01]	703.93 [10.21]	26.50 [1.65]	793.79 [14.44]	-1.9954*
Fungicides											
h.	Tricyclazole 75% WP (Class-II)	263.90 [11.21]	795.72 [11.21]	267.78 [11.65]	810.41 [11.09]	-0.2118^{NS}	247.50 [10.63]	742.50 [10.77]	213.98 [13.36]	641.95 [11.68]	0.7208^{NS}
Total Pesticide		**2305.24 [100.0]**	**7098.70 [100.0]**	**2298.28 [100.0]**	**7305.84 [100.0]**	**0.3135^{NS}**	**2327.25 (100.0)**	**6893.46 (100.0)**	**1602.11 (100.0)**	**5495.91 (100.0)**	**3.2582****

Note: Figure in the () are% to total insecticide; Figure in the [] are% to total pesticide; NS: Non-significant; *, **, *** significant at 1, 5, 10% respectively

Cost and returns from paddy cultivation

Table-3 contains the cost of cultivation of paddy crop among control and treated farms. During the period before intervention, the overall variable cost of paddy cultivation slightly exceeded in the treatment group (₹35,338.51) compared to the control group (₹34,208.74). Variable costs constituted approximately 56% of the total cost in both groups. Among the various variable cost components, the combined expenditure on human and machine labour accounted for about 26 to 28% of the total cost, indicating the labour-intensive nature of paddy cultivation. Fixed costs comprised 34.36% in the control group and 33.70% in the treatment group, with land rental constituting a significant portion. In summary, the cultivation cost of paddy was ₹61,121 per hectare in the control group and ₹62,311 per hectare in the treatment group.

After the intervention, the total cost and returns of sample farmers in the control and treatment groups were assessed to capture temporal changes. During this period, the variable cost was marginally higher in the control group (₹35,700.84) compared to the treatment group (₹33,719.56). Variable costs represented around 57% of the total cost in the control group and approximately 56% in the treatment group, emphasizing the continued labour-intensive nature of paddy cultivation post-intervention. In the control group, 11%, 6%, 5%, and 3% of the total cost were allocated to fertilizers, seeds, plant protection chemicals, and miscellaneous costs, respectively. In the treatment group, around 10% of the cost was spent on fertilizers, 6.17% on seeds, 3.67% on plant protection chemicals, and 3% on miscellaneous costs. The total fixed cost of paddy cultivation amounted to approximately ₹27,000 per hectare in both control and treatment groups. Fixed costs represented 43.18% in the control group and 44.40% in the treatment group. Overall, the cost of paddy cultivation was ₹62,829.18 per hectare in the control group and ₹60,652.07 per hectare in the treatment group.

Table 3 Cost of cultivation of paddy before intervention (₹/ha)

Particulars	Before intervention				After intervention			
	Control		Treatment		Control		Treatment	
	Quantity	Cost (₹)	Quantity	Cost (₹)	Quantity	Cost (₹)	Quantity	Cost (₹)
Variable cost								
Human labour (Man days)	41.96	8391.38 (13.73)	43.85	8769.53 (14.07)	43.47	8694.16 (13.84)	43.63	8726.29 (14.39)
Bullock labour (BP days)	1.46	687.52 (1.12)	1.63	805.43 (1.29)	1.47	1072.80 (1.71)	1.93	1511.30 (2.49)
Machine labour (Hours)	7.86	8124.14 (13.29)	7.76	8764.29 (14.07)	8.04	8937.25 (14.22)	7.31	7877.57 (12.99)
Seed (kgs)	35.47	3777.56 (6.18)	35.45	3523.17 (5.65)	32.43	3672.23 (5.84)	32.95	3740.09 (6.17)
FYM (Tractor load)	0.21	316.18 (0.52)	0.21	315.96 (0.51)	0.60	299.52 (0.48)	0.91	457.41 (0.75)
Fertilizer (kgs)	550.93	6786.21 (11.10)	556.67	6854.87 (11.00)	555.98	6751.59 (10.75)	462.68	6105.25 (10.07)
Plant Protection Chemicals (g a.i)	1038.38	3038.05 (4.97)	1085.00	3171.04 (5.09)	1094.92	3125.68 (4.97)	592.82	2228.21 (3.67)
Miscellaneous Cost (Transportation, Bagging, Fuel)	NA	1826.37 (2.99)	NA	1840.84 (2.95)	NA	1873.44 (2.98)	NA	1849.96 (3.05)
Maintenance cost (lubricants and repairing)	NA	372.80 (0.61)	NA	375.50 (0.60)	NA	346.88 (0.55)	NA	347.65 (0.57)
Interest on working capital @ 8%	NA	888.54 (1.45)	NA	917.88 (1.47)	NA	927.29 (1.48)	NA	875.83 (1.44)
Total variable cost	NA	**34208.74**[NS] (55.97)	**NA**	**35338.51**[NS] (56.71)	NA	**35700.84** (56.82)	**NA**	**33719.56** (55.60)
Fixed cost								
Depreciation	NA	3401.00 (5.56)	NA	3455.50 (5.55)	NA	3344.13 (5.32)	NA	3166.10 (5.22)
Land revenue	NA	65.00 (0.11)	NA	65.00 (0.10)	NA	68.00 (0.11)	NA	68.00 (0.11)
Rental value of land	NA	21000.00 (34.36)	NA	21000.00 (33.70)	NA	21250.00 (33.82)	NA	21250.00 (35.04)
Interest on fixed capital @ 10%	NA	2446.60 (4.00)	NA	2452.05 (3.94)	NA	2466.21 (3.93)	NA	2448.41 (4.04)
Total fixed cost	NA	**26912.60** (44.03)	NA	**26972.55** (43.29)	NA	**27128.34** (43.18)	**NA**	**26932.51** (44.40)
Total cost of cultivation	NA	**61121.34** (100.00)	NA	**62311.06** (100.00)	NA	**62829.18** (100.00)	**NA**	**60652.07** (100.00)

NS: t-value is -1.4183 and difference between control and treatment was non-significant during before intervention

Table 4 shows the average yield and returns of paddy. Before intervention period, the yield was 39.39 quintals/ha in control farms which was almost similar in treatment farms (39.33 quintals/ha). The paddy yield levels are in line with Mohapatra *et al*. 2018. As most of the farmers were able to sell their produce at the minimum support price (MSP) announced by the Government during 2018-19 price realized by the farmers in both the group was ₹1713 per quintal. Paddy straw will be ploughed back to the soil as all the farmers use combine harvesters to harvest the crop. Net returns from paddy cultivation in control farms (₹6353.73/ha) was relatively higher than the treatment farms (₹5061.23/ha). Returns over variable cost was ₹33266.30/ha in control farms and it was ₹32033.78/ha in treatment farms. Cost of production in both the control treatment group more or less remains the same (₹1551.70 in control group and ₹1584.37 in treatment group). Return per rupee of expenditure was around 1.1 in both the groups.

In the subsequent intervention period, the average paddy yield in treatment farms increased to 51.30 quintals/ha, surpassing the 40.26 quintals/ha observed in control farms. In the 2019-20 period, with an MSP of ₹1823/quintal, the net returns in treatment farms (₹32,867.83/ha) significantly exceeded those in control farms (₹10,564.80/ha). Returns over variable costs were ₹37,693.14/ha in control farms and ₹59,800.34/ha in treatment farms. The cost of production in the control group was higher (₹1560.59) than in the treatment group (₹1182.30). Consequently, the return per rupee of expenditure was higher in the treatment group (1.54) compared to the control group (1.17). This difference in the profitability between control and treatment group was presumptively due to the nudges given to the treatment farms.

Table 4 Yield and returns in paddy cultivation before intervention (₹/ha)

Particulars	Before intervention		After intervention	
	Control	Treatment	Control	Treatment
Main product (Quintals)	39.39	39.33	40.26	51.3
Price (₹/quintal)	1713.00	1713.00	1823	1823
Gross returns (₹)	67475.07	67372.29	73393.98	93519.9
Net returns (₹)	6353.73 ^{NS}	5061.23 ^{NS}	10564.8	32867.83
Returns over variable costs (₹)	33266.30	32033.78	37693.14	59800.34
Cost of production (₹/Quintal)	1551.70	1584.37	1560.59	1182.3
Returns per rupee of expenditure	1.10	1.08	1.17	1.54

Note: NS: t-value is 0.1710 and difference between control and treatment was non-significant

Impact assessment of the imposed nudges

The impact of behavioural nudges on the quantity of pesticides and insecticides, paddy yield, variable cost of paddy cultivation, cost of pest management and net returns from paddy production was estimated by using the difference-in-difference approach. The table 5 indicates that the nudges were majorly focused on the efficient use of pesticides in paddy production. So, impact on the quantity of pesticide was analyzed and it was found that, the imposed interventions has nudged the paddy growers to significantly reduce the use of overall pesticides by 548.73g a.i. /ha and insecticides by 518.98g a.i./ha. The nudges have impacted significantly in increasing the paddy yield by 11.10 quintals/ha and also significantly decreased the variable cost by ₹3,100 per hectare. The reduction in the cost was mainly attributed to the reduction in pest management cost by₹1,100 per hectare. These factors have led to increase in the net returns to the tune of ₹24,000 per hectare.

Table 5 Impact of nudges on total pesticides, insecticides, yield, cost of cultivation, cost of pest management and net-returns

Particulars	Total pesticides (g a.i/ha)	Insecticides (g a.i/ha)	Yield (quintals/ha)	Variable Cost of cultivation (₹/ha)	Cost of pest management (₹/ha)	Net returns (₹/ha)
Before Intervention						
Control (C)	1038.37	1646.32	39.39	34208.74	3451.91	6353.73
Treated (T)	1085	1675.92	39.33	35338.51	3579.26	5061.23
Difference (T-C)	46.62 ^{NS}	29.59 ^{NS}	-0.07 ^{NS}	1129.77 ^{NS}	127.35 ^{NS}	-1292.50 ^{NS}
	-88.736	-101.662	-4.22	-855.51	-166.93	-7276.9
After Intervention						
Control (C)	1094.91	1000.22	40.26	35700.84	3558.84	10564.8
Treated (T)	592.81	510.84	51.29	33719.56	2568.62	32867.83
Difference (T-C)	-502.10***	-489.38***	11.03***	-1981.28**	-990.26***	22303.03***
	-88.736	-101.662	-4.22	-855.51	-166.93	-7276.9
Impact	-548.72***	-518.97***	11.10*	-3111.05**	-1100.00***	23595.53**
	-125.492	-143.772	-5.97	-1209.87	-236.08	-10000

Note: Means and standard errors are estimated by linear regression; figures in parenthesis indicate the standard errors; NS=non-significant; *** p<0.01; ** p<0.05 and * p<0.1

Conclusions

This study concludes that, behavioural nudges in the form of cognitive and visual nudge is definitely effective in bringing desirable changes in decision making ability of the farmers. The findings of this study also have important policy implications. Firstly, farmers in the study area were using pesticides irrationally and indiscriminately. This production behaviour of the farmers has not only increased the cost of crop production but also posed a serious threat on the human and ecological health. So, effective agro-chemical policies should be formulated and promoted by the State in participatory approach. Secondly, smaller pouches of the pesticides (nudge-I) have eased the cognitive load in calculation of right dose of pesticide. So, the concern authorities can take necessary actions in developing the rules and guideline pertaining to the unit of pesticide package. Thirdly, the info-graphic poster (nudge-2) has also impacted considerably in adoption and promotion of integrated pest management (IPM) in paddy production as result cost of cultivation (especially pesticide cost) has reduced and yield level has increased. Hence, the local agricultural extension authorities can prepare crop specific effective attractive posters in consultation with the agricultural scientists, local artist and social worker and distribute these posters to the farmers in each crop season. This study demonstrated that there exists a huge scope in harnessing the potential of behaviour economics tools to democratically (or voluntarily) convince the farmers for the rational use of agro-chemicals. But, a large-scale randomized control trials (RCTs) study in this line needs to be conducted to understand the various dimensions of nudges. As a result, the emergence of the nudge paradigm for behavioural modification on a global scale is critical. Overall, we suggest that nudges should not be considered a replacement for stronger environmental and pesticides policies, but rather as viable complements to be adopted with the goal of progressively shifting society in a direction that benefits everyone.

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'Families with teenagers' as consumers of tourism: Understanding the influence of motives on vacation decision making

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ABSTRACT

Family is a very important consumer segment for tourism. 'Families with teenagers' is a vital subset of this segment as it comprises of teenagers, on the cusp of adulthood, with their distinct tastes, preferences, knowledge, opinions, and exposure to media and technology. These teenagers are emerging to play a definitive role in family vacation decision making, especially in the context of modern urban Indian dual income families, where the parents consider their inputs as determinants of family vacation decisions. Vacation decision making is a complex process which involves multiple phases, beginning with recognition of a need for vacation and continuing even after the vacation is over; in the form of memories and sharing experiences with others, which in present day scenario is accentuated by the use of social media. There are many factors which influence vacation decision making; 'motives' being one of them. Family vacation motives can be pull, push or a combination of both, which can be impacted by sociocultural, demographic, psychographic and economic factors. Factors like- academic and professional schedules, weather and climatic conditions, special events, pertaining to sports, music, art and heritage, festivals, nature and wildlife, which are held during a certain time of the year, further affect the family vacation motives. In the case of 'families with teenagers' motives for a family vacation might be different and/or similar for the parents and the teenagers. This conceptual paper aims to understand the influence of motives on family vacation decision making and highlight these similarities and differences as an insight into the consumption of various facets of tourism by the 'families with teenagers' segment.

Keywords : Family, teenager, motives, vacation decision making, consumption

INTRODUCTION

Hoyer and MacInnis (2007) reported that vacation decision making started with the realization of travel need and was completed after the phase of evaluation of the vacation. According to Woodside and Macdonald (1994), related factors of vacation decision making were- destination and accommodation choices, transportation, activities, places to visit, food etc. Swarbrooke and Horner (2007) stated that an individual's internal factors like- motivators and attitude could impact decisions to travel. Moutinho et al (1987) listed few determinants of travel motivations related with purposes like -gaining knowledge, exposure to heritage and culture, relaxation, experiencing adventure, health benefits, family ties and social relationships. Schanzel and Yeoman (2015) concluded that while on a vacation, families focused on spending time with each other, indulging in enjoyable activities which were unique in nature and taking back long lasting memories from the vacation. For 'families with teenagers', the matching of parents'

and teenagers' vacation motives with their respective academic and professional schedules is a vital step in the family vacation decision making process. Tung et al(2011) and Cohen and Cohen(2017) found that the tourism industry undertook an approach which was 'proactive' in nature while targeting the family segment, to design an array of tourism products on the basis of core propositions of 'memorable' and 'authentic'. An understanding of the influence of motivation for family vacation on the family vacation decision making process would be crucial to analyse the consumption of tourism of the 'families with teenagers' segment. Diagnosis of the similarities and differences between motives for family vacations for parents and for teenagers would serve as a vital tool in decoding the consumption of tourism products by this segment.

2.Literature Review

2.1Vacation decision making

Moutinho et al (1987) stated that motives and intentions of tourists resulted in the decision process. Various stimuli had an impact on these motives and intentions to result in selection of a tourism product. The authors listed the stages in the decision process as- recognising the problem, search for information, evaluating the alternatives, making a choice and post choice stage.

2.1.1 Factors affecting vacation decision making

Moutinho et al (2011) stated that travel decision making was influenced by factors like – motivations, preferences, knowledge, cognitive processes, available resources and existing or emergent constraints. According to Mondia et al (2010) tourist decision making was impacted by factors like- distance, environment of the destination, entertainment options, culture and history of the destination, activities for children, knowledge of local language and availability of comfortable accommodation.

2.2 Family vacation decision making

Belch et al (1985) and Flurry (2007) concluded that the vacation decision making comprised of high level of joint family involvement. Thornton, Shaw and Williams (1997) found that family vacation decision making took into account the children's consent. Moutinho et al (1987) reported that during family vacation decision making, children's needs were considered, plus an analysis was done on the advantages of the travel for them. The authors found that children could give a direction to selecting lodging, restaurants, and some vacation activities, further being dependent on the stage of the family life cycle. Khoo-Lattimore et al (2015) reported that in case families with children, beach activities and swimming pool were important determinants for deciding an accommodation for a family vacation. Therkelsen (2010) stated that children might be given an increased power to negotiate, during the family vacation. Blichfeldt et al (2011) reported that children could play a proactive role in suggesting family activities during the vacation.Curtale (2018) found that preferences of children for vacation activities like-swimming, influenced the parents in making the final choice of the destination and accommodation.

2.3 Motivation and vacation decision making

Yoon and Uysal (2005) stated that needs, wants and internal forces combined together to give rise to motivation, which in turn resulted in arousing, directing and integrating an individual's behaviour and activity. Mccabe (2000) concluded that motivation of a tourist was a total of two approaches: behaviouristic and cognitivist. The former approach focused on motives, which were recurrent in nature. According to Gnoth (1997) cognitivist approach revolved around motivation which further underlined choices as specific to objects. White and Thompson (2009) concluded that researchers treated the concepts of 'motives' and 'motivation' as similar, in the absence of a conceptualization which was theoretically strong.

Dann (1977) differentiated between 'pull' and 'push' factors of motivation. The author highlighted that pull factors were linked with destination attractions and push factors comprised of willingness and an inherent disposition to travel. Studies by Uysal and Hagan (1993) described how motivation variables resulted in pushing people to make vacation decisions, and how they were pulled or attracted by the destination. Pearce and Lee (2005) concluded that travel motivation comprised of the dimensions of uniqueness, escape/relaxation, bonding and self growth. Khan et al (2019) reported that visit intention was impacted in a positive manner by travel motivation.

Moutinho et al (2011) developed a 'Travel Decision Model' on the basis of levels of motivation, needs and desires of a person as well as his or her expectations while taking a travel decision. The authors stated that the level of desire to travel determined the quantum of receptiveness to stimuli like advertising, travel brochures etc. Factors like-attitudes, personality, values, reference groups and socioeconomic indicators further impacted the decision process. Evaluation of alternatives was influenced by cost, destination attributes, availability of information related to travel and arrangements related with travel. The

authors listed external factors like-earlier travel experience, attributes of alternative destinations, constraints of time and cost, degree of different types of perceived risk, as vital aspects in the model.

2.3.1Motives for family vacation

As reported by Kim and Lehto (2013) and Therkelsen and Lottrup (2014) stated that forming bonds and strengthening family relationships were motives for family holidays. Durko and Petrick (2013) and Larsen (2013) reported that relaxation was an important motive for a family holiday. Kim and Lehto (2013) concluded that escape from the daily routine was a motive for family vacation. Larsen (2013) listed excitement as a motive, while Fu et al(2014) reported about novelty seeking as a motive for family vacation. Severt and Tasci (2020) reported that food and beverage, good climate, entertainment, quality time with family, and rest and recreation were the important motivators for families to go on a cruise vacation. Jones (2011) stated that the motivation to go for a cruise vacation resulted from the 'stimulus avoidance' need.

2.3. 2Motives for family vacation for teenagers and children

Swarbrooke and Horner (2007) stated that teenagers sought unique and new experiences, excitement, status, chance to participate actively and an increased independence from parents, in the vacation. Decrop (2005) found that adolescent children, designed their own vacation motivations, which were not similar to those of the parents. Blichfeldt (2007) reported that families with older children sought more exotic experiences and were more oriented towards foreign holidays. Schlegelmilch and Ollenberg (2013) found that facing fear motivated the youth traveller.Nuraeni, Arru and Novani (2015) reported that young tourists were inclined towards those destinations which had a hospitable local population and the travel motives were related to exploration of the destination's culture. According to Durko and Petrick (2013) children wanted fun and entertainment on a family vacation. Demirdelen et al (2019) concluded that the vital motivators for a vacation were – recreation, exploration, local food and visiting family.

2.3.3 Motives for family vacation for parents

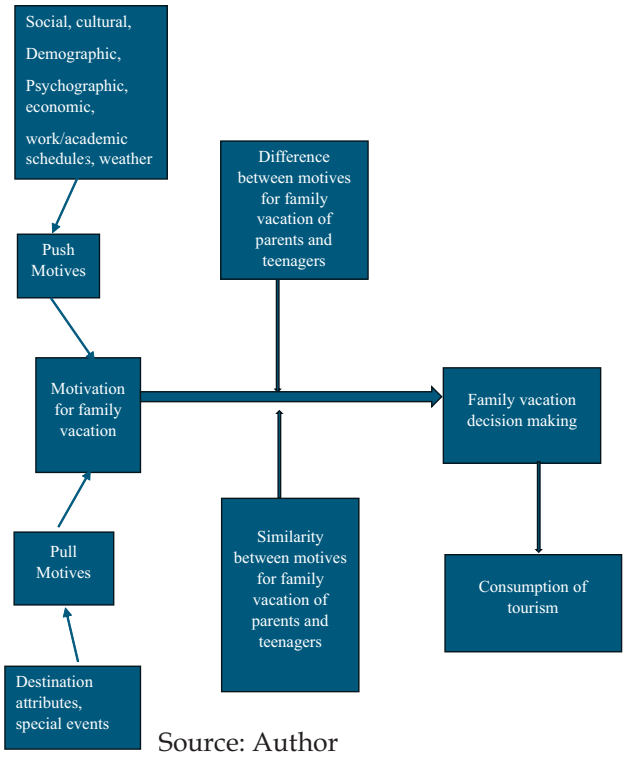
Park, Pan and Ahn (2020) found that parents considered family vacation at foreign destinations as an important means of facilitating informal learning of children. Park et al (2020) stated that academic grades of children were positively impacted by family vacations. While taking family vacation decisions, parents focused on children's development and learning, as reported by Kim and Lehto (2013) and at the same time wanted an opportunity of learning new skills for themselves as found by Harrington (2014). Li et al (2017) stated that for parents, self-compensation and compensation for children were the motives for family vacation. Blichfeldt (2007) reported that the parents went on family vacations so that their children could have positive experiences.According to Kozak and Duman (2012), satisfactions of both parents and children influenced the overall vacation satisfaction.

3. Objective

This paper aims to develop a conceptual model to understand the relationship between the following- (With reference to the 'families with teenagers' segment)

1) Motivation for family vacation
2) Similarities and differences between motives for family vacation for parents and teenagers
3) Impact of socio cultural, demographic, psychographic, economic and other factors like- academic and professional schedules, climatic conditions, and destination attributes on 'pull' and 'push' family vacation motives.
4) Family vacation decision making process
5) Consumption of tourism by the 'families with teenagers' segment

4.Conceptual Model



Source: Author

5. Discussion

The proposed conceptual model attempts to highlight the following relationships, which can be tested by further empirical studies and statistical models-

1) Family vacation decision making in totality as well as its various stages and sub decisions is impacted by motivation for family vacation.

2) The relationship between family vacation decision making and motivation for family vacation is moderated by two factors, namely- a) Similarity in the motives for family vacation for the teenagers and for the parents. b) Difference in the motives for family vacation for the teenagers and for the parents.

3) Motivation for family vacation is comprised of 'pull' and 'push' motives. 'Pull' motives are further affected by factors like-destination attributes and special events. 'Push' motives are affected by factors like-sociocultural, psychographic, economic, demographic, work/academic schedules, weather conditions etc.

4) Consumption of tourism products, services and experiences is influenced by the family vacation decision making.

6.Conclusion and Managerial Implications

According to Schanzel et al (2012) family travel was an important segment of the 'leisure travel market' forming 30 per cent of the market. With aggressive trends of 'revenge travel' in the post pandemic world, an analysis of the motives for family vacations for the teenagers and parents, would be of immense utility in understanding the various phases of family vacation decision making and consumption of various tourism products and services by the 'families with teenagers' segment. As studies have indicated that vacation decision making is very complex, and comprises of various smaller decisions, which could be both taken before the vacation and spontaneously at the destination, an understanding of consumer behaviour in the context of tourism in general, and family tourism in particular would help marketers to design holiday packages on various emerging family travel themes like- adventure, immersive, culinary, glamping, health and wellness, caravan, cruising, in accordance with the motives of the parents and teenagers for family vacation, so as to make the vacation enjoyable and full of pleasant memories to carry back home. Understanding the motives for family vacation for 'families with teenagers' as a segment would be a very useful tool to decode the family vacation decision making dynamics and the role of motives in each stage of vacation decision making and further, the consumption of tourism experiences.

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A Study on The Impact of Odd Pricing Strategy on Consumer Behaviour with reference to E-Commerce (on fashion products)

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ABSTRACT

In the current era, there is still a debate about whether consumers are pawns or kings over the producers. At times they are kings and sometimes they are pawns; it all depends on the circumstances they end up in, hence making it difficult to take a side. However, there are a few tactics businesses use to manipulate consumer behaviour and urge them to buy the product or avail of the services, similarly in the case of e-commerce, which uses its pricing strategy to attract a larger audience and make them their customers. Odd pricing is one well-used technique to lure consumers into purchasing more products by manipulating their perception of the price through nine ending prices (99, 199). This study is being carried out by studying how Higher Education Institution (HEI) students perceive price to understand the consumer's viewpoint better. The monthly allowance and the choice of products play a crucial role in a consumer's decision. A survey was conducted to ask about their monthly allowance and the brands they prefer to buy. The questionnaire was well-balanced with products that follow even and odd pricing techniques. Further to understand their view of odd pricing, a thought experiment question was asked, where odd and even prices were given (199.20 and 200) and questions were asked about it. In the study, it was found that most of the respondents preferred brands that sell odd pricing, and the respondents with low allowances only chose odd pricing, except for a very few respondents. Consumers perceive the image of goods sold at 199 as cheaper, which motivates them to buy more of the kind.

Keywords: e-commerce, odd pricing, HEI students, consumer decision

INTRODUCTION

Over the past 30 years, India has undergone many changes in the spheres of technology, connectivity, banking, and many other sectors with the arrival and revolution of the internet. This led to more employment opportunities and a better living standard. The recent introduction of smartphones, internet access, and unified payment interface (UPI) has changed the purchase of goods and services from physical shops and shifted towards e-commerce. Data reveals that the e-commerce sector in India grew at the quickest rate in 2017, with estimates of its value at USD 38.5 billion, and has doubled in 2023, with estimates of its value at USD 60 billion [1]. With the growing demand in the market, many startup firms have stepped into e-commerce, resulting in severe competition in the market. Hence, more marketing strategies are used for promoting the business to attract audiences and persuade them to become customers. Once it is done, the most important thing is to figure out the best pricing strategies for e-commerce. Whereas retail shop owners or small businesses set their prices by consulting manufacturers' suggested retail prices (MSRPs), that is not possible when it comes to e-commerce because customers' preferences are subjective and do not consider any potential production costs involved. Hence, e-commerce businesses should set their product prices so that they can cover their marketing and production expenses while still turning a healthy profit. Thus, following the below pricing strategy,

* Value-based pricing
* Cost-based pricing
* Price skimming
* Psychological pricing [2].

Among the listed pricing strategies, psychological pricing has been used by marketers over the years to influence the purchasing decisions of consumers [3]. This pricing sways a customer's opinion of a good or service and takes advantage of customers' inclination to think that some prices are more appealing or reasonable psychologically [4]. Odd pricing is a familiar technique under psychological pricing, this strategy ends its product prices at odd numbers (3, 7, and 9) rather than pricing at whole digits. It is based on the theory that consumers pay more attention to the leftmost digits (i.e., ₹99) and subconsciously round down to ₹90 than ₹100 [5]. This tactic was first used in the late 17th century by the Chicago Daily newspaper to compete against Nickel papers. To increase sales, the owner colluded with the retailers to lower the price of their product by $0.99 instead of $1.00. It was observed that the practise of a 9-ending pricing/odd pricing strategy augmented their sales by 60% [6]. A popular example of an enterprise whose odd pricing technique is well known as Bata Pricing they priced their products to the nearest of .99 instead of the whole number, and it is still followed in all Bata shops across the world [7]. In economics, every consumer is assumed to be a rational consumer, but this is not applicable everywhere, like in the odd pricing technique, where the consumer subconsciously rounds the 9-ending prices to the lowest whole number. This effect in behavioural economics is known as the cognitive effect, where human decision-making is not always logical and presupposes that people may not always act in their own best interests. To further comprehend, studies have noted how two distinct effects are associated with odd pricing and consumers' buying behaviour [8]. The first effect is the “level effect,” also known as the underestimation effect, which highlights processes that lead buyers to twist their perception of the price. For instance, one frequent hypothesis concerning level effects is that buyers are inclined to round numerals down, making a buyer think that ₹28.99 is much lower than ₹30.00. The second effect is the “image effect," which leads a buyer to form perceptions about the product or service, store, or competition, based on the right-hand digits of the price of the products or services. For instance, buyers may think that a product with a price that ends in 9 is on a special offer [9].

2. REVIEW OF LITERATURE

Gueguen et al (2009), experimented on 22 small pizzeria grills in Brittany, France, to understand the impact of odd pricing (nine-ending prices) on consumers. Before initiating the experiment, the group studied the consumption patterns of the patrons and selected the most popular food item (pizza) as the target item. To prove that consumers will be more likely to opt for odd-priced food items (199) than even-priced food items (200), they proposed three menus, and each menu was used for 14 days consecutively. The first menu followed even pricing, the second menu followed both odd and even pricing, the target item followed odd pricing, and the third menu followed odd pricing. From this experiment, it was found that there was a rise in target items during week 2, which followed menu 2. Thus, proving the hypothesis true [10].

Kumar and Pandey (2015) have analysed how odd pricing influences the consumer's decision to buy a product through a conceptual framework and explained the two psychological effects. Level and image effects, which help to figure out how socioeconomic factors influence their behaviour by successively reviewing other resource papers conclude by saying that a more price-conscious consumer is likely to choose odd-pricing products [8].

Ahmed and Baruah (2017), in their study, focused on the overall consumer perception of psychological pricing and the overall retailer perception of psychological pricing on 200 sample sizes. The area of the research was Guwahati, and the data was analysed using cross-tab and Cronbach's alpha. On the analysis of the perception of psychological pricing from the retailer's point of view, it has been found that retailers think odd pricing attracts and forces customers to have a look at the product. Secondly, the chances of selling are higher when there are nine ending prices. From a customer point of view, it has been found that; it is the company policy to attract customers. Secondly, consumers perceive that a difference of Rs 1 will not give customers any profit, and thirdly, they feel that nine ending prices depend on the quality and quantity of goods [11].

Bhosale, Raverkar, and Khadas (2020) analysed the consumers' buying behaviour towards odd pricing methods to understand shopkeepers' attitudes towards one rupee. The study was conducted in the retail shops of the Chiplun and Khed areas of Maharashtra using a convenient sampling technique. As per the findings, 81% are aware of odd pricing. The majority of respondents purchased nine ending goods because they considered them low-cost. Approximately 80% of customers do not get back their balance of one rupee voluntarily, which is their right. This one rupee is untaxed and unaccounted for, which generates black money and directs profit to shopkeepers [12].

3. OBJECTIVE OF THE STUDY PERTAINING TO HEI STUDENTS

- To analyse consumers' perceptions of odd pricing through the level effect.
- To examine the relation between the purchasing power of the consumer and the odd pricing of the brands in e-commerce.

4. RESEARCH METHODOLOGY

4.1 Data Collection,

For conducting this study, a qualitative research method has been used. The data is collected from both primary and secondary sources.

- Primary data: - The questionnaire prepared comprises a set of several statements related to the different fashion brands preferred by consumers and their perceptions towards odd pricing.
- Secondary data: - To investigate consumer behaviour about odd pricing, this study makes use of textbooks, research gate, Google Scholar, academia databases, shodhganga, dissertations, books, journals, magazines, newspapers, and directories.
- Selection of the example: - The study aims to draw conclusions based on samples to save time and money. The study approach makes use of a convenient sampling method. The underlying premise behind all of this is that the sample will allow for the estimation of the same parameter.
- Sample size: - 100 female college or university students made up the sample size for this investigation.

4.2 Method of Data Analysis,

This research has used bar graphs, pie charts, tables, and other illustrations for comprehensive data analysis.

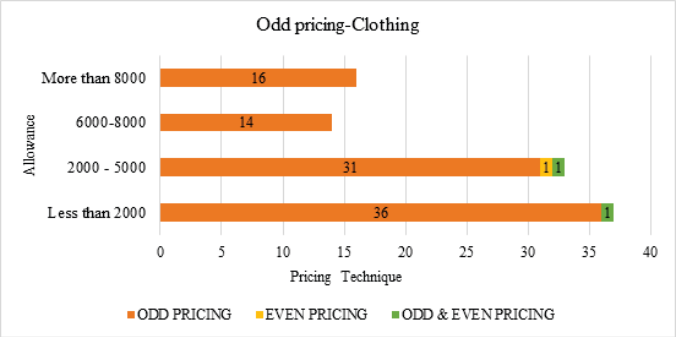
Tools: Chi-square and other statistical tools are used to better analyse and observe the relationships between the data. We have also employed the cross-tabulation technique to improve the data display.

- Cross-tabulation: - A statistical tool in the form of a table, cross-tabulations aid in explaining the significance of data that has been studied. It presents the group of survey respondents' results by designating one variable as the table's row and another as the table's column.
- Chi–square - A chi-square test is a statistical test used to compare observed results with expected results. The purpose of this test is to determine if a difference between observed data and expected data is due to chance, or if it is due to a relationship between the variables we are studying.

5. FINDINGS

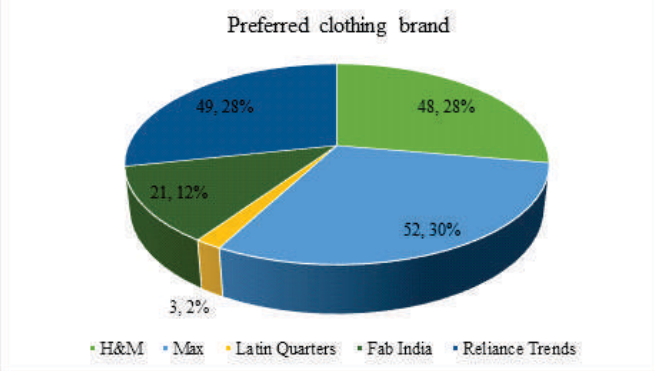
5.1 Graphical Analysis,

Bar Graph 5.1: Preference of Odd Pricing in Different Monthly Allowances



Source: Primary Data

Pie Chart 5.1: Preference of Clothing Brand



Source: Primary Data

Interpretation

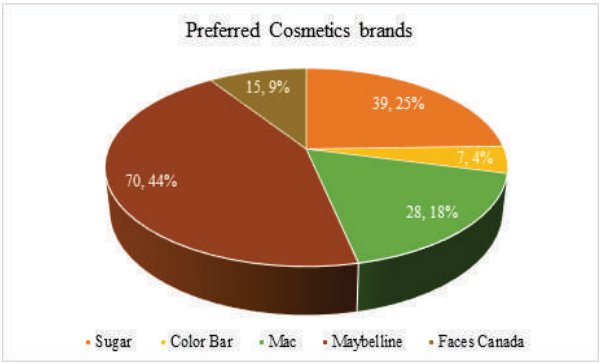
The data was gathered to study the preferences of clothing brands among consumers based on their monthly allowances. From the study, it can be concluded that most consumers prefer odd-pricing brands such as H&M, Max, Reliance Trends, and Fab India. Odd pricing lures customers and motivates them to buy more of it. The preference of consumers to buy even-priced items of clothing is very low. Only 2% of consumers buy from even-pricing brands (Latin Quarters), whereas most of them prefer odd pricing.

Bar Graph 5.2: Preference of Odd Pricing in Different Monthly Allowances



Source: Primary Data

Pie Chart 5.2: Preference of Cosmetics Brand

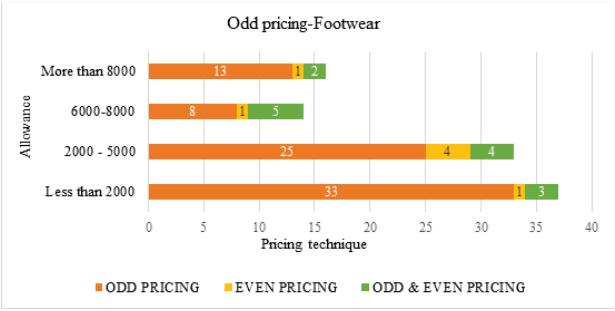


Source: Primary Data

Interpretation

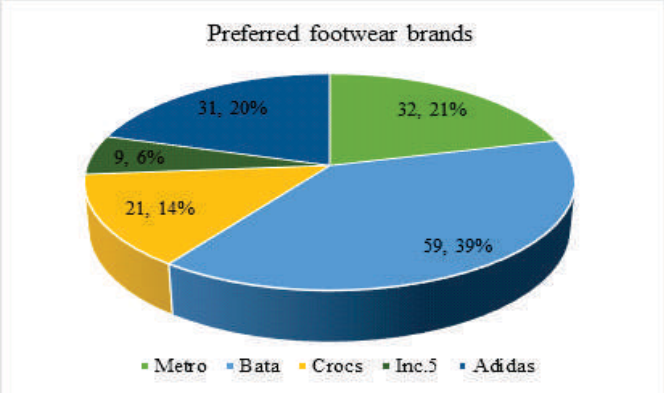
The data was collected to examine the preference of cosmetics brands among consumers based on their monthly allowances. Among the 100 female participants, most of them had a preference for odd-priced products because they saw them as being inexpensive. Females have a strong preference for brands like Maybelline, Sugar, and FacesCanada due to their odd pricing approach. Although a tiny percentage of respondents favour the even-priced Mac, this preference is however present.

Bar Graph 5.3: Preference of Odd Pricing in Different Monthly Allowances



Source: Primary Data

Pie Chart 5.3: Preference of Footwear Brand

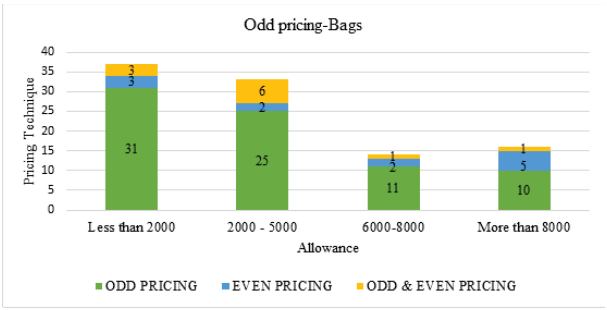


Source: Primary Data

Interpretation

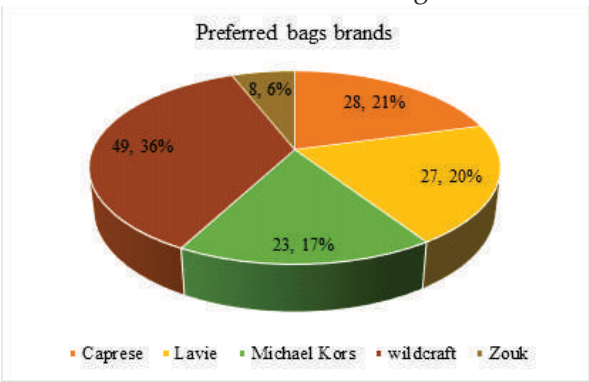
Data was collected to look at the footwear brand preferences of the female respondents, based on their monthly allowances. The results of the survey show that most consumers preferred shoe companies with odd prices. Customers preferred Metro and Bata because of their odd pricing structures. A relatively tiny percentage of consumers preferred brands with even prices, such as Crocs.

Bar Graph 5.4: Preference of Odd Pricing in Different Monthly Allowances



Source: Primary Data

Pie Chart 5.4: Preference of Bags Brand

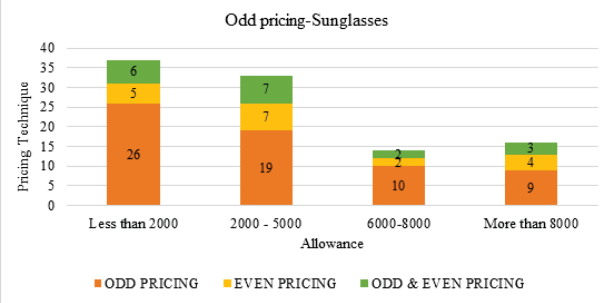


Source: Primary Data

Interpretation

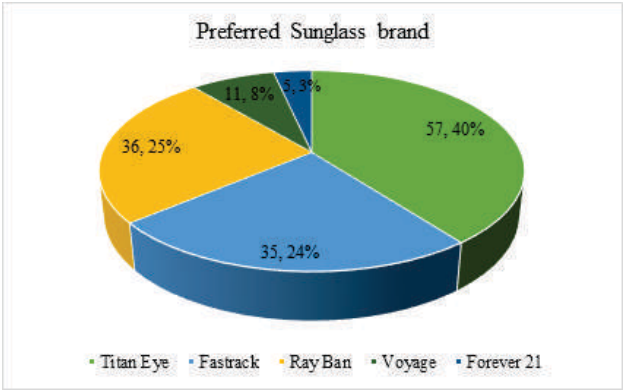
Based on the monthly allowances of the female respondents, data was collected to investigate the brands of bags that they preferred. According to the survey, the majority of buyers opted to purchase bags from odd-priced brands because they thought they were less expensive. Out of the 100 respondents, 28% preferred Caprese, followed by other brands, with 49% favouring Wildcraft. Michael Kors was only selected by 23% of respondents.

Bar Graph 5.5: Preference of Odd Pricing in Different Monthly Allowances



Source: Primary Data

Pie Chart 5.5: Preference of Sunglasses Brand



Source: Primary Data

Interpretation

The information was acquired to research consumer preferences for different sunglass brands according to their monthly budget. The majority of responders to the poll said they liked odd-priced brands like Titan Eye, Fastrack, etc. The clients are enticed and encouraged to purchase more by the odd price. Titan Eye Plus was the retailer of choice for 40% of the respondents.

5.2 Chi-Square Test,

H0 – There exists no significant difference in consumers' perception towards odd pricing and quality.

H1 – There exists a significant difference in consumers' perception towards odd pricing and quality.

Table 5.1: Cross Tabulation of Price and Quality

			Bad Quality (₹199.20)	Good Quality (₹200)	Grand Total	Chi-Square Value	p-value
Better Price	Website A - ₹199.20	O	28	40	68	3.841	0.00133
		E	21.08	46.92			
	Website B - ₹200	O	3	29	32		
		E	9.92	22.08			
	Grand Total		31	69	100		

Source: Primary Data

Interpretation

From Table 5.1, the calculated 'p-value is 0.00133' and the 'tabulated value is 3.841' at a 5% significance level and 95% confidence level. Thus, rejecting the null hypothesis (0.00133 < 0.05) and accepting the alternative hypothesis. Therefore, from the test, it can be concluded that consumers' perceptions towards the price-quality are strongly associated.

6. LIMITATIONS OF THE STUDY

- Sample size - The data used for the study came from 100 respondents, which represents a small portion of the overall population and a wide range of individual perspectives.
- Sampling bias – This study ignores the viewpoints and actions of male customers, restricting the research to solely female participants run the risk of introducing gender bias. This could restrict how broadly applicable the results are.
- Restricted scope - Limiting the scope of research to just fashion goods in e-commerce may prevent a more comprehensive knowledge of the influence of odd pricing tactics on customer behaviour in a variety of product categories.

7. CONCLUSION

Pricing policies have a big influence on how customers behave in e-commerce. In today's competitive market, odd pricing is critical to the success of the product. From the study, it is found that odd pricing, or price that ends in 9 or 99, has a significant impact on consumers' perception and purchasing power decisions.

According to this research, consumers find odd-priced items attractive, individuals are more likely to

purchase them. This tactic seems to give the e-commerce fashion business a psychological edge, resulting in higher sales and favourable customer feedback.

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A Study on the impact of Food Delivery Apps on Consumer Behaviour

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ABSTRACT

This research paper investigates the transformative impact of food delivery applications on consumer behavior by means of an extensive survey that includes people of varying ages.The study recognizes the surge in app usage during the global pandemic, delineating the shift in dietary habits and the dichotomy between health consciousness and indulgence in junk food.

Examining popular platforms like Swiggy, Zomato and others, the research explores user satisfaction, delivery personnel concerns, and the economic dynamics of the sector. While the apps' user-friendly interfaces, diverse meal options, and time-saving attributes contribute to their widespread popularity, concerns about costs persist. Findings reveal a paradox: despite recognizing increased monthly expenses, people persist due to the convenience and discounts. The paper concludes by emphasizing the need for service providers to balance convenience, affordability, and reliability to sustain and expand their user base.

Keywords: Consumer behavior, Consumer preference, Delivery apps, Swiggy, Zomato, Health, Convenience, Cost & Satisfaction.

INTRODUCTION

The general public began using smartphones in the second decade of the twenty-first century, which led to the emergence of mobile shopping as a new online buying trend. Online food delivery apps like Swiggy, Zomato, Uber eats and such have made a name for themselves in the food market.

In recent years, food delivery apps have significantly changed consumer behavior. The way people order and receive meals has been completely transformed by these apps, which offer exceptional accessibility and convenience. From the convenience of their phones, customers can now browse menus, place orders, and track delivery. Consumer behavior has changed as a result of this convenience element; instead of using more conventional means like calling restaurants or going in person, an increasing number of individuals are choosing to order food using mobile apps.

Apps for food delivery not only make life easier, but they are also transparent and simple to use. It's simple for customers to compare costs, read reviews, and decide on meals with information. By offering a platform for customized advertisements and

recommendations, food delivery apps have had an impact on consumer buying habits, this has prompted people to try new foods and make more impulsive purchases.

Also the COVID-19 changed the way individuals perceived their dietary habits; as many grew health conscious and felt the need to consume nutritious food, while the rest fell prey to the pleasures of junk and unhealthy food. As people adapted to the new normal, this habit persists even today. All things considered, food delivery applications have completely changed how people engage with and eat, changing consumer behavior in ways like more convenience, transparency, impulsive purchases, and trying out new foods.

II. Research Methodology

1. Objectives of Research :

The principal aim of this study is to attain an in-depth comprehension of the influence of food delivery applications on consumer behavior. The specific objectives include:

- Determining the prevalent food delivery applications favored by participants surveyed.
- Examining the dispersion of application utilization across various age cohorts.
- Exploring plausible effects of food delivery applications on individuals' health, dietary patterns, and financial standings.

2. **Data Type:** This study relies on the collection of primary data.

3. **Research Classification:** Basic research, as its primary aim is the acquisition of knowledge for academic purposes rather than addressing specific industrial issues.

4. **Research Method:** A quantitative research approach was employed in this study to scrutinize and interpret the gathered data utilizing statistical, mathematical, and computational methodologies.

5. **Research Design:** Final results were obtained by utilizing a quantitative data analysis technique combined with a descriptive study methodology.

6. **Sample Size:** A total of 205 respondents participated in this survey, representing a diverse range of age groups. The distribution of respondents across the three age categories is as follows:
   - 18 years to 23 years: 71.2%
   - 24 years to 30 years: 10.2%
   - 30 years and above: 18.5%

7. **Data Collection Process:** The data gathering process utilized an online survey tool, specifically Google Forms. This method was selected to access a broad demographic swiftly and with minimal effort. The survey was disseminated among a diverse range of participants, ensuring inclusivity across various age demographics.

8. **Data Analysis :** Robust statistical analysis forms a pivotal aspect of this study, and it will be conducted in subsequent stages. Our analytical approach includes various statistical techniques such as:
   - Inter-linking: Every question will be studied in comparison to another in order to structure relationships and patterns.
   - Data Visualization: Graphs, charts, and visual representations will be used to illustrate findings and make them more accessible.

The analysis will unveil insights into how age affects app preferences and further elucidate the impact of food delivery apps on consumer behavior.

Literature Review:

Tandon, A., Kaur, P., Bhatt, Y., Mantymaki, M., & Dhir, A. (2023, May 19), conducted an extensive research on "Why do people purchase from food delivery apps". Food delivery apps are changing how we eat, especially in India, where traditional foods and digital technology mix. India's growing economy and middle class mean more people can afford to order food. Their study primarily focusing on the United States found that people's values and preferences play a big role. Surprisingly, social status didn't make people want to use these apps more. Instead, things like ads and coupons influenced them. This shows how much our choices are influenced by outside factors.

Dsouza, D., & Sharma, D.'s (2020, December 30) study on "Online food delivery portals during COVID-19 times: an analysis of changing consumer behavior and expectations" investigates how COVID-19 has affected consumer behavior in the online food

delivery market they stress how crucial it is for customers to have safety precautions and they implore delivery service providers to put their business integrity first the study emphasizes on improving customer experiences to attract repeat business and focuses on the significance of quality assurance in ensuring customer happiness and fostering long-lasting loyalty their research serves as us that in order for the online food delivery platforms to succeed over the long term they must remain flexible in rapidly changing market environments and adopt customer-centric business models

Hesham, F., Riadh, H., & Sihem, N. K. (2021, April 13) in their research on "What Have We Learned about the Effects of the COVID-19 Pandemic on Consumer Behavior?" explored how the COVID-19 pandemic influenced consumer behavior focusing on food ordering habits their research reveals a notable ideological shift in spending patterns due to pandemic-induced confinement fear of infection strongly influences purchasing decisions reflecting human psychology clear packaging and product accessibility play crucial roles in promoting healthy choices their study advocates for long-term sustainability in observed behavioral changes and recommends public health interventions to further encourage healthy food choices it underscores the importance of comprehending environmental influences on consumption pattern and suggests policy enhancements beyond business strategies

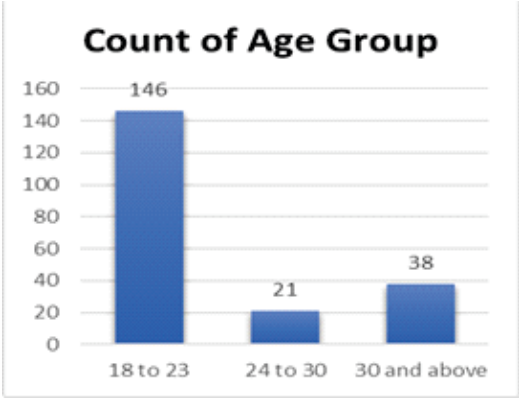
Rathore S. S.,& Chaudhary, M. 's (2018, Oct) study on "Consumer's Perception on Online Food Ordering" claims that while younger people are more used to ordering food online, elderly individuals use these online services less frequently than younger people. The study highlights how young people are generally prepared to employ food delivery services offered online. The analysis also reveals that product costs, promotions, and discounts have the biggest effects on online food ordering. According to the survey, patterns related to food ordering are altering as a result of Indian customers' shifting lifestyles and developing online activity.

III. Data Analysis & Interpretation

The analysis involved computing simple percentages based on the choices made by respondents over various selections. Tables and charts have been used in visual representation. Conclusions were derived from observations during the data analysis process.

1. Respondent's profile

Fig 1: Respondents' profile



The graph shows that the majority of our respondents (71%) belong to the age group of 18 to 23, followed by the age group 30 and above (19%), and the remaining belong to the age group of 24 to 30.

2. Food delivery apps preference

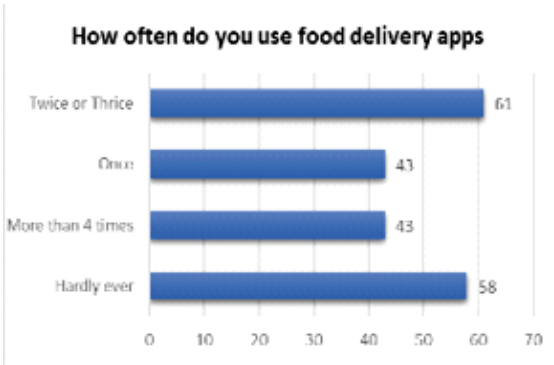
Table: 1 Respondents' preferred delivery app

Apps	No. of respondents
Zomato	122
Swiggy	145
UberEats	8
Domino's	41
Dunzo	16
Amazon Food Delivery	4

The most used delivery app is Swiggy with 71% of respondents using it followed by Zomato with 60% of them using the same. The third most used app is Domino's (20%). The remaining 3 apps UberEats, Dunzo, and Amazon food delivery are used by 4%, 8%, and 2% of respondents respectively.

3. Weekly usage of delivery apps:

Fig: 2 Respondents' preferred delivery app

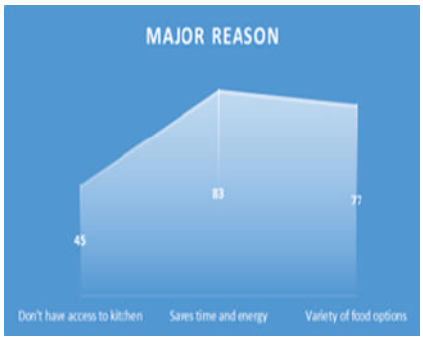


Around 30% of respondents use food delivery apps twice or thrice a week. And 29% of them hardly ever use such apps on a weekly basis. The remaining 42% consist of an equal number of respondents either

using it once a week or more than 4 times a week.

4. Reason for choosing food delivery apps:

Fig:3 Respondents' primary reason for opting to order



The graph clearly shows that the major reason for people opting for food delivery apps is that they save time and energy, followed by the variety of food options that such apps provide. Around 18% of respondents go for food delivery apps as they do not have access to a kitchen which might include students and people staying outside of their homes like in a PG or hostel.

5. Frequently ordered meal:

Fig:4 Frequently ordered meal



With around 50% of respondents opting for it, dinner stands to be the most frequently ordered meal followed by beverages (21%). The least ordered meal is breakfast with only 3% of respondents opting for it.

6. Amount spent:

Fig:5 Average money spent monthly on food orders by respondents



The standard amount per order is approximately Rs.200 to Rs.500 as 58% of respondents spend the same amount. Around 31 respondents, i.e., 15% of them spend around Rs.500 to Rs.800 per order. Hardly 6% of respondents spend more than Rs.1000 per order.

7. Minimum and maximum amount (in terms of cost) spent on food delivery apps:

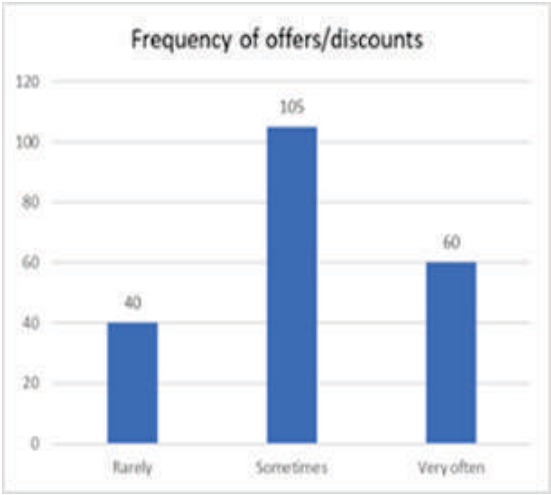
Table:2 Respondents' minimum & maximum monthly spend on FDA

Amount you spend on such apps on a monthly basis (in Rupees)	No. of respondents
2000 to 3000	39
3000 to 4000	19
4000 to 5000	17
Less than 2000	115
More than 5000	15

From the table, it can be inferred that 56% of respondents spend less than 2000 on food delivery apps. 19% of them spend around Rs.2000 to Rs.3000 per month on such apps. And hardly 7% spend more than Rs.5000.

8. Discounts or offers:

Fig:6 Respondents' frequency of ordering food based on offers/discounts



Around 19% of respondents frequently get offers or discounts that encourage them to use food delivery apps instead of cooking. 51% of respondents sometimes get such offers. Only 20% of them rarely get such discounts or offers.

9. Opinion about restaurant prices:

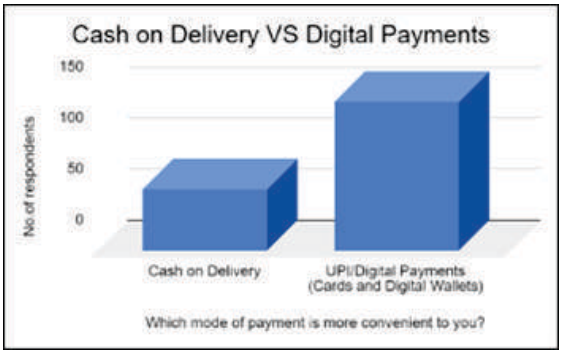
Table:3 Respondent's opinion about restaurant prices on FDA

What do you feel about restaurant prices on such apps?	Count of respondents
Cheaper	17
Costlier	88
Most reasonable	33
Not much of a difference	67

The table reflects that more than 40% of respondents (88) feel that the restaurant prices on delivery apps are expensive compared to their traditional counterparts i.e., offline prices. On the other hand, around 33% of respondents believe that there is not much of a difference. Only 8% of them feel that the prices are comparatively cheaper on such apps. And the remaining 16% feel that it is reasonable.

10. Mode of payment:

Fig: 7 Respondents' convenient mode of payment



Almost 150 respondents i.e., 71% of the population find digital payments more convenient compared to the traditional method of cash on delivery.

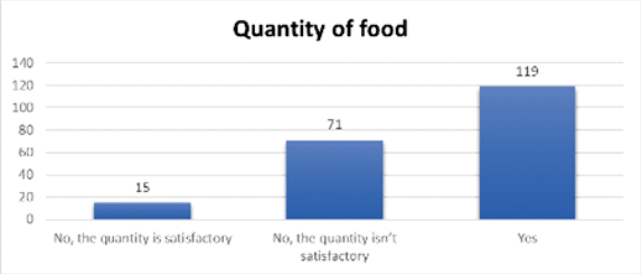
Table: 4 Influence of discounts/offers on respondents' payment mode

Have there been instances where you chose a particular mode of payment because of discounts and offers?	Count of Have there been instances where you chose a particular mode of payment because of discounts and offers?
No	56
Yes	149

Approximately, 73% of respondents choose a particular mode of payment because of its discounts and offers while the remaining 27% of them do not opt for a particular mode of payment based on the offers or discounts that it provides.

11. Opinion on quantity of food in proportion to price:

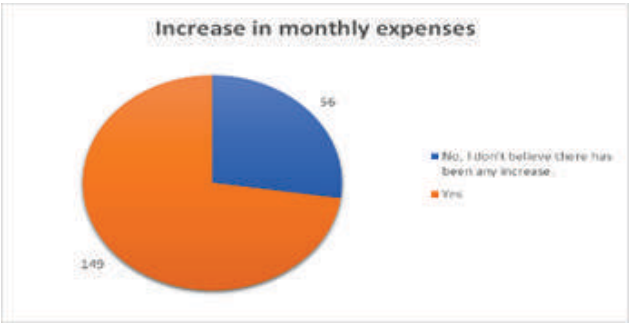
Fig:8 Respondents' opinion on quantity of food in proportion to price



The graph shows that 58% of respondents are satisfied with the quantity of food provided by the restaurants compared to the price paid. For 35% of them, the quantity is not satisfactory and for the remaining 7% of respondents, it's just satisfactory.

12. Changes in monthly food expenses:

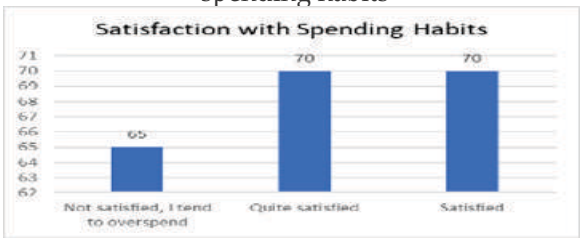
Fig: 9 Change in respondents' monthly expense due to FDA



The above pie chart clearly shows that the majority of the population i.e., 73% of respondents have noticed an increase in their monthly expenses owing to these online food delivery apps. However, for the remaining 27% of respondents, it is vice versa and they believe that there hasn't been any increase in their monthly expenses. The study also further revealed that 32% of respondents have noticed an increase in their monthly expenses of not more than Rs.1000 whereas, for 29% of them, it is between Rs.1000 and Rs.2000, and for the remaining 12% of respondents have noticed an increase of more than Rs.2000.

13. Satisfaction Level:

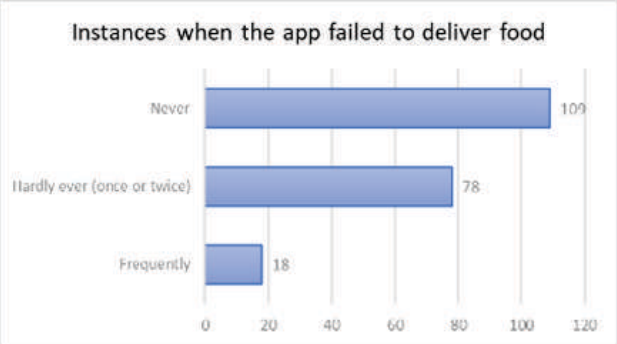
Fig: 10 Satisfaction level of respondents w.r.t their spending habits



The bar graph shows that 34% of respondents are equally quite satisfied and completely satisfied with their spending habits. The remaining 32% of them are not satisfied with their spending habits and tend to overspend.

14. Failure of delivery:

Fig: 11 Frequency of instances where the delivery personnel failed to deliver food



More than half of the population i.e., 53% of respondents have not experienced instances where the food delivery personnel failed to deliver the food and the app did not give them a refund after having made the payment. 38% of them have experienced such instances hardly once or twice. And only 9% (approx.) of them have experienced it frequently.

15. Changes in overall health and wellness:

Table:6 Change in respondents' overall health due to frequent ordering of food

Did you notice changes in your overall health and wellness in case you order food from online platforms more often?	No. of respondents
Yes, I have become more health conscious.	29
Yes, my junk food consumption has increased.	105
No, I don't see any overall change in my health and wellness.	71

As the table clearly shows, more than half (51%) of the respondents' junk food consumption has increased due to food delivery apps. On the other hand, 14% of them have become more health conscious and the remaining 35% of them do not see any overall change in their health and wellness.

The study further reveals that, the majority of the respondents have not faced any incident that severely impacted their health owing to the food that they ordered. Whereas 2% of them have faced such incidents and their main health concern was food poisoning.

IV. Findings

The findings from our survey unveil a profound impact of food delivery applications on consumer behavior, suggesting a multifaceted influence beyond surface-level observations. Notably, market leaders Swiggy and Zomato command a significant user base, with approximately 70% and 60% of the population utilizing these platforms, while emerging players like Dunzo, UberEats, and Amazon Food Delivery are steadily gaining traction.

Frequency of usage reveals a notable trend, with 72% of respondents using food delivery apps at least once a week, indicating a heightened reliance on these platforms for meal acquisition. Convenience emerges as a paramount factor driving adoption, as evidenced by nearly 40% of participants citing time and energy savings as their primary motivation.

Moreover, the survey underscores the appeal of dinner as the most frequently ordered meal, with 50% of respondents preferring it. This preference likely stems from the convenience associated with ordering in after a long day or for communal dining experiences. Additionally, the variety of food options and accessibility to those without kitchen facilities further solidify the allure of food delivery apps.

Despite the increased frequency of orders, expenditure per order and monthly spending remain within moderate ranges for the majority of users. However, enticing discounts and offers wield significant influence over consumer decision-making, with 70% of respondents admitting to favoring food delivery apps due to such incentives. While a substantial portion of respondents acknowledges a rise in monthly expenses attributed to these apps, satisfaction with spending habits varies. While 34% express contentment, 32% admit to overspending, highlighting a potential downside to the convenience afforded by food delivery apps.

Qualitative aspects such as service quality and customer relations, alongside the broader impact on health and well-being, warrant further examination. Notably, while instances of failed deliveries and negative incidents remain relatively low, concerns regarding increased junk food consumption and health issues underscore the need for a balanced perspective on the benefits and drawbacks of food delivery apps.

V. Conclusion

In light of these findings, this survey highlights the significant influence of food delivery apps on consumer behavior especially among younger demographics convenience offering time-saving benefits and culinary variety drives their widespread adoption despite concerns over pricing users lured by discounts overlook increased expenses emphasizing conveniences primacy satisfaction with food quality and digital payments supports the apps appeal yet challenges like delivery reliability and health impacts necessitate provider attention achieving a balance between convenience affordability and reliability is crucial for sustained user engagement As food delivery apps continue to evolve, achieving a delicate equilibrium between convenience, affordability, and reliability will be imperative to sustain and broaden their user base.

In essence, food delivery apps have reshaped consumer behavior, fundamentally altering how individuals approach meal consumption. Moving forward, addressing consumer concerns and refining service offerings will be pivotal for the continued success and growth of these platforms in the dynamic digital marketplace.

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Impact of Eco-Labelling on Sustainable Consumption Behaviour: A Study on Young Consumers

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ABSTRACT

This paper aims to investigate the sustainable consumption patterns of eco-labeled products among young consumers through examining the factors influencing their purchasing decisions, awareness levels, and the perceived effectiveness of eco-labeling in fostering sustainable behaviours. The 3 R's theoretical framework (Reduce, Reuse, and Recycle) was expanded to include more general concepts like awareness, action, and motivation for domestic sustainable activities. In the study, eco-labeling serves as a sustainable consumption indicator by providing consumers with information about the environmental and social impacts of products.

Eco-labels are typically based on established criteria and standards set by recognized certifying bodies. These criteria may cover various aspects such as resource use, energy efficiency, emissions, and social responsibility. Recent reports states that the global eco-friendly label market will reach US$ 2 billion by 2028, marking a growth rate of 7.85%.

For the purpose of data collection, I will use qualitative method and surveys from the university students and other recent empirical studies on this area. The study will also explore the role of education, marketing strategies, and social influences in shaping sustainable consumer behaviours among the youth. From the lens of psychology and economics, this study can open up meaningful discussions regarding the consumer behaviourism and sustainability.

Keywords: Sustainability- Eco labeling- social impacts- young consumers- 3 R's

INTRODUCTION

he consumers' influence on their environment is sometimes referred to as 'voting with the wallet'; provided that the choices are responsible, such consumption can be considered informed and sustainable (Ertmanska, 2021). A standard definition of sustainable consumption would be "the use of goods and services that respond to basic needs and bring a better quality of life while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations" (Reisch, 1998).

Eco-labels are a form of labelling that communicates to consumers the environmental impact of products throughout their life cycle. They are characteristic of a pre-set graphic form and serve as proof of compliance with specific norms on the part of a producer. It can take into account social issues, and they play a role in promoting organic products and influencing consumer-buying decisions.

Eco-labelling contributes to promoting sustainable production and consumption in several ways. Firstly, it serves as a tool for educating consumers about the environmental impact of products throughout their entire life cycle. This helps consumers make informed choices and select products that cause less ecological damage. Secondly, eco-labelling provides producers with the opportunity to inform consumers about the advantages of their products in terms of environmental friendliness, thereby encouraging sustainable production.

Additionally, eco-labelling plays a role in fostering consumer awareness of ecological issues and influencing their purchasing decisions, thus promoting sustainable consumption. It also serves as a means of communication for environment-friendly products, drawing consumers' attention to the identity of organic products and promoting their competitive advantage. Ultimately, eco-labelling is a key instrument in facilitating producer-consumer communication and guiding both producers and consumers in making pro-ecological product decisions. (Wojnarowska et al.,2021)

Young consumers declared behaviours in line with eco-consumption, such as re-using product packaging, shopping in an economic and intelligent way, purchasing and consuming ecological goods, and choosing products from their own country. They are considered as a key target group by researchers, policymakers and educators alike, as it is deemed crucial to intervene in the formation and routinization of mainstream unsustainable consumption practices and patterns (Fien et al., 2008; Heiss and Marras, 2009). The relevance of the study on sustainable consumption among young consumers and ecolabels, lies in the growing importance of sustainable development and its impact on consumer behaviour.

Objectives

- Identify challenges and opportunities for enhancing sustainable consumption among young consumers.
- Assess the influence of eco-labels on young consumers' purchasing decisions.

Research Methodology

The study combines quantitative and qualitative methods to achieve a comprehensive understanding of the impact of eco-labelling on young consumers' sustainable consumption patterns. The targeted population for study lies between 18 to 30 years which includes college and university students, young professionals, etc. The Primary data is collected from 230 students from various institutions in different parts of India (stratified random sampling) through circulating Google forms. This ensures that the sample adequately represents the diversity of the target age group across different geographical regions. Consumption patterns and the impact of eco labelling in their choices are studied mainly regarding the income groups they belong to, the status of the institution they are currently studying, and their gender. The awareness of the students regarding sustainability and the contribution of eco-labelling is also assessed by formulating questions regarding self-care product consumption. The secondary collected from various papers, case studies, and articles regarding the consumption patterns of the youth and sustainability to also used get a proper understanding about the subject.

Limitations of the study

The samples collected for the survey are not confined to a specific geographical place, hence there will be numerous other factors that affect sustainable consumption. Those factors are not given much importance in the study. The primary focus was only on eco-labelling. The study is a qualitative analysis. The main criteria is to assess the awareness and challenges faced in the consumption of Eco-labelled products.

Sustainable Consumption in Young Consumers

Recently, several reports regarding fashion trends suggest that consumers are concerned about environmental damage with sustainability entering the "list of the most important challenges" (McKinsey, 2018). Consumers and companies are aware of the consequences of green gas emissions, water usage, landfills of used products and resource depletion. A 2021 Nielsen survey found that 66% of global consumers are willing to pay more for sustainable products. Investments in sustainable practices and technologies are on the rise, with global spending on sustainable development solutions reaching $303 billion in 2020.

Companies are recognizing the benefits of sustainability in business and formulating strategies to attract environmentally conscious consumers by including reduced costs and enhancing brand reputation. Young people who advocate sustainable consumption are also promoting their thoughts through social media hashtags. The sharing economy, minimalism movement, and second-hand goods market are gaining traction, promoting resource sharing and responsible consumption. Young Consumers are increasingly demanding transparency and traceability in supply chains, wanting to know the origins and environmental footprint of the products they buy. This sense of responsibility and consciousness can create more authenticity in green marketing.

The responsibility that consumers feel toward the environment is extremely important in terms of sustainable consumption behaviours (Catlin et al. 2017; Capiene et al. 2021). Some examples of sustainable consumption behaviours are: Preference for eco-friendly and energy-efficient products, such as appliances with high energy efficiency ratings or vehicles with low fuel consumption. Choosing

locally produced goods to support local economies and reduce the carbon footprint associated with transportation and distribution. Opting for products with minimal packaging or packaging made from recyclable materials to reduce waste generation. Embracing a minimalist lifestyle by prioritising necessity over excessive consumption and reducing overall material possessions (Kagitci Candan, 2022).

The study by Kagitci Candan (2022) shows that those who all are aware of sustainable goods are more likely to use them other than conventional products. In the survey conducted by Earth5R on sustainable self-care brands in India, it is found that over 74.3% of the people who are using sustainable products are in the age group of 18-24 and which majority of them are college students.

Eco-labelling and Sustainable Consumption

The impact of ecolabels in sustainable consumption differs between the youth belonging to different countries. In the case of developing countries like India, one significant issue is the high costs and excessive bureaucracy associated with certification, as well as a failure to achieve meaningful environmental stewardship and an inability to address wider social issues. Additionally, access to high-value markets for certified products may be limited in developing countries due to factors such as irregular product quality, limited domestic consumption, and low demand for eco-labelled products in export markets (Carlson, A., Palmer, C. 2016).

Furthermore, the lack of strong government regulation in many developing countries has been identified as a barrier to the effectiveness of certification programs. Despite these challenges, there is evidence of non-environmental benefits to producers from certification, such as learning, governance, community empowerment, and reputational benefits. While the impact on price premiums and market access appears to be limited, these fewer tangible benefits may justify the cost of certification.

Sustainable Consumption Behaviour of Self-care Products among University Students and Impact of Eco-labelling to it: Survey Method and Results

The results found in the survey was similar to the results of the studies discussed above in the case of awareness and challenges to go for sustainability. Self-care products include commodities for skin care, hair care, personal hygiene etc. The 230 samples collected are from various institutions including students from Central Government Universities (48.7%), State Government Universities (19.6%) and Private Universities and colleges (31.8%). Factors like fellowships, scholarships, stipends etc provided from universities are also considered. The students whose native is from the majority of the states of India are included in the study like Kerala, Tamil Nadu, Telangana, Delhi, Bihar, Jammu Kashmir, Uttarakhand, Assam, West Bengal, Uttar Pradesh, Rajasthan, Jharkhand, Karnataka and Odisha. Graduate, Postgraduate and PhD students are included in this.

64.3% of respondents were in age group 22-25 years, 25.2% in 18-21 years and rest were 25 and above. Of that 58.3% are female and 41.7% are male. The income group is classified into Low-Income Groups (annual income below 8lakh- 54.3%), Middle-Income Groups (annual income between 8-18 lakh 40.9%) and High-Income Groups (annual income above 18Lakh- 4.8%). As the traditional consumption theory states "current real income is the most important determinant of consumption in the short run". Higher-income groups can choose eco-labelled products more easily than the lower income groups. During the survey, it is found that most of the people are not aware of the term "eco-labelling" but are familiar with the concept. Fig.1 shows that the familiarity of eco-labelling is uncertain or moderate among more than half around 75% of the students.

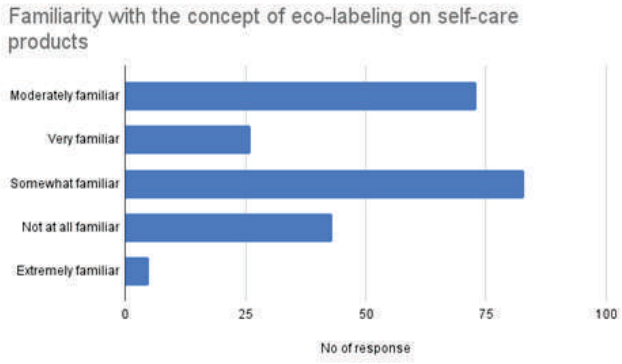

Fig.1 Awareness about Eco-labelling in youth

The conventional assumption that men are less interested towards self-care and products regarding that, was found wrong while collecting the samples. For some of the male students it is hard to digest the fact that the cleanser and shampoos they are using are part of their self-care and it need not be expensive. The cultural taboo which restrains men from grooming exists, but they are evolving from it. "Self-Care is Self-Love" is a tagline that should be spread in our campuses. The impact of education was visible in their response as students in higher level courses (post graduate, PhD) found more aware about sustainability. The compulsory inclusion of environmental studies in schools and colleges of

India by the honourable Supreme Court is also a reason to create a basic level of awareness in students.

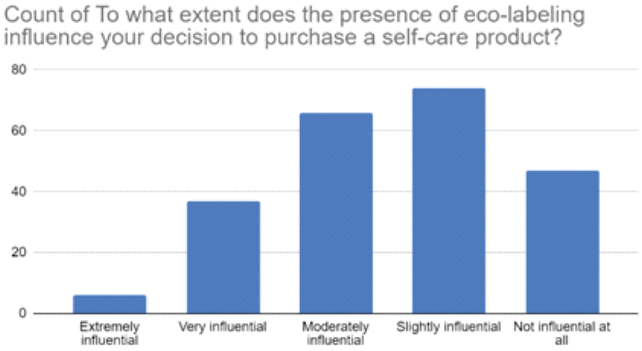

Fig. 2 Impact of Eco-Labelling on choosing self-care products

20.4% of the students responded that eco-labelling is not a criteria they consider when they choose to buy a product. Only 2.6% of the students responded that eco-labelling is extremely influential in their consumption of self-care products. This result indicates the slight influence of ecolabeling in sustainable consumption. Meanwhile 44.8% students responded that they would never choose a product just for the eco-labels and only 1.7% have complete trust on the eco-labels. But this response is an outcome of the trust issues in students regarding the authenticity of eco-labelling. In 57.4% of the consumers perception, eco-labels from recognized government agencies are more credible. Then comes the contributions of accredited third-party organisations and industry-specific associations and 10% of respondents were indifferent as long there is an eco-label.

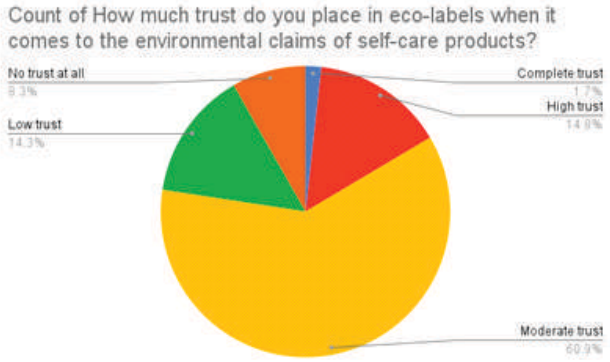

Fig.3 Consumer trust towards eco-labels

The opportunity cost to shift to the eco-labelled products are found high because of the higher price charged for it. The rational consumer would stick on to their usual products which is cheaper and safer (brand loyalty). The limited product range for the eco-labelled products also restrain the consumers from choosing it. The utility derived from paying high price and choosing eco-labelled products are very less compared to the conventional ones. Other reasons are cultural or religious preferences, social influence, lack of availability, lack of proper information and 6.5 % of them responded that they are indifferent to environmental concerns. The impact of social media and peer group influence is considerable for the consumption decisions of this age group. 43.5% of students responded that they might have purchased products solely by the social media or recommendations by the peer group.

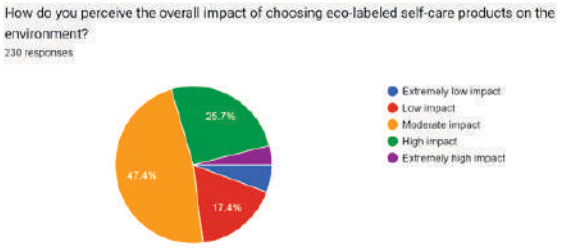

Fig.4 perception of consumers regarding impact of eco-labels

When asked about the improvements or changes that they would like to see in the way eco-labelling is implemented on self-care products to enhance its effectiveness, the suggestions received was impressive. The primary problem that needed to be addressed is the awareness about such products. Educational campaigns can be conducted for the same for promoting sustainable consumption and 64.3% students confirmed that they would choose eco-labelled self-care products if there were educational campaigns or initiatives promoting their benefits on campus.

The recyclable packaging and clear labelling about the product details should be promoted and regulated by the government. Some of them emphasised on promoting the green political parties and their role in promoting sustainable consumption. There is even an opinion among students that the majority of environmentally destructive activities are by the ultra-rich and regular consumers buying eco-friendly doesn't make any difference. Lowering the cost of eco-labelled products and increasing their availability can make them a good and futuristic alternative to conventional products in the market. Affordability is the key.

Conclusion

In the study conducted by researchers from the Cracow University of Economics, 78% of surveyed consumers perceived organic products to be more expensive than traditional ones. Eco-labels can effectively influence sustainable consumption when targeted towards the right audience and combined

with engaging educational campaigns. Collaborations with relevant stakeholders like influencers and retailers amplify the impact.

Continuous innovation and adaptation are crucial to maintain relevance and address evolving consumer needs. It is not possible to pinpoint a single percentage of young consumers choosing sustainable products solely due to eco-labelling. This is because of the multiple attributes that influence the consumption which cannot be assumed to be the same for everyone and the attributions to specific eco-labels can be tricky. However, a 2023 study in India found that 71% of Gen Z consumers considered eco-labels when making purchasing decisions.

It can be concluded that the purchasing decisions of young consumers are primarily driven by price, with a majority stating that they did not intend to pay more for organic products. The environmental impact of a product was not a significant factor for most consumers (27%) when making a purchase and are very unaware (16.1%) about the environmental impacts of products without eco-labels.

The results of the study show the slight or moderate influence of eco-labels in choosing sustainability but also, its growing impact on youth. Implementing more regulated policies for ensuring the authenticity and affordability of eco-labelling and promoting the consumption of eco-labelled products on campuses can make eco-labelling a more powerful tool for influencing sustainable consumption behaviour in young consumers.

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Cultural Orientation and Green Consumption Values in Working Young Adults

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ABSTRACT

Green consumption has been researched in the global market and continues to be a trending issue. The Indian market has fewer studies on green consumption and sustainability which makes it relevant to study. This research looks at green consumption values in the context of culture since previous research has shown that cultural values and orientation play a role in green consumerism. Cultural orientation classified as horizontal/vertical individualism and collectivism has been found to have a relationship with green purchasing attitudes and intentions as demonstrated in studies such as Rahman and Luomala (2020). Different individuals within the same culture have different orientations based on their values and ideals. The four dimensions of cultural orientation have varied implications and the study looks at which of these dimensions predicts green consumption values. The population selected through convenience sampling is made of working adults below the age of 30 belonging to Tier 1 cities. Data was collected ethically through Google forms, and SPSS 24 was used to analyse the data for descriptives, correlation and multiple linear regression. The results and its implications are stated and discussed as per the data analysis results.

Keywords: Green Consumption, Cultural Values, Cultural Orientation, Individualism, Collectivism

INTRODUCTION

India has a growing population but inflation in recent years has caused a decrease in disposable income. As per a survey by YouGov (2023), approximately 40% of Indians in urban areas have observed a reduction in their disposable income owing to increasing prices which is shaping their shopping habits differently. In terms of green consumption specifically, although 60% of the urban Indians surveyed by Bain & Company (2022) were willing to pay a premium for green products, the actual purchase has many challenges. Despite the high level of preference, one of the aspects affecting consumer behaviour is culture which is specifically relevant to the Indian context. Indian culture is said to be collectivist in nature where the social group's interests take precedence over personal interests. However, the trend of nuclear families and Westernisation is on the rise which opens up opportunities for evaluating how perceptions and orientations to culture in India have changed. Some of the factors that have emerged as significant in facilitating changing consumer behaviour with reference to culture include social norms, value systems, economic stability and level of education (Ghoshal, 2015).

Collectivism v/s Individualism

Singelis et al. (1995) explored the horizontal and vertical dimensions of Individualism and Collectivism. Horizontal Individualism (HI) is the dimension that measures the extent to which an individual desires a distinct identity without desiring a higher position in the social group. Vertical Individualism (VI) is the dimension that measures the extent to which an individual desires to be perceived as distinct and having a special status. Horizontal Collectivism (HC) is the dimension that measures the extent to which there is interdependence between the group members who see themselves as a distinct unit compared to other groups. Vertical Collectivism (VC) is the dimension which measures the extent to which individuals perceive group interdependence as important without losing their own independence.

Green Consumption Values

Since cultural orientation has an impact in shaping attitudes and beliefs, it can be useful to understand consumer attitudes and values. Green consumption values are defined as one's tendency to express its own environmental protection values through his or her purchases and consumption behaviour (Haws et al., 2014). Green consumption can be seen to be made of two components: *green purchasing intention* and *green purchasing behaviour*.

The two can be distinguished by understanding that purchase intention can be seen as a prediction of consumer behaviour, whereas, purchase behaviour offers the hard facts of sales made for a product.

Purchasing intention has become increasingly prevalent among young adults in India with many willing to pay more for eco-friendly products. Purchasing behaviour, however, is not matched by an appropriate income and purchasing power. Where "perceived environmental knowledge" is on a rise, it does not predict the attitude towards green products. In 2015, Biswas and Roy found that regardless of purchasing intention, price sensitivity remained high and social values were a dominant parameter influencing

sustainable consumption adoption among the green preferential cluster.

Review of Literature

A study by Halder, Hansen, Kangas and Laukkanen (2020) highlights several key points regarding the relationship between cultural dimensions and green consumption values. Firstly, cultural collectivism emerges as a significant driver, positively influencing green consumption values, aligning with prior expectations. Secondly, the research underscores the importance of long-term planning, which positively impacts green consumption values, contrasting with the negative effect observed from traditional values. Lastly, the study emphasises the managerial focus on consumers exhibiting high levels of collectivism and future-oriented values, suggesting targeted strategies to promote environmentally friendly consumption behaviours among these groups.

Rahman and Luomala (2021) conducted a study to understand the cross cultural differences in green consumption between the Finnish and Pakistani cultures. The study found that horizontal individualistic (HI) and vertical collectivistic (VC) cultural values did not have a significant influence on consumers' attitudes towards green products. However, when environmental responsibility was introduced as a mediator variable, there was a positive influence of HI and VC on environmental responsibility in both Pakistan and Finland. This suggests that cultural values may indirectly influence green consumption through environmental responsibility. The study also highlights the importance of designing culturally relevant international green marketing and advertising strategies.

Wang et al. (2021) studied green public procurement and built a theoretical model to explain it as a promoter for green consumption in China. The results show that Green Public Procurement knowledge can't directly improve consumers' green consumption attitudes, and even a strong sense of collectivism cannot enhance the connection between the two.

Consumers also attributed green consumption to a personal choice as opposed to a group value. The authors suggest that Green procurement and consumption need to be made into a shared sense of responsibility instead of a collective public goal.

Wang, Werff, Bouman, Harder and Steg (2021) studied influences on pro-social behaviour through biospheric values and environmental identity of individuals and groups. A sample was drawn from Dutch and Chinese students who filled questionnaires. The findings revealed that personal biospheric values can predict pro-environmental behaviour via environmental self-identity. The study also suggests that reinforcing personal and group biospheric values, as well as environmental self- and group identity, can encourage pro-environmental behaviour in both individualistic and collectivistic cultures.

Saracevic, Schlegelmilch and Wu (2022) explored the role of individualism and collectivism in understanding how normative appeals influence pro-social behaviour. The paper found that normative appeals can have a significant impact on pro-environmental behaviour, but the effectiveness of these appeals can vary depending on an individual's cultural values. Specifically, the study found that individuals with a collectivist mindset are more likely to respond to appeals that emphasise the social norms and expectations of their community, while individuals with an individualistic mindset are more likely to respond to appeals that emphasise personal benefits and individual responsibility.

Cui, Zeng and Jin (2022) studied 938 people to understand how cultural values affect ethical consumption behaviour. An analysis was conducted across two dimensions: eco-friendly and socioeconomic-oriented consumption, following this, structural equation modelling with EQS 6 was used to test the hypotheses. They found that, while vertical individualism had no discernible impact on socioeconomically oriented consumption, horizontal individualism, vertical collectivism, and collectivism all had a beneficial impact on eco-friendly and socioeconomically oriented consumption. Customer satisfaction is positively impacted by ethical consumption practices.

Jung and Cho (2023), discern primary factors influencing pro-environmental purchase and use behaviours among individuals with low environmental consciousness. Within this group, pro-environmental purchase behaviour is notably influenced by income, individualism, and collectivism, while pro-environmental use behaviour is significantly associated with age, education, and collectivism. Notably, collectivism emerges as a consistent and influential factor shaping pro-environmental consumption behaviours within this demographic, underscoring its significance in fostering environmentally conscious actions among those with lower environmental awareness.

In 2023, Do, V.T.H. and Do, L.T. observed that perceived social norms significantly correlate with green consumption behaviours, reinforcing the efficacy of social norms in influencing environmental actions. Moreover, the study highlights a heightened impact of perceived social norms on green consumption behaviours among individuals who prioritise social power and maintaining social face, whereas its influence diminishes among those inclined towards independence. This suggests nuanced variations in the influence of perceived social norms on green consumption behaviours based on individuals' social inclinations and values.

UR Rahman, S., Chwialkowska, A., Hussain, N. et al. (2022) initiated an exploration into cross-cultural variations in sustainable consumption. Consumer responsiveness to advertising efforts was found to increase when there is alignment between one's culture, motives, and the advertising appeals. Consumers in high-individualism cultures such as were attracted to strategies highlighting freedom, and self-expression. In contrast, in high-collectivist countries, consumers responded to subjective norms surrounding pro-environmental behaviours. Consumers in high-power distance cultures are appealed to with sustainable consumption behaviours with power, achievement, winning, and status-enhancement, whereas those in high-context cultures focused on pro-social and pro environmental values.

Zheng, Ling and Cho (2023) constructed a model framework centering on social identity, psychological distance, green perceived value, and purchase intention, and on how social groups influence individual intentions to purchase green food. Their findings indicated the model's strong explanatory power for psychological distance, green perceived value, and purchase intention of green food. Path analysis revealed social identity, psychological distance, and green perceived value had a significantly positive impact on green food purchase intention.

Magdalena, Šrol, Čavojová, and Mikušková's study reveals that individuals with outward and self-centred orientations exhibit more pro-environmental behaviour, while those with high environmental concerns show increased engagement. This suggests that both outward and self-centred orientations can mitigate the negative impact of helplessness on pro-environmental behaviour, offering insights for strategies to prompt action among concerned individuals and raise awareness among those less preoccupied with climate change.

Methodology

Aim

To understand whether dimensions of Cultural Orientation are predictors of Green Consumption Values among working young adults in Tier 1 cities in India.

Objectives

- To measure Cultural Orientation and Green Consumption Values
- To measure the relationship between Cultural Orientation and Green Consumption Values
- To determine whether dimensions of Cultural Orientation predict Green Consumption Values among working young adults in Tier 1 cities in India.

Participants

96 working young adults from different Tier 1 cities in India participated in the study but after data cleaning only 94 responses were used for final analysis. There were 30 who identified as Male, 65 who identified as Female and 1 who identified as Non-Binary. 20 participants were married, 73 were unmarried and 1 was separated/divorced. A majority, that is 82 participants came from nuclear families whereas 12 came from Joint families. 68 participants said that they belonged to Middle SEC and 26 participants said that they belonged to Upper SEC. The participants came from diverse occupations such as teachers, psychologists, software engineers and freelancers among others. The sample size was set to be 100 but since a few participants did not meet the inclusion criteria, the final sample was 96.

Sampling Procedure

The sample was chosen through a method of convenience sampling wherein those working young adults known to the researchers were approached and given the Google Form to fill. The researchers also shared the form on their social media through WhatsApp Groups and Instagram Stories.

The inclusion criteria for the study are as follows:

- The participant must be working full time
- The participant must be living in a Tier 1 city
- The participant must be at least 18 years old and below 40 years old

The exclusion criteria are as follows:

- Participants not of Indian descent and nationality
- Any acute or chronic conditions that limit the person's ability to participate
- Inability to read and understand English

Materials and Data Collection Measures

A Demographic Sheet was included as part of the Google Form which also included consent to participate in the study.GREEN Scale (Haws et al, 2014) consisting of 6 statements was used to measure Green Consumption Values. Culture Orientation Scale (Triandis & Gelfland, 1998) consisting of 16 statements was used to measure dimensions of Cultural Orientation.

Research Design

The design is quantitative in nature and is based on a predictive correlational design which predicts the relationship between predictor variables and an outcome variable.

Hypotheses

H01- There is no significant relationship between Culture Orientation and Green Consumption Values

H02- There is no significant predictive relationship between the four dimensions of Cultural Orientation and Green Consumption Values.

Variables

Cultural Orientation - Horizontal and vertical individualism and collectivism.

Green Consumption Values- One's tendency to express their own environmental protection values through his or her purchases and consumption behaviour.

Procedure

A Google Form consisting of demographics, consent and the scales to measure the two variables of study was created and circulated among people known to the researchers who fit the inclusion criteria. The researchers also shared the form on their personal social media to reach more participants. All the data was collected through Google Forms and the responses were then downloaded onto an excel sheet, coded and imported into SPSS 24 for analysis.

Data Analysis

Data was analysed using IBM SPSS 24 software. The data was cleaned to look for outliers and missing values since two such responses were found, 94 data was retained. It was tested for normality using Shapiro-Wilk test. The parametric test, Pearson's correlation was done as the data fulfilled the assumptions in order to determine the correlations. Further, the multiple linear regression table was generated and interpreted.

The results from the tables were discussed.

Ethics

Voluntary participation and Autonomy to withdraw- All the participants participated in the study voluntarily and were informed of their rights to withdraw their participation at any point by contacting the researcher.

Informed Consent from Research Participants- All the participants were given an Informed Consent Form which explained the research to them and the potential threats and benefits that would be a past of participating. Only those who were willing to consent were part of the study.

Data Confidentiality and Protection- The Form is accessible only to the researchers and is password protected. The data that is uploaded digitally for analysis on SPSS will be stored on a password protected external hard drive.**Analysis and Discussion**

Table 1

Showing the demographic distribution

Variable	Frequency	Percentage
Gender		
Female	64	68
Male	29	31
Non-Binary	1	1
Marital Status		
Married	20	21
Unmarried	73	78
Separated/Divorced	1	1
Family Type		
Nuclear	82	87
Joint	12	13
Socioeconomic Status		
Middle	68	72
Upper	26	28

Table 2

Showing the mean and standard deviation of the study variables

Variables	N	Mean	Standard Deviation
Cultural Orientation	94	22.56	4.01
Green Consumption Values	94	59.62	6.372

Referring to Table 2, the mean value of Cultural Orientation (N=94) is 22.56 and the standard deviation is 4.010 which shows that the data points are distributed far away from the mean. The range is 32. The mean values of Green Consumption Values (N=94) is 59.62 and the standard deviation is 59.62 which again shows that the data points are distributed far away from the mean.

Table 3

Showing the normality test of the scale variables using Shapiro-Wilk test

Variables	Statistic	df	Significance
Cultural Orientation	0.978	94	0.11
Green Consumption Values	0.985	94	0.371

The significance values for Cultural Orientation and Green Consumption Values on Shapiro-Wilk test are 0.110 and 0.371 respectively (Table 3). Since all the values are > p=0.05, the data for both variables is normally distributed as the null hypothesis for normality is accepted.

Table 4

Showing the linearity test of the predictor variables with the outcome variable

Variables	Sum of squares	df	Mean square	F	Significance
Cultural Orientation and Green Consumption Values	352.570	38	13.560	0.797	0.736

The significance of deviation from linearity for Cultural Orientation and Green Consumption Values is 0.736 (p>0.05) which means that deviation from linearity is not significant (Table 4).

Table 5

Pearson's correlation values for the relationships between the predictor and outcome variables

Variables	Pearson's r	Signficance
Cultural Orientation and Green Consumption Values	0.147	0.157

The relationship between Cultural Orientation and Green Consumption Values is very negligibly positive (r=0.147) and is not statistically significant (Table 5).

Table 6.1

Showing the model summary of multiple linear regression

Mode l	R	Adjusted R square	Std. Error of the Estimate
1	0.22 6	0.009	3.992

The regression model is not able to explain the outcome variable (R^2 = 0.009) which suggests that the predictor variables are not able to predict the outcome variable. (Table 6.1)

Table 6.2

Showing the significance of the regression model

Mode l		Sum of squares	df	Mean square	F	Significan ce
1	Regression	76.485	4	19.121	1.2	0.317
	Residual	1418.632	89	15.94		
	Total	1495.117	93			

The regression model is not significant since p=0.317> 0.05. This means that the predictors are not a good explanation of the outcome.

Table 6.3

Showing the regression coefficients of each predictor variable with the outcome variable

Mode l	Variables	B	Std. error	Coefficien t s	t	Significan c e
1	(Constant)	16.39 2	4.67		3.51	0.001
	Horizontal Individualis m	0.18	0.19	0.101	0.95	0.345
	Vertical Individualis m	-0.17	0.163	-0.118	-1.05	0.297
	Horizontal Collectivism	0.221	0.232	0.113	0.95	0.343
	Vertical Collectivism	0.118	0.158	0.747	0.75	0.457

With one unit increase in Horizontal Individualism, Horizontal Collectivism and Vertical Collectivism, Green Consumption Values increases by 0.101, 0.953 and 0.747 which was not found to be a significant change, p> 0.01 (Table 6.3).

With one unit increase in Vertical Individualism, Green Consumption Values decreases by 0.118 which was not found to be a significant change, p> 0.01 (Table 6.3).

According to previous findings (Jung & Cho, 2023; Sreen, Purbey & Sadarangani, 2018), cultural orientation has a relationship with green consumption however this study did not confirm those findings since all the correlation as well as regression were statistically insignificant. Previous studies have compared different populations chosen based on their cultural orientation but this study looked only at working young adults in Indian tier 1 citiesand a significantly small sample where there was not much difference in the four dimensions of cultural orientation.

Summary and Conclusion

To understand whether dimensions of Cultural Orientation are predictors of Green Consumption Values among working young adults in India. The study was conducted on a sample of 96 working young adults from different cities in India but after data cleaning only 94 responses were used for final analysis. The sample was aged between 21 to 43 years of age, and came from a diverse range of occupations and SEC. Descriptive and inferential statistics were applied to analyse the data acquired:

Findings revealed normal distribution of data, and no significant deviation from linearity for Cultural Orientation and Green Consumption Values. The relationship between Cultural Orientation and Green Consumption Values was found to be very negligibly positive (r=0.147) and statistically insignificant. Regression analysis revealed that the predictor variable was not able to accurately explain the outcome variable. With one unit increase in Vertical Individualism, Green Consumption Values decreased by 0.118 which was not found to be a significant change.

Implications

The findings of this study can be employed by marketing firms, agencies and consumer policy making bodies. It can also be utilised by small scale green brands looking to get a better understanding of the demographic to formulate and brand their products appropriately.

Limitations

The limitations in the present study included a smaller and more homogenous sample, which could have influenced the data to appear statistically not significant.

Suggestions for Future Study Future studies in this domain can look at a larger sample with greater classification of gender, age, socioeconomic class, geography and even profession to better understand the influence of Cultural Orientation on Green Consumer Values.

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A Study on Consumer's Preference for Nandini Milk and Milk Products

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ABSTRACT

Milk holds a large share in human diet irrespective of one's culture and customs they follow. The accelerating demand for milk with rise in income and health consciousness expects supply also to ameliorate in the same pace. This paper discusses about consumers preference for Nandini Products. For demand side of economics, we have the consumer perspective to elaborate on the level of satisfaction and motivation for purchase of Nandini brand. Various statistical tools have been used to analyze the primary data. The data illustrates that the consumers are satisfied with the products provided to them under the brand name Nandini.

Keywords: Consumers Perception, Satisfaction, Milk and Milk Products.

INTRODUCTION

Consumer satisfaction illustrates the utility derived by the consumer from various commodities. Behavior of the consumer depends on various factors like price, quality, preferences, and income. Customer satisfaction is pivotal to meet the organizations' goal of profit maximization.

Dairy farming is an economic activity, which involves processing of milk from cows and buffaloes. India is known as the 'Oyster' of the world dairy farming. Karnataka has been in the foreground to initiate and accelerate growth in agriculture and allied activities. During the tough times in the production process, dairy farming protected the farmers from further struggle to yield income. Dairy farmers took advantage of the income and employment generated from this sector amplified the production process. The market size of the dairy sector is INR 932.1 billion in 2022.

2.Review of Related Literature

Sadiq Balganur (2016) is a qualitative study on "Consumers Perception towards Nandini Milk at DAMUL" helps the company to have an insight on the declining sales of the Nandini products. The awareness among the study units, where one can notice that lion's share of the market is captured by Nandini. Brand loyalty is one of the reasons for Nandini to sustain in the market. There is high scope for the competitors to take over Nandini's advantage of being a leader in the market. The fall in the demand could be for various reasons like lack of advertisement on the modified or variation introduced in the feature of the products and there is

no good customer- producer relationship as it is a highly perishable commodity. This study assimilates information about the producers and also the purchasing pattern of the customers based on various parameters like taste, price, quality etc. The various strategies to be adopted in order to meet the requirement of the consumers through better services and quality products. The data collected has been analyzed using simple percentages and pictorial depictions.

Jayson Rasalam (2011) elucidates on "Consumer satisfaction of milk and milk products of MILMA". The study reveals the motto of the cooperative union of Kerala and its motive to enhance customer satisfaction and also aid the farmers through marketing and financial assistance. The customer base of MILMA has been declining due to the other active players in the market. The aspects which determine the purchasing habits of the customer are determined. Price and advertising are the key factors that influences the purchasing habits. As per the study, quality is the essential factor which has increased customer satisfaction and their loyalty towards the product. They have used simple percentages to determine their buying habits and levels of satisfaction. The level of satisfaction is measured in terms of quality, availability, services and price. Advertising to retain customers has least impact, which indicated that the demand is based on the services provided.

Dr. Ramanjaneyalu N (2012) intends to do a "Comparative analysis of milk products with respect to its competitors with special reference to Dharwad, KMF". Customer satisfaction is based on the preference made and the retailer's satisfaction got with the profits earned. So, to have good relationship with the customers, provide quality products and better distribution system. The role of retailers is vital in creating awareness and retailers do not associate with the federation if they get less profit margin from sales. Nandini's demand is reducing as the local players are capturing the market through its retailer marketing and competitive price. Nandini will have to ensure better quality, service, availability, and price to improve the customer satisfaction. The federation has been analyzing various strategies to hold market leadership and customer base. Data has been collected from customers and retailers and have analyzed the data through percentages. This depicts that customers of Dharwad are aware and satisfied with the product and the retailers have witnessed good sales and most of them have been selling Nandini brand in their stores.

3.Objectives of the Study

- To examine the consumer's perception and level of satisfaction from Nandini Milk and Milk Products.
- To associate consumer's satisfaction with price, quality and product speciality.

4.Data and Methodology

The study carried out by taking the help of primary data collected from the consumers of Nandini Products, from the urban population of Bengaluru. The primary data was collected through questionnaire method and the sample of 100 was chosen using Random Sampling technique.

Statistical Tools used for Analysis

- Pictorial representation
- Likert Scale
- Regression Analysis: Multiple Linear Regression

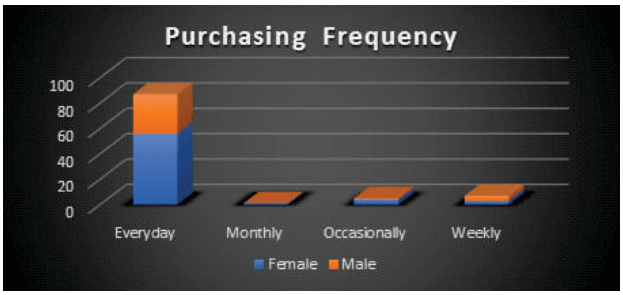
5.Result

Objective

The sample survey was conducted through Google forms. This was to measure the level of satisfaction derived from the services provided by Nandini milk and milk products with respect to quality, price, brand, etc.

5.1 Purchasing Pattern of Consumers

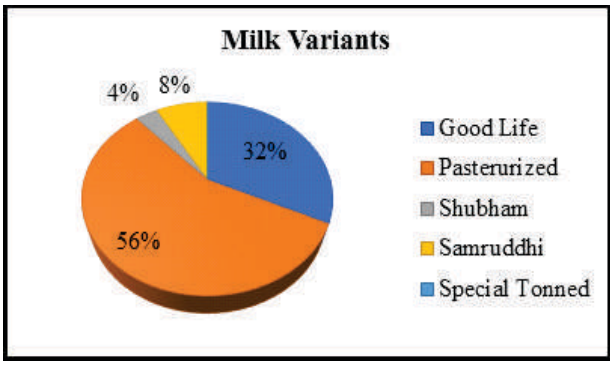
Graph 5.1 Purchasing Pattern of Consumers



he bar graph depicts the difference in the purchasing pattern between male and female. 56 percent of women purchase milk everyday where as 31 percent of men purchases it every day. 4 percent and 1 percent of women and men purchase it occasionally. 3 percent of female and 4 percent of male members purchase it weekly.

5.2 Purchase of Milk Variants

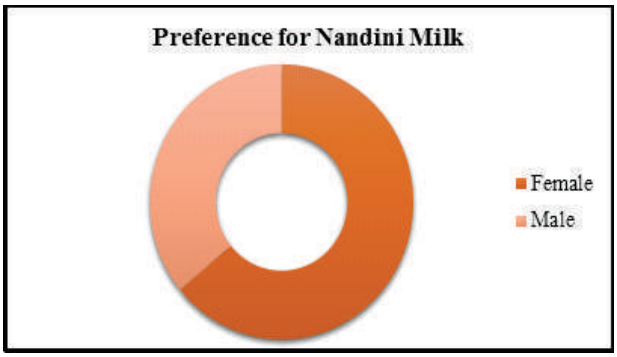
Graph 5.2 Purchase of Milk Variants



The pie chart pronounces the variation in the purchase of milk, where 56 percent buy pasteurized milk. Good life is consumed by 32 percent and 8 percent buy Samruddhi milk. The least milk consumed among the variants is the special toned milk, as people have become more conscious about one's health and avoid milk with high fat content.

5.3 Preference for Nandini Milk and Milk Products

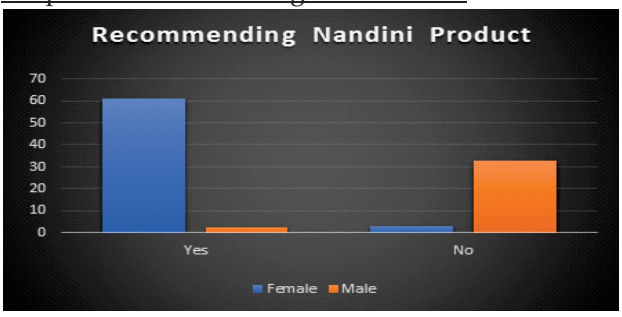
Graph 5.3 Preference for Nandini Milk and Milk Products



The above graph portrays the preference for Nandini milk product by the consumers. The differences seen based on gender. The individuals who prefer Nandini products the most are women. 64 percent of women and 34 percent of men is the proportion for preference based on gender.

5.4 Recommending Nandini Milk and Milk Products

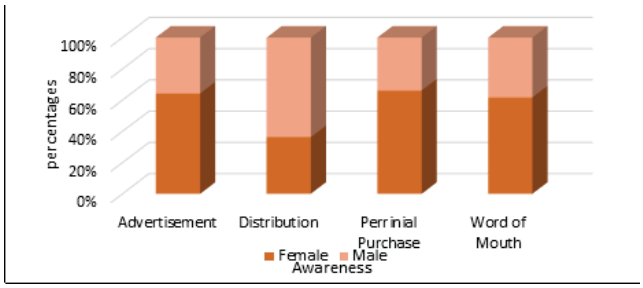
Graph 5.4 Recommending Nandini Milk



The bar graph indicates the variation in recommending Nandini milk products to consumers. Here 64 percent of female would recommend the product and among men is 36 percent. The ones who would not recommend are 50 percent for both male and female. The total recommendation frequency is 94 out of 100 respondents.

5.5 Awareness for Nandini Milk and Milk Products

Table 5.5 Awareness for Nandini Milk and Milk Products

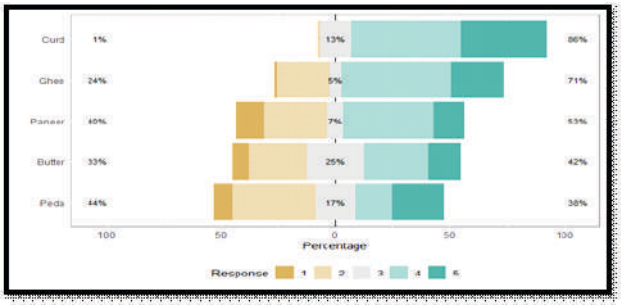


The bar graph portrays the variation in awareness through different means. Awareness through advertisement was 17 percent whereas, through distributors it's about 8 percent. Perennial purchase and word of mouth has been effective means to create awareness, where 36 percent and 39 percent respectively.

5.6 Preference for the Select Nandini Milk Products

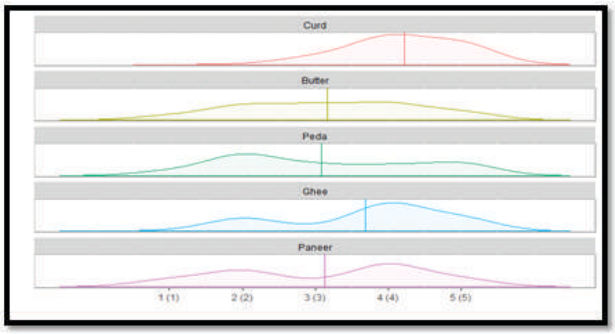
One of the five categories namely, Curd, Ghee, Panner, Butter and Peda. The preference of the urban customers of Bengaluru, chosen for the study ranked their preference on a scale of 5, where 1 indicates the least preferred and 5 most preferred. *Likert scale* has been incorporated to measure the customer satisfaction for Nandini milk and milk products.

Graph 5.6 (a) Preference for 5 select Nandini milk products.



The bar graph shows the preference for the product indicated through percentages, the yellow color depicts the least preference, grey as moderately preferred and green as the most preferred product. Among the products curd is the most preferred commodity with 86 percent and 38 percent for peda, this is on the scale of 5 that is strongly preferred. The least preference of 1 percent for curd and 44 percent is the percentage of the least preference product peda on the scale of 1. The other product like butter has a moderate preference of 25 percent. Ghee is the second most preferred product after curd with 71 percent. Panner has moderate preference of 53 percent among the 5 products. The response in percentage is based on the 5 point rating scale.

Graph 5.6 (b) Preference for 5 select Nandini milk products.

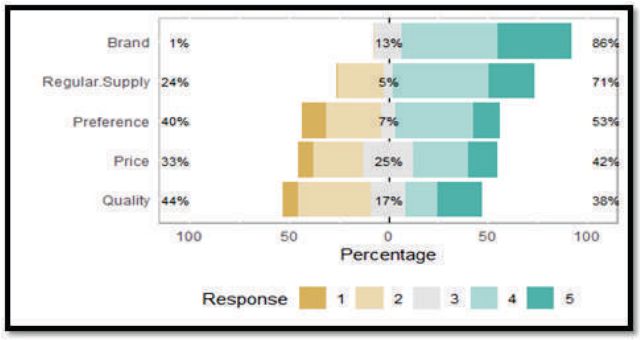


The density plot portrays the rating scale, where the mean of the product is indicated with the vertical lines and the curves on theplot indicates the distribution of values, more or less like a histogram.The mean of curd is approximately 4.2, and for butter and paneer its 3.1. Where as the average for ghee is 3.6 and peda is 3.08. most of them don't prefer peda, where the curve is at its peak towards the left. For butter we see that it ranges in the middle and for ghee and butter the curve is at its peak on the right hand side indicating strong preference towards the products. The curve has been touching the upper part of the plot which is the highest prefernce ans also its has right tailed curve.

5.7 Parameters for Purchase of Nandini Milk and Milk Products

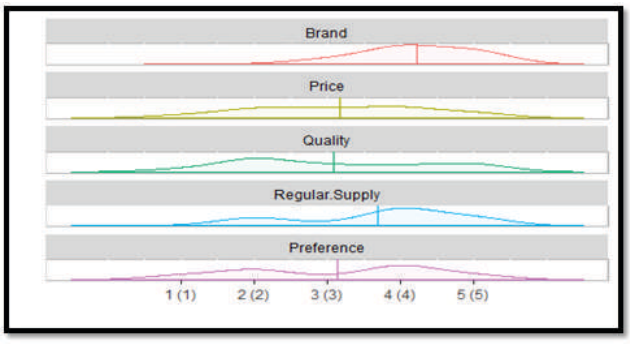
The five attributes namely, Brand, Regular Supply, Preference, Price and Quality is accounted for purchase pattern of the urban customers of Bengaluru. The respondents ranked their preference on a scale of 5, where 1 indicates the least preferred and 5 most preferred. *Likert scale* has been incorporated to measure the parameter which determines the purchasing pattern of the customers.

Graph 5.7 (a) Ranking attributes for purchase of Nandini Milk and Milk Products



The bar graph depicts the parameter for purchasing the product, which is indicated through percentages, the yellow color depicts the least preferred, grey as moderate preference and green as the most preferred. Among the attributes, *brand has the highest preference* with 86 percent and 38 percent for quality, lies onthe fifth scale of strongly preferred parameter. On a scale of 1 the highest percentage is given to quality followed by preference shows that quality is not the parameter for most of the respondents. On a scale of 3 one can observe that the highest is price, where the purchasing pattern on an average is determined by the price factor followed by quality.

Graph 5.7 (b) Attributes for purchase of Nandini Milk and Milk Products



The density plot portrays the rating scale, where the mean of the product is indicated with the vertical lines and the curves on the plot indicates the distribution of values, more or less like a histogram.The mean of the parameter brand is approximately 4.2, and for price and preference its 3.13 and 3.16 respectively. Where as the average for

reguar supply is 3.69 and for quality it is 3.08. Most of them of them do not look at the quality for purchasing milk, as one can infer from the curve is at its peak towards the left. For price parameter we see that it ranges in the middle and for regular supply and preference the curve is at its peak on the right hand side indicating that this attibute will depict purchasing pattern. The highest slope of the curve towards the right is for the brand ,where the purchases are mostly done based on the brand of the product over other factors.

5.8 Improvements in Services provided by Nandini

Table 5.8 Improvements in service provided by Nandini

Parameter for Purchase	Gender		
Improvements	**Female**	**Male**	**Grand Total**
Satisfied with the product	-	1	1
Price	26	14	40
Quality	19	13	32
Service	19	8	27
Grand Total	**64**	**36**	**100**

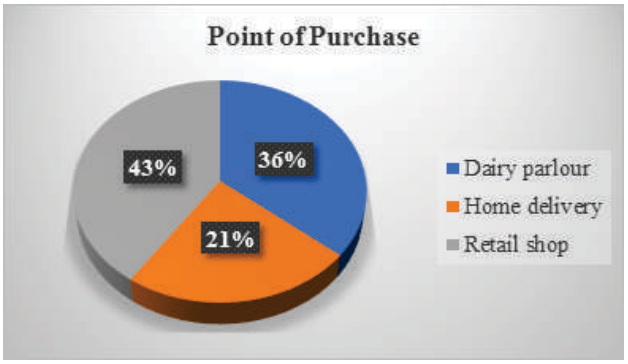
Source: Sample survey

The table portrays the essential modification to be adopted by KMF to enhance customer satisfaction, where one can observe that only 1 respondent who has been satisfied with the services available at present.

- The services like the availability of milk, storage, regular supply, where 27 individuals would want to see changes in these aspects, female respondents are 19 and male comprise of 8 on this parameter to improve the condition.
- The quality of the product which is expected to be enhanced through various measures taken by KMF, out of 32 responses 19 female and 13 male respondents would like to see better quality of the Nandini products.
- *Price has been a major concern* for 40 respondents, where majority offemale respondents would want the price to be reduced as the price of milk has been increasing every year, despite the high procurement level in Karnataka Milk Federation.
- Among the 100 Nandini customers, 40 percent would like to see changes in price, making it reasonable. The improved services and quality product expected by 32 percent and 27 percent respectively. Only 1 percent of Nandini customer has been satisfied with current services of KMF.

5.9 Purchase Point of Nandini Milk and Milk Products

Graph 5.9 Purchase Point of Nandini Milk and Milk Products



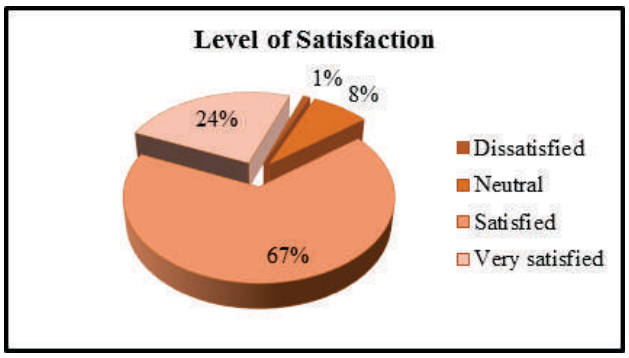
Source: Sample Survey

The above pie chart shows the point of purchase of milk and milk products by Nandini customers. Most of the customers purchase from retail shops, which is present in their vicinity.

- The significant purchase point is from the retail shops, where 43 percent customers buy from this place.
- 32 percent buy the product from dairy parlours which is made available in Bengaluru urban for easy and regular availability of Nandini products.
- 21 percent customers avail the facility of home delivery and the payment is usually made on monthly basis to the distributors.

5.10 Level of satisfaction for Nandini Milk and Milk Products

Graph 5.10 Level of satisfaction for Nandini Milk and Milk Products



Source: Sample Survey

The above graph depicts the level of satisfaction derived by the product made available to the customers. The number of satisfied individuals is the highest, whereas the dissatisfied customers of Nandini product are the least.

- Among the 100 respondents, one can witness that 67 percent of the customer have been very satisfied with quality and services provided by KMF under the brand name of Nandini in Bengaluru.
- The satisfied customers are about 67 percent, which is the highest among the level of satisfaction. The efforts to improve the product and services can enhance the satisfaction level among the individuals.
- The moderate level of satisfaction indicated by neutral shows that 8 percent fall under this category.
- The dissatisfaction derived from the services and product is uncounted by only 1 percent of the total of the study.

5.11 To analyze the impact of Quality, Price and Product speciality associated with Nandini products and the level of satisfaction of the customers

Level of Satisfaction=fn (Quality, Price and Product Speciality)

Null Hypothesis (H0): There is no significant impact of quality, price and product speciality associated with Nandini products and the level of satisfaction of the customers.

Alternative Hypothesis (H1): There is a significant impact of quality, price and product speciality associated with Nandini products and the level of satisfaction of the customers.

Regression analysis was done to estimate the relationship between the independent variable and dependent variables.

Dependent variable: Level of Satisfaction

Independent variable: Quality, Price and Product speciality.

Table 5.11 (a) Output Summary

Regression Statistics	
Multiple R	0.9
R Square	0.87
AdjustedR Square	*0.856*
Standard Error	3990.69
Observations	99

Adjusted R square value is 0.85, which denotes that the variation in the dependent variable which is customer satisfaction, explained by the independent variable (quality, price and product speciality) 85.6 percent variation in the level of satisfaction is explained by the independent variables.

Table 5.11 (b) ANOVA

ANOVA					
	Df	*SS*	*MS*	*F*	*Significance F*
Regression	3	1433.06	477.68	89.99	2.04E-14
Residual	96	1576.64	159.25		
Total	98	300.97			

The p value which is 0.000 and the α value is 0.05, where (0.00<0.05). This signifies that the model is statistically significant and predicts the outcome variable. Thus, we fail to accept the null hypothesis. Indicating that the quality of the product, price of milk and product speciality of Nandini product has a significant impact on the level of satisfaction.

Table 5.11 (c) Coefficients

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	490.697	2494.65	1.9669	0.0319	800.429	98569	856.66	986.69
Quality	788.635	7920.89	9.0486	1.298321	7385.7	838.7	738.57	838.7
Product Speciality	330.436	1375.02	0.8805	0.038	454.138	507.43	544.13	743.73
Price	786.739	8458.87	1.5373	1.30-14	848.466	919.45	548.46	638.19

Level of satisfaction= **490.697+ 788.635**(Quality)***+ **330.436**(Product Speciality)** **+786.739**(Price)***

- 1 unit increase in the quality of the product would increase the level of satisfaction by 788.635 units.
- 1 unit increase in the product speciality associated with the product would increase the
- level of satisfaction by 330.436 units.
- 1 unit increase in the price of the product the increases the level of satisfaction by 789.739 units.
- The quality and the price are the most significant variables to determine the level of satisfaction.

Conclusion

Dairying is deep rooted in the Indian culture for ages. The factors such as increase in the disposable income has created better purchasing power across the country and rapid urbanization has marked a rise in the demand for the packed and processed food articles. Innovation and digitalization have made information accessible and increased health consciousness among the people led to the induction of milk variants and better-quality product and upgradation in the standards of the product produced. The increased demand can be attributed to the urban lifestyle and attitude of the consumer. The demand side of the sector has been increasing rampantly with exponential increase in disposable income and population. In the way forward we can witness that Vegans products would be preferred by the population over milk products.

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A study on consumers preferences of Millets in Bengaluru Urban"

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ABSTRACT

The study examines the growth and stability of area, production, and productivity of ragi, jowar, and bajra in India and Karnataka, alongside consumer preferences for coarse cereals in Bengaluru (Urban). Analyzing data from 2003 to 2019 and employing statistical tools like correlation and trend analysis, it finds that while area and production of millets show a decline, productivity is gradually increasing due to improved agricultural practices. Despite socio-economic challenges associated with millets, there's a rising acceptance driven by health concerns. Forecasts suggest a steady rise in production and consumption. Millets are increasingly used for both consumption and commercial purposes, with "word of mouth" playing a key role in spreading awareness of their benefits. Although rice and wheat remain popular, millets are becoming the second most preferred cereal, indicating a growing trend toward their consumption in urban areas.

INTRODUCTION

Krishna Byre Gowda emphasizes the need to transition towards organics and millets, highlighting millets' nutritional value and resilience in the face of water scarcity and adverse climates. Millets, categorized as "coarse grains" or "smart food," have been a staple in diets worldwide for centuries due to their rich protein, fiber, vitamin, and mineral content. Over the last five years, millets have gained market relevance, particularly in India, where they constitute a significant component of the agro-based economy. Karnataka, Maharashtra, and Rajasthan are leading producers of ragi, jowar, and bajra, respectively. Government initiatives have revitalized millet cultivation and consumption, especially in urban areas like Bangalore, where health-conscious consumers drive demand. Market recognition of millets' versatility and sustainability has led to the emergence of new brands catering to modern consumers' nutritional needs.

STATEMENT OF THE PROBLEM

India holds the title of the largest millet producer globally, with ragi, jowar, and bajra serving as staple crops in many households across several states. Millets are renowned for their nutritional value and eco-friendliness, deeply ingrained in the country's tradition and culture. However, changes in agricultural practices and government policies favoring rice and wheat cultivation have altered millet cultivation patterns. Urbanization, the prevalence of fast food, and shifting lifestyles have contributed to a decline in millet consumption. Reintroducing millets into the agricultural landscape is seen as a prudent step to address various socio-economic challenges arising from development

SCOPE OF THE STUDY

India stands first in millet production and consumption in the world. Various varieties of millets are cultivated in the country, but only

sorghum (jowar), pearl millet (bajra) and finger millet (ragi), are considered for study since they dominate the millet seg-ment. Functional characteristics like high nutritive value, climate resiliency, ability to attain food security and combat malnutrition are fundamental in uplifting millet cultiva-tion and consumption in Karnataka which is among the top 10 producer states of India. Acceptability of millet grain and its products among rising health conscious consumers has transformed Bengaluru into a 'Millet Capital".

OBJECTIVE OF THE STUDY

- To examine consumer preferences in order to gauge growing popularity of millets in Bengaluru Urban

LIMITATIONS OF THE STUDY

- Comparison between Urban and Rural consumption has not been considered due to time constraint
- The question of growing popularity of millets in Bengaluru at the cost of deterioration of cultivation of other cereal crops has not been addressed

DATA AND METHODOLOGY

Primary data is collected from 127 samples through simple random sampling technique from Bengaluru urban and secondary data has been compiled from various online sources.

ROLE OF MEDIA AND E-COMMERCE IN PROMOTING MILLETS

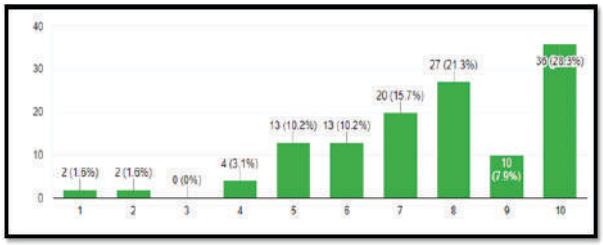
- **Print media:** It has played an instrumental role in spreading awareness among people about the WonderGrain. Prominent newspapers like The Hindu, The Economic Times, Deccan Herald, etc., health magazines, have often published articles about various as-pects of millets such as its nutritive value, adaptability to ecological conditions, and reasons for its disappearance from the market. They have also covered extensively events, workshops, and conferences that are held nationwide to propagate the grain. Recipe books and fashion magazines have also dedicated sections to promoting the grains for their nutritional benefits and sustainable production.
- **Social media:** It has emerged as a powerful tool in the last decade. With about 462 mil-lion people leveraging various forms like Facebook, Instagram, Twitter, YouTube, etc. to participate in social networking, create and share content and conduct business ac-tivities, such channels have also become a form of educating masses on a plethora of is-sues and topics of interest. The #LetsMillet online campaign launched by the Karnataka Government in 2017 has proven to be quite popular among the youth. YouTube, the video-sharing website has also contributed to spreading awareness about the economic, ecological and nutritional value of millets. Videos citing recipes, uses and recent ad-vances in processing have thus removed roadblocks to a certain extent in promoting the forgotten superfood. Additionally, WhatsApp groups are also serving as a platform to bring together suppliers and consumers and educating people about the grain.
- **E-Commerce**: Data reveals that India is the fastest-growing market for the E-Commerce sector. It has transformed the way business is conducted in the country. To connect with new-age consumers who are willing to explore healthy eating options, many millet brands like *24 Organic Mantra, Soufull, Safe Harvest*, etc. have opted for sale of their products through popular online websites such as Big Basket, Amazon, Flipkart. This has made procurement easy and facilitated an increase in the consump-tion of millets especially in the urban areas. A report published in The Economic Times dated February 11, 2019 states that India's FMCG giant ITC will launch its first e-commerce operation that would cater to the sale of products such as gourmet choco-lates, premium skincare products, and health foods like millet and ragi flour. Hence with greater online penetration in the country, more brick and mortar stores are leverag-ing the online mode to expand sales.
- **Other Forms:** Television channel NDTV in 2018 under its lifestyle subsidiary NDTV Food-a leading food content platform showcased a range of recipes, articles, videos and the latest news on the comeback of millets in the Indian cuisine. Alongside culinary classes, cooking groups are also gaining popularity among homemakers and young mothers who intend to integrate millets in their household kitchens.
- Food demonstrations and millet tasting sessions conducted in metropolitan cities are also becoming a means to encourage consumers in buying millet and millet-based products.
- Demonstration effect' has also had a key impact on reintroducing a 'Millet Culture' in India. Millets being a key breakfast ingredient in the

Western countries, are penetrating the Indian market over the recent years and gradually becoming popular among the urban households.

INITIATIVES UNDERTAKEN TO PROMOTE MILLETS

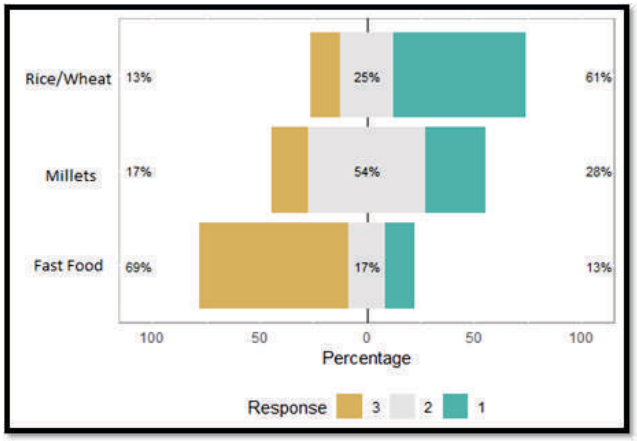
- With a goal to support small and marginal farmers in Southern states of India, CII (Con-federation of Indian industry), has launched crop specific initiatives. One such is the Mil-let Task Force in Chennai that aims at augmenting millet cultivation and its promotion in the Southern states.
- One major step to increase demand for millets is Smart Food Campaign with the tagline "Good for you, Good for the planet and Good for the farmers."4 It is an initiative that primarily focuses on popularizing millets and has been selected by LAUNCH FOOD as one of the winning innovations for 2017. India Indian Institute of Millet Research (IIMR), National Institute of Nutrition (NIN), MS Swaminathan Research Foundation (MSSRF) and Self Employed Women's' Association (SEWA) have teamed up to popularize millets.
- Odisha Millet Mission: A special programme launched by Department of Agriculture & Farmers Empowerment in 7 districts of Odisha in order to promote millets in tribal areas. The Programme intends to revive millets in rain fed farming systems and household con-sumption; include millets in PDS, ICDS and MDM; strengthen farmer cooperatives and organizations for effective marketing of millets and extend the availability of millet seeds among the State farmers, increase millet consumption in urban and rural areas, setup de-centralized processing units, enhance productivity and provide better marketing avenues. In order to change the mind-set of people around millets, massive awareness campaigns, number of promotional rallies, food festivals and competitions has been organized.

Consumer's recommendation



On a scale of 10, the above graph depicts how likely the consumer would recommend eating millets to others where 1 suggests "will not recommend" and 10 "strongly recom- mend". Approximately 28% of the respondents stated that they are very likely to recom- mend including millets in one's diet to the others. Though this percentage does not appear very promising, maximum consumers' responses are concentrated here. Awareness, health, and nutritional benefits constitute as primary reason for people to recommend it to others. On an average 2.1% of the respondents are not likely to recommend, which constitutes for a very small proportion of the sample denoting the consumers are in favour of reviving the millet culture in the society. On an average 11.4% of the respondents have ranked their preference between 5 and 7 which can be inferred as a neutral recommendation.

Consumer Preferences



Out of the three categories namely, **Millets, Rice/Wheat & Fast Food-** the urban con- sumers of Bengaluru chosen for the study (i.e 127) ranked their preference on a scale of 3, where 1 indicates most preferred and 3 least preferred. The concept of 'Likert scale' is incorporated to analyse consumer preferences.

From the above plot, following can be inferred:

- **For millets:** Around 28% of the total respondents ranked 1, 54% ranked 2 and 17% ranked 3.
- **For rice/wheat:** Close to 61% ranked 1, 25% ranked 2 and 13% ranked 3.
- **For fast food:** Approximately 13% ranked 1, 17% ranked 2 and 69% ranked 3.

It is thus implied that rice and wheat are most preferred, followed by millets and fast food.

- Rice and wheat dominate choices due to easy

procurement, wider price range, cultural significance and ease of cooking.

- A willingness to include millets like ragi, jowar and bajra in one's diet is observed due to its high nutritional value, growing awareness of the health and ecological benefits it can offer.
- Fast food is least preferred by a substantial (69%) sample of the population indicating move towards healthier eating options and awareness about ill-effects of regular consumption.

SUMMARY OF FINDINGS, POLICY INITIATIVES AND CONCLUSION

- 61.4% of the respondents' state that 'Word of mouth" has been the biggest source of dissemination of information.
- 48% have become millet consumers in the last 1 year indicating supply side marketing coupled with consumer's inclination to incorporate a wholesome di-et in their lifestyle.
- About 41.7% indulge in some degree of physical activity more than 3 times a week which is a sign of healthy lifestyle and need to maintain good health.
- 78.7% stated that they eat-Idly/ Dosa as their first meal of the day while 14.2% consume a millet-based food for breakfast which implies that millet based food is yet to become a part of breakfast menu.
- 55.9% experienced a healthier lifestyle by including millets in their diet.
- 56% state that they purchase millets.
- 28% state that they are very likely to recommend including millets in one's diet.
- Millets: 28% of the total respondents ranked 1, 54% ranked 2 and 17% ranked 3
- Rice and wheat are most preferred, followed by millets and then fast food.
- 40.15% experienced a healthier lifestyle and have rated millets in the range of 8-10 on the recommendation scale.
- It is thus concluded that there is steadiness in the popularity of millets in the city. However, its acceptance and penetration is limited.

POLICY INITIATIVES

Both central and state governments are actively promoting millets through various policies and schemes aimed at increasing both supply and demand. Initiatives include the National Millet Mission launched in 2018 to promote millets nationwide for nutritional and income security, particularly targeting farmers with limited resources. The Organics and Millets International Trade Fair organized annually in Karnataka aims to raise awareness about the benefits of organic and millet foods and foster business opportunities. State budgets have allocated funds, such as cash incentives and grants, to encourage millet cultivation and organic farming, exemplified by schemes like "Raitha Sri" and "Siridhanyas." These efforts underscore a concerted push to revive millet cultivation and consumption across the country

CONCLUSION

The analysis reveals that in Karnataka, the area and production of ragi, jowar, and bajra exhibited erratic patterns from 2003 to 2019. However, productivity levels are gradually increasing and could be further enhanced through the adoption of modern cultivation techniques and mechanization. Notably, ragi shows the lowest volatility in area, production, and productivity among the three crops in Karnataka. On the consumption side, there is a growing preference for millet-based products among urban populations due to concerns about the unsustainable nature of rice and wheat production and a shift towards healthier foods. To address socio-economic challenges like poverty, hunger, and malnutrition in India, greater efforts are needed both in boosting production and stimulating consumption of millets.

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A Study on the Influence of Artificial Intelligence and Consumer Reviews on Consumer Behavior -with special reference to the Insta Generation.

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ABSTRACT

As the digital landscape evolves, consumer behavior undergoes a profound transformation influenced by the omnipresence of online reviews and the integration of artificial intelligence (AI) in decision-making processes. The research delves into the significant role played by online reviews as a powerful influencer on consumer preferences and purchasing decisions. It investigates the mechanisms through which user-generated content shapes perceptions and establishes trust in a digital environment. By using primary data collected concerning consumer choices the research aims to provide a nuanced understanding of the factors driving consumer choices. Furthermore, it seeks to identify patterns and relations between specific demographic groups, review engagement, and AI utilization, unravelling the underlying dynamics of the digital consumer journey.

Keywords : Artificial intelligence, consumer behavior, consumer reviews, insta generation, digital interface.

INTRODUCTION

The rapid growth of information technology has created new opportunities in marketing science, with predictive significance, effectiveness, and performance. To gain a competitive advantage and conduct effective marketing strategies, companies need to gather and store consumer information that can help analyze, model, personalize, predict, and influence potential customers' behavior and intention to purchase products or services. Due to technological progress, people's lives have changed, along with their purchasing behavior. Consumer habits change and differ based on cultural, social, financial, geographical, and political factors affecting their choices and reactions when purchasing a service or product. Electronic commerce has allowed companies to sell their products or services to their audience through their websites or e-shops. The number of transactions and behavior data generated from those purchases allow companies to understand the way consumers think and act during their consuming journey. Reviews, comments, prices, site speed, colors, payment methods, product specifications, shipping time, and product comparison among websites are some factors that affect most consumers. With the current volume of daily generated data and the amount of information provided through marketing channels, any predictions or suggestions seem impossible. Consumer satisfaction through consumer behavior and user experience is critical for success. Sophisticated AI tools are necessary to simplify consumer decision-making for marketing and retail(Dimitris C. Gkikas and Prokopis K. Theodoridis,2023).

Artificial intelligence (AI) provides marketing science the ability to efficiently handle big volumes of

daily generated data and overcome humans' inability to process these data using obsolete ways providing highly accurate results. Brands need to record, and research consumers' journeys to predict consumers' behavior. Knowing consumers' next moves, marketers can make more efficient decisions through automated "smart" procedures and platforms. The true potential of artificial intelligence is shown through the results of big data, machine learning, and data mining applications in the companies. As previously mentioned, as marketers managed to model, find patterns, and manipulate unprecedented scale data it gave them the advantage to eliminate mistakes, narrow the targeted groups of consumers, and target the right audience using a suitable medium for each occasion. When it comes to prediction, machine learning, and deep learning, along with data mining and results extraction give decision-makers a significant advantage to predefine and accurately predict the potential needs, trends, and purchases by the consumers. Artificial intelligence algorithms train their models to be self-improved by processing huge amounts of data. Since machine learning can handle big volumes of strings of data, it certainly can partially "understand" the world of humans in terms of choices and needs. However, while many brands rebuild their foundations on innovation and artificial intelligence, many have to manage to handle the increasing volume of data which can improve their understanding of their customers. Referring to consumer behavior, computers can predict behavior and buyers' intentions by storing, analyzing, processing, patterning, identifying, and generating data. These abilities give them the advantage of accurately projecting consumer preferences. Marketers and decision makers have a new power in their hands with huge potential which enables them to perform customer segmentation and apply the insights to develop customer engagement creating new customer value. Despite the advantages of this technology and its potential, some important ethical matters are emerging that society must face when it comes to personal data and people's privacy. It is crucial to establish appropriate governance structures and ensure that ethical principles are upheld.

In the current world, the user base targeted the most for marketing is the between 18 to 30 years age group as they are thought to have money to burn on digital toys, clothes, and products, rather than the more staid investments of middle age [1]. (Michael Miraflor,2023) Firms target this demographic as they see it as an opportunity to create brand loyalty in them which will give the brands customers for a very long time. This age group of people between 18 to 30 is known as the 'insta generation'. The reason this demographic is called so is that they use social media the most Instagram being the most used among them. In January 2023, almost 31% of the global Instagram audience was of age between 18 to 24 years, and 30.3% of them were aged between 25 to 34 years, with roughly 1 billion monthly active users making Instagram the most popular social media platform with India being the country with the largest audience size on Instagram with 362.9 million users in January 2024[2].

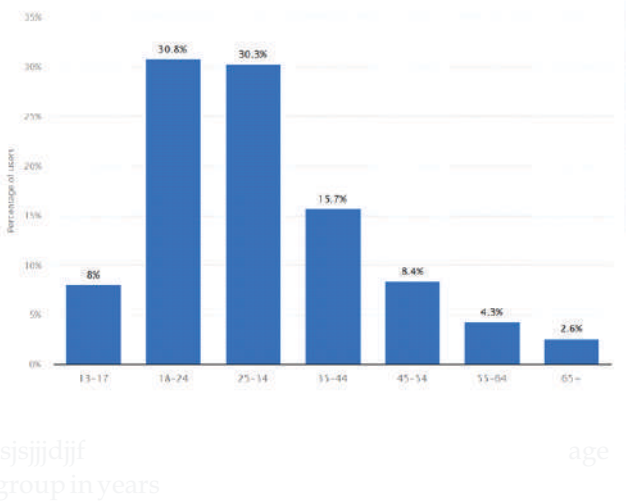


Fig .1. Worldwide data of the percentage of Instagram users in January 2023. (Source-statista.com)

More than 1 billion users actively use Instagram every month making Instagram an excellent channel for attracting new leads. Moreover, average users spend 58 minutes a day scrolling through Instagram feeds and watching stories that provide more advertising opportunities. You can't ignore that 90% of all users follow at least one brand on this social media channel, which means that people are interested in the behind-the-scenes of their favorite brands and consider Instagram a great platform for purchasing. 80% of active Instagram users claim that this particular platform helps them with the decision-making process. Influencer marketing has contributed greatly since almost every user has a favorite blogger whose recommendations they follow [3]. Social influencers are growing in importance among brands and marketing professionals. A recommendation from a well-loved blogger can drive more sales than a strategically positioned advertisement. Consumer reviews have a greater influence on purchasing decisions than any other factor. Influencers are valuable in changing consumer behavior due to their extensive use of multiple platforms to convey their messages. From online platforms like Instagram to other social media channels, influential people can leverage multiple channels to drive purchase decisions.

AI helps to track their potential buyers and gives

them a personalized algorithm by identifying their patterns and preferences to determine what products and services they might be interested in, which helps consumers by showing them the same products and services they want from different brands enabling them to compare them according to their needs. Not only this AI also gives chatbot and visual assistance for a better consumer experience. Since the Insta generation is always on social media they get the benefits of AI the most which helps them make their purchasing decisions easier but that is not the only thing that helps. Due to so much access to the social world Insta generation tends to rely on consumer reviews a lot may it be on websites or reviews by social media influencers. Considering all the aspects, only they tend to buy a product or service.

2. REVIEW OF LITERATURE

J. Kietzmann, J. Paschen, and E. Treen (2018) in their paper titled, Artificial Intelligence in Advertising: How Marketers Can Leverage Artificial Intelligence Along the Consumer Journey, refers to decision journey stages, the authors of this work state the most significant research papers on how business indicators such as consumer decision journey and marketing using rule-based and machine learning classifiers can be automatically classified.

A.Orgoun and O. Bukola in their paper titled, Predicting Consumer Behavior in the Digital Market: A Machine Learning Approach (2019), state that customer behavior model generation is usually based on customer data analysis using data mining algorithms. However, this is a difficult task for researchers because of the risk of misinterpreted or biased data and results may mislead the outcome of the research. Thus, applying data mining techniques to customer behavior models requires the right approach Several studies have shown that data mining techniques can be successfully used to predict consumer behavior, which can lead to the development of new association rule mining models.

S. Moro et al., in their study titled Predicting Social Media Performance Metrics and Evaluation of the Impact on Brand Building a Data Mining Approach, state that an undeniable fact is that, like mobiles, social networks are powerful tools in the hands of marketers can predict or affect purchases and consumer behavior. Online businesses can communicate with their customers at any time or place around the world. Companies have realized the potential of social media platforms for marketing purposes and have started incorporating social media marketing in their overall strategies to benefit their businesses.

3. OBJECTIVE OF STUDY

- To study the changes in consumer behavior of the Insta generation due to the involvement of AI in the marketing by producers.
- To study association between gender and AI on monthly spending
- To study if the Insta generation relies on AI-based product recommendations for their purchases or on reviews of consumers.

4. DATA AND METHODOLOGY

The analysis in this study is based on Primary Data sources with the help of an online survey form through a structured questionnaire method

which includes:

- The size of the sample is 75 people.
- The age demographic is between 18-30 years, from which 72% lie between 18-25 years of age group and 25% above 25 years,
- 70.7% of the sample are students and 27.7% are interns or working.

57.3% of them are females and 42.7% are male.

Statistical tools used for analysis

- Graphical analysis
- Chi-square test analysis

5. RESULTS

(i) To study the changes in consumer behavior of the Insta generation due to the involvement of AI in the marketing by producers.

Since the generation between the age group of 18 to 25 years spends a lot of time on social media sites especially Instagram being the most popular producer, they find it a very productive platform to gather consumers because recommendations are highly effective on mobile. Mobile shoppers who click recommendations complete orders at a higher rate than desktop shoppers (25% vs. 23%). One reason that personalized recommendations work so well is that they guide shoppers through large product catalogs to the perfect product, or perhaps even a product they didn't know they wanted. Another tool that helps shorten this time to product-finding nirvana is site search.[4]

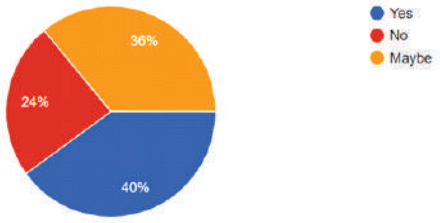


Fig.2. AI influence on the purchasing decisions of the consumer(Insta generation)

Fig. 2. Shows that 40% of people out of the total size of the study believe that their purchasing decisions are influenced by the AI-generated algorithm. 24% of the total believe that their purchasing decision is not influenced by AI, and 36% are still not sure about the influence of AI on their purchasing decisions.

The reason behind this is that AI-generated algorithms have a positive effect on shoppers.

- 37% of shoppers who click on a product recommendation return to the site after their first visit[4]
- Consumers who interact with product recommendations are 4.5x more likely to add items to their cart and complete a purchase[4]
- 52% of orders from customers who clicked on product recommendations include a recommended product[4]

Fogg's Behavior model is a great way to understand consumer behavior. It depends upon 3 factors: motivation, ability, and triggers. The 3rd factor is influenced by AI as product recommendations, emails, ads, pop-ups, etc., coming on the screen again and again triggers the consumer's mind to purchase it.

Personalized product recommendations can become more appealing to shoppers as the recommendation algorithm gathers more information about their preferences. This long-term strategy conveys that your brand values the relationship with the customer, not just the sale. Additionally, like contextual recommendations, personalized product recommendations are highly relevant to the customer. Customers won't need much effort to find their desired products, leading to more sales in your pockets[5].

The reason for 40% of the people saying maybe is that they don't realize when they get so influenced by the continuous repetition of the same advertisement that they start thinking that they need that product or service. This phenomenon is called the illusory truth effect.

To analyze the association between gender and AI influence on monthly spending using a chi-square test.

null hypothesis(h0) -there is no association between gender and ai influence on monthly spending

alternative hypothesis(h1) -there is an association between gender and ai influence on monthly spending.

Confidence interval- 95%

Significance level -5%

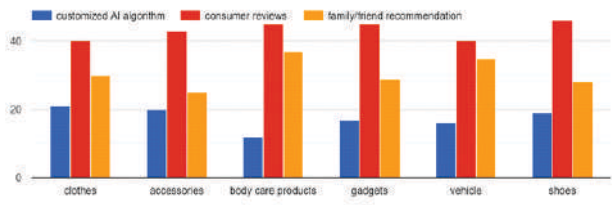
	OBSERVED			EXPECTED		(O-E)^2		O-E)^2/E	
	REMAINS SAME	STARTED TO SPEND MORE	TOTAL	REMAINS SAME	STARTED TO SPEND MORE	REMAINS SAME	STARTED TO SPEND MORE	REMAINS SAME	STARTED TO SPEND MORE
MALE	21	9	30	36.125	8.75	228.7656	0.0625	6.332612	0.007143
FEMALE	30	12	42	29.75	12.25	0.0625	0.0625	0.002101	0.005102
TOTAL	51	21	72						

	6.346958
Degree of freedom	1
p-value	0.011758

Since the significance level is 0.05 and the p-value is 0.011758 it means the p-value is less than the significance level, hence null hypothesis is rejected. This signifies that there is an association between gender and monthly spending due to AI.

(ii) To study if the Insta generation relies on AI-based product recommendations for their purchases or on reviews of consumers.

Consumers follow different purchasing patterns for different products. Fig.4., shows some of the products frequently purchased by the people of the Insta generation and who they rely on for advice before purchasing.



This figure shows that when it comes to final purchase even the Insta generation relies more on consumer reviews and recommendations given by

friends\family. The reason behind the reliance of consumers on other human experiences is that these shoppers are happy to go off of other people's opinions as they offer more transparency. These shoppers can see that the product was favored by other shoppers like them, so they believe they should also like it. This is known as the bandwagon heuristic effect. Along with that, consumer reviews make the brand more reliable which helps the consumers to make decisions easily. Consumer reviews make the brand more visible, making it more reliable[6].

6. CONCLUSION

AI-driven applications assist customers and decision-makers towards an amplified customer journey full of opportunities, suggestions, and solutions. Personalized recommendations will save consumers valuable time. Traditional retail will give its place to AI marketing and personalized commerce. The customer funnel increases day by day and the satisfied customers seem to find what they want; user-friendly environments and interfaces, customer-centric tools, and personalized suggestions and predictions through different mediums and channels. More than ever, daily interactions require the use of AI tools, otherwise the generated amount of data will be unmanageable [7]. Nevertheless, AI also transforms the way decision-makers work and communicate allowing them to monitor, segment, and scale audiences to make better decisions and increase performance. It has taken customer service to a whole new level using social media, email automation, visual and voice search, content generators, and many other applications. AI applications are considered a necessity that brands should focus their future efforts on. If not, brands may offer customers choices that are less relevant and more time-consuming. Customers will be dissatisfied with the experience acquired from the entire purchasing procedure.[8]

It's important to remember that even though algorithms can outperform humans in many ways, they are the only tools that were created by humans in the first place. When it comes to making purchases, AI can help consumers find products that meet their needs, but people often rely on the reviews of other consumers to get a sense of the product's quality, value, and reliability. This is because humans tend to assume that other humans have a specific intention or motivation behind their reviews, such as wanting to help others make informed decisions. Machine-generated reviews, on the other hand, may be seen as less trustworthy because they lack intentionality. In the end, no matter how advanced technology becomes, humans will always have an important role to play in decision-making.

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Beyond the ad: Studying the relation between Personality and Advertisement appeals across age groups

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ABSTRACT

The objective of this study was to explore the relationship between consumer personality types, age groups, and various advertising appeals (positive, negative, and implied superiority). We investigated how individuals with diverse personality traits and age groups respond to these appeals, focusing on five key traits: negative emotionality, extraversion, openness to experience, agreeableness, and conscientiousness. This study utilized a sample of 99 subjects aged 10 to 65, representing the usual advertising target of urban middle to upper class Indian population. Our key findings reveal that individuals high on conscientiousness are more influenced by positive appeals and implied superiority. Additionally, a notable difference exists in the impact of negative advertising appeals on buying decisions between the age groups 10-20 and 21-40 years. This research aims to provide practical insights for crafting effective advertisements and addresses a significant gap in the literature regarding the influence of personality types and age groups on various advertising approaches.

Keywords: implied superiority, positive appeal, negative appeal, consumer personality, age groups, advertising appeals, urban India.

INTRODUCTION

Advertising has been dominating much of our societal perceptions since the onset of the Industrial Revolution in the 18th and 19th Centuries. It is a multifaceted field, influenced, inferring and working alongside fields of Psychology, Communications, Design and Visual Arts, Economics and Ethics and Law! The application of these psychological concepts to advertising began in the late 19th century and early 20th century (Benjamin, 2004). With the help of psychologists, advertisers were able to increase their knowledge of concepts such as association, memory, perception, and emotion in order to better reach consumers (Scott, 1904).

The most widely- covered distinction between advertising appeals is that of 'Rational Appeal' and 'Emotional Appeal'. What is an appeal though? The basic element of a creative strategy in advertising are marketing appeals, that advertisers use in order to influence the way consumers perceive products and to convince them that they are useful for them, leading to the purchase intention (Zhanget al., 2010). However another category of distinction between appeals is yet to be delved into in the field of psychological research: Positive Appeals, Negative Appeals and Implied Superiority Appeals in Advertising, popularized terms in the field of Marketing.

Positive appeals aim to show the direct benefits and gains of behavior change. Negative appeals describe losses and unintended consequences of certain

attitudes and behaviors by creating psychic discomfort (Brennan & Binney, 2010). Infact, these two terms have emerged from the *Prospect Theory* proposed by Kahneman & Tversky in 1979. Their 1979 paper traversed through how people go about making decisions under conditions of uncertainty, which is done through evaluation of whether the outcomes of their decisions are to be of 'gains' or of 'losses'. The framing implications of prospect theory suggest that individuals respond differently to factually equivalent messages depending on whether they are framed so as to emphasize benefits (gain-framed) or costs (loss-framed) (Toll BA, O'Malley SS, 2007). We see it in how persuasive messages are framed. In one study, five advertisements were constructed featuring a picture of a cell phone and a few lines of text, manipulated so that each advertisement highlighted the motivational concerns associated with one of the five major personality dimensions to examine whether a persuasive appeal's effectiveness can be increased by aligning the message framing with the recipient's personality profile. Message-person congruence effects were thus observed by manipulating the framing of an appeal to target a broad variety of motives. Results confirmed that tailoring messages to the personality of the audience can be an effective communication strategy (Jacob B. Hirsh , Sonia K. Kang et al, 2012).

According to the prospect theory, a sure gain is preferred to a probable one, while a probable loss is preferred to a sure loss; and individuals want to avoid sure losses, so they look for information that conveys some sort of gain, while they tend to be more risk- taking when they judge for gains. Therefore, the way information is framed, influences our certainty regarding whether a certain decision will bring us loss or gain. "Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overflow of information sources, that might consume it.", is a rather apt explanation provided by Herbert Simon (1970) about the current information-overload form of the world; coined for the concept of attention economics. This 'attention economics' has caused brands to recognize that there is a limit to the attention capacity of humans, and our world right now which is loaded with abundant information, lacks the minimum attention span required. Hence, the emergence of competitive advertising, what the authors will be referring to in this paper as 'Implied Superiority'. A comparative ad that presents comparisons on many dimensions may reduce consumer interest in and comprehension of the ad, an ad that considers only one or a few attributes may not be effective enough, and one that uses some intermediate level of number of attributes may be most effective (Stephen Goodwin S. and Etgar M.).

The development of personality theories in psychology has evolved over time (beginning with major breakthroughs in the late 19th century), and a significant movement within this field is that of the trait theory (a major forerunner being Raymond Cattell), which gained prominence in the mid-20th century. Notably, Costa and McCrae's Five Factor Model, introduced in the 1980s and refined with the NEO-FFI in 1992, is a standout contribution. This model identifies five fundamental personality traits—Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. The NEO-FFI, a widely utilized instrument, measures these traits, contributing to a holistic understanding of personality that has influenced research, clinical assessment, and diverse applications. Neuroticism is the tendency to experience negative emotions such as sadness or anxiety, as well as mood swings (Costa and McCrae 1985); Openness to Experience reflects the extent to which people think in broad (vs narrow) and deep (vs shallow) ways, and the permeability of boundaries in their consciousness and experience (McCrae 1993/1994; McCrae and Costa 1997a); Conscientiousness is a highly examined dimension of personality, referring to the tendency to be organized, diligent, industrious, and achievement-oriented (McCrae & Costa, 2003). Additionally, conscientious people also tend to have a strong sense of responsibility toward life (Pervin & John, 1999); Extraversion (or extroversion) is a personality trait characterized by excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness (Power & Pluess, 2015); This personality trait includes attributes such as trust, altruism, kindness, affection, and other prosocial behaviors. (Power & Pluess, 2015).

A 2021 study (Shumanov et al) reveals that aligning consumer personality with corresponding advertising messages tends to enhance consumer persuasion for most personality types, excluding neurotic traits. The primary objective of a 2010 study (Keshari & Jain, 2016) was to examine how age and gender influence consumer reactions to rational and emotional advertising appeals. Using a self-designed tool, data was gathered from 348 participants in Indore and Ujjain cities. The results indicated that rational appeals were more successful in generating positive responses from consumers compared to emotional appeals. Nevertheless, the study found no significant impact of age and gender on consumer responses to either type of advertising appeal. A 2017 study indicates that individuals' psychological traits can be accurately predicted through their digital footprints, such as Facebook Likes or Tweets. The results revealed that aligning persuasive appeals with individuals' psychological characteristics significantly influenced their behavior, leading to up

to 40% more clicks and up to 50% more purchases compared to mismatched or un-personalized appeals. The findings imply that applying psychological targeting can effectively impact the behavior of large groups by tailoring appeals to their psychological needs(S. C. Matz, M. Kosinski).

Need for the current study

While most literature mentions the distinction between rational and emotional appeals, it emphasizes the need for further exploration of positive, negative, and implied superiority appeals. Further, the literature review indicates a gap in psychological research regarding the relationship of age groups ranging from 10-65 with these specific advertising appeals. The current study is hence conducted to delve deeper into how these types of appeals interact with different personality traits, across age groups and hence influence consumer buying decisions providing us with a more nuanced and comprehensive understanding of the relationship.

Methodology

Problem

To study the intricate relationships between (NEO-Five) Personality factors, Advertising Appeals and Age.

Hypotheses

1. There is no relationship between NEO- Five personality factors and positive appeal in advertising.
2. There is no relationship between NEO- Five personality factors and negative appeal in advertising.
3. There is no relationship between NEO- Five personality factors and implied superiority appeal in advertising.
4. There is no significant difference in data across various age groups with regards to positive appeal in advertising.
5. There is no significant difference in data across various age groups with regards to implied superiority appeal in advertising.
6. There is no significant difference in data across various age groups with regards to negative appeal in advertising.
7. There is no significant relationship between age and advertising appeals.

Operational Definitions

Positive Emotional Appeal in Advertising: The messaging that can suggest that something good will happen to you if you use the product.

For example: An ad for deodorant soap might show a room full of happy people who are obviously desirable because they used the desirable soap.

Negative Emotional Appeal in Advertising: The messaging that can suggest that something unpleasant will happen if you don't use the product.

For example: An ad for a deodorant soap might show a person sitting at home alone, dateless and dejected, because they failed to bathe with the soap.

Implied Superiority Appeal in Advertising: A widely used appeal, wherein the superiority of one product over its competitors is not stated directly but is inferred by the consumer.

Variables

Independent variable: NEO 5 Personality Factors

Dependent variable: Advertising Appeals, Buying decision

Moderating variable: Age

Materials

(1) NEO Five- Factor Inventory (60 items) developed Costa P. T & Mcrae R. R, 1992; (2) NEO Five- Factor Inventory Scoring Key; (3) NEO Five- Factor Inventory Norms; (4) Bespoke Survey/ Questionnaire- A non- standardized questionnaire consisting of a carefully curated list of video advertisements (15 items)

Sample

Our sample consisted of 99 subjects, with a majority of the population being females. The subjects were divided into the age groups of: Young Adult (10-20), Adult (21-40), Middle Aged (41-65); and were of middle to upper class from urban India.

Procedure

The subjects were sent an online Google Form consisting of 15 video advertisements (ranging across the years of 1980s to 2024). Before beginning with the survey, certain demographic details of the subjects were asked- Initials, Age, Occupation, and Gender. The subjects were then instructed to rank the videos on the basis of how likely they were to purchase or recommend the product/ service based on the video. They were asked to rank the video on a scale of 1-5, 1 being the least likely to purchase or recommend the product based off of the ad only, and 5 being the most likely to do so.

This was followed by another questionnaire, the 60 item- NEO 5 Factor Inventory.

Research Design

1. The data was collected using Convenience Sampling and Snowballing Methods.

2. The first survey presented to the subjects is a Bespoke Survey/ Questionnaire- A non-standardized questionnaire consisting of a carefully curated list of video advertisements with 15 items. The questionnaire was curated keeping in mind the three advertising appeals- positive, negative, and implied superiority. It was also crucial to ensure that the videos ranged across various decades, to truly track the various age demographics' responses (from the 1980s onwards- golden age of advertising in India, to the 2020s). It was scored as follows: 1- Most Unlikely, 2- Somewhat Unlikely, 3- Neutral, 4- Somewhat Likely, 5- Most Likely. The links to the advertisements used are in the '*References*' section of the paper.

   (a) Advertisements with Positive Appeal: Positive appeals aim to show the direct benefits and gains of behavior change *(refer page 2)*. In the following ads, it can be inferred that the ads are leading to an outcome that fosters positive bonds, peer relationships, fitness and in general other favorable outcomes. Taglines like, " Fast to cook, good to eat"(product-maggi) and visuals of an old man being able to run 70 miles in the morning (product-nike shoes) and other similar approaches proves them to have a positive appeal.

   1985: Maggi India- *Mummy I am Hungry*; 1988: Nike ad- *Just do it;* 2011: Airtel- *Har Ek Friend Zaroori Hota Hai*; 2018: Cadbury Dairy Milk- *Kuch Achha Ho Jaaye, Kuch Meetha Ho Jaaye*; Early 2000s: Fevicol- *Dum Laga Ke Haisha*

   (b) Advertisements with Negative Appeal: Negative appeals describe losses and unintended consequences of certain attitudes and behaviors by creating psychic discomfort *(refer to page 2)*. In the following ads, it can be observed that if you don't use the products, it can lead to a negative outcome, hence, a fear component is incorporated. For instance, not applying Odomos (product) can lead to dengue, and not applying Lifebuoy soap can lead to children catching infectious germs; proving that such ads have taken up the negative advertising appeal.

2014: Tetley Ad (Kareena Kapoor); 2023: Odomos- *Odomos pehna toh safe hai ghar pe rehna*; 2023: Goibibo- *Hotels Aise on Goibibo, Full marks by Bebo*; 2011: Lifebuoy- *10 infection-causing germs, one solution*; 1990: Dettol- *Be 100% Sure*

(c) Advertisements with Implied Superiority Appeal: Implied superiority appeal, in layman terms also recognised as 'comparative advertising appeal', uses indirect/direct comparisons between products. Here, the superiority of one product over its competitors is not stated directly but is inferred by the consumer *(referring to operational definition)*. For instance, the Dove (product) ad comparing normal soap (not effective) with Dove soap (leading to soft and smooth skin), justifies it to be categorized under the implied superiority appeal.

2020: Dove- *Take the Dove half-face test and feel the Dove difference!*; 2002: Lifebuoy Activ B Soap- *Where there is Lifebuoy, there is health*; 1984: Surf Detergent- *Surf ki khareedaari mai hi samajhdari hai*; 2008: Nataraj Pencil- Racing Pencils; 1982: Pepsi Cola- *Take the Pepsi Challenge*

3. The second questionnaire presented to the 99 subjects is the standardized NEO- Five Factor Inventory (Costa & Mcrae). Items include statements such as- "I am not worrier.", "I laugh easily", "I am intrigued by the patterns I find in art and nature.", "I try to be courteous to everyone I meet.", and "I keep my belongings clean and neat.", provided with the options of- Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. The scoring was done on a scale of 0 to 4 for each of the items, but the scores assigned to each alternate differed according to the standardized scoring key.

Data Analysis, Results and Discussion

- ***Table 1: Descriptive Statistics, with a Sample of 99 Participants (N= 99)***

	N	Mean	Std. Deviation
total positive appeal	99	18.94	3.565
total negative	99	17.17	3.962
total implied superiority	99	16.42	3.387
neuroticism	99	25.34	8.033
extraversion	99	28.17	5.817
openness to experience	99	28.24	6.471
agreeableness	99	26.98	5.473
conscientiousness	99	31.60	6.037
Valid N (listwise)	99		

The above data table (Table 1) presents the descriptive statistics for 5 different variables: total positive appeal, total negative, total implied superiority, neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. The descriptive statistics include the number of observations (N), minimum and maximum values

(indicating range), mean, and standard deviation for each variable. There is a distribution of values for each variable. The mean represents the average value, while the standard deviation indicates the spread or variability around the mean.

From the above table, it can be inferred that the total positive appeal has the highest appeal ($\bar{x}$= 18.94) amongst the other appeals, i.e, negative ($\bar{x}$= 17.17) and implied superiority ($\bar{x}$= 16.42). This indicates that the majority of our sample population is more influenced by positive advertising appeals, compared to the other two (though the difference isn't highly significant).

Further, the table indicates how the data varies for the subjects with regards to the NEO- Five Personality traits. On a whole, the group has a High level of Neuroticism ($\bar{x}$= 25.34), with a high tendency towards characteristics like worrying, insecurity, anxiety and being temperamental; an Average level of Extraversion ($\bar{x}$= 28.17), with a tendency towards being optimistic, talkative at some times, yet reserved and comfortable being alone at other times; an Average level of Openness to Experience ($\bar{x}$= 28.24), with a tendency towards being artistic and creative, yet situationally uncreative and down- to-earth at other times; a Low level of Agreeableness ($\bar{x}$= 26.98) with a tendency towards being rude, irritable, uncooperative, aggressive and competitive; a Low level of Conscientiousness ($\bar{x}$= 31.60) with a tendency towards being lazy, unreliable, careless, negligent and spontaneous.

Using Shapiro Wilk, a test of normality was conducted, revealing that the data is normally distributed for all the variables except for total negative appeal.

- ***Table 2: Pearson's Correlation betweenTotal Positive Appeal and the NEO- 5 Personality Factors***

		total positive appeal	neuroticism	extraversion	openness to experience	agreeablenes s	conscientiou sness
positive appeal	Pearson Correlation	1	-.169	.091	.093	.129	.223*
	Sig. (2-tailed)		.095	.370	.359	.203	.026
	N	99	99	99	99	99	99

ion
ing
appeal which is significant at 0.05 level. This may suggest that individuals who are reliable, organized, neat and ambitious, are more likely to be positively influenced by positive advertising appeal. This means that they are more likely to buy/ recommend a product that has

used this appeal in their ad. Therefore, our **first** hypothesis stating "There is no significant relationship between positive appeal and NEO- 5 personality factors" is rejected.

Since the data for negative appeal is not normally distributed hence non parametric test, Spearman rho for correlation was used which revealed that there is no significant correlation between NEO FIVE personality factors and negative appeal of advertising. Therefore, our **second** hypothesis stating "There is no relationship between NEO- Five personality factors and negative appeal in advertising" is accepted.

- ***Table 3: Pearson's Correlation between Total Implied Superiority Appeal and the NEO- 5 Personality Factors***

		neuroticism	extraversion	openness to experience	agreeablenes s	conscientious ness	total implied superiority
total implied superiority	Pearson Correlation	-.069	.131	-.019	.045	.210*	1
	Sig. (2-tailed)	.496	.195	.851	.658	.037	
	N	99	99	99	99	99	99

Table 3 reveals that there is a positive correlation between conscientiousness and implied superiority which is significant at 0.05 level. This indicates that individuals who are more organized, reliable, neat and ambitious are positively influenced by Implied Superiority Advertising Appeal, leading them to be more likely to buy/ recommend a product that used this appeal in their ad. Therefore, our **third** hypothesis stating "There is no relationship between NEO- Five personality factors and implied superiority appeal in advertising" is rejected.

Using ANOVA, the relationship between the different age groups and positive appeal was studied. It was revealed that there is no significant difference across age groups on effect of positive advertising appeal. Therefore, the **fourth** hypothesis stating "There is no significant difference in data across various age groups with regards to positive appeal in advertising" is accepted. Further, the relationships between the different age groups and implied superiority was studied using ANOVA, revealing no significant difference across age groups on effect of implied superiority. Therefore, the **fifth** hypothesis stating that "There is no significant difference in data across various age groups with regards to implied superiority appeal in advertising" is accepted. This may indicate that the Young Adults, Adults and Middle Aged people, are all influenced similarly by both positive and implied superiority advertising appeals.

- ***Table 4: Data across Age Groups for Negative Appeal, using Chi- Square***

Ranks						
	Age	N	Mean Rank	Chi-Square	Df	Asymp. Sig.
Negative Appeal	10-20	43	42.17	7.940	2	0.19
	21-40	23	62.87			
	41-65	33	51.23			
	Total	99				

Table 4 reveals that there is a significant difference in

effect of negative advertising appeal across age groups. Therefore, our **sixth** hypothesis stating "There is no significant difference in data across various age groups with regards to negative appeal in advertising" is rejected. This may suggest that the varying age groups of Young Adults, Adults and Middle Aged Adults are influenced differently by negative advertising appeals.

To further understand the significance of difference in the group, Post Hoc Mann Whitney U Test was conducted. It was found that there is no significant difference in effect of negative appeal between Adults and Middle Aged Adults and also between Young Adults and Middle Aged adults.

- ***Table 4a: Difference in effect of Negative Appeal between Young Adults and Adults***

	total negative
Mann-Whitney U	292.500
Wilcoxon W	1238.500
Z	-2.731
Asymp. Sig. (2-tailed)	.006

Table 4a, however, reveals that there is a significant difference in effect of negative appeal between Young Adults and Adults, which can be concluded from table 4a. This indicates that the Young Adults and Middle Aged Adults are influenced differently by Negative Appeals in Advertising.

Using Spearman's rho, it was revealed that there is no relationship between age and advertising appeals, therefore rejecting our **seventh** hypothesis, stating that "There is no significant relationship between age and advertising appeals."

Conclusion

There is a relationship between NEO- Five personality factors and positive appeal in advertising. Hence, the first hypothesis is rejected. There is no relationship between NEO- Five personality factors and negative appeal in advertising. Hence, the second hypothesis is validated. There is a relationship between NEO- Five personality factors and implied superiority appeal in advertising. Hence, the third hypothesis is rejected. There is no significant difference in data across various age groups with regards to positive appeal in advertising. Hence, the fourth hypothesis is validated. There is no significant difference in data across various age groups with regards to implied superiority appeal in advertising. Hence, the fifth hypothesis is validated. There is a significant difference in data across various age groups with regards to negative appeal in advertising. Hence, the sixth hypothesis is rejected. There is no significant relationship between age and advertising appeals. Hence, the seventh hypothesis is validated. People high on conscientiousness are positively influenced by positive advertising appeal and implied superiority appeal. In a 2005 study by Tidwell and Sias, it was found that conscientious individuals are more likely to overtly seek out information to ensure high performance, and that they view information gathering as a part of the process to success. It is the thoroughness displayed to achieve these characterizations that may lead individuals with a high degree of conscientiousness to form more favorable attitudes toward comparative ads and two-sided ads, because each of these ad types provides the reader with additional information for decision making. Further, it is found that each age group (Young adults, adults and middle- aged) is influenced differently by negative advertising appeals. In a 2010 study by Keshari&Jain reviewed in this paper, it revealed that there is no significant impact of age and gender on consumer responses to rational and emotional advertising appeals. In our current study similar results have been found, there is absolutely no correlation between age and the different advertising appeals i.e positive, negative and implied superiority.

The study holds significant implications in the real world. It suggests that customizing advertising strategies based on consumer personality traits can boost effectiveness, particularly for conscientious individuals responding positively to ads with implied superiority. This aligns with the 2012 study by Hirsh & Kang referenced in this paper. Examining the varied impact of negative appeals across age groups (10-20 and 21-40 years) guides advertisers in tailoring age-specific campaigns to address diverse sensitivities and responses.

Positive appeals wield a considerable influence, prompting advertisers to highlight direct benefits and gains, effectively resonating with the target audience. To deepen understanding, future research should encompass diverse gender groups to explore potential variations in the relationship between personality, age, and advertising appeals. Expanding the sample size is crucial. Shifting from a questionnaire approach to investigating real-time responses could yield a more candid expression of subjects' reactions. Longitudinal studies can uncover how these relationships evolve over time, providing insight into the long-term impact of such appeals. Inclusion of participants from various cultural backgrounds is essential to unveil how socio-cultural nuances impact responses to advertising appeals.

In conclusion, this research contributes valuable insights to the fields of advertising psychology and consumer behavior, offering practical implications for

advertisers while highlighting avenues for further exploration and refinement in future studies.

Limitations and suggestions

They acknowledge the exclusive focus on a female population, potentially leading to biased results and limiting generalizability across diverse gender groups. With only 99 participants, caution is urged in applying findings to a larger group, emphasizing the reflective nature of studies with more extensive sample sizes. Recognizing diverse individual preferences, categorizing advertisements under a singular appeal is challenging. Participant engagement may have been influenced during the completion of an extensive Google form, impacting response patterns due to potential fatigue or loss of interest.

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South Korea's Economy: A Confluence of Global Consumption and Export Dynamics

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ABSTRACT

This paper intends to examine the intricate relationship between export-led growth strategies and the evolution of a consumption-driven economy, using South Korea as a case study. Through empirical analysis, employing vector auto regressive models and Granger causality tests, the paper establishes a bidirectional causal connection between exports and economic growth to dissect the symbiotic relationship between export-led growth and the emergence of a consumption-driven economy describing the mechanisms through which South Korea capitalized on global consumer demand to fuel its economic expansion. Moreover, it extends its focus to explore how South Korea's cultural integration has contributed to global consumer demand for Korean products, thereby bolstering its export sector. By examining the dynamics of consumption patterns across diverse cultural contexts, the study unveils the complexities inherent in consumer behaviour in a globalized economy driven by export-led growth.

Keywords: Consumption-driven economy, Export-led growth, Global consumer demand, Economic development

INTRODUCTION

The South Korean economy, sometimes referred to as the "Miracle on the Han River," has grown from a war-torn country in the 1950s to one of the most powerful economic forces in the world. In the past sixty years, South Korea has experienced the biggest economic transformation. Its economy was mostly focused on agriculture in the 1960s, and as of 2016, its gross domestic product (GDP) was the eleventh biggest in the world. The current transformation of South Korea's economy is the result of a dynamic combination of export-led growth, consumption-driven plans, and technological superiority, all driven by the always changing demand or consumption pattern of the global market. The confluence of these elements has established South Korea as a major participant on the global scene and supported its economic rise from a war-torn country to a global economic superpower.

Above all, exports demand due to global consumption is the key to South Korea's development. Its export-oriented policies, attempts at global integration, and infrastructure development projects, which are representative of its export-oriented approach supported by global consumption demand, are essential components of its economic narrative. Additionally, the nation's development into a global economic powerhouse has been fueled by its advanced industrial technology, strong manufacturing sector, leadership in 5G technology, high-speed internet infrastructure, and dominance in the semiconductor industry. Further, the country

effectively positioned itself to meet the changing demands of customers worldwide by utilizing its strong manufacturing base and cutting-edge industrial technology. Strongholds like Samsung, Hyundai, and LG have boosted the nation's export capabilities in industries including shipbuilding, cars, and electronics.

Furthermore, strong export ties and trade agreements have promoted economic growth by increasing the demand for South Korea's exports globally, as seen by the country's K-pop and entertainment industries. The dynamic ripple effect on total factor productivity is highlighted by empirical investigations, which also demonstrate the symbiotic relationship between exports and economic growth.

In addition to this, the government's policies, which include measures to boost domestic spending and improve consumer confidence, have been crucial in fostering this consumption-driven economy. Furthermore, a paradigm shift in consumer behaviours has been sparked by the development of e-commerce platforms and technology, with South Korea taking use of these developments to promote digital transactions and alter consumption patterns for customers around the world.

In conclusion, the economy of South Korea provides an example of how trade supported by worldwide consumer demand can act as a stimulant for economic growth in the twenty-first century.

Literature Review

In the context of a consumption driven economy, trade plays a crucial role as a development strategy of a developing country. The interaction between the trade dynamics has been extensively discussed over many years echoing the foundational theories od Adam Smith and David Ricardo. Many proponents argue that there is a strong relation between the trade and economic growth contending the greater economic prosperity can result from the adoption of more open trade policies in the present globalized world (Stallings 2001; Sayal 2007; IMF 2001).

Researchers illuminates the fact that when the Government policy shifted from import-substitutions to export orientation, the country experienced a tremendous growth in the economy and create a potential framework for a follower developing country (Sanzharbek Mavlianov, international Ataturk- Alatoo University)

The export-led growth hypothesis asserts that export play a pivotal role in driving overall economic growth(Feder 1983; Medina-Smith 2001). One of the major reasons for supporting this hypothesis is the dynamic ripple effect it has on the economy. Exports are viewed as a mechanism for achieving economies of scale in the long term, as they stimulate economic growth within the domestic market by encouraging the adoption of advanced technology and skilled labour (Bhagwati 1988,1989) which in turn enhances the efficiency and productivity in the economy.

It has been studied that the phenomenon of export-led growth is not only limited exclusively to the developing nations; it holds true for the countries across the continents. This aspect can be catagorized into seven distinct groups. Starting with developing countries, Balassa(1978) conducted a study involving 11 developing countries with industrial bases. Kavoussi investigated 73 developing nations and discovered a positive correlation between export growth and improved economic performance. Love and Chandra(2005) conducted research on Export-led hypothesis in south asia. However the findings from this study ended up with mixed results.

In conclusion, it can be said that the the previous studies are not capturing the very recent data . so, the inclusion of the current data is needed for further enquiry so, the inclusion of the current data is needed for further enquiry. Most importantly the previous findings are not capturing the fact that people across the globe is getting influenced by the Korean culture and as a result, demand for Korean products is increasing which is reflected through the increase in the export sector of South Korea. the previous studies are not capturing the very recent data . so, the inclusion of the current data is needed for further enquiry .

Objectives

The objective of this paper is to examine the intricate interplay between global consumption patterns and export dynamics within the context of South Korea's economy. Through a comprehensive analysis, we aim to elucidate the symbiotic relationship between these two elements and their combined influence on South Korea's economic landscape. Specifically, we seek to identify the key drivers and mechanisms behind South Korea's integration into global consumption trends and its success in leveraging export strategies for economic growth. Additionally, we aim to investigate the historical evolution of South Korea's trade-led development strategies and assessing their impact on the country's economic growth and prosperity.

By shedding light on these dynamics, our objective is to provide valuable insights into the multifaceted nature of South Korea's economic development, thereby enhancing understanding and

informing future policy decisions in both domestic and international contexts, particularly in other developing nations.

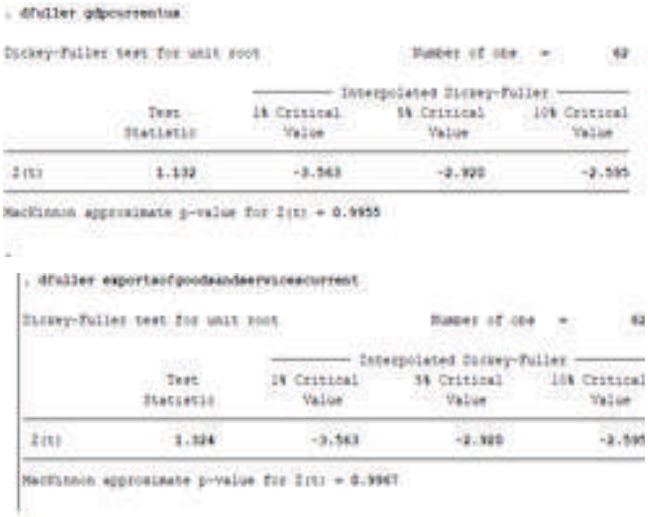
Methodology

This paper tries to examine and look into the dynamic interplay between export-led growth strategies and the emergence of a consumption-driven economy. For this we empirically tried to analyze the scenario through time series analysis. We used quantitative as well as a multidimensional approach to make the analysis more reliable. The relevant secondary data, which covers the time frame from 1960 to 2022, has been used from various sources such as world bank, IMF etc. for the analysis. The study variables included gross domestic product (GDP)which is used as a proxy for economic growth as a dependent variable, the export of goods and the import of goods all measured in United States dollar (USD). Here, we are trying to look at the mutual connection between the export-led strategies and economic growth which is facilitated by a consumption oriented economy. Several tools and techniques such as dicky fuller test for checking the stationarity of the series, var Granger causality test for checking the causal relationship between the dependent and the exogeneous variable and so on using the software Stata and MS Excel.

Analysis:

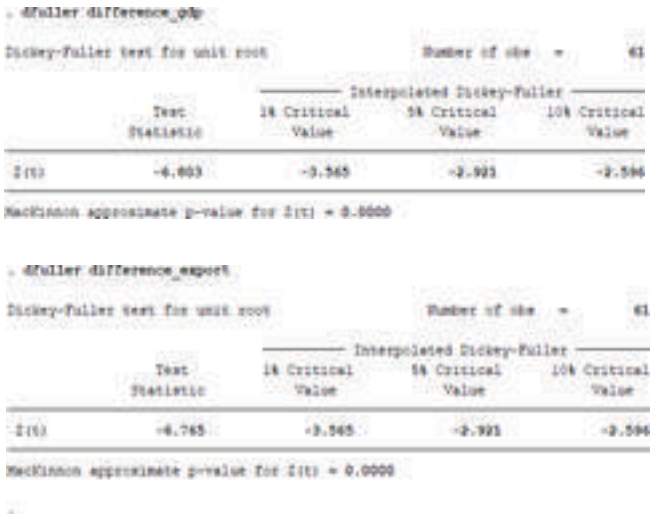
Before looking into the connection between the relationships and dynamic causality between the economic growth (measured in GDP) and export for capturing the consumption driven growth, let us investigate the time series characteristics in the initial stage.

The first step involves the diagnosis of the stationarity of the time series variables. For this, we have used the Dicky Fuller test



```
. dfuller gdpcurrentus

Dickey-Fuller test for unit root                    Number of obs   =        62

                                 ---------- Interpolated Dickey-Fuller ----------
                    Test         1% Critical       5% Critical      10% Critical
                 Statistic           Value             Value            Value
------------------------------------------------------------------------------
 Z(t)              1.132            -3.563            -2.920           -2.595
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.9955

. dfuller exportsofgoodsandservicescurrent

Dickey-Fuller test for unit root                    Number of obs   =        62

                                 ---------- Interpolated Dickey-Fuller ----------
                    Test         1% Critical       5% Critical      10% Critical
                 Statistic           Value             Value            Value
------------------------------------------------------------------------------
 Z(t)              1.324            -3.563            -2.920           -2.595
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.9967
```

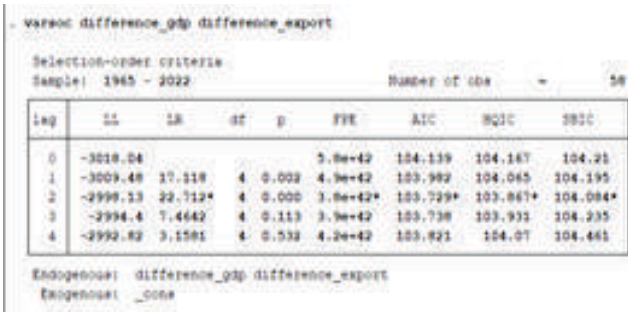
In the level of the time series, the test statistic is greater than the critical values. So we can't reject the null hypothesis (H0): the series is non stationary or it contains unit root) at 1% level of significance implying the time series is non stationary in their levels.



```
. dfuller difference_gdp

Dickey-Fuller test for unit root                    Number of obs   =        61

                                 ---------- Interpolated Dickey-Fuller ----------
                    Test         1% Critical       5% Critical      10% Critical
                 Statistic           Value             Value            Value
------------------------------------------------------------------------------
 Z(t)             -6.603            -3.565            -2.921           -2.596
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000

. dfuller difference_export

Dickey-Fuller test for unit root                    Number of obs   =        61

                                 ---------- Interpolated Dickey-Fuller ----------
                    Test         1% Critical       5% Critical      10% Critical
                 Statistic           Value             Value            Value
------------------------------------------------------------------------------
 Z(t)             -6.765            -3.565            -2.921           -2.596
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000
```

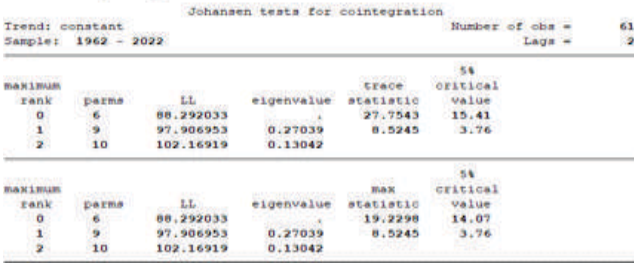
n the first difference of the time series, the test statistic becomes less than the critical values which implies that we can reject the null hypothesis (H0): the series is non stationary or it contains unit root) at 1%,5% or 10% level of significance implying the stationarity of the series in their first differences. In simpler terms, we have found that the time series in our study is integrated to order 1 or I(1).

Here, the nonstationary data becomes stationary after the first difference which indicates a cointegration relationship or a long run relationship among the variables. To check the existence of cointegration relationship in our investigation, we have conducted Johansen's trace test. Before that we need to ensure the optimal lag.



```
. varsoc difference_gdp difference_export

Selection-order criteria
Sample:  1965 - 2022                              Number of obs      =        58
+---------------------------------------------------------------------------+
| lag |    LL      LR     df    p      FPE       AIC      HQIC     SBIC     |
|-----+---------------------------------------------------------------------|
|  0  | -3010.04                          5.8e+42  104.139  104.167  104.21  |
|  1  | -3009.48  17.118     4  0.002  4.9e+42  103.992  104.065  104.195 |
|  2  | -2998.13  22.712*    4  0.000  3.8e+42* 103.729* 103.867* 104.084* |
|  3  | -2994.4   7.4642     4  0.113  3.9e+42  103.738  103.931  104.235 |
|  4  | -2992.82  3.1581     4  0.532  4.2e+42  103.821  104.07   104.461 |
+---------------------------------------------------------------------------+
Endogenous:  difference_gdp difference_export
Exogenous:  _cons
```

Based on the information criteria (AIC, HQIC, SBIC) we got that the optimal lag is 2.



```
Johansen tests for cointegration
Trend: constant                                      Number of obs =        61
Sample:  1962 - 2022                                       Lags =         2
---------------------------------------------------------------------------
maximum                                                        5%
 rank       parms       LL      eigenvalue    trace statistic  critical value
    0           6    88.292033           .          27.7543          15.41
    1           9    97.906953      0.27039         8.5245           3.76
    2          10    102.16919      0.13042
---------------------------------------------------------------------------
maximum                                                        5%
 rank       parms       LL      eigenvalue    max statistic    critical value
    0           6    88.292033           .          19.2298          14.07
    1           9    97.906953      0.27039         8.5245           3.76
    2          10    102.16919      0.13042
```

The test resulted with the presence of cointegration i.e., the variables exhibit a long run relationship. Even if there are shocks in the long run which may affect the movement in the individual series, they would converge with time in the long run.

We conducted a vector auto regressive model with two variables with k lags to analyse the first differences of the variables to systematically capture the dynamics of the time series. Based on the information criteria (AIC, HQIC, SBIC) a two variable VAR model with 2 lags is conducted to systematically capture the dynamic relationship between the GDP and the export of Soth Korea.

	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
difference_gdp						
difference_gdp						
L1.	.5072653	.1626207	3.12	0.002	.1885347	.825996
L2.	-.476014	.1655265	-2.88	0.004	-.80044	-.151588
difference_export						
L1.	-.8286211	.265951	-3.12	0.002	-1.349876	-.3073666
L2.	.6315686	.2996406	2.11	0.035	.0442838	1.218853
_cons	2.97e+10	9.05e+09	3.28	0.001	1.19e+10	4.74e+10
difference_export						
difference_gdp						
L1.	.2090918	.0907832	2.30	0.021	.0311601	.3870236
L2.	-.2993931	.0924054	-3.24	0.001	-.4805043	-.1182819
difference_export						
L1.	.0209618	.1484675	0.14	0.888	-.2700292	.3119527
L2.	-.0082469	.1672747	-0.05	0.961	-.3360993	.3196056
_cons	1.51e+10	5.05e+09	2.99	0.003	5.19e+09	2.50e+10

The model can be written as,

GDP = β10+ β11GDPt-1+ β12GDPt-2+ α11Exportt-1+ α12Exportt-2+U1t (i)

Exportt= β20+ α21GDPt-1+ α22GDPt-2+ β21Exportt-1+ β22Exportt-2+U2t (ii)

The model appears in a way that GDP is statistically significantly associated with lagged 2 economic growth and lagged export. Export is also significantly associated with lagged GDP but not with lagged export.

But before final the conclusion we need to ensure the stability of the VAR model.

```
. varstable
```

Eigenvalue stability condition

Eigenvalue	Modulus
-.1508918 + .7553567i	.770281
-.1508918 - .7553567i	.770281
.4150053 + .3912467i	.570354
.4150053 - .3912467i	.570354

All the eigenvalues lie inside the unit circle.
VAR satisfies stability condition.

The stability of the VAR system implies stationarity. Here, we are getting all inverse roots of the characteristic AR polynomial have modulus less than one and lie inside the unit circle which implies that the estimate VAR is stable.

```
. varlmar
```

Lagrange-multiplier test

lag	chi2	df	Prob > chi2
1	6.8115	4	0.14619
2	0.8443	4	0.93242

H0: no autocorrelation at lag order

Through the Lagrange- multiplier test we have checked the presence of autocorrelation in the model. Here, we will not be able to reject the null hypothesis (H0: No auto correlation) at 5% level of significance as the pvalue is greater than 0 05. So, there is no auto correlation at the 2 lags.

We again conducted the VAR Granger causality test to examine the short run causal relationship between the variables GDP and export.

```
. vargranger
```

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
difference_gdp	difference_export	13.039	2	0.001
difference_gdp	ALL	13.039	2	0.001
difference_export	difference_gdp	13.747	2	0.001
difference_export	ALL	13.747	2	0.001

It appeared that export Grangerly caused GDP (as the prob>chi2 is 0.001) and the GDP also Grangerly cause export in the short run.

So, export helps to predict the future values of the GDP and the GDP also helps to predict the future values of export to some extent.

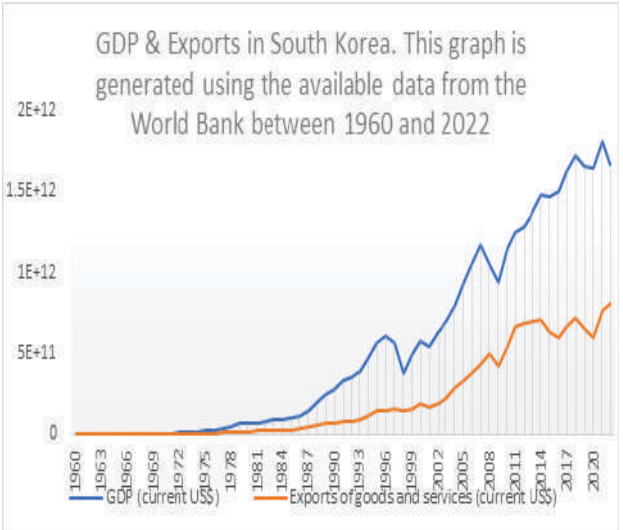


Figure 1: GDP & Export

This graph is created using the available secondary data provided by World Bank. It is clearly visible that their exist a positive relationship between the GDP and the export in South Korea which is facilitated through the increased demand by the consumers all over the world.

Revival of South Korea

Import substitution, as a strategy to reduce reliance on imports, played a pivotal role in South Korea's transformation into a consumption powerhouse. Export-led growth, exemplified by countries like South Korea, is a pivotal strategy emphasizing international trade and consumption from the rest of the world to propel economic development. It involves boosting exports, liberalizing imports, attracting foreign investment, upgrading industries, investing in education and infrastructure, and implementing supportive government policies. This approach facilitates efficiency, technological progress, and global competitiveness while underscoring the significance of consumption as a driving force for economic advancement and innovation.

South Korea's strategic shift towards export-led growth, initiated in the 1960s, has not only transformed its domestic economic landscape but has also significantly shaped global consumption patterns. The government's proactive policies, including reduced tariffs, subsidies, and incentives for research and development (R&D), fuelled a remarkable surge in the country's export values. From a mere US$87 million in 1963, South Korea's exports soared to an impressive US$363.5 billion by 2009, showcasing the success of its export-oriented strategies.

This economic evolution had a profound impact on global consumption as South Korea emerged as a major player in international trade. The nation's proficiency in manufacturing, particularly in electronic goods, automobiles, and technology-intensive sectors, contributed to a rise in exports of high-value-added products. South Korean products became synonymous with innovation and reliability, prompting increased consumer preference worldwide. As a result, the world saw a discernible shift in consumption patterns, with a growing demand for South Korean goods. Whether in the realm of consumer electronics, automobiles, or advanced technology, South Korea's export-led growth strategy not only stimulated its domestic economy but also positioned the country as a leading contributor to the products and technologies that shape global consumption habits. The policies promoting innovation and export-oriented expansion didn't just bolster South Korea's economic prowess; they played a pivotal role in defining the choices and preferences of consumers on a global scale.

Years	real GDP growthrate (percent)	export values (US$ billions)	exports/GDP (percent)
1962-1966	8	1	7.7
1967-1971	9.7	3	13.7
1972-1976	8.4	22	27.8
1977-1981	6.1	77	31.5
1982-1986	8.7	141	34.4
1987-1991	9.2	307	32.1
1992-1996	7	510	28.7
1997-2001	4.3	734	42.8
2002-2006	4.8	1,239	31.2
2007-2009	2.5	1,186	42.2

Economic growth, Export and Export/GDP ***Source:*** *S. Mah, 2010, table 1, page 3*

Government Policies

South Korea's government, particularly under President Park Chung-hee, strategically propelled the nation into a global economic player by fostering export-oriented industrialization. Identifying key industries with export potential, such as textiles, steel, chemicals, and electronics, the government provided specialized support and incentives.

The success of these policies is evident in the data, with South Korea's exports surging from a mere US$87 million in 1963 to an impressive US$363.5 billion by 2009.

This remarkable growth not only increased South Korea's presence in global markets but also significantly influenced global consumption patterns. South Korean goods, known for their innovation and quality, became sought-after worldwide, turning the world into a substantial consumer of products from South Korea, particularly those from prominent chaebol corporations. Despite criticisms, the government's role in promoting these large enterprises contributed to South Korea's emergence as a key player in the global market, leaving a lasting impact on consumption preferences worldwide, as reflected in the data highlighting the exponential rise in export values over the years.

Trade Patterns and consumption of South Korean goods with different countries

Key markets like the US, China, Japan, Vietnam, and Hong Kong contribute significantly to the nation's GDP, with nearly 80% generated through trading activities in 2021. The country's export portfolio, particularly in electronics, accounting for 31% of

exports in 2021, reflects a strategic focus on meeting diverse and growing global consumption needs.

This strategic emphasis on exports is evident in South Korea's flourishing international partnerships, where specific products meet the unique demands of different countries. China, as its top trading partner, plays a central role in driving South Korea's export success, with electronics, machinery, and vehicles being significant contributors, meeting the consumption needs of the Chinese market. The KOR-US Free Trade Agreement, despite initial opposition, has proven instrumental in boosting bilateral commerce and elevating Korea's exports to the United States, particularly in electronics and machinery, contributing to the robust consumption patterns in the US. Similarly, the Korea-ASEAN Free Trade Agreement has facilitated trade between regions, with electronics and vehicles being key products meeting the consumption needs of diverse markets. Bilateral trade with India has surged, reaching USD 23.7 billion in 2021, with products like petroleum, organic chemicals, and iron and steel contributing significantly to India's consumption landscape.

Foreign Trade Values	2017	2018	2019	2020	2021
Imports of Goods *(million USD)*	478,478	535,202	503,343	467,633	615,093
Exports of Goods *(million USD)*	573,694	604,860	542,233	512,498	644,400

683.6 bn USD of products exported in 2022	
Electronic integrated circuits; parts thereof	16.5%
Petroleum oils and oils obtained from bituminous...	9.0%
Motor cars and other motor vehicles principally...	7.6%
Telephone sets, incl. telephones for cellular...	4.1%
Parts and accessories for tractors, motor vehicles...	2.9%

Cultural Integration

South Korean entertainment, including the global phenomenon BTS and beloved K-dramas, drives massive international consumption, with millions of fans and tourists engaging in the cultural wave. The country's beauty and fashion trends, spread via Hallyu, contribute to an increase in worldwide consumption habits. This soft power, which is a combination of government support and private sector, affects South Korea's cultural diplomacy, influencing not only tastes but also actively shaping consumption patterns on a global basis.

Popularity of South Korean pop music (K-pop) worldwide as of

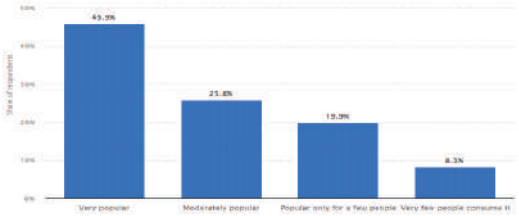


Figure 2: Popularity of South Korean pop music Source: https://www.statista.com/statistics

The Hallyu wave, as a key component of this soft power, acts as a bridge connecting South Korea with audiences around the world, fostering a shared cultural experience. The global embrace of Korean entertainment and lifestyle trends underscores the effectiveness of South Korea's soft power strategy in not just influencing preferences but actively driving consumption behaviours on an international scale. As a result, South Korea stands at the forefront of leveraging cultural influence to enhance diplomatic ties and global engagement.

Supply Chain Infrastructure

South Korea has a highly developed and efficient infrastructure network, including physical connectivity, digital infrastructure, and logistics networks. As per assessments made by the Organization for Economic Co-operation and Development (OECD) and the World Intellectual Property Organization (WIPO), South Korea holds a prominent global position in the ICT sector, particularly leading the world in terms of the penetration rate of high-speed internet services. In the year 2022, South Korea achieved the remarkable feat of securing the top position in the GovTech Maturity Index (GMI) as established by the World Bank.

Further, South Korea's logistics and supply chain management are known for their efficiency and reliability, contributing to the competitiveness of its export-oriented industries. According to World Bank's Logistic Performance Index of 2023, South Korea ranks 17 with a score of 3.8, standing amongst the best logistics network nations of the world.

Furthermore, South Korea has a diverse energy infrastructure that includes nuclear power, coal, natural gas, and renewables. The country has made efforts to increase the use of renewable energy sources in recent years.

In conclusion, South Korea's investment in infrastructure has been a critical factor in its economic success. It has enabled the efficient movement of

goods and information, supported the growth of high-tech industries, and contributed to the country's overall competitiveness on the global stage. The government continues to invest in upgrading and maintaining these infrastructure systems to ensure that South Korea remains at the forefront of technological and economic development.

Technological Advancements and Innovations

In terms of technological development and creativity, South Korea, sometimes known as the "Land of the Morning Calm," has made impressive gains. This innovative country serves as an example for other nations aiming to be the best in research and development (R&D), technology transfer, and industrial upgrading through "Effective protection of intellectual property, Innovation Hubs and Technology Parks, Public-Private Collaboration, International Collaboration and Technological Diversification". With real gross domestic product (GDP) increasing on average by 4.9% annually between 1988 and 2022, the Republic of Korea has demonstrated extraordinary accomplishment in recent decades in balancing rapid economic expansion and significant poverty reduction. The same-period yearly export increase averaged 8.9%, due to global consumption demand which contributed to this strong performance. South Korea's unwavering commitment to education and the advancement of human capital is one of the pillars of its success in R&D. The nation continuously makes investments in STEM (Science, Technology, Engineering, and Mathematics) education, which results in a workforce that is highly educated and skilled.

Further, in order to promote an environment that is favourable to innovation, the government has continually made significant investments in R&D programmes and infrastructure and also offers tax credits and incentives for corporate investments in these activities.

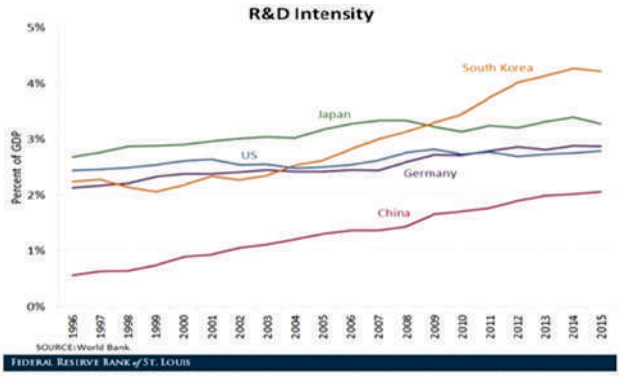


Figure3: Research & Development Intensity

The World Bank estimates that South Korea's R&D spending as a percentage of GDP increased from 2.3% in 2001 to 4.81% in 2020. The difference between this and the OECD average of 2.4% is substantial. South Korea today ranks second among OECD countries in R&D spending as a proportion of GDP, only behind Israel, demonstrating the success of this investment. Nearly 70% of all R&D spending in the nation in 2018 was incurred by the private sector. Further, the below figure clearly depicts that Since 1960, there has been a consistent and substantial increase in expenditure on R&D, illustrating South Korea's commitment to innovation and technological advancement



Figure4: Rising Share of Research & Development Investment in Korea, Source: CEIC, Morgan Stanely Research

Lessons for Developing Countries

South Korea's amazing export led development due to global consumption demand serve as a model for emerging markets seeking to make steady economic progress. Developing nations can work towards obtaining a similar level of success in the international arena by studying South Korea's experiences and applying these lessons to their particular settings. The government supported investment that guaranteed the loans to the private sector, efforts to increase exports offered incentives on market performance, Korea's exploited its comparative advantage in labor-intensive industries and developed potential comparative advantage in the machinery and equipment industry, and so on are some of the lessons for developing country like India that can be learned from the Korean example.

Conclusion & Policy Recommendations

In conclusion, South Korea's economy stands as a testament to the intersection of global consumption and export dynamics, highlighting the pivotal role that trade has played in its trajectory. From a nation ravaged by war to a thriving economic powerhouse, South Korea's journey underscores the transformative power of strategic trade policies, globalization initiatives, and robust investments in education,

research, and technology. By strategically capitalizing on its strengths and fostering a conducive environment for innovation and entrepreneurship, South Korea has been able to unlock unprecedented growth opportunities. This growth has been further fueled by a relentless focus on export-oriented industries, coupled with investments in infrastructure development and a commitment to political stability. The emergence of iconic companies such as Samsung and Hyundai symbolizes South Korea's progress in leveraging technology and industry expertise to drive economic prosperity. Moreover, the country's emphasis on inclusive growth has ensured that the benefits of its economic success are widely distributed across society.

Looking ahead, South Korea's experience serves as a compelling example of how trade can serve as a catalyst for economic development in the twenty-first century. By embracing innovation, fostering global partnerships, and nurturing a conducive business environment, South Korea continues to thrive in an increasingly interconnected and dynamic global economy.

Last but not least, some potential future perspectives and policy recommendations include: continuing to invest in research and development; fostering a startup-friendly environment; promoting emerging technologies like artificial intelligence, renewable energy, and biotechnology; concentrating on green technologies and sustainable practices to align with global trends and reduce its carbon footprint; and diversifying its export portfolio to lessen vulnerability to external shocks. investigating new products and markets, dealing with income inequality, Policies that support healthcare and long-term care, promote workforce engagement among older adults, and change pension systems are crucial. In addition to them, South Korea should keep up its open and just trade policy. Trade agreements at the bilateral and multilateral levels can provide market access and economic prospects for Korean companies. To sustain a competitive workforce, ongoing investment in education and skill development is essential. The workforce's future job readiness should be a top emphasis. Furthermore, geopolitical trends, particularly in East Asia, should be taken into account in South Korea's economic policy. Economic security requires managing regional conflicts and maintaining stable relations with nearby nations. These are therefore broad policy recommendations, and the precise steps implemented by the South Korean government will depend on how the economy develops and what happens across the world. To preserve the nation's long-term economic stability and success, policymakers must regularly evaluate and revise their plans.

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Decoding influence of digital media on consumer choices in the cosmetic market

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ABSTRACT

This study explores the impact of media on brand recognition, loyalty, and consumer behaviour in the Indian cosmetics industry. Investigating the profound influence of media on consumer behavior, the study examines the strategic use of celebrities and influencers by brands to amplify recognition and foster loyalty, ultimately optimizing productivity.

The study analyzes and compares Indian consumers' preferences for domestic versus foreign cosmetic brands, examining the influence of factors shaping their choices in the dynamic cosmetic market. The research highlights how media channels, such as advertisements, influencer marketing, reels, Instagram, and social media, shape consumer perceptions of brands.

Additionally, we examine the effect of social media on consumer interactions, particularly how businesses leverage influencers for endorsements, and address the opportunities presented by social media for innovative communication and commerce. Recognizing the dynamic nature of these platforms, the study explores how brands can capitalize on viral content to boost brand loyalty in the contemporary media landscape.

Furthermore, the study aims to understand the evolving impact of media on consumer-brand relationships. A particular focus lies in understanding how brand image, product design, and celebrity endorsement influence consumer repurchase intentions. The research probes into consumer behaviors, preferences, responses, and loyalty for both Indian and foreign cosmetic brands.

INTRODUCTION

In today's digitally driven era, brands are increasingly leveraging media channels such as advertisements, influencer marketing, reels, Instagram, and other social media platforms to amplify their reach and foster consumer loyalty. Advancements in technology have revolutionized marketing strategies, with the influence of media playing a role in shaping consumer behavior and influencing purchasing decisions.

The study investigates the complex interplay between media channels, brand recognition, consumer loyalty, and behavior within the cosmetics market. The study reveals the significant impact of media on shaping consumer preferences and attitudes. Media plays a crucial role in accelerating brands' popularity and success among consumers by influencing their perceptions through evolving trends, advertisements, collaborations with celebrities, innovation communication and, commerce initiatives.

Through a wide-ranging analysis of Indian consumers' opinions and preferences, the study explains the evolving role of social media in shaping consumer-brand interactions and engagement.

A primary focus of the investigation was understanding how media shapes the relationship between consumers and brands. The study examined

factors such as consumers' intentions to buy again, ease of purchasing, and perceptions of product packaging. These insights have shed light on consumer behavior and how media influences their preferences. Additionally, the study explored consumers' choices between domestic and foreign brands. With the rise of digitalization, access to foreign brands has increased, providing consumers with more options. This has significantly impacted consumer behavior on a broad scale.

Additionally, the study incorporated theories from economics and psychology to provide a full understanding of consumer behavior in the cosmetics industry. By integrating theoretical frameworks with empirical findings, the research aims to offer actionable insights for brands seeking to optimize their media strategies and build stronger connections with consumers in an increasingly digitized marketplace.

2. Study Objective

This research aims to explore how digital media influences what consumers choose when buying cosmetics in the Indian market.

In the economic part of the study, it looks at how strategies used by cosmetic brands in the media affect the bigger market picture.

At the same time, the study considers psychological aspects to understand how people think and feel when making decisions about cosmetic brands influenced by media. The ultimate goal is to uncover the emotional connections consumers form with brands through media exposure and how these connections impact their buying decisions and loyalty.

By combining insights from theories in economics and psychology, the study aspires to provide a full picture of how digital media shapes consumer choices in the Indian cosmetic market.

3. Area of study

This research was conducted nationwide across India, the research targets individuals aged 18 to 25. The primary demographic targeted includes young adults who have recently embarked on their college education or entered the workforce.

4. Data and Methodology

This research adopts a mixed-methods approach, incorporating established theories and relevant articles to explore the interplay between digital media, consumer choices, and the cosmetic market within the interdisciplinary framework of economics and psychology. The primary data collection method involves an online questionnaire hosted on Google Forms, encompassing both quantitative and qualitative questions. Quantitative insights into factors like media preferences and purchasing behavior are obtained through multiple-choice questions (MCQ), while open-ended questions dig into nuanced opinions and experiences for qualitative depth. A purposive sampling strategy is applied, involving 55 participants aged 18 to 25 from diverse regions in India. Ethical considerations include obtaining informed consent and safeguarding participant anonymity. Data analysis employs statistical tools for quantitative data and thematic analysis for qualitative responses. Acknowledging limitations such as a relatively small sample size and potential online bias, the study integrates insights from existing theories and pertinent articles. It aims to contribute a holistic understanding of the impact of digital media on consumer choices in the cosmetic market, bridging academic theories with real-world consumer behavior.

5. Discussion and Analysis

5.1 Digital Media's Impact on Consumer Behavior

In the ongoing evolution of the cosmetics industry, digital media stands as a formidable force shaping consumer behavior. As consumers increasingly turn to online platforms, social media, and influencer content for product information and inspiration, the impact of digital media on purchasing decisions becomes more pronounced.

The questionnaire findings illuminate the considerable influence of digital media on consumer behavior within the cosmetics industry. Many respondents have recently made or considered cosmetic purchases influenced by digital media, highlighting the economic significance of using these platforms for strategic brand promotion.

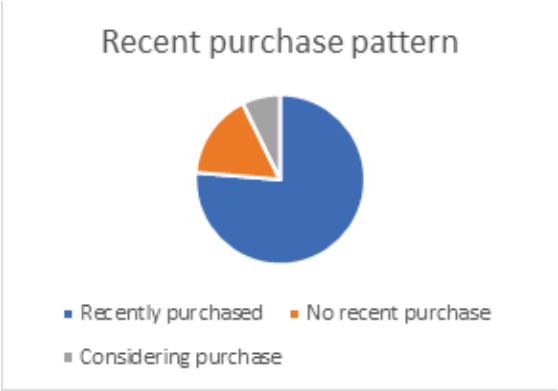
The shift in consumer behavior towards digital media aligns with the principles of demand and supply theory. Digital platforms, including social media, influencer marketing, and online advertisements, offer brands cost-effective means to reach and engage with their target audience. This transition reflects a change in the supply and demand dynamics, providing consumers with convenient and accessible avenues to explore and interact with cosmetic products.

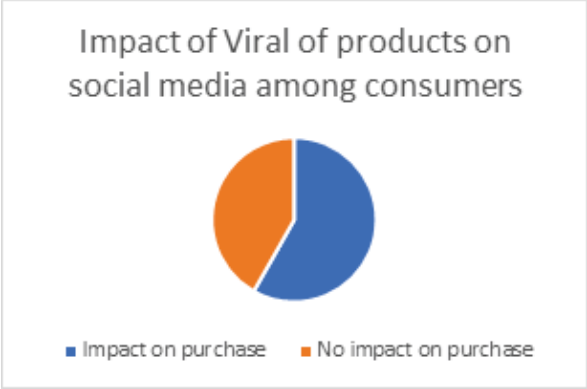
The impact of digital media on consumer behavior is evident through various facets. A substantial number of respondents recognize the role of social media platforms in enhancing brand visibility. This psychological dimension emphasizes the importance

of creating brand recall and visibility through visual content, influencer collaborations, and other strategies on platforms like Instagram. Such efforts contribute to fostering a psychological connection between consumers and cosmetic brands, influencing their preferences and purchase decisions.

Digital platforms play a pivotal role in influencing consumer preferences, influencing purchase decisions, and shaping the overall market dynamics for cosmetic products. As the digital landscape continues to evolve, its significance in shaping economic and psychological aspects becomes increasingly definite.

5.2 Media Channels and Brand Recognition





In the digital era, where information flows seamlessly through various online channels, the dynamics of brand recognition are redefined by the vast landscape of media channels. From social media platforms to influencer collaborations and online advertisements, these channels play a pivotal role in shaping how consumers perceive and recognize cosmetic brands.

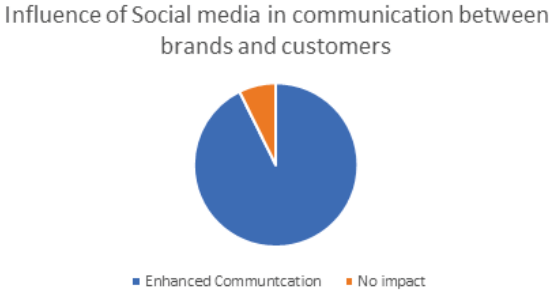
The questionnaire reveals that majority of respondents have recently made or considered cosmetic purchases influenced by digital media. This highlights the economic importance of strategic brand promotion through digital platforms, as it significantly influences brand recognition and subsequently shapes consumer purchasing behavior.

The survey highlights the influential role of media channels, particularly social media, in shaping brand recognition. A substantial majority of respondents acknowledged the impact of social media platforms on enhancing brand visibility. This psychological inclination emphasizes the pivotal role of social media in creating brand recall, influencing consumer perceptions through visual content, and contributing to the overall recognition of cosmetic brands.

Additionally, the survey responses indicate the psychological impact of viral products, with most of respondents admitting to purchasing items that gained popularity on social media. This suggests that media channels, especially those facilitating viral trends, play a crucial role in creating a buzz around specific cosmetic products. The psychological appeal of these trends becomes a driving force in steering consumer attention, further contributing to brand recognition.

Additionally, despite the majority of participants currently favoring foreign products, there is a noteworthy shift in consumer willingness to try cosmetics from Indian brands. This evolving trend is attributed to the growing recognition of Indian brands on digital media platforms. The willingness to explore Indian products underscores the impact of media channels in reshaping consumer preferences and challenging traditional market dynamics. The influence of digital media, therefore, not only extends to brand recognition but also contributes to altering consumer perceptions and preferences within the cosmetics industry. Globalization has made it easier for consumers to identify and access international brands, expanding their options and opportunities for acquiring products from around the world.

5.3 Social Media's Role in Consumer-Brand Interaction



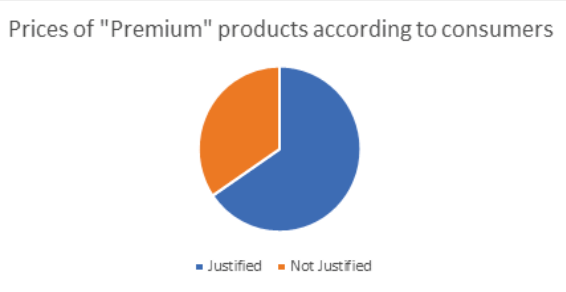
The cosmetics industry has witnessed a transformation with the arrival of social media, emerging as a pivotal field for interactions between consumers and brands. Social media platforms actively foster communication, enabling cosmetic brands to customize their messages based on

consumer feedback, direct interactions, and collaborations with influencers. This iterative process contributes to the evolution of a dynamic and responsive demand.

The role of social media is elucidated as a driving force behind demand creation. The content shared on these platforms acts as a catalyst, with consumers' engagement—expressed through likes, comments, and shares—fueling a digital demand for products. The study's disclosure of a vast majority agreement on the enhanced communication between brands and customers aspect emphasizes the influential role of social media in shaping consumer preferences and stimulating market demand.

The active engagement with cosmetic brands not only exposes consumers to brand content but also subjects them to the opinions and behaviors of their social network. This engagement serves as a social cue, influencing perceptions, preferences, and ultimately purchase decisions. The study's findings, emphasizing improved communication and the impact of influencers, align with the principles of Social Influence Theory, showcasing how interactions on social media extend beyond individual preferences to encompass collective social influences.

5.4 Brand Popularity and Perceived Value



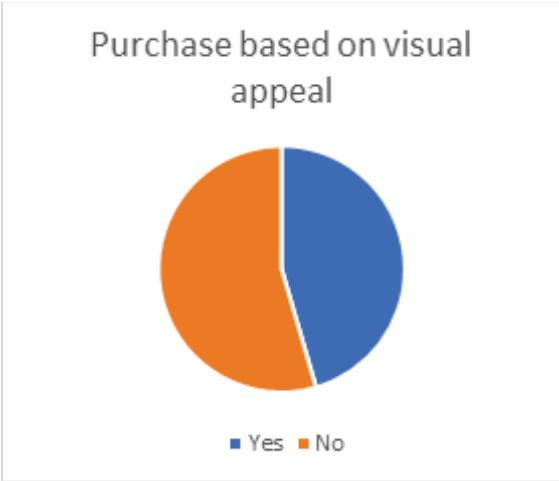
In the digital age, where online platforms amplify brand visibility, the concepts of brand popularity and perceived value take center stage in shaping consumer preferences. Within the dynamic landscape of digital media, from social media endorsements to online marketing strategies, brands strive to secure a desirable spot in the consumer's mind.

A notable majority of respondents acknowledge the substantial impact of a cosmetic brand's popularity on digital platforms, influencing their perceptions. This highlights the economic significance of a strong online presence, as it can elevate a brand's perceived value, even when similar products are available in the market. Anticipating that the popularity of a brand on digital platforms contributes to consumers' perceptions, this dynamic suggests that a brand's online presence becomes a key factor in justifying higher prices, creating a unique economic landscape within the cosmetics market.

The survey indicates that most of respondents somewhat agree that expensive brands deserve their high price range due to a perceived sense of premium quality. This psychological inclination showcases the intricate connection between perceived value and consumer behavior. The popularity of a cosmetic brand on digital platforms, often amplified through various media channels, becomes a psychological driver influencing consumers to associate prestige with higher-priced products, regardless of similar alternatives in the market.

The economic impact of brand popularity lies in its ability to enhance perceived value, influencing consumers to justify higher prices even when faced with similar products in the market. Simultaneously, the psychological dimension emphasizes that the popularity of a cosmetic brand on digital platforms plays a crucial role in shaping consumer perceptions of brand prestige and the connection between perceived value and the willingness to invest in premium-priced products.

5.5 Brand Loyalty and Switching Costs





Brand loyalty and switching costs are crucial aspects of consumer behavior in the cosmetics industry, and the influence of digital media adds a layer of complexity.

The survey highlights that many of the respondents do not base their cosmetic purchases solely on packaging design, indicating that brand loyalty extends beyond visual appeal. This aligns with Economic Theory's concept of Consumer Loyalty, suggesting that consumers may develop a commitment to certain brands, potentially influenced by positive experiences or perceived value. However, the survey also introduces a critical nuance – frequent exposure to diverse products through digital media influences consumer behavior.

A notable trend emerges when examining the survey findings from an economic perspective. Despite respondents expressing a general inclination towards certain brands, the impact of digital media on brand loyalty becomes evident when considering consumers' willingness to try new products. The constant exposure to diverse cosmetic options through social media prompts a shift in consumer behavior, challenging traditional economic models of loyalty.

From an economic standpoint, this trend introduces a new dimension to switching costs. While majority of the respondents express a likelihood to try different brands if they are very popular on social media, it implies that the digital realm itself creates a form of switching cost. The investment of time and effort into researching and adopting these new, trending products becomes a factor that influences consumer decisions. This economic shifting of loyalty, driven by the viral nature of products on digital platforms, emphasizes the evolving nature of consumer choices within the cosmetics market.

Psychologically, the survey aligns with this economic shift, indicating that most of the respondents are willing to try new brands. This openness to experimentation unites with the psychological attraction of viral products and the constant exposure to diverse options, creating an environment where consumers feel inclined to explore new cosmetic offerings. The impact of digital media on reducing long-term loyalty becomes apparent as consumers express a willingness to embrace change and explore new, trendy products.

5.6 Innovations in Marketing Strategies

Innovative marketing strategies often involve leveraging digital platforms. Adapting to the digital landscape allows brands to reach a vast audience, optimize their advertising spend, and track the return on investment more effectively. E-commerce platforms, social media, influencer marketing, and interactive online content become crucial components, providing cost-effective avenues for brand exposure and product promotion.

Innovative marketing strategies aim to tap into consumer emotions and perceptions. For instance, the impact of social media platforms emphasizes the psychological role of creating brand recall and visibility. Engaging visual content, storytelling, and influencer collaborations on platforms like Instagram and YouTube become powerful tools for building emotional connections. Innovative digital marketing formats, such as the use of short-form videos like reels, augmented reality (AR) filters, and interactive content, add a dynamic layer to consumer engagement.

Moreover, innovative marketing strategies extend to product launches, packaging, and experiential marketing, influencing consumer perceptions and preferences. The inclusion of additional features in cosmetic packaging represents an economic and psychological strategy. Features like built-in applicators or mirrors not only add value to the product but also enhance the overall consumer experience, contributing to brand loyalty.

Therefore, innovative marketing strategies in the cosmetics industry serve as a dynamic blend of economic tactics to optimize reach and sales and psychological approaches to create lasting brand impressions and emotional connections. As the industry continues to evolve, embracing innovative strategies becomes imperative for brands aiming to thrive in the competitive market, resonate with consumers, and stay attuned to changing economic and psychological trends.

5.7 Price Elasticity and Pricing Strategies



Within the ever-evolving landscape of digital media, the principles of price elasticity and strategic pricing take center stage in shaping consumer responses and market dynamics. As consumers navigate online platforms, social media, and targeted digital advertising, the understanding of price sensitivity and effective pricing strategies becomes crucial for businesses seeking to thrive in the digital realm.

Notably, many of the respondents express a growing preference for online cosmetic purchases, signaling a shift in the economic landscape. Digital platforms, exemplified by online stores like Nykaa, are becoming favored alternatives, potentially reshaping consumer sensitivity to prices and altering traditional purchasing patterns.

A substantial majority of respondents perceive purchasing cosmetics online as economically advantageous. This psychological inclination emphasizes how consumers view online platforms as offering superior deals, influencing their willingness to explore diverse pricing strategies and make informed purchasing decisions. The perception of cost-effectiveness serves as a psychological motivator, shaping consumer attitudes toward online purchases. The allure of various promotions, discounts, and enticing offers provided by online stores, contributes significantly to this psychological inclination.

Comparatively, the survey highlights the contrast between online and offline stores. The frequency of discounts, bundled offers, and exclusive promotions on online platforms adds an extra layer to the psychological appeal of online shopping. This distinct advantage contributes to consumers perceiving online purchases as more economically viable, further impacting their overall purchasing behavior.

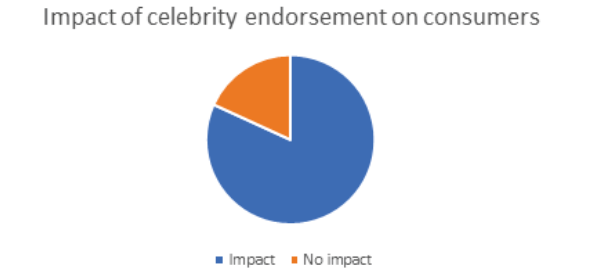
5.8 Impact of Advertising and Packaging

Advertising strategies and packaging play pivotal roles in shaping consumer preferences and influencing purchasing decisions within the cosmetics industry.

Effective advertising can create a positive perception of a product's value, potentially justifying higher prices. Packaging, as a tangible aspect of the product, impacts consumer perceptions of quality and uniqueness. The survey indicates that many of the respondents prefer online cosmetic purchases, emphasizing the economic dimension of advertising and packaging influencing perceptions of convenience and value. Together, these economic factors influence a consumer's willingness to make a purchase.

Advertising strategies tap into consumers' emotions, aspirations, and desires, shaping their behavior and fostering brand connections. The visual appeal and functionality of packaging contribute to the overall consumer experience and play a crucial role in triggering positive emotional responses. The psychological dimension is evident in the preference for minimalistic packaging and the positive reception towards additional features, demonstrating how these elements impact the overall consumer experience. Examining these psychological aspects helps us understand how advertising and packaging work in tandem to influence consumer behavior, creating lasting impressions that extend beyond the immediate transaction.

5.9 Celebrity and Influencer endorsement



Celebrities and influencers hold significant influence in elevating brand visibility and shaping consumer choices. Their endorsements play a pivotal role in boosting brand recognition and influencing the purchasing decisions of consumers.

A significant majority of respondents believe that celebrity endorsement has a notable impact on the products people buy. This underscores the economic influence wielded by celebrities, as their association with cosmetic brands can enhance product visibility and appeal, potentially driving consumer purchasing decisions.

The survey reveals that some of the respondents have been influenced by makeup artists or influencers on social media to buy specific cosmetics. This psychological impact emphasizes the role these individuals play in shaping consumer perceptions and preferences. The trust and admiration built around influencers can create a sense of connection, influencing consumers to align their preferences with the endorsed products.

Furthermore, the questionnaire findings showcase that some of the respondents have not been influenced or intrigued by makeup artists or influencers. This nuanced response suggests a diversity in consumer attitudes, reflecting the complexity of psychological factors at play. While some individuals are swayed by influencers, others maintain a level of independence in their decision-making, emphasizing the need for brands to navigate varied consumer mindsets.

The economic impact of celebrity endorsements lies in their ability to drive brand visibility and consumer interest. Simultaneously, the psychological aspect reveals the power of influencers and makeup artists in shaping consumer preferences. The diverse responses highlight the complex nature of these endorsements, where economic and psychological

factors intertwine to influence consumer decisions within the cosmetics market.

5.10 Social Media's Role in increasing Skincare Demand

In the contemporary landscape, the appeal of skincare has found a powerful ally in social media, especially among the youth. Platforms like Instagram, TikTok, and others play a pivotal role in not only influencing beauty standards but also in fostering a heightened awareness and demand for skincare products.

The questionnaire findings underscore the substantial impact of social media on driving the demand for skincare products within the cosmetics industry. With a unanimous agreement among respondents, indicating that almost all recognize the skincare industry's surge in popularity due to social media marketing, it becomes apparent that social media platforms play a pivotal role in shaping consumer preferences and steering the industry towards an increased emphasis on skincare.

The widespread adoption of skincare routines can be attributed to the extensive reach and accessibility facilitated by social media platforms. Acting as a powerful medium for spreading information about skincare products, trends, and routines, social media contributes to heightened consumer awareness, potentially expanding the market for skincare products. As consumers increasingly seek information on skincare regimens, product recommendations, and reviews, social media emerges as a valuable channel for brands to connect with potential customers, driving demand and shaping purchasing behavior.

Social media's influence on skincare demand is multilayered. The survey reveals that many of the respondents are inclined to try different brands if they are very popular on social media, indicating that social media's psychological impact extends beyond mere awareness to actively shaping consumer behavior and purchase decisions. Platforms like Instagram, with its visual nature, and influencers showcasing their skincare routines contribute to normalizing and enhancing the desirability of specific products, fostering a psychological connection between consumers and skincare brands.

Moreover, the survey aligns with the idea that social media has played a pivotal role in raising awareness about skincare cosmetics, particularly among younger generations. The emphasis on skincare routines, ingredient education, and the promotion of specific products through visual storytelling on platforms like TikTok and Instagram has resonated with consumers who might not have been as exposed to skincare awareness in previous generations. This has led to an increased adoption or consideration of skincare products, indicating a shift in consumer attitudes and preferences driven by social media influence.

Social media not only facilitates widespread awareness but also actively shapes consumer behavior, fostering a dynamic and evolving market for skincare products within the cosmetics industry. The survey findings align with broader industry trends, emphasizing the pivotal role that social media plays in steering the trajectory of skincare preferences and demand.

6. Considerations for brands

Brands can enhance their digital presence by integrating social media, influencers, and targeted online ads, using data analytics to understand consumer behavior. Adaptability is key, with brands adjusting products and strategies based on dynamic digital influences and consumer feedback. A balanced online and offline presence is essential, with investments in improving the digital shopping experience and optimizing physical stores. Strategic partnerships with celebrities and influencers should align authentically with brand values. Local preferences and cultural nuances must be considered alongside global beauty trends. Continuous innovation in packaging and advertising, along with sustainability efforts, can capture consumer attention. Data analytics inform decision-making in product development, marketing, and distribution. Prioritizing overall customer experience drives loyalty through personalized recommendations and seamless processes. Maintaining quickness and flexibility in response to market dynamics is crucial. Cultivating a brand community through social media and user-generated content fosters support and loyalty. By incorporating these considerations, cosmetic brands can navigate the digital landscape, capitalize on opportunities, and build sustainable consumer relationships.

7. Conclusion

In summary, this research underscores the profound impact of digital media on consumer behavior within the Indian cosmetics industry. By adopting an interdisciplinary approach merging economics and psychology, the study elucidates the transformative role of media channels in shaping brand recognition, consumer preferences, and purchasing decisions.

From the enhanced communication enabled by social media platforms to the influence of innovative marketing strategies on consumer perceptions, digital media emerges as a dynamic force propelling market dynamics and consumer behavior. The

findings highlight the significance of adaptive marketing tactics, brand differentiation, and strategic pricing strategies in resonating with consumers and fostering brand loyalty in an increasingly digitized marketplace.

Furthermore, the study highlights the evolving nature of consumer-brand interactions and emphasizes the importance of understanding the psychological factors that influence consumer preferences and attitudes towards cosmetic products. By integrating insights from consumer theories in economics and psychology, this research offers actionable insights for brands aiming to optimize their media strategies and establish stronger connections with consumers amidst the ongoing digital transformation and evolving consumer behaviors.

Ultimately, this study contributes to a deeper understanding of the intricate relationship between digital media, consumer behavior, and the economic landscape within the cosmetics industry. By bridging theoretical frameworks with real-world consumer insights, the research aims to guide strategic decision-making and foster innovation within the cosmetics market. This holistic approach sets the stage for brands to thrive in an increasingly competitive and digitally-driven environment, ensuring their relevance and success in meeting the evolving needs and preferences of consumers.

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BESCOM's Electricity Services – An assessment study pertaining to consumer satisfaction and Differential pricing.

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ABSTRACT

This thesis presents a comprehensive investigation into consumer satisfaction with Bangalore Electricity Supply Company Limited (BESCOM)'s electricity services, aiming to provide valuable insights into the factors influencing consumer perceptions and behaviour's within the utility sector. Through the utilization of primary data sources and a rigorous research methodology grounded in consumer behaviour theories, this study examines the intricacies of consumer satisfaction with BESCOM's services. Surveys, interviews, and reports were conducted to capture real-time experiences and sentiments of consumers, allowing for a nuanced understanding of satisfaction levels and drivers. Key findings highlight the significance of service quality dimensions such as reliability, responsiveness, and assurance in shaping consumer satisfaction. Moreover, socio-economic and demographic factors were identified as influential determinants of satisfaction levels among different consumer segments.

Keywords : BESCOM, Electricity, Consumer satisfaction, Peak and Non-Peak, Differential Pricing

INTRODUCTION

In the contemporary landscape of utility services, consumer satisfaction stands as a pivotal metric shaping the efficiency and effectiveness of service providers. Among these, electricity services hold a paramount position due to their indispensable nature in modern life. Bangalore Electricity Supply Company Limited (BESCOM), as a major electricity provider in Bangalore, India, operates within a dynamic market influenced by various factors including consumer behaviour. Understanding consumer satisfaction with BESCOM's electricity services not only reflects the company's performance but also sheds light on the intricacies of consumer preferences and behaviour's within the utility sector.

This research seeks to delve into the realm of consumer satisfaction concerning BESCOM's electricity services while closely examining the interplay between service quality and consumer behaviour. By adopting a consumer-centric approach, this study aims to unravel the intricate dynamics between service quality, consumer preferences, and satisfaction levels byy conducting a comprehensive investigation, this study aims to offer valuable insights into the factors that contribute to consumer satisfaction, thus aiding BESCOM in refining its services to better meet consumer needs and expectations. Furthermore, this research seeks to contribute to the broader understanding of consumer behaviour within the context of utility services, thereby enriching academic discourse and informing future strategies for service improvement and customer engagement in the electricity sector.

Review of Related Literature

Joy Drunkenly, Gunnar Knapp, and Sandar Glatt (1981) A study on "components affecting the consumption of power use in developing countries". They explained that when affluence increases, the commercial and agricultural sectors become more mechanised due to the expansion of urban

populations and increased usage of electric appliances, which has a positive impact on the need for energy. Moreover, they claimed that during 1973, 11% of primary electricity was consumed. During my research, it was discovered that even if urban regions' income rises, their need for power doesn't increase because they already have all the necessary electric appliances.

Dr K Jayalakshmamma (July 2013) in her research article states that the revenue demanded by BESCOM has been increasing year after year indicating an increase in demand for electricity, this could be due to increasing population in the Urban cities due to migration and urbanization, which in turn contributes to the growth and development of the region. But however her findings state that, there has been a decline in the performance of BESCOM in terms of the services rendered. This is due the fact that there has been an increase in current liabilities and decrease in the current assets of BESCOM which needs to be taken care of.

Mahalaskhmi S (2018) Increased energy sales result in a steady and less uninterrupted supply of electricity. Customers can generate and sell electricity back to the grid thanks to the smart grid's net metering principle, which lowers the cost of power purchases and enables BESCOM to raise its customer prices. Human errors in metre reading, recording, and bill production must be addressed in order to reduce revenue loss and overcome metering inefficiencies.

Scope of study

The scope of this thesis involves conducting a comprehensive study from a consumer behaviour perspective to assess consumer satisfaction with BESCOM's electricity services. This study will delve into various aspects of consumer behaviour and satisfaction, aiming to provide valuable insights for both academia and industry.

The study will begin by establishing a solid theoretical framework, drawing upon existing literature on consumer behaviour, service quality, and satisfaction within the utility services sector.

A mixed-methods research approach will be employed to gather data from BESCOM consumers. This will include both qualitative and quantitative methods such as surveys, interviews, and reports. The research instruments will be designed to capture a wide range of factors influencing consumer satisfaction, including service reliability, billing accuracy, customer support, affordability, and environmental considerations.Sampling techniques will be carefully chosen to ensure the representation of BESCOM's diverse consumer base across different demographic and geographic segments. Data collection will be conducted ethically, with attention to participant confidentiality and informed consent.

The thesis will conclude with a summary of the main findings, contributions to the field of consumer behaviour, and suggestions for future research

Objectives

1. To investigate consumer satisfaction with BESCOM's electricity services and identify areas for improvement.
2. To analyse the impact of Differential Pricing by BESCOM on the consumption patterns of household.

Hypothesis

For **Objective 2**

H0 - Differential pricing has no significant impact on the consumption pattern of electricity during Peak Hours.

H1 - Differential pricing has a significant impact on the consumption pattern of electricity during Peak Hours.

Data and Methodology

Primary Data – Google Surveys in the form of questionnaire was circulated to the target groups to understand the levels of consumer satisfaction wrt BESCOM's services.

The chi- square test and pictorial analysis were used to collect interpret majority of the data

Secondary Data – To determine if the differential pricing has an impact on the consumption patterns of household, the logistic regression model was used. The data to interpret the same was extracted from Ministry of Power and BESCOM's annual reports.

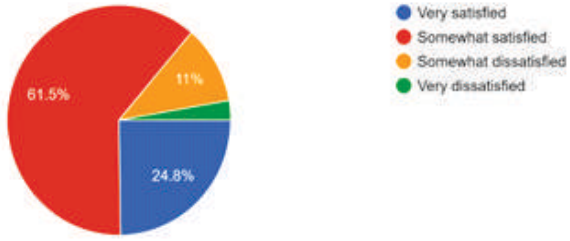
Results and Discussion

Objective 1 - To investigate consumer satisfaction with BESCOM's electricity services and identify areas for improvement

Consumer satisfaction plays a pivotal role in shaping the success and sustainability of utility service providers. In the context of electricity services, ensuring high levels of consumer satisfaction is not only essential for maintaining customer loyalty but also for fostering positive relationships with stakeholders and contributing to overall societal well-being. In this regard, understanding consumer

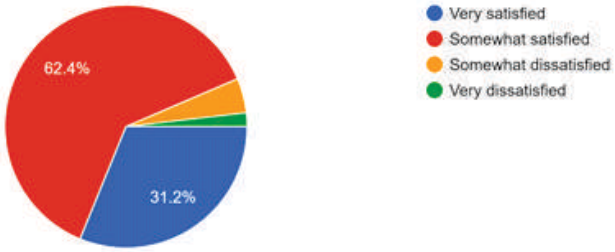
perceptions, preferences, and experiences becomes imperative for utility companies to thrive in an increasingly competitive landscape.

Figure 1. Satisfaction levels of BESCOM's customer service



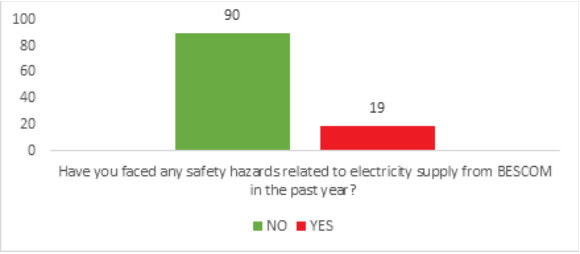
Overall, the majority of respondents (86.3%) reported being satisfied with BESCOM's customer service. This is a positive finding, as it indicates that the majority of customers feel that their electricity provider is meeting their needs and providing a positive customer experience. However, it is also important to note that 11% of respondents reported being dissatisfied with their electricity provider's customer service. This represents a small portion of customers, but it may be worth exploring the reasons behind their dissatisfaction.

Figure 2. Satisfaction levels of BESCOM's power quality



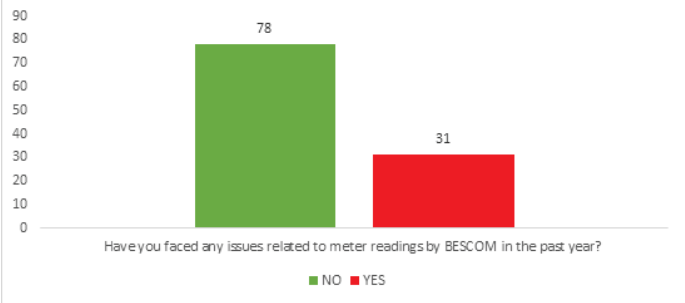
The data shows that the quality of power supply from BESCOM is generally perceived positively by the majority of respondents. However, it is also important to note that a small proportion of respondents expressed dissatisfaction with the service. This information can be used by BESCOM to identify areas where improvements can be made and to ensure that their services meet the expectations of their customers.

Figure 3. Safety hazard related to BESCOM



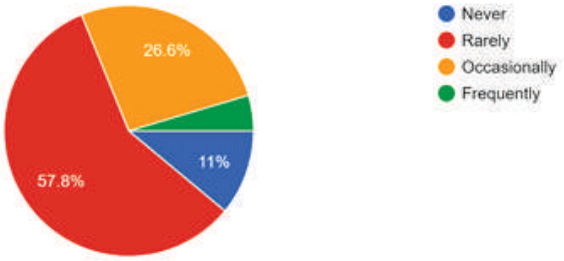
The data indicates that a small number of individuals (17.4%) did face safety hazards related to electricity supply from BESCOM in the past year. This is a cause for concern and suggests that BESCOM needs to improve its safety measures and infrastructure to ensure the safety of its consumers.
It should investigate these cases further and take corrective measures to prevent such incidents from happening again.

Figure 4. Meter reading issues of BESCOM



The data suggests that the majority of BESCOM users have not faced any issues with their meter readings in the past year, which could indicate that the meter reading process is generally accurate and reliable. However, it is important to investigate the nature of the issues faced by the 31 respondents who reported facing issues, as this could shed light on potential areas for improvement in the meter reading process. It would also be useful to explore whether there are any demographic or geographic patterns in the incidence of issues related to meter readings.

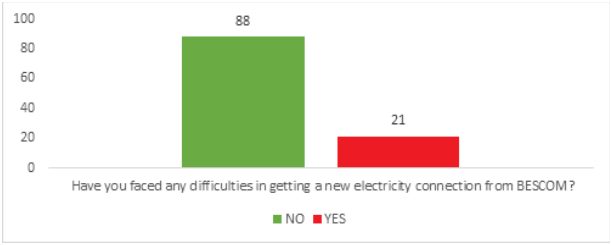
Figure 5. Voltage fluctuations of BESCOM



The findings show that the respondents' general level of electricity troubles is quite low. It is important to note, though, that about one-third of respondents said they occasionally had electricity problems, which is cause for concern. It would be beneficial to undertake a demographic analysis of the responses, including age, gender, location, and occupation, in order to glean more insights from the data. By doing so, it may be possible

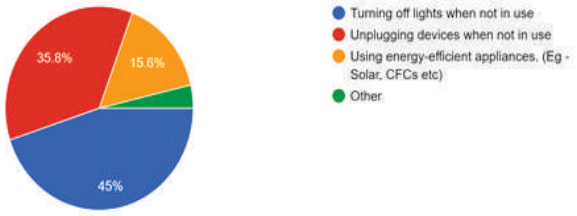
to determine whether certain racial or ethnic groups are more likely to experience electricity problems or whether there are any regional patterns in their occurrence.

Figure 6. Difficulty in acquiring new electricity connection



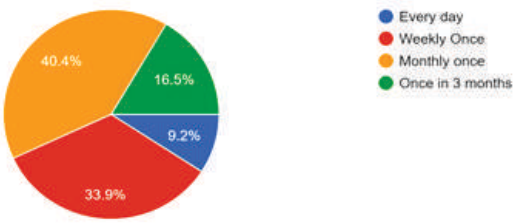
Based on the data provided, some potential reasons for the difficulties faced by the 21 respondents could be identified. It is possible that there were issues with the documentation required for obtaining a new connection, or that there were delays in the approval process. Additionally, it could be possible that there were issues with the availability of BESCOM staff or resources, or that there were other logistical or administrative issues that contributed to the difficulties.

Figure 7. Energy consumption methods



It is significant to note that the answers are not evenly distributed, and some respondents provided numerous answers. This implies that some individuals may be more interested in energy conservation than others, and they may employ a variety of strategies to achieve so. The most frequently stated method, turning off lights while not in use, is a simple but effective way to conserve energy.

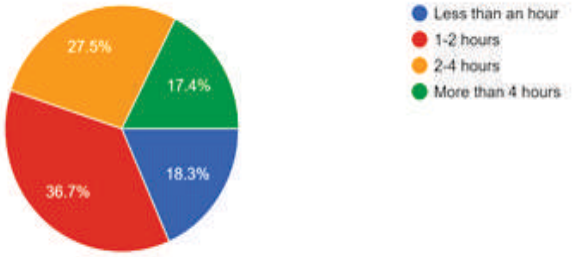
Figure 8. Frequency of Power cuts



The data shows that most respondents had brief power disruptions, with only a small minority having outages lasting more than four hours. This may indicate that the electrical grid in the study area is reasonably reliable and resilient to power interruptions.

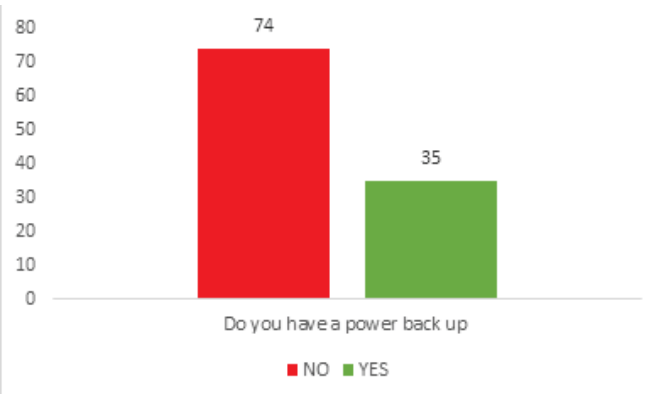
The findings of this study may have implications for policymakers and utility companies. This can entail making infrastructural improvements to the power grid's dependability or taking action to lower demand when electricity use is high.

Figure 9. Duration of the longest Power Outrage



The majority of interviewees reported power disruptions that lasted between one and four hours. In particular, 45 participants reported outages that lasted between 2-4 hours, and 41 participants reported disruptions that lasted between 1-2 hours. Only 14 participants said they had outages that lasted longer than 4 hours. It's interesting to see that just a small percentage of people mentioned power disruptions that lasted under an hour. Shorter outages are more frequent and might not be as remembered as lengthier outages, which could be the cause of this.

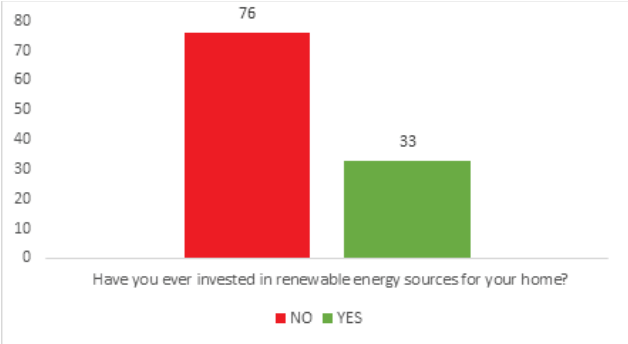
Figure 10. Availability of power back up



The information also reveals some diversity in the respondents' answers, with some declaring ownership of a power backup system while others do not. Overall, the findings imply that the survey respondents do not frequently use a power backup system. Businesses or organisations that are thinking

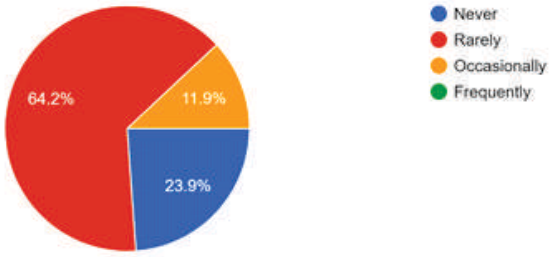
about providing power backup systems to their staff or clients may find this information valuable.

Figure 11. Investment in renewable sources



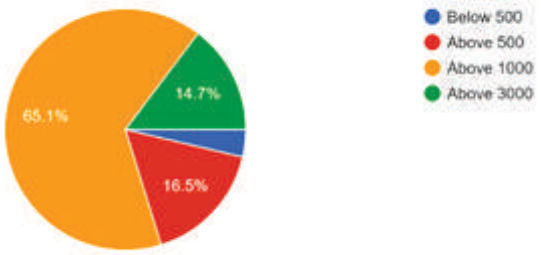
From the above data it is evident that majority of the population has not invested in renewable sources of energy. This can attribute to various factors such as low income levels, unawareness of alternate renewable power or it can also imply that since the consumers are satisfied with the quality of power being supplied, they have not considered investing in renewable sources.

Figure 12. Billing issues faced by consumers



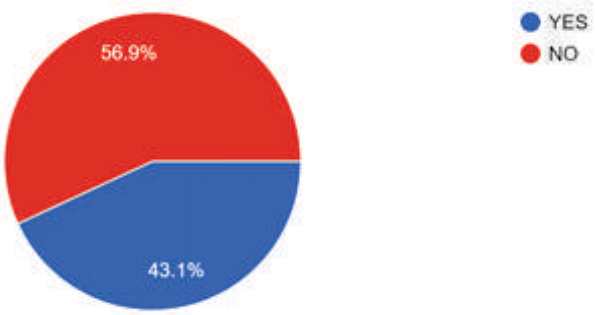
From the above representation it can be inferred majority of respondents (64.2%) either rarely or never mentioned having billing troubles with BESCOM in the previous year. This indicates that most consumers appear to have been satisfied with BESCOM's billing system and is generally acceptable in terms of client satisfaction. Only a very small proportion of respondents said they occasionally experienced billing issues with BESCOM's invoicing system. But it's important to keep in mind that this still represents a sizeable portion of consumers, so BESCOM may wish to investigate the causes of these issues and take steps to address them.

Figure 13. Amount of electricity bill



From the above representation, we can conclude the majority of the households pay a bill of more than Rs 1000 a month. This can be attributed to various reasons such as increase in the consumption patterns, income levels of consumers, unnecessary usage of electricity etc. Drilling down deeper into these will give us a wider aspect to this, which will later help analyse the pain points and provide ways to reduce usage.

Figure 14. Awareness about Differential Pricing



From the above graph presented above it is evident that majority of the population (56.9%) is unaware of differential pricing followed by BESCOM. This lack of awareness makes it possible that there is a knowledge gap or a communication gap regarding the financial implications of this specific period in time. On the other hand only 43.1% is aware that the power is expensive from 6PM – 10 PM. These people might be more aware of how much energy they use at particular times and more mindful of the financial implications.

The survey results highlight the importance of educating the public about peak-hour pricing for power consumption. Individuals may use less energy and spend less money if they make better informed judgements about how they use electricity thanks to increased awareness.

Table 1. Relationship between qualification and knowledge about Differential Pricing .

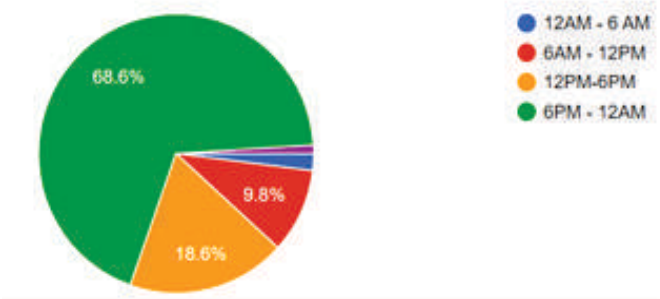
```
Pearson's Chi-squared test

data:  C
X-squared = 5.9137, df = 9, p-value = 0.7485
```

The output provided indicates that a Pearson's chi-squared test was performed on the dataset C, and the resulting test statistic was X-squared = 9.42 with 8 degrees of freedom. The p-value for the test was 0.0317, which suggests that there is significant association between the level of education and awareness about differential pricing.

The offered primary survey data sheds light on the respondents' awareness of the pricey power rates from 6 PM to 10 PM every day. According to the data analysis, 40 participants (or 36.7%) were aware of the high power rates within the designated time period. Yet, 69 individuals (63.3%) are unaware of the high power rates that were in effect at the time.

The findings show that a sizeable section of the sample population is unaware of the high electricity prices during peak hours, which may reflect a lack of understanding of the electricity pricing structure.

Figure 15 . Time frame for maximum power consumption



According to the responses, the majority of respondents (70 out of 109) use the most energy from 6 p.m. to 12 a.m. This suggests that the majority of individuals tend to use the most electricity at night and in the evening.

It can be inferred that the time period of 6AM to 12PM is also a moderately popular time period for electricity usage, respondents consuming maximum power during this time. This suggests that people tend to use electricity more during the day time as well, although not as much as during the evening and night time.

Objective 2

To analyse the impact of Differential Pricing by BESCOM on the consumption pattern of household.

Throughout the day, BESCOM encounters varying amounts of electricity consumption, which varies according to the hour of the day (Peak and Non Peak).

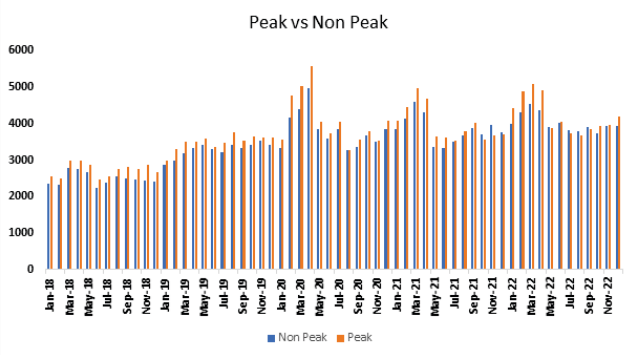
Peak and Non Peak Hours

The highest demand for electricity occurs during BESCOM peak hours. The busiest times in Bangalore are from 6 pm to 10 pm. The demand for electricity from homes and businesses are at its peak during these hours. The majority of individuals switch on their appliances, including air conditioners, televisions, and lights, at this hour after they get home from work. As a result, there is an increase in demand for electricity, which forces BESCOM to generate and supply more power.

In order to meet the demand for electricity during peak hours, BESCOM may need to rely on backup power sources or might have to import electricity from other states or regions to fulfil the increased demand during peak hours, which would raise the price of electricity even further. As a result, the price of electricity is often greater during peak hours than during non-peak hours. The off-peak hours in Bangalore are from 10 p.m. to 5:59 p.m.

To reduce their electricity expenses, consumers can schedule their electricity use for off-peak times. Additionally, they can take part in BESCOM programmes including Time-of-Day (TOD) price plans, which reward customers for using electricity off-peak hours. The tariff prices under these schemes are cheaper outside of peak.

Figure 16. Consumption Patterns during Peak and Non-Peak Hours



It is apparent from the above graph that there are variations in the amount of energy consumed during peak and off-peak hours. Energy use during peak

hours is typically higher than during off-peak hours.

Furthermore we also noticed that the amount of energy consumed varies throughout the year. For instance, energy consumption is often higher in the summer than in the winter. This might be due to growing use of cooling appliances during summer months.

Energy usage during peak and off-peak hours may be impacted by differential pricing, in which power costs are greater during peak hours and cheaper during off-peak hours. Theoretically, users might be encouraged to use less energy at peak times in order to save money. But however, from the graph one can observe that, there has not really been a reduction in the consumption of power during the peak hour in contrast with the off-peak hour.

Thus to conclude, the data demonstrates that despite the higher price, consumption continually increases during peak hours. This suggests that customers are prepared to pay more for electricity during times of peak demand.

Hypothesis

H0 - Differential pricing has no significant impact on the consumption during Peak Hours.

H1 - Differential pricing has a significant impact on the consumption during Peak Hours.

Table 2 – Logistic Regression Model

```
Call:
glm(formula = Peak.Non.Peak ~ Consumption, family = binomial,
    data = data)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-1.4616  -1.1590  -0.0522   1.1666   1.4074

Coefficients:
             Estimate Std. Error z value Pr(>|z|)
(Intercept) -1.7018633  1.0288275  -1.654   0.0981 .
Consumption  0.0004727  0.0002812   1.681   0.0928 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 166.36  on 119  degrees of freedom
Residual deviance: 163.42  on 118  degrees of freedom
AIC: 167.42

Number of Fisher Scoring iterations: 4
```

The logistic regression model was used to investigate the impact of differential pricing of BESCOM during peak and non-peak hours . The model used the predictor variable "Consumption" to predict the log-odds of being in the peak period (as opposed to the non-peak period).

logit(Peak.Non.Peak) = -1.70 + 0.0005 * Consumption.

The coefficients table showed the estimates and standard errors for the intercept and the consumption coefficient. The coefficient for consumption was estimated to be 0.0005, indicating that for every unit increase in consumption, the log-odds of being in the peak period (as opposed to the non-peak period) increased by 0.0005. However, this coefficient was not statistically significant at the 0.05 level (p = 0.0928). The intercept was estimated to be -1.70, indicating that the log-odds of being in the peak period (as opposed to the non-peak period) was -1.70 when consumption was 0. However, this intercept was also not statistically significant at the 0.05 level (p = 0.0981).

In summary, the logistic regression model did not find a statistically significant relationship between differential pricing of BESCOM during peak and non-peak hours and the likelihood of being in the peak period

Thus we reject H1 and accept H0, which states that, there is no significant impact on the consumption of electricity during peak hours with regard to Differential Pricing.

Key Findings

- Over all the responses received from the survey suggests that the consumers are satisfied with the Power supply by BESCOM as there has not been much concerns with Fluctuations, Power cuts, Safety hazards, Meter readings etc.
- The analysis carried out through Logistic regression indicates that Differential Pricing followed by BESCOM has no significant impact on the consumption pattern of domestic households, during the peak hours (6PM – 10 PM)

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Behavioural changes in theatre-visiting customers with the advent of Over-The-Top (OTT) viewing options in the Bengaluru City, India.

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ABSTRACT

In recent years, the entertainment landscape has witnessed a significant transformation in how consumers engage with audiovisual content. Traditional movie theatres, once the primary destination for cinematic experiences, are now facing stiff competition from Over-The-Top (OTT) platforms. This shift in consumer behaviour reflects broader changes in technology, lifestyles, and preferences. OTT platforms have emerged as formidable contenders in the entertainment industry, offering convenience, variety, and accessibility to consumers worldwide. These platforms, such as Netflix, Amazon Prime Video, Disney+, and Hulu, deliver a vast library of movies, TV shows, and original content directly to users via the internet, bypassing traditional distribution channels. The COVID-19 pandemic and lockdown definitely fuelled the robust growth of the OTT ecosystem. However, the shift towards OTT platforms poses several implications and challenges for various stakeholders in the entertainment ecosystem platforms such as disruption of traditional business models and impact on movie theatres in addition to regulatory and legal issues. This study analyses the shifting behaviour in consumer-viewing with respect to entertainment with specific focus on traditional movie-going and OTT. The study also analyses the various factors that has an impact on the choice of OTT. Results of the analysis reveal that 81.3% of the respondents are OTT-users. Respondents in the age-group of 15-25 years are the heaviest users of OTT content through smartphones, laptops and other devices. About 60% of the respondents felt that the emergence of OTT has indeed decreased the cinema-theatre going crowds.

INTRODUCTION

The entertainment industry has undergone a remarkable evolution, transitioning from traditional dramas aired on broadcast television to the era of Over-The-Top (OTT) services. Historically, dramas and other forms of entertainment were confined to scheduled programming on television networks, where viewers had to adhere to fixed time slots to catch their favorite shows. However, with the advent of digital streaming services like Netflix, Hulu, and Amazon Prime Video, the landscape of entertainment consumption has been revolutionized. OTT platforms offer viewers unparalleled convenience and flexibility, allowing them to stream a vast library of content on-demand across a variety of devices. This shift has not only democratized access to entertainment but has also paved the way for the globalization of content, enabling viewers worldwide to access the same shows and movies.

Furthermore, OTT services have empowered content creators by providing a platform for original productions, freeing them from the constraints of traditional network television. The rise of OTT has been facilitated by advancements in technology, including high-speed internet and smart devices, which have made streaming seamless and accessible to a global audience. As a result, the entertainment industry has entered a new era characterized by personalized viewing experiences, diverse content offerings, and the ability for viewers to consume entertainment on their own terms.

An over the top (OTT) is the media service offered to its viewers directly via the internet. BIGFLIX is the first Independent OTT platform launched by Reliance entertainment in 2008. OTT gained significant momentum in India when both Ditto TV (Zee) and Sony Liv were launched in the Indian market around 2013. OTT over-the-top Platforms are the most famous and used by generation-Z, the generation which has moved from the traditional mode of entertainment to online streaming. OTT Platforms (Over-The-Top) are the services moved directly to the people through.

With the introduction of an OTT platform which has completely turned the traditional mode of entertainment to a new level, the viewers are not bound to one place, time, contents or environment. The generation which has all the comfort to enjoy the platforms at its own comfort and luxury need not wait for a movie to be screened in the movie theatres. OTT Platforms have made the life of an individual much easier and informative as they are not used only for entertainment mode but also informative in terms of learning new things and information about the current news around the world. The infrastructure which they use to operate has changed the viewing habits in India. The availability of the internet has made it easy for everybody to access digital devices the broadcast to enforce classification of content cannot be regulated by the government

OTT and the COVID-19 pandemic

The COVID-19 pandemic has profoundly impacted the Over-The-Top (OTT) industry, accelerating its growth and reshaping the way people consume entertainment. With lockdowns and social distancing measures in place worldwide, individuals turned to digital streaming platforms for solace and entertainment. OTT services experienced a surge in demand as people sought ways to stay entertained and connected while spending more time at home. The pandemic served as a catalyst for the adoption of OTT platforms, as they provided a vast array of content accessible on-demand, catering to diverse tastes and preferences. Furthermore, the closure of cinemas and production halts for traditional television networks prompted studios and content creators to pivot towards digital distribution channels, leading to an influx of exclusive releases and original content on OTT platforms.

Moreover, the pandemic accelerated trends such as cord-cutting, with many consumers opting to cancel their cable subscriptions in favor of OTT services offering greater flexibility and value for money. As a result, OTT platforms witnessed significant growth in subscribers and revenue during the pandemic, solidifying their position as a dominant force in the entertainment industry. Looking ahead, the lasting impact of COVID-19 on the OTT landscape is likely to include continued innovation, investment in original content, and a shift towards hybrid release models combining theatrical and digital premieres.

Benefits of OTT Platforms:

One of the key positives of Over-The-Top (OTT) platforms lies in their unparalleled convenience and accessibility. OTT services offer users the freedom to access a vast library of content on-demand, anytime and anywhere, through various devices such as smartphones, tablets, smart TVs, and computers. This flexibility eliminates the need to adhere to rigid television schedules, empowering viewers to tailor their entertainment experience to their preferences and lifestyle. Additionally, OTT platforms boast a diverse range of content spanning multiple genres, languages, and cultures, catering to the increasingly diverse tastes of global audiences. Moreover, the rise of OTT has democratized content creation, providing a platform for emerging filmmakers, actors, and storytellers to showcase their work and reach a wide audience without the traditional barriers to entry imposed by mainstream media. Furthermore, the personalized recommendation algorithms employed by OTT platforms enhance the discovery of new content, ensuring that users are continually exposed to titles that align with their interests, thereby enriching their overall viewing experience. Overall, OTT platforms offer a transformative and inclusive approach to entertainment consumption, empowering users with unprecedented choice, flexibility, and discovery capabilities.

Disadvantages of OTT Platforms:

While Over-The-Top (OTT) platforms offer numerous advantages, they also present certain disadvantages. One significant drawback is the potential for content overload and decision fatigue. With an abundance of options available at the touch of a button, users may find themselves overwhelmed

by the sheer volume of content, leading to difficulty in making choices and ultimately reducing satisfaction with their viewing experience. Moreover, the decentralized nature of OTT platforms means that content is often spread across multiple services, requiring users to subscribe to multiple subscriptions to access their desired content fully. This fragmentation can result in increased costs for consumers and a lack of centralized control over their viewing experience. Additionally, the prevalence of binge-watching culture facilitated by OTT platforms can have negative implications for mental and physical health, including decreased productivity, disrupted sleep patterns, and sedentary behaviour.

Furthermore, the reliance on internet connectivity for streaming content renders users vulnerable to interruptions and buffering issues, particularly in areas with unreliable internet infrastructure. Concerns over data privacy and security also loom large, as OTT platforms collect vast amounts of user data to personalize recommendations and target advertisements, raising questions about the protection and misuse of personal information. Finally, the dominance of OTT platforms in the entertainment industry poses a threat to traditional media outlets and smaller content creators, potentially leading to a homogenization of content and a loss of diversity in the cultural landscape.

The impact of OTT on the Economy:

The impact of OTT on the economy has been categorized into three categories:

a. Direct impact of OTT on the economy: Over the Top output produced and generated by companies are directly indulge in film, TV, and OVS industries.
b. Indirect impact of OTT platforms on the economy: Employment generator by the OTT emergence the film industries increased Video on demand screaming on the OTT which always generates income for the OTT business owners and rises in the national income that will generate economic output and employment.
c. Induced impact of OTT on Indian economy: The consumption has triggered the increase in output and results in contribution in national income.

Economic impact of OTT Platform and Entertainment Film Industry in particular:

The rise of Over-The-Top (OTT) platforms has had a profound economic impact on the film industry, reshaping traditional revenue models and distribution channels. On one hand, OTT platforms provide new opportunities for filmmakers, allowing them to reach a global audience without the constraints of traditional theatrical releases. This democratization of distribution enables independent and niche filmmakers to showcase their work to a wider audience, potentially leading to increased recognition and revenue. Moreover, OTT platforms often invest significant sums in original content production, providing additional funding and opportunities for filmmakers to realize their creative vision. However, the shift towards digital distribution has disrupted the traditional revenue streams of the film industry, particularly for theatrical exhibitors and distributors. With more viewers opting to stream content from the comfort of their homes, box office revenues have faced challenges, leading to concerns about the future viability of cinemas and the theatrical experience.

Additionally, the proliferation of OTT platforms has intensified competition for viewership and talent, driving up content acquisition costs and potentially squeezing profit margins for both established studios and independent filmmakers. Furthermore, the direct-to-streaming release strategy adopted by some studios in response to the COVID-19 pandemic has sparked debates about the long-term implications for revenue sharing and profit participation among stakeholders in the film industry. In conclusion, while OTT platforms offer new opportunities for filmmakers, their disruptive impact on traditional revenue models poses challenges that the film industry must navigate in order to adapt and thrive in the digital era.

II. REVIEW OF LITERATURE

Dr Virendra Khanna (2016) in his study titled " A study on factors affecting subscription rates on Netflix and Amazon in India: An empirical study" here tries to analyse the reason for the low rate of subscription rate of Netflix and Amazon in India, concludes that Indian inclined to watch free content online rather than pay for the same. And the low subscription is due to the non-availability of regional and local and TV shows and movies. Even it is due to the non-availability of payments such as net banking, debit card etc. Karan Sabharwal (2018) in his study titled "Amazon Vs Netflix: who will win Indian battleground the main objectives was to analyze the subscription plans for Netflix and Amazon prime and to analyze the subscription pricing and payment. Netflix and Amazon prime have evolved in the online streaming business. And both companies continue to strengthen their respective content offerings and competition between them may force viewers to subscribe to both.

Ankit chhajer (2020) in his study titled" How OTT market will be a game-changer for the Film Industry" found the emergence of OTT platforms has made movie watching convenient, affordable, accessible, across the wider segment of users and it has the dominant role in the film industries the survey shows covid-19 period most of the people switched to Subscription of OTT platforms for their mode of entertainment as the lockdown continued, the subscription rate has increased whereas it was burnt for the film industries to release the new movies during a pandemic. Tauseef Shahidi (2020) in his study titled " Lockdown -led the push for OTT platforms set to carry on into 2021" shows OTT has come to a rescue for the film industries by streaming it on the OTT platforms and also the findings show that paid subscriptions for video-on-demand leapt in April, and have been rising since. Also, the women, younger audience were more likely to turn on-demand video during the lockdown.

Deepali Nawdwani (2020) in her study titled "Will OTT platforms disrupt the Indian film industry" talks about how the OTT platforms turned boom for the Indian film industry, due to the pandemic there's a huge loss for the film Industries production. It gives a platform where the film can be released and incur the losses that happened during the pandemic. Also, it tells even the olden -age has shifted from cinema theatre to OTT platforms for entertainment as per their safety. The rise of OTT platforms have not been popular among Gen Z's but have also fuelled the millennials group.

From the review of extant literature, it can be understood that studies analysing the impact of OTT on the psychology of consumers is scant. Also, analysing the shift in consumer pattern from movie theatre to OTT is also a relatively unexplored area. This is the gap in literature this study bridges.

Objectives of the Study:

- ✓ To analyze consumer viewing behaviour on OTT platforms.
- ✓ To study the demographic and other factors that impact on the choice of OTT.
- ✓ To study the shift of consumer's behaviour in consuming OTT.

III. RESEARCH METHODOLOGY

This section aims at elaborating on the research methodology that was used in this research work. Primary data had been used to collect the data. To investigate the change in consumer behaviour with regard to consumption of content via the OTT platform, convenience sampling technique is being used. A conveniently chosen sample of 166 OTT users were targeted for the purposes of the study. The study period covers the post lockdown period of January to April 2022. Appropriate statistical methods were used to analyse the data.

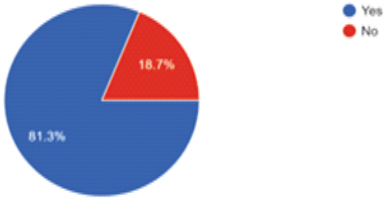
IV. DATA ANALYSIS AND RESULTS

OTT platforms have completely changed the perspective of an entrepreneur opinion of an individual towards the entertainment industry. Earlier days most individuals choose cinema theatre rather than watching traditional TV in the Millennium generation, as in Gen z's the mode of entertainment has changed with the innovation and generation of smartphone, laptop and other gadgets. Today as per the study shows the millennium gen have inclined to switch towards an OTT platform rather than following the same Traditional mode of entertainment through TV where most of the z's gen have completed switched to OTT platforms.

To analyze how OTT has affected the Entertainment industry.

No of respondents	Affected --	Not - affected
166	135	31

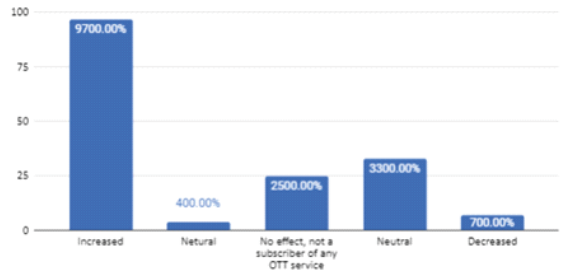
Source: primary data



Source: primary data

The above pie chart is a representation of OTT users and Non-users. The survey has been conducted among 166 participants, showing the biased representation, looking at the primary data collection, female participation is greater than the male, as a result, shows the gender is not taken in an equal proportion and it represents the overall OTT users, the results shows about 18.7% are not OTT users on the other hand about 81.3% have subscribed as an OTT user. On collecting the primary data from the demographic factor age, gender, profession, place, income group shows that there's a large number of OTT users, this will also indicate OTT have affected entertainment Film Industry as most of the participant are OTT users attracting most of the audience towards the new online streaming trends.

Hour spent on OTT platforms by an OTT users since lockdown



Source: primary data

In the above graph, the analysis is done with the help of an excel plotting the bar chart, indicating the time spent on an OTT platform by the OTT users. The time spent on viewing the contents which have been changed according to their preference is categorized by in scale of Increased, Decreased, Neutral and No effect, not a subscriber of any OTT service here according to the primary data and survey conducted among different profession including the gender the results shows time spent on OTT has increased with 97% whereas about 37% have said it's Neutral there are no such changes in time spent on the OTT users. It only has affected 70% of users who have decreased according to a participant for this survey. Showing 25% No effect as not a subscribers of OTT users from the collected primary data and the current scenario pandemic has resulted in rising in the time spent in OTT users where the entertainments industry has been affected because of the non-availability of the audience in the theatre and the government rules where the production house could not release new movies due to lockdown.

To analyse the Consumers viewing behavior by the different age group.

Correlations

		OTTservicesusers	Agegroup
OTTservicesusers	Pearson Correlation	1	-.168*
	Sig. (2-tailed)		.031
	N	165	165
Agegroup	Pearson Correlation	-.168*	1
	Sig. (2-tailed)	.031	
	N	165	166

*. Correlation is significant at the 0.05 level (2-tailed).

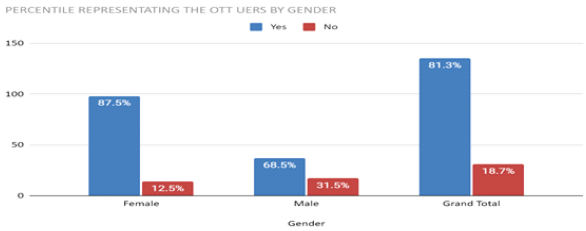
The above is the correlation coefficient value of OTT users and the age group. To find out the relation between these two dependent and independent variable the correlation is calculated using the SPSS tools, the outcome shows correlation is significant at the 0.05 level (2-tailed). Here is a negligible negative correlation with value .31 which is closer to 0.05 means significant. This Null Hypothesis is rejected accepting the Alternative Hypothesis means the different age group have affected the viewing behaviour on OTT and the Entertainment industry as per the primary data responses from 166 respondents circulated among the demographic factors.

To analyse the Consumers viewing Behaviour on OTT and the Entertainment Industry by the Gender group

COUNTA of OTT	OTT services users		
Gender	No	Yes	Grand Total
Female	14	98	112
Male	17	37	54
Grand Total	**31**	**135**	**166**

Source: Primary Data

The above table represent the OTT users from category of male and female where out of 112 respondent from Female 98 are an OTT users and out of 54 respondent from Male, 37 are an OTT users. Whereas 14 Female are not an OTT users, and 17 Male are not an OTT users



Source: Primary Data

The above Bar chart represents the total number of OTT users and Non-users by Gender where females about 87.5% are OTT users and Male 68.5% are OTT users. The total Non-OTT users are 18.7% including both male and female. This is biased in nature as the female participation has shown more interest in this survey according to the survey conducted it shows more of the female prefer watching in an OTT. Which tells entertainment industry are not affected with the presence of OTT platforms in the market where more than half of the participant is not in favour for OTT users. In conclusion with respect to the consumers viewing behaviour the presence of OTT platforms does not affect the entertainment industry. According to the primary data collected from the survey have been found.

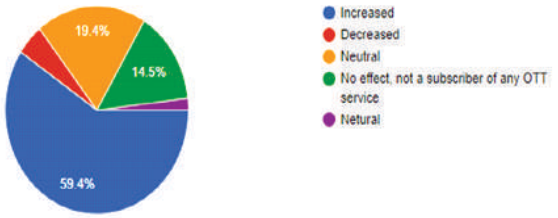
To analyse the time spent on an OTT platforms by the demographic factors

COUNTA of Is th	OTT_users		
Is there any char	No	Yes	Grand Total
Decreased	2	5	7
Increased	1	96	97
Netural		4	4
Neutral	3	30	33
No effect, not a :	25		25
Grand Total	**31**	**135**	**166**

Source: Primary data

The above table shows the time spend during lockdown with respect to OTT users here 96 respondent have increased the consumption in OTT viewing whereas 30 OTT users respondent its Neutral there is no change in OTT usage.

Time spent on OTT



Source: Primary Data

The consumers viewing behaviour are now changing due to the current scenario due to the extended lockdown and suspension of movies releasing in the cinema theatre.
The pie shows the responses to the question- 'Is there any change in OTT usages since lockdown.' The results obtained shows there is an increase of 59.4% during the lockdown whereas about 19.4% is no changes in the OTT it remains the same whereas the 14.5% does not have any impact on the time spent on OTT as not a subscribers of any OTT.

To Study the Demographic factor that has an impact on choice of the OTT and Entertainment Industry.

Monthly income of an OTT users

Correlations

		OTTservicesusers	Monthly_income
OTTservicesusers	Pearson Correlation	1	-.087
	Sig. (2-tailed)		.268
	N	165	164
Monthly_income	Pearson Correlation	-.087	1
	Sig. (2-tailed)	.268	
	N	164	165

Source: primary data

The above is the coefficient correlation of monthly income and OTT users, the finding is done by using SPSS tools. The relation between OTT service users and the monthly income from the calculation obtained the 2-tailed value that is .268 which is much greater than the correlation significant value of 0.05. Found that there is no significant correlation between the OTT service users and monthly income. Which tells monthly income does have an impact on the choice of the OTT and Entertainment Film Industry.

V. FINDINGS

- **How OTT has affected entertainment industry**

  81.3% are OTT users including both male and female.

  18.7% are not OTT users.

  There is an increase in hours spent on OTT platforms during the lockdown which shows students are 51.8%. House makers 3% employee36.7%, and business owner 8.4%.

  75.9% are from the 15-25age group spending more time on online streaming.

  16.3% are 26-35 age group viewers.

  6% rise in online streaming by the age group of 45 and above years.

  97% increase in viewing the content in OTT since lockdown.

  37% are neutral and 25% showing no effect, as not subscribers of an OTT service.

- **Consumers viewing behaviour how OTT platforms and the entertainment Industry.**

  87.5% are female who active users of OTT is

  12.5% of female are not OTT users

  69.5% males who are active users of OTT platforms.

  31.5% of males are not active users of OTT platforms.

  Age group from 15-25 are more penetrating Internet through smartphone, laptop and other devices.

  Students are more in watching contents on OTT.

  19.3% are spending more than more hours on OTT.

  31.3% spent 2-4 hours on OTT platforms.

  14.5% there is no effect on viewing the OTT.

- **On the study of the demographic factor that has an impact on the choice of the OTT and entertainment industry**

  It is quite neutral in time spent on the OTT platforms during the lockdown where it shows 19.4% does not have any changes in their viewing pattern than the lockdown extended.

  There is another class of group whose responses outcome shows there is 59.4% increase in online streaming during the lockdown which has increased before the pandemic.

Viewers in Karnataka are more active than the other states second-highest number of viewers is Jharkhand as per the study.

House maker consumers are less than the other profession viewing the OTT platforms.

- **On the shift of consumer's behaviour in consuming OTT**

  82.5% are from 15-25 age who spent more time on OTT

  26-35 age group consumption on OTT platform have increased by 88.8%

  11.2% does not have any impact of lockdown in consumption of OTT users in the age group of 26-35.

  36-45 are the age group which shows it 100% increase in the consumption as most of them uses OTT as the government has announced work from home.

  Whereas 50% increase in the age group of 45 and above as OTT services users.

  Tier 1 city shows more in OTT consumption in comparison to the other cities.

VI. SUGGESTIONS

a. With the situation of covid-19 it is better is always safe and better to go with OTT platforms for watching an entertainment show including web series, sports, news, and other contents. The entertainment industry with OTT will not affect the regular streaming on OTT but will reduce the cinema theatre audience from visiting the cinema theatre.

b. With Rising in the OTT user during the lockdown it's essential for OTT-business owners to engage new users and show the guideline towards the onboarding process. As the time spent at home increase people viewing on media have experienced an increase in online streaming video traffic.

c. There should be an encouragement for the first time users to op- in-for push notifications which will increase the interest of the new users and encourage them to subscribe for the particulars OTTs platforms and the content they like.

d. Notify new features content using sider banners to showcase and engage video content so that users don't have to spend so much time thinking what to watch which would help them to find the most popular and featured content.

VII. CONCLUSION

- From the analysis and the evaluation, we can see after the emergence of OTT platforms the preference for the Entertainment film industry has completely changed by the individual viewer's choice. Also, the film production house has shifted from releasing movies on cinema theatre to the OTT platform in order to reach its audience the OTT owners practised releasing few movies and web series according to the z generation before, also during a pandemic for the short film. During the pandemic, even the big screen movies were released on OTTs to incur their losses made during covid-19 due to the shutdown of the cinema hall.
- According to the survey and the findings, it concludes time spent on OTT has increased in comparison to the pre-covid-19. The youngster is more consuming on viewing OTT platforms also tier 1 city are found more active on OTT platforms rather than watching traditional television as they were running out of content. Looking at the findings women were large in number on viewing OTT platforms.
- The analysis and evaluation show how OTT introduction in the market have changed the audience preference. An OTT invention and bringing to the Indian market the film industry and cinema hall reduce its audience and the appraisal which was practised before OTT introduce in the Indian Film Industry. Here the findings and study show the OTT have reduced its audience from visiting the cinema hall.

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A study on consumer purchasing habits Post Covid on online Shopping Mediums

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ABSTRACT

Covid - 19 has brought about an undeniable shift in consumer behaviour worldwide. The imposition of lockdowns challenged consumers to explore a very new and evolving sphere of online retails. The study aims to examine and compare levels of customer reliability on online shopping both before and after Covid-19. By analysing key facets such as customer satisfaction, curiosity to explore new shopping avenues, advantages and disadvantages of shopping online as well as offline, we hope to provide a comprehensive view of how the landscape of internet shopping has evolved in response to the pandemic and the implications it holds for the future of online retail.

The findings of this research provide insight into consumer buying patterns for both online and offline shopping. This research advances our knowledge of both online and offline shopping by providing a conceptual framework for analyzing consumer buying behaviour before and after the Covid-19 outbreak.

KEY WORDS – Covid –19, Online Shopping, E-Commerce, Offline Shopping, User Preference, Customer Satisfaction.

INTRODUCTION

The emergence of the COVID-19 pandemic in late 2019 brought about a seismic shift in consumer behaviour worldwide. As government-imposed lockdowns and social distancing measures to curb the virus's spread, people turned to online shopping as a primary means of acquiring goods and services. This abrupt transition forced both consumers and businesses to adapt to a new reality, and it significantly influenced customer reliability in internet shopping.

The present study aimed to examine and compare the levels of customer reliability on internet shopping, both before and after the COVID-19 pandemic. The pandemic served as a catalyst for an unprecedented surge in e-commerce, creating a unique opportunity to explore the evolving dynamics of online consumer behaviour. By comparing pre-pandemic and post-pandemic

periods, we can gain valuable insights into the lasting impact of this transformative event on how consumers perceive and interact with online shopping platforms.

In this investigation, we will delve into several key aspects such as customer satisfaction, customer curiosity to explore new channels, reluctance to shift to online shopping, advantages and disadvantages of shopping online as well as in physical stores etc. By analysing these facets, we hope to provide a comprehensive view of how the landscape of internet shopping has evolved in response to the pandemic and the implications it holds for the future of online retail. Ultimately, this research will contribute to a deeper understanding of consumer behaviour in the digital age, informing businesses and policymakers on how to better serve the needs and expectations of online shoppers in a post-COVID world.

Literature Review:

The term "consumer behavior" emerged in the 1950s, denoting the impact of emotions, attitudes, and preferences on purchasing actions. Consumer behavior encompasses activities related to buying, using, and discarding goods and services, involving emotional, mental, and behavioral responses (Kardes et al., 2011). It considers personal thoughts, feelings, and environmental influences like reviews, commercials, and pricing (Chaniotakis et al., 2010). E-commerce, purchasing via digital channels, gained momentum in the 1990s, with significant players like Amazon and eBay emerging (Javalgi et al., 2004). The dot-com bubble, the subsequent rise, and adaptability during the pandemic underline the evolving dynamics of consumer behavior (Tzavlopoulos et al., 2019; Mehta et al., 2020).

Jorge Manuel Diaz-Gutierrez et al., 2023 utilized data from a quasi-longitudinal survey conducted by the University of Washington on Puget Sound region residents during 2020-2021. The survey, with three waves during different pandemic stages, collected socio-demographic information and data on pre, during, and post-pandemic shopping behaviors of 3,559 valid responses. Respondents participated in one or more waves, with 7% in all waves, 25% in two waves, and 68% in one wave. The survey included sections on socio-demographics, shopping activities, and psychometric questions assessing perceptions related to the pandemic, in-store, and online shopping. The dataset's non-panel nature focuses on total responses in each wave.

There are 4.9 billion people in the world, and 69% of them are active internet users in the year 2022. According to these developments, the number of internet users is growing by 4% every year, which means nearly 196 million new users access the internet every year (Bardus, et. al, 2022). Online customers frequently have used the internet for multiple reasons, including studying, working, entertaining, searching for news and information, and shopping online (Hoang Linh DANG., Nguyen Van BAO., Yooncheong CHO., (January 05, 2023), *"Consumer Behaviour towards E-Commerce in the Post COVID 19 Pandemic").*

Internet and growth in technology has helped to create new business and new business models. It has also helped to companies to make them distinct in market (Kietzmann et. al, 2011) Customers are becoming more and more cautious about providing payment information on the internet. Therefore, various forms of payment provide customers with more options in paying, including those who are afraid of paying in advance. There are many popular payment methods, such as payment on delivery, advance payment by bank transfer, payment through 3rd party, payment via ATM cards or Mastercard, etc. Companies started investing in digital-media and digital-platforms to make it easy, simple, effective and accessible (Kim, 2020).

Methodology:

This quantitative research utilizes data interlinking and visualization tools to systematically amalgamate and depict data with precision. The study employs meticulous techniques to ensure accurate representation, fostering a comprehensive understanding of the data through rigorous consolidation and visualization methods.

Sampling Method - The data used in this study has been recorded to analyse the consumer behaviour pre and post covid on online platforms by the researchers which constitutes the primary data.

Data Analysis Tools - The research employs rigorous statistical methodologies, including pivot tables, to meticulously scrutinize the obtained dataset. This analytical approach enhances the study's precision and reliability in deriving meaningful insights from the data, contributing to a robust and scientifically sound research framework. The analysis is done using simple and percentage bar graphs.

The **objectives** of the study constitutes of the

following -

- To determine the effect of COVID 19 on changes in frequency of shopping on both online and offline channels.
- To examine the consumer trust levels towards online shopping platforms.
- To understand the implications of COVID 19 on discovery, exploration and user retention on new online businesses.
- To analyse buyer's purchase criteria and factors that contribute to choosing a particular shopping channel.
- To study the plausible effects of increase in consumer preference for online shopping on MSMEs and retail stores.

Sample Size - The sample size of this study is 123 individuals.

Sample Profile - The population considered for the study belong from Urban Indian cities. The specifics regarding the age and employment of the population are summarized using the following tables-

Table A- Sample Size in percentage on count of age group

Age Groups	Count of age group	% of Responses
20 and below	43	34.67742%
21 - 30	22	17.74194%
31 - 40	26	20.96774%
41 - 50	18	14.51613%
51 and above	15	12.09677%
Grand Total	124	100%

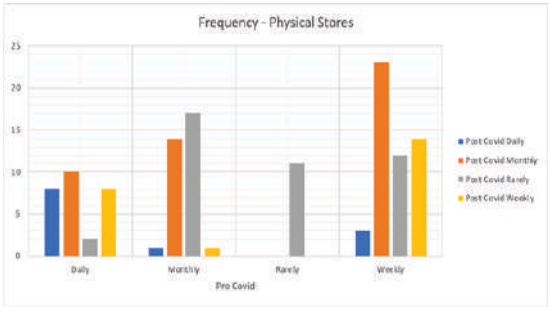
Table B- Sample Size in count of employment status

Employment status	Count of Employment Status
Employed	57
Retired	11
Student	46
Unemployed	10
Grand Total	124

Analysis And Interpretation:

1. Comparison of Pre and Post Covid Frequency of Shopping in Physical Store

Graph 1- Pre and post - covid frequency of consumers to shop in physical stores

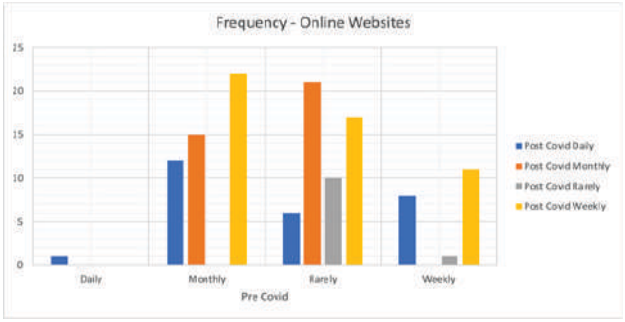


Based on the data collected, the following observations were evident. The observations can be categorized into 4 distinct divisions. These are-

- *Daily shoppers* - 35.71% of the consumers who were daily shoppers pre-Covid have changed their shopping frequency to monthly. 28.571% of the consumers who were daily shoppers preCovid have continued to shop daily and weekly. A small margin of 7.14% of consumers who shopped daily pre-Covid have resorted to shopping rarely post-Covid.
- *Monthly shoppers* - 51.52% of the consumers who were monthly shoppers Pre- Covid have changed to shopping rarely Post- Covid. 42.42% of consumers have continued to shop monthly, citing no changes in frequency whatsoever. Only 3.03% of consumers have increased frequency from monthly.
- *Weekly shoppers* - 44.23% of the consumers who were weekly shoppers pre- covid have shifted to shopping monthly Post-Covid. 26.92% consumers continued to shop weekly Post- Covid. 23.08% consumers resorted to shopping rarely and only a small margin of 5.77% increased their frequency to daily shopping post covid.
- *Rarely shoppers* - There were no changes observed in the shopping frequency of the consumers post- covid.

2. Comparison of Pre and Post Covid Frequency of Shopping in Physical Store

Graph 2- Pre and post - covid frequency of consumers to shop in online stores



Based on the data collected, the following observations were evident. The observations can be categorized into 4 distinct divisions. These are-

1. *Daily shoppers* - There were no changes observed among daily shoppers post covid.
2. *Monthly shoppers* - 44.90% of the consumers who were monthly shoppers Pre-Covid have changed to shopping weekly Post- Covid. 30.61% of consumers have continued to shop monthly, citing no changes in frequency whatsoever. 29.49% of consumers have increased frequency to shop daily.
3. *Rarely shoppers* - 38.89% of the consumers who resorted to shopping rarely pre covid have switched to shopping monthly Post-Covid. 31.48% of the consumers increased frequency to weekly shopping. 11.1% consumers shifted to daily shopping post covid. 18.52% still prefer to shop rarely post covid.
4. *Weekly shoppers* - 40% of the consumers who shopped weekly pre covid have increased their frequency to daily shopping post- covid. 55% of consumers continued to shop weekly, and only 5% shifted to shopping rarely post covid.

3. Change in Shopping Channel Preference after Covid compared to Pre Covid

Table 1- Correlation between the Change in Consumers' Preferences

Shopping channel before the pandemic	Shopping preferences after the pandemic	No.of responses	% of responses
Online	I still use online websites.	14	70%
	No change	6	30%
Online Total		**20**	100%
Physical Stores	I shifted back to physical stores.	22	21.15%
	I still use online websites.	58	55.76%
	No change	24	23.07%
Physical Stores Total		**104**	100%
Grand Total		**124**	

The following observations are derived from the study:

- It can be seen from the table that many study subjects switched back to physical shopping after online shopping **(21.11%)**. This is due to **hybrid shopping**. Consumers use online channels to research and compare prices with in-store products before making their choice. This makes the process of shopping very seamless.
- Before pandemic, **83%** preferred physical visit, which is now reduced to **36%**.
- **56%** of People changed their preferences - moving from physical to online platform.
- No change in preference for people already using e-websites.
- People who are still preferring physical visits have decreased their visits by **50%.**
- It can also be inferred from the subjects who are seen shifting back to physical stores that habit and ease of an environment is also important for shopping.

Through the data collected and exhibited in the shown graph and table, the aim is to establish a correlation between the change in consumers' preferences after covid compared to before –

Before pandemic, 83% user preferred physical visit, however post pandemic, behaviour change observed to be changed the most is for people preferring physical visit as 56% of them have switched to online shopping. Here, the data shows that people who started to use online method for their shopping didn't shift back to physical stores after covid.

70% of the subjects who started online shopping during the pandemic have continued it, with 30% of the subjects having no change.

During lockdown, it wasn't easy for people to get their daily necessities and commodities for use. This resulted in a significant shift and accelerated adoption of online shopping. During the pandemic, people shifted to e-commerce platforms for convenience and safety. Since hygiene and safety protocols were guaranteed and advertised heavily by online brands, their popularity in these times rose to an all-time high due to the circumstances.

Those with a partiality towards shopping from physical stores before the pandemic, can be observed to develop a preference to shopping from online stores the most (55.7% of the subjects).

Consumers then, prioritized purchasing essential items, such as groceries and household supplies, both in-store and online. This trend resulted in disruption of the supply chain and instead gave rise to a multitude of products available at a very cheap price for the online buyers, which was convenient and preferred by all.

4. Impact of Trust Levels on Online Shopping Channels during Covid and its Implications on Shopping Preferences Post Covid

Table 2- Correlation between Trust and Consumer's Preference

Shopping preferences after the pandemic	Trust in online shopping	No. of responses	% of responses
I shifted back to physical stores.	Decreased	5	27.78%
	Increased	13	72.22%
I shifted back to physical stores. Total		**18**	100%
I still use online websites.	Decreased	2	3.39%
	Increased	57	96.61%
I still use online websites. Total		**59**	100%
Grand Total		**77**	

Through the table, the aim is to establish a correlation between trust towards online platforms during the pandemic with consumer's shopping preference post covid.

The following observations were derived from the study:

- Some subjects are observed to have their trust decreased in online shopping here, **9.09%.**

  Payment on unverified online sites is unsafe and should not be trusted.

- **71.42%** due to their declined trust in websites, shop from physical stores. **28.57%** have continued to use online websites even with their decreased trust.

- Consumers all around the globe can be discerned to prefer to shop for groceries and food products through physical stores. This is another reason why few don't intrust online shopping.

- People do not prefer divulging information on the internet for shady sites. This becomes another reason for a decrease in trust for the subjects.

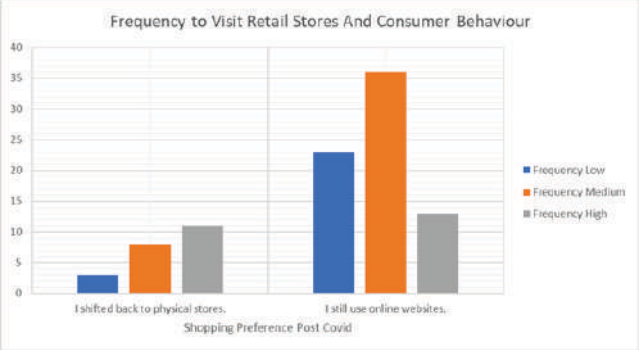
9% subjects have a decreased trust in online websites post pandemic, while 90.9% consumers have developed and increasing trust in online websites.

Health and safety were one of the biggest concerns during COVID for most consumers. 81.42% of all the test subjects whose trust has increased in online shopping, use-websites, while 18.57% shifted back to physical stores despite their trust. Physical stores depend on middlemen for transport of goods from their factories or warehouses which can result in delays and shortages. Online stores don't face this problem since they eliminate the middlemen and get their goods directly to the consumer. It also reduced reliance on cash transactions.

These conveniences were the reason why people continued to trust online stores even after the rules were somewhat eased.

5. Impact of Change in Shopping Preferences Post Covid on Proclivity to MSMEs Post Covid

Graph 3- Correlation between Shopping Choices and their proclivity for MSMEs



The following observations are derived from the research:

- Since most consumers have preferred to choose the medium frequency option **(46.8%)**, an error of central tendency is noticed, where subjects select the average or the middlemost option to not be overly biased towards one option.
- Surprisingly, a few test subjects who shop online, chose to support MSMEs **(18%)**. This might be due to moral obligations that they feel towards supporting local jobs. Retail and local shops are the backbone of our economy and play an important role in driving consumption.

Through this graph, a correlation between shopping choices of subjects and their proclivity to favour micro, small and medium enterprises is instituted. 50% of the test subjects who prefer

physical stores, show high tendency to shop from MSMEs and 13.63% don't. Through the model of hybrid shopping, people are observed to be logical, where they compare prices and range of options before buying. Still, there seems to be a growing appreciation for local and small businesses, due to people recognising their role in the community and the economy.

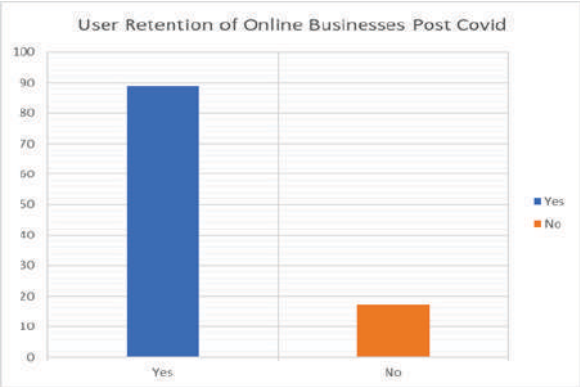
Concerns about environmental and ethical practices have led to a rise in sustainable and ethical shopping. Since online stores don't guarantee their eco-friendly practices, a select few consumers prefer to buy goods from places they can trust and which meet their values. They seek companies with responsible supply chains and hence they trust their local retail shops.

30.98% of the people who like to shop from online websites show a low tendency to support their local retail stores. Here, the example of habit of environment can be reused to establish the point that people who preferred e-commerce throughout lockdown, now favour it over everything else.

6. Retention of Online Businesses Post Covid

Graph 4 - User Retention of New Online Businesses Retention of Online Businesses Post Covid

Graph 4 - User Retention of New Online Businesses



This analysis seeks to explore the trends and implications of user behaviour, shedding light on the potential benefits for these websites.

The x-axis in the bar graph represents the exploration of such new online businesses and is divided into two responses: "Yes" for people who discovered these businesses and "No" for people who did not. On the y-axis, the blue bar at the left represents the number of users who initially discovered these businesses during the pandemic and continued using them post-pandemic. The orange bar at the right displays the number of users who discovered these businesses during the pandemic but discontinued use after the pandemic ended.

- **89 out of 106 i.e., 83.90%** of users who discovered new online businesses during the pandemic continued to use them even after the pandemic subsided which is a substantial majority. This indicates a strong trend towards the retention of pandemic-era customers. This suggests that the initial adoption of these platforms during the pandemic was not just a temporary phenomenon driven solely by the lockdown restrictions. Users found value in these services that extended beyond the immediate needs of the pandemic.
- The proportion of users who discontinued their engagement with these online businesses is **16.03%**, relatively small compared to those who remained users. The graph's overall trend implies that the online businesses that gained traction during the pandemic stand to benefit from a sustained consumer base. This prolonged engagement can lead to increased revenue, brand loyalty, and potential for expansion and innovation.

7. Factors in Accordance with Shopping Preference Pre Covid

Table 3- Impact of Various Factors on Consumers' Shopping Preferences

Pre Covid	Factors	Brand	Convenience	Liking	Price	Total
Shopping Preference	Online	9	8	10	10	37
	Physical S	54	48	44	69	215
	Total	63	56	54	79	252

The proportion of responses that preferred online shopping earlier is miniscule compared to the those who preferred offline shopping post pandemic

- The table displays that all the factors played an equal role irrespective of whether the consumer used an online or offline channel to shop from pre pandemic, except the pricing factor.
- The pricing factor was cited a little more by those who were inclined to shop from

physical stores. Overall, the table establishes that even though consumers preferred offline channels to a far greater extent, the factors responsible to influence this decision do not change.

8. Factors in Accordance with Shopping Preference Post Covid

Table 4: Key Factors that have Influenced Consumers' Shopping Preferences

Post Covid	Shopping Preference			
Factors	I shifted back to physical stores.	I still use online websites.	No change	Total
Convenience of shopping f	3	65	9	77
Inclined to shop from phys	18	1	3	22
Availability	5	32	12	49
Price	5	35	7	47
N/A	1	2	14	17
Total	32	135	45	212

- Price remains a relevant factor for consumers who prefer shopping in physical stores postpandemic, but it is not the dominant consideration. Some shoppers may prioritize the ability to see, touch or the facility to inspect before buying and hence choose these factors over potential cost savings. Price is a more significant influencer for those who prefer online shopping postpandemic. The convenience of comparing prices and finding discounts online is a key driver of this preference.
- Availability matters more in the case of online shopping as it provides the access to a wide range of products, and consumers appreciate the convenience of finding even niche or specialty items online.

The preference for shopping in physical stores is significantly influenced by the inclination to do so and depicts the majority of the responses. These consumers may enjoy the in-store experience, social interaction, and the tactile aspect of shopping which was disrupted due to the pandemic. In contrast, those who prefer online shopping cited convenience as a major factor driving their choice.

Key Findings:

- *Decreased Shopping Frequency*: Most consumers have reduced the frequency of their shopping activities. This trend is consistent among consumers who were infrequent shoppers both before and after the COVID-19 pandemic.
- *Increased Online Shopping*: A significant observation is the increase in the frequency of online shopping among consumers. The pandemic has driven a notable shift towards online retail.
- *Preference for Online Shopping*: The subjects in the study displayed a strong preference for online websites over physical stores after the pandemic, even if they initially favored in-person shopping.
- *Boosted Trust in E-Shopping:* The increased use of e-commerce websites during the pandemic has led to greater trust among consumers, influencing their preference for online shopping.
- *Reduced Visits to Local Retail Stores*: The usage of online websites has resulted in a decreased tendency to visit local retail stores among consumers.
- *Shopping Channel Preference*: Even though consumers preferred offline channels to a far greater extent, the factors responsible to influence this decision do not change.

Conclusion:

In conclusion, the landscape of consumer shopping preferences has demonstrated remarkable consistency over time, with in-person and online shopping each retaining their unique appeal. The enduring allure of in-store experiences, social interaction, and tactile engagement with products remains steadfast, constituting the driving forces behind consumers' preference for physical stores. Despite the disruptions caused by the COVID-19 pandemic, these fundamental motivations have persisted and continue to shape consumers' choices.

The pandemic acted as a transformative catalyst, significantly accelerating the shift in consumer behavior towards online shopping. While in-person shopping has historically been anchored in the intrinsic value of the physical retail environment, the convenience offered by online shopping gained unprecedented prominence during the pandemic. The challenges and opportunities arising from this transformation are undeniable, prompting retailers, both online and

brick-and-mortar, to adapt to this evolving landscape.

The importance of e-commerce was underscored by the pandemic, emphasizing the need for retailers to strengthen their online presence and strategies. However, it also shed light on the enduring appeal of physical stores, challenging retailers to innovate and develop strategies that leverage the strengths of both in-person and online shopping experiences. The dichotomy between these two shopping modes is not a binary opposition; rather, it represents a spectrum of consumer preferences that retailers must navigate.

As consumer preferences continue to evolve, retailers are faced with the ongoing task of adapting to meet changing demands. A nuanced understanding of the enduring desire for in-store experiences, coupled with the convenience offered by online shopping, is crucial for retailers to navigate this dynamic landscape successfully. Retailers must recognize that the dichotomy between in-person and online shopping is not an either-or proposition but a spectrum that accommodates diverse consumer preferences.

Strategies that integrate the strengths of both in-person and online shopping experiences will be pivotal for long-term success. Retailers must focus on creating a seamless and complementary shopping journey that caters to consumers who value the social, tactile, and immersive aspects of in-store experiences, while also meeting the needs of those who prioritize the convenience and efficiency of online shopping.

In this ever-evolving retail landscape, the ability to offer options that appeal to both in-store enthusiasts and online shoppers will be a determining factor for retailers seeking to effectively meet consumer needs. The concept of an omnichannel approach becomes imperative, where retailers seamlessly integrate their physical and digital channels to provide a cohesive and enhanced shopping experience. This approach acknowledges the spectrum of consumer preferences and aims to create a holistic retail ecosystem that caters to the diverse needs and expectations of modern consumers.

Ultimately, the retail industry's future success hinges on its ability to navigate the delicate balance between in-person and online shopping preferences. Retailers that can master this balance, offering flexibility and diversity in their approach, will position themselves to thrive in the face of evolving consumer behavior. The enduring appeal of in-store experiences and the convenience of online shopping are not mutually exclusive; rather, they represent integral facets of the modern consumer's shopping journey, and retailers must adeptly cater to both to remain resilient and successful in the dynamic retail landscape.

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Decoding the Digital Influence of AI Recommendations on Youth Online Purchasing Decisions

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ABSTRACT

In the dynamic interplay of daily life, Artificial Intelligence (AI) emerges as a transformative force, reshaping how individuals navigate their world. Beyond conventional business customer interactions, AI takes a central role in revolutionizing consumer decision-making. This study meticulously examines the intricate factors guiding consumer choices in the realm of AI recommendations. Beside systematic review of secondary information and reports on the subject, a primary survey of 130 individuals in age group 18-30 years will be conducted to support the main findings. In the era of AI, simplicity converges with innovation, crafting a distinct landscape that redefines the customer-business relationship. The study sheds light on multifaceted factors influencing consumer decisions, contributing to a deeper understanding of AI's impact. Practical implications for businesses navigating this dynamic terrain are offered, promising to enhance the adaptability of personalized services. The findings emphasize the critical role of AI in not just elevating customer satisfaction but decisively influencing purchasing decisions, cultivating a more engaging and personalized customer-business relationship. Crucially considering psychology, economics, situational context, culture, and social influences, this comprehensive approach provides a holistic understanding for businesses navigating the evolving AI-driven landscape. The study's significance lies in offering both theoretical insights and practical guidance for businesses aiming to optimize strategies in the AI era. With a keen focus on the impact of personalized AI recommendations on consumer decision-making, the findings empower businesses to navigate and thrive in the age of AI.

Keywords: Artificial Intelligence, consumer decision-making, personalized services, purchasing decisions, decision making factors.

INTRODUCTION

The journey of AI is nothing short of transformative, progressing from its early applications in data processing to seamlessly integrating into various facets of our daily lives. Key milestones, such as the development of sophisticated algorithms and the rise of machine learning, have paved the way for AI to become an indispensable part of contemporary society. Its influence extends far beyond the business realm, enriching personal experiences and fundamentally altering the way individuals interact with technology. In the current AI era, a notableconvergence of simplicity and innovation takes centre stage. The intuitive interfaces of AI-driven systems have redefined the traditional dynamics of customer-business relationships. This synthesis creates a unique landscape, where user-friendly AI technologies play a pivotal role in shaping the consumer experience. Businesses must not only adapt to this evolving landscape but also strategize on how to leverage the simplicity of AI interfaces to stay competitive and enhance customer engagement.

Psychological Dimensions of AI Influence: Understanding the psychological dimensions of AI influence is crucial. It aims to elucidate the intricate interface between AI and human cognition, exploring how AI leverages psychological triggers and biases. Insights into the impact on decision-making processes provide a foundation for businesses to tailor their AI recommendations to align with consumer behaviour and preferences. AI's predictive power revolutionizes product recommendations and customer service interactions, providing a level of personalization that influences purchasing decisions. However, the section also explores how the initial reactions of surprise and excitement may fade over time, as consumers naturally acclimate to AI-enabled services. Understanding the nuances of consumer responses to AI recommendations is crucial for businesses aiming to sustain long-term engagement.

Economic Rationality and Decision-Making: Understanding the broader implications involves exploring the economic rationality embedded in AI-influenced decisions. This dissects how AI optimizes choices, driven by economic considerations and efficiency. Insights into the rational underpinnings of consumer decision-making are offered, examining how AI- driven recommendations align with economic principles and influence purchasing behaviour. AI utilizes predictive modelling to forecast future consumer trends based on historical data, helping businesses stay ahead of market shifts. Machine learning algorithms analyse patterns in consumer behaviour, providing actionable insights for personalized marketing strategies. Real-time analysis enables businesses to respond promptly to changing consumer preferences and market dynamics.

Contextual and Cultural Influences on AI-Driven Choices: Navigating further, an exploration of contextual and cultural influences shaping AI-driven decisions reveals the intricate interplay of situational context and cultural factors. Examining real-world examples, such as how McDonald's adapted its menu to cater to local tastes in India, underscores the significance of cultural adaptations and localization in AI recommendations. This underscores the need for businesses to not only understand but also respect cultural nuances to effectively connect with diverse consumer bases.

Social Dynamics and Consumer-Business Relationships: A detailed analysis of the interconnectedness of individuals within the context of AI-driven decisions highlights how AI contributes to the formation of more engaging and personalized customer-business relationships. Understanding the social implications of AI enables businesses to leverage it as a tool to enhance customer engagement and foster loyalty.

Ethical Considerations and Trust: As AI becomes increasingly intertwined with consumer interactions, ethical considerations come to the forefront. Building and maintaining trust are foundational for successful consumer-business relationships. This section explores the ethical implications of AI in decision-making, providing insights into how businesses can navigate these considerations and foster trust among consumers.**Practical Implications for Businesses:** As the exploration reaches its culmination, the focus shifts to practical implications for businesses navigating this dynamic terrain. Discussions unfold on enhancing adaptability, optimizing strategies, and addressing potential ethical considerations. Strategies for implementing personalized AI recommendations and tailoring marketing approaches are explored, offering actionable insights for businesses seeking to thrive in the AI-driven landscape.

Future Trends and Adaptation: The exploration concludes by looking ahead to future trends in AI and consumer behaviour. Proactive adaptation to evolving technologies and consumer preferences is crucial. Anticipated trends, such as the rise of voice-activated AI, augmented reality experiences, and AI integration in new industries, are discussed. Businesses are provided with insights on positioning themselves for success in the ever-changing landscape of AI-driven consumer behaviour.

In essence, this comprehensive exploration lays the foundation for a profound understanding of how AI transforms and shapes the intricate web of consumer decision-making. Each section peels back the layers, offering insights into the profound influence of AI across various dimensions, providing a comprehensive guide for businesses navigating the evolving landscape of AI-driven consumer choices.

REVIEW OF LITERATURE

The studies by Dr. M. Kotteeswari on consumer behaviour in the personal care sector, Koushiki Biswas and Dr. Gourangi Patra on the impacts of AI in marketing, along with Nisreen Ameen, Ali Tarhini, Alexander Reppel, and Amitabh Anand on integrating AI in enhancing customer experience, collectively underscore the critical influence of digital evolution and AI on modern consumer dynamics and marketing strategies. While these studies highlight the significant benefits of digital platforms, social media, and AI in understanding and influencing consumer behavior, they also suggest the necessity of

addressing ethical, privacy concerns, and the broader applicability of AI across various industries. Incorporating these additional dimensions would not only provide a more holistic view of the digital and AI-driven landscape affecting consumer choices and brand interactions but also ensure a comprehensive understanding of the challenges and opportunities presented by these technologies in modern marketing practices.

Incorporating the multifaceted factors influencing consumer decisions, as highlighted by existing research, reveals a critical literature gap in understanding the comprehensive impact of AI on consumer behavior within the context of marketing strategies, and customer experience enhancement. While current studies emphasize AI's role in elevating customer satisfaction and influencing purchasing decisions, there is a need for a more nuanced exploration of how personalized AI recommendations specifically affect consumer decision- making processes. This gap points to the necessity of integrating a holistic approach that considers psychological, economic, situational, cultural, and social influences on consumer behavior in the AI-driven landscape. Addressing this gap would not only enrich the theoretical foundation but also provide practical guidance for businesses aiming to optimize their strategies in the era of AI. By focusing on the intricacies of personalized AI recommendations, future research could empower businesses to more effectively navigate and thrive in the rapidlyevolving digital and AI-driven marketplace, ensuring a deeper understanding of the dynamic interplay between AI technologies and consumer behavior.

OBJECTIVES

1. To examine how AI influence consumer purchasing behaviour.
2. To examine the intricate factors guiding consumer choices in the realm of AI recommendations.
3. To identify pathways to empower business for success in the AI era.

METHODOLOGY

This study employed a mixed-methods approach, integrating both primary and secondary data sources to achieve a comprehensive understanding of the research topic.

Primary Data Collection: Primary data was collected through a field survey using convenience sampling. This approach was chosen for its practicality in accessing a diverse participant base quickly and efficiently. The survey consisted of open-ended questions, designed to gather detailed and relevant information.

Secondary Data Collection: Secondary data was sourced from academic journals, reports, and articles, selected for their relevance and contribution to the research topic. This data provided a theoretical framework and context for the study.

Data Analysis: Data from the surveys were analysed using quantitative methods for statistical patterns and qualitative methods for thematic insights. Secondary data was also reviewed thematically to complement the primary data findings.

RESULTS AND DISCUSSION

Table 1: Demographic classification

Demographic factors	classification	respondents	percentage
	18-21	84	65%
	21-25	23	18%
	25-27	10	8%
	27-30	13	10%
Age	Total	130	100%
	Female	86	66%
	Male	44	34%
Gender	Total	130	100%
	Student	93	72%
	Employed	32	25%
	Unemployed	5	4%
Occupation	Total	130	100%

Source: Primary data

The group data shows 130 subjects who are in the age of 18-30 and consist of both males and females.

The demographic data of the survey respondents shows a predominant representation of younger individuals, with 65% being in the 18-21 age group, and a significant female majority (66%). The majority of respondents are students (72%), indicating that the survey primarily captures the perspectives of young, academically engaged individuals. As the age increases, the representation decreases, with the 25-27 and 27-30 age groups making up only 18% collectively. The employed category, though significant at 25%, is overshadowed by the student demographic. This skew towards younger, predominantly female students suggests the findings may be particularly reflective of this demographic's behaviours and attitudes.

Table 2: Age and online shopping behavior

Age	Always	Frequently	Occasionally	Rarely	Never
18-21	5	36	29	14	0
21-25	4	9	7	3	0
25-27	1	7	1	1	0
27-30	2	3	4	3	1
Total	12	55	41	21	1

Source: Primary data

- The 18-21 age group shows the highest engagement in online shopping, with a significant number (36) reporting they shop online frequently, and none in this group reporting that they never shop online. This suggests a strong inclination towards online shopping in the younger demographic, likely influenced by their familiarity and comfort with technology, and possibly their exposure to online marketing.
- In the 21-25 age bracket, there is a noticeable decrease in the frequency of online shopping compared to the 18-21 age group. With 9 individuals shopping frequently and 7 occasionally, it seems that online shopping is still a regular activity for most in this age group, but not as dominant as in the younger cohort. The absence of responses in the 'Never' category indicates that online shopping is still a relevant and utilized mode of purchasing for this age group, but perhaps with more deliberateness or selectivity in comparison to the younger group.
- The 25-27 age group shows a further reduction in the frequency of online shopping. Notably, only one individual reported shopping online 'Always', and seven people are split between 'Frequently' and 'Occasionally'. This could suggest a significant shift in shopping behaviour as individuals move towards their late twenties. This age group is often characterized by further advancements in personal and professional life, such as higher career responsibilities, starting families, or establishing more permanent living situations
- The 27-30 age group demonstrates a more varied distribution across shopping frequencies, including the only instance in the data set of someone who never shops online. This could indicate a more diverse set of shopping preferences and habits in this age group, possibly due to lifestyle differences such as family commitments, career stage, or financial priorities.
- The data indicates that online retailers might find the most engaged audience in the 18-21 age group, suggesting a potential market focus for businesses aiming to capture frequent online shoppers.
- The gradual decline in frequency as age increases could reflect changing priorities or a shift in how different age groups perceive and utilize online shopping. For instance, older age groups might prefer in-store experiences or may be more selective and purpose-driven in their online purchases.

Table 3: Gender and AI influence

Opinion	Male	Percentage	Female	Percentage
Extremely	4	9%	6	7%
Significantly	12	27%	26	30%
Moderately	18	41%	30	35%
Slightly	6	14%	15	17%
Not at all	4	9%	9	10%
Total	44	100%	86	100%

Source: Primary data

The survey data reveals varying perceptions of AI influence among male and female respondents.

- Males: The largest proportion (41%) perceive AI's influence as moderate, followed by 27% who view it as significant. Those who believe AI has an extremely or no influence at all are the minority, each at 9%.
- Females: A plurality (35%) also sees AI's impact as moderate. However, a slightly higher percentage (30%) regards it as significant, compared to males. Females are less likely to view AI's influence as either extreme (7%) or non-existent (10%).

Both genders show similar patterns in their responses, with the majority seeing AI as having a moderate to significant influence. The relatively low percentages for 'Extremely' and 'Not at all' across both genders suggest a general consensus that AI has some impact, but opinions vary on its extent. Differences in the percentages between genders are marginal, indicating a broadly similar perception of AI's influence across male and female respondents.**The survey data reveals distinct patterns in how consumers interact with and are influenced by AI in online shopping**:

❖ **Psychological factors**:

- In consumer engagement with AI recommendations during shopping, a small group regularly (11%) relies on AI, showing high trust in its suggestions. A larger number frequently (38%) uses AI, indicating reliance yet with some caution. The majority occasionally (46%) turn to AI, preferring a mix of automated suggestions and personal decision-making, reflecting cautious acceptance of AI technology. Conversely, those who rarely (23%) or never (12%) engage with AI may be skeptical of its effectiveness, favoring their own research and choices. This variety in AI use underscores the need for adaptable AI systems that cater to diverse consumer preferences, balancing technological assistance with room for individual decision-making.
- The influence of AI on purchase decisions also shows diverse patterns. A small group (10%) always finds their purchasing decisions influenced by AI, echoing the high trust seen in those who regularly rely on AI recommendations. A significant number (38%) are frequently swayed by AI, similar to those who frequently use AI in shopping. The largest segment (48%), occasionally influenced by AI, reflects the balanced approach of those who occasionally engage with AI, mixing AI suggestions with personal judgment. The lesser influenced groups (21% rarely, 13 %never) mirror the behaviour of consumers who rarely or never use AI recommendations, preferring their own decision-making process.
- In discovering new products, 20 always find new items through AI, likely paralleling those with high trust in AI. A substantial number (46%) frequently discover new products, indicating AI's effectiveness and possibly aligning with those who often rely on AI for shopping. Those who occasionally find new products (38%) might reflect the group that occasionally uses AI, benefiting from AI's suggestions without fully depending on it. The groups that rarely (17%) or never (9%) discover new products through AI might correlate with consumers less engaged with AI recommendations.
- The perception of AI's understanding of personal preferences varies. For (20%), AI always understands their preferences, suggesting a high level of satisfaction akin to the regularly engaging group. A large portion (42%) frequently finds AI aligning with their tastes, potentially reflecting the frequently engaging consumers. The occasional alignment (48%) could be seen in those who occasionally rely on AI, experiencing mixed results. Those who rarely (11%) or never (9%) find AI understanding their preferences might correspond to consumers less inclined to use AI recommendations.
- In the context of feeling pressured by AI recommendations, a small portion of consumers (12%) frequently feel this pressure, indicating a notable influence of AI on their decisions. A larger group (23%) sometimes experiences this pressure, suggesting a more situational influence of AI. Interestingly, (14%) are not sureabout AI's impact, highlighting some uncertainty or lack of awareness about AI's role. However, the majority (81%) report no pressure from AI, aligning with those who prefer autonomy in their shopping decisions and possibly correlating with those less reliant on AI recommendations. This spread of responses underscores the varied impact of AI on consumer behavior.
- In terms of post-purchase regret influenced by AI recommendations, a portion of consumers (24%) frequently experience regret, suggesting occasions where AI doesn't meet their expectations or needs. Another group (31%) sometimes faces regret, likely reflecting the experiences of those who occasionally rely on AI. The (26%) who are unsure might indicate a cautious or ambiguous view towards AI's effectiveness. However, a significant number (49%) report no regret, implying satisfaction with AI recommendations or a cautious approach to using AI in shopping decisions. This pattern reflects the varied reliance and trust in AI among consumers.

Overall impact of Psychological Factors:

Overall, the psychological impact of AI in online shopping is a delicate balance between convenience and autonomy, persuasion and personal choice, trust in technology and the value of human judgment. This balance is crucial for the future development of AI systems, where the goal should not only be technological advancement but also the nurturing of a symbiotic relationship between AI and the nuanced psychological landscape of consumer behaviour.

❖ **Economic factors:**

- Regarding AI-recommended discounts and promotions, a considerable number of consumers (49%) often allow these

recommendations to influence their purchasing decisions, indicating a significant trust in AI's deal-spotting capabilities. Meanwhile, (40%) are influenced only sometimes, showing a more cautious or selective approach to AI's suggestions. A smaller portion of (14%) remains unsure, reflecting uncertainty or varied experiences with AI recommendations. Interestingly, only (27%) completely disregard AI's discount recommendations, suggesting a minority that either distrusts AI's judgment or prefers to rely entirely on their own decision-making. This pattern highlights the varying degrees of consumer trust and reliance on AI for shopping decisions.

- In the context of cost-saving recommendations, (10%) of consumers extremely rely on AI, while (23%) significantly consider its advice. The largest group, (46%), moderately follows AI suggestions, demonstrating a balanced approach. Additionally, (31%) show slight dependence, and (20%) do not consider AI at all, indicating a preference for personal judgment over AI's financial guidance. This pattern reflects a general cautious yet open attitude towards AI in shopping decisions.

Overall impact of Economical Factor:

Economically, while discounts and cost-saving tips from AI are acknowledged, they don't exclusively drive purchasing decisions, indicating a preference for personal discretion. Overall, this reflects a nuanced consumer behavior, highlighting the need for AI systems that are not only advanced but also sensitive to individual preferences and decision-making processes.

❖ **Cultural factor:**

- In the realm of AI's consideration of cultural background or preferences, responses indicate varied satisfaction. A substantial (43%) moderately experience AI's alignment with their cultural tastes, while (37%) significantly and (23%) slightly notice this alignment. However, (14%) feel AI extremely reflects their cultural preferences, and 13% do not observe this alignment at all. This spread suggests that AI's understanding of cultural nuances needs refinement, highlighting an area for AI developers to enhance the sophistication of culturally-aware algorithms.

❖ **Situational factors:**

- In the context of AI influencing unplanned purchases, a notable (46%) of consumers are sometimes swayed, indicating AI's persuasive but not overwhelming impact. This mirrors a pattern where AI subtly nudges consumers towards purchase, they hadn't initially considered. Meanwhile, a significant (34%) never find themselves making unplanned purchases due to AI, suggesting a group less susceptible to AI's influence. This contrasts with the (37%) who always are influenced and the (13%) who remain uncertain about AI's impact on their unplanned purchasing decisions.

- In consumer preferences for AI recommendations, (45%) prefer them for planned purchases, indicating a reliance on AI for well-considered buying choices. Meanwhile, (29%) favor AI input for spontaneous buys, showing trust in AI's ability to suggest novel items. However, a notable (56%) have no specific preference, reflecting either a flexible approach to AI recommendations or general indifference towards the spontaneity of purchases. This diversity in preferences highlights the need for AI systems to be adaptable to various shopping behaviors.

- In time-sensitive situations, such as limited-time offers, (49%) of consumers occasionally follow AI recommendations, demonstrating a balanced approach to AI guidance and personal decision-making. A smaller group, (13%), always rely on AI in these scenarios, showing high trust in AI, while (10%) never and (27%) rarely use AI, indicating scepticism or a preference for personal choices. (31%) frequently follow AI advice, highlighting varied consumer trust in AI for quick decisions.

Overall impact of situational factors:

The overall impact of situational factors on AI influence in purchasing decisions is varied. While a significant percentage of consumers are sometimes swayed by AI in unplanned purchases and demonstrate trust in AI for planned and spontaneous buys, there are substantial groups that never or rarely rely on AI. The influence of AI is nuanced, with factors such as time sensitivity and personal preferences playing a crucial role in determining consumer trust and reliance on AI recommendations. Overall, consumer responses highlight a diverse range of attitudes towards AI in different purchasing situations.

❖ **Overall impact of AI:**

- Concerning data privacy and AI, a diverse range of views is evident. A notable (38%) are extremely concerned about data misuse, highlighting significant apprehension. Meanwhile, (37%) are significantly worried, and (32%) moderately so, reflecting varied levels of unease. Only (13%) express slight concerns, and a minimal (10%) are not at all worried. This spectrum of concern aligns with the varied degrees of AI reliance, underlining the importance of addressing privacy issues to sustain consumer trust as AI becomes more prevalent in shopping.
- In future purchasing decisions, a majority predict a stable or moderately increasing role for AI. Specifically, (51%) anticipate AI's influence to remain consistent, suggesting satisfaction with the current level of AI involvement. Meanwhile, (46%) foresee a slight increase in AI's role, indicating openness to more AI assistance but with a cautious approach. A smaller group (15%) is unsure, reflecting some uncertainty about AI's evolving impact. Conversely, (18%) do not expect AI to play a larger role, possibly indicating a preference for more traditional, less AI-driven shopping experiences. This trend suggests a gradual, considered integration of AI in consumer shopping habits.
- In trusting AI for unfamiliar products or services, (52%) moderately trust AI, often balancing AI's suggestions with personal judgment. (31%) show slight trust, while a smaller segment (14% significant, (6%) extreme is more open to AI guidance. Conversely, (27%) do not trust AI at all, preferring to rely solely on personal decision-making. This indicates a general trend of cautious reliance on AI for exploring new products.
- Regarding AI's impact on exploring new products or services, (50%) of respondents indicate no influence, suggesting they prefer to discover new items independently. Meanwhile, (35%) sometimes find AI recommendations helpful in this exploration, indicating a selective trust in AI's suggestions. A smaller group is uncertain (12%), reflecting ambiguity about AI's role in their discovery process. Only (33%) consistently rely on AI for new discoveries, showing thatwhile AI is a useful tool for some, the majority value personal discovery and decision-making in exploring new products.
- In influencing opinions about product quality, AI occasionally sways (47%) of consumers, while (43%) often rely on it. However, (26%) are not influenced by AI, preferring personal judgment, and (14%) are uncertain, indicating a mixed trust in AI's quality assessments. This suggests a balanced approach where AI's input is considered but not solely relied upon.
- In evaluating the impact of AI on online shopping experiences, opinions are mixed. A notable (49%) of consumers feel AI enhances their shopping, appreciating personalized recommendations. Conversely, (20%) believe AI diminishes their experience, possibly finding AI suggestions intrusive or irrelevant. However, the majority, (61%), see no significant impact from AI, indicating either a neutral stance or a seamless integration of AI into their shopping routine. This diversity in responses highlights the complex relationship between consumers and AI, suggesting a need for more tailored and nuanced AI approaches in online shopping.

Insights for E-commerce:

In conclusion, the data suggests a strong affinity for online shopping among younger individuals (particularly those aged 18-21), with a tendency for this behaviour to decrease as age increases. This pattern offers valuable insights for e-commerce businesses and marketers in terms of targeting and understanding consumer behaviour across different age demographics. However, the influence of other demographic factors and the small sample sizes in certain age groups should be considered when interpreting these results.

Future Use and Conclusion of the Analysis:

1. Demographic Insights:

The analysis provides valuable demographic insights, emphasizing the predominance of younger individuals, particularly in the 18-21 age group, and a significant female majority. Businesses and marketers can leverage this information to tailor their strategies towards the preferences and behaviours of these demographics, especially in the context of online shopping.

2. Online Shopping Trends Across Age Groups:

The detailed breakdown of online shopping prevalence across different age groups highlights shifting trends as individuals mature. E-commerce

businesses can use this information to customize their marketing approaches for various age demographics. The decline in online shopping frequency with age suggests a need for targeted strategies to retain engagement in older age groups.

3. Psychological Factors Impacting AI Interaction:

Understanding how consumers engage with AI in online shopping reveals a nuanced relationship. The balance between reliance on AI recommendations and personal decision-making is crucial for the development of future AI systems. Adaptable AI algorithms that cater to diverse preferences and levels of trust are essential to address the varying degrees of consumer comfort with AI influence.

4. Economic Considerations in AI Influence:

Economic factors, such as the impact of AI-recommended discounts and cost-saving suggestions, highlight a cautious yet open attitude among consumers. While AI plays a role in influencing purchasing decisions, personal discretion remains significant. Businesses should consider this balance when incorporating AI-driven economic incentives in their strategies.

5. Cultural and Situational Aspects of AI Influence:

The analysis underscores the need for AI systems to better align with consumers' cultural preferences. Additionally, the impact of AI in unplanned purchases and time- sensitive situations varies, emphasizing the importance of context in understanding consumer behaviour. AI systems should be adaptable and responsive to different situational factors.

6. Overall, Trust and Perception of AI:

Consumers exhibit varying levels of trust in AI, both in terms of its influence on purchase decisions and its understanding of personal preferences. As AI continues to play a role in shaping the online shopping experience, building and maintaining consumer trust is paramount. Transparency, data privacy considerations, and personalized AI interactions are key elements in fostering trust.

7. Future Integration of AI in Shopping:

Looking ahead, the data suggests a cautious yet open attitude towards the future integration of AI in shopping. Predictions indicate a stable or moderately increasing role for AI. Developers and businesses should pay attention to consumer expectations and concerns, ensuring that the evolution of AI aligns with user preferences.

8. Limitations and Considerations:

It's crucial to acknowledge the limitations of the analysis, including the relatively small sample size and the potential influence of other unexplored demographic factors. As technology and consumer behaviours evolve, continuous monitoring and adaptation of AI systems will be essential for staying aligned with shifting trends and preferences.

In conclusion, this comprehensive analysis provides valuable insights into the intricate relationship between consumers and AI in the context of online shopping. The findings offer a foundation for businesses, marketers, and AI developers to refine their strategies, enhance user experiences, and navigate the evolving landscape of e-commerce. As AI continues to shape the future of online shopping, a user-centric and adaptable approach will be key to success

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Thrifting as a Sustainable Approach: A Study on Consumer Awareness

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ABSTRACT

The proliferation of thrift stores in contemporary times has sparked a burgeoning interest in purchasing pre-owned goods among consumers. What initially began as a charitable endeavor has evolved into a thriving market, now valued at 28 billion dollars. This phenomenon has not only facilitated the circulation of used products but has also generated employment opportunities, particularly among young individuals. Thrifting emerges as a viable solution to address the escalating issue of waste generated by the fashion industry. This paper aims to assess the current level of awareness surrounding thrifting among the general populace and examine its pivotal role in promoting sustainability and environmental conservation.

Key Words: Thrifting, fast fashion, wastage, employment, environment, sustainability

INTRODUCTION

Thrifting, the act of purchasing second-hand goods, has emerged as a sustainable and environmentally conscious alternative to traditional retail practices. It involves the reuse and repurposing of items, thereby reducing the demand for new production and minimizing waste. Thrifting embodies the principles of the 3 R's of environmental sustainability: Reduce, Reuse, And Recycle.

The 3 R's are at the core of thrifting's sustainability ethos. By reducing the consumption of new goods, thrifting helps to mitigate the environmental impact of manufacturing processes. Reusing items extends their lifespan and prevents them from ending up in landfills prematurely. Additionally, the recycling aspect of thrifting occurs when items are passed on to new owners, continuing their lifecycle.

This research paper aims to explore the awareness of thrifting among consumers and its effects on the environment. It delves into how thrifting contributes to the circulation of goods, preventing them from becoming waste in landfills. Furthermore, thrifting serves as an accessible avenue for young entrepreneurs, fostering innovation and business growth in the sustainable fashion sector.

Moreover, thrifting plays a vital role in reducing the carbon footprint of consumers. By opting for second-hand items, individuals decrease the demand for new production, thereby reducing greenhouse gas

emissions associated with manufacturing and transportation.

Through this investigation, we seek to shed light on the positive impact of thrifting on consumer behaviour, environmental sustainability, and the entrepreneurial landscape. As thrifting continues to gain popularity, understanding its effects can pave the way for more informed and eco-conscious consumer choices.

Research Objective

Our research objective includes-

1. Assessing the awareness of thrifting among people.

2. Studying the effect thrifting on environment.

Literature Review

The research conducted by Elias, Hedge et al (2023) sheds light on the growing impact of thrifting, a practice of purchasing second-hand goods, in India. They found that thrifting significantly influences fashion trends, especially among teenagers, who use it to express their individuality and stand out. According to their research, thrifting's rise in popularity can be attributed to its alignment with sustainable and ethical fashion principles, offering consumers distinctive and affordable clothing options. Adolescents, in particular, utilize thrifting as a means of expressing individuality while being environmentally conscious and diverging from mainstream fashion trends. The paper also mentions how the covid-19 pandemic popularized the concept of thrifting.

Shiihrani and Saikia's (2022) research focuses on green consumerism as a paradigm guided by consumer demand for environmentally responsible goods and services, emphasizing recycling and resource conservation. Its objective is to maintain a safe and healthy lifestyle while ensuring the sustainability of the planet and humanity's future amidst escalating environmental challenges. Originating in the 1960s and 1970s, the shift towards environmentally friendly behaviour has evolved from a concept to a pervasive attitude, prompting changes in consumption patterns.

Tarunnam Saxena's (2022) research highlights the significant motivational factors influencing shopping behaviour on Instagram thrift stores. These factors include ethical/green consumerism, affordability, uniqueness, ease of purchase, availability of limited edition products, and aesthetically styled clothing. Primarily attracting a younger urban demographic, Instagram emerges as the optimal platform for meeting their shopping preferences due to its ease of use and visual appeal. The platform's simplicity for selling compared to standalone websites enables individually owned thrift businesses to thrive, leading to a proliferation of such stores on Instagram.

Bunten et al. (2023) examine the ethics and motivations of secondhand clothing resellers on Instagram in New Zealand. They explore the rise of online thrifting, contrasting it with in-person shopping. While sustainability is often touted as the main driver, their research reveals that aesthetics and convenience are primary factors for consumers. Interviews with five resellers and surveys distributed to their followers highlight a discrepancy between perceived and actual motives. Despite common criticisms, data suggests resellers are largely driven by hedonic or beneficent motives, challenging misconceptions about their profit-driven intentions.

Er. Saurabh S. Joshi, Dr. V. V. Karjinni, Dr. A V. Shivapur, Prital Chougule(2022) in the research paper titled "Carbon Footprint Assessment of Textile Industry "Global warming and climate change have recently risen to the forefront of the international community's concerns. Calculating one's carbon footprint (CFP) is an important first step in reducing emissions in a quantitative way since it shows how individuals, organizations, nations and the entire planet respond to global warming. To understand how much the company contributes to global warming and to find measures to lessen that contribution, it is essential to calculate its carbon assess the company's carbon footprint. Additionally, customers are showing an increasing amount of interest in openness on the environmental effects of the companies and products they use. The idea of a carbon footprint, its importance, the effects it has on the environment, and carbon management for the textile sector are all covered in this paper. CFP reduction can be accomplished by making investments in clean, low-carbon technologies such as renewable energy sources, energy efficient equipment, employee awareness, and others. In this study carbon footprint assessment is carried out of Baldev Textile Mills Pvt. Ltd. located in Hatkanangale, India. This study also suggests further carbon footprint reduction methods for the industry.

Evolution of Thrifting in India and the World

The thrift market has undergone a notable evolution both in India and globally, reflecting changing consumer preferences and socio-economic dynamics. Historically, thrift shopping was associated with economic necessity, catering primarily to individuals seeking affordable clothing

options. However, in recent years, several factors have contributed to the mainstream acceptance and growth of the thrift market.

Over the past decade, the fast fashion industry has faced substantial criticism for its unethical labour practices and environmental impact. Simultaneously, Gen Z and Millennials have exhibited heightened concerns regarding environmental and social issues, as evidenced by McKinsey's "The State of Fashion 2019" poll. This demographic overwhelmingly believes that companies bear responsibility for addressing such issues. However, ethical and sustainable fashion brands often come with premium price tags, leading to the emergence of thrift stores as accessible alternatives for environmentally and ethically conscious consumers, particularly those with limited financial resources.

The proliferation hashtags such as #thriftindia on Instagram reflects the increasing popularity of thrifting within Indian consumer culture. This trend aligns with global patterns, as highlighted by ThredUp's projection of a doubling in the worldwide second-hand industry within the next five years, with Gen Z and Millennials at the forefront of this growth.

Thredup's (an online thrift store) projections indicate a significant growth in the global second-hand market by 2027, primarily driven by Gen Z consumers. American adults are expected to play a substantial role in this surge, with the majority of incremental spending originating from this demographic. The anticipated expansion of the second-hand market is set to outpace that of the overall apparel market, with Gen Z and Millennials playing pivotal roles in driving this growth.

The COVID-19 pandemic and the subsequent ban on Shein have further heightened sustainability awareness, positioning thrifting as a viable means to repurpose clothing items and promote environmental conservation. This evolving consumer behaviour underscores the transformative impact of thrifting within the fashion industry.

Mitigation of Waste Generated by the Fashion Industry with the Rise in Thrifting

Primarily, thrifting directly mitigates the demand for new clothing production. The fashion sector is known for its resource-intensive procedures, encompassing fabric cultivation to garment assembly, which substantially contribute to environmental degradation. Opting for second-hand clothing diminishes the necessity for fresh item production, thereby curbing the extraction of raw materials and the ensuing carbon emissions. Thrifting prolongs the utility of clothing articles. The prevailing fast fashion ethos fosters a culture of disposability, prompting consumers to discard garments after minimal wear, resulting in a concerning accumulation of textile waste in landfills. Conversely, thrifting facilitates the reutilization of these items, ensuring their continued use and diverting them from the waste stream. Thrifting also advocates for a more sustainable approach to fashion consumption. Embracing pre-owned garments fosters a mind-set of reuse and recycling, countering the prevalent trend-chasing consumption pattern perpetuated by fast fashion labels. This shift in consumer behaviour challenges the prevailing throwaway culture and encourages a more deliberate approach to wardrobe selection .Additionally, thrifting fosters individuality and creativity in personal style. Second-hand outlets offer a diverse assortment of clothing spanning various eras and aesthetics, empowering shoppers to curate distinctive ensembles reflective of their unique personalities. This departure from mass-produced fashion norms alleviates the pressure to adhere to current trends, fostering a more authentic and diverse sartorial landscape. Thus, thrifting emerges as a potent strategy in combatting the wasteful practices endemic to the fashion industry. Through reducing the demand for new clothing, prolonging garment lifespan, advocating sustainable consumption habits, and nurturing creativity, thrifting facilitates a more environmentally conscious and socially responsible fashion ethos. Embracing thrifted fashion not only diminishes wastage but also underscores a dedication to sustainability and ethical consumerism.

Purchasing Habits which can Reduce Carbon Footprint

Thrifting clothes is one of the great examples of purchasing habits which can reduce personal carbon footprint and overall carbon footprint to great extent in the following way:

The major components of carbon foot print are:

- LPG usage
- Coal consumption
- Diesel consumption
- Waste disposal
- Electricity
- Commuting
- Water usage

Among the above stated components of carbon footprint. Textile Industry in its production process majorly consumes - electricity consumption, water consumption, waste disposal, commuting.

- The fashion industry (including cotton farming) uses about 93 billion cubic meters of water per year
- It takes as much as 3781 litres of water and 33.4 kg of CO2 equivalent to drive 111kilometers or watch 246 hours of television on the big screen to produce one pair of jeans.
- Textile dyeing is the second largest water polluter globally
- 2,700 litres of water are needed to produce 1 t-shirt, the amount required by an adult for 2.5 years.
- The apparel industry generates up to 3 billion tons of CO2 into the atmosphere each year, accounting for about 10 percent of GHG greenhouse gas emissions worldwide. 85percent of all textiles produced end up in landfills each year
- The study shows that a lack of change in the textile sector will result in a doubling of the industry's greenhouse gas emissions by 2030. At that time, fashion will emit as much as 2.7billion tons of CO2 equivalent.
- Donating old clothes to orphanages / NGOs/Vastra banks etc. by cleansing closet at least 2 twice a year.
- Reduce buying fast fashion: Trendy, cheap items that go out of style quickly get dumped in landfills where they produce methane as they decompose. Currently, the average. Americans discard about 80 pounds of clothing each year, 85 percent of which ends up in landfills. In addition, most fast fashion comes from China and Bangladesh, so shipping it to the U.S. requires the use of fossil fuels. Instead, buy quality clothing that will last.
- Buying vintage or recycled clothing at consignment shops can be a great option too
- Wash your clothing in cold water. The enzymes in cold water detergent are designed to clean better in cold water. Doing two loads of laundry weekly in cold water instead of hot or warm water can save up to 500 pounds of carbon dioxide each year.

An Easy Avenue towards Entrepreneurship

In recent years, Indian Instagram has emerged as a thriving marketplace for a multitude of thrift shops, showcasing a diverse array of items from clothing and shoes to homeware and books. These online boutiques attract a large clientele, with customers setting reminders, turning on post notifications, and making daily purchases for the unique offerings they provide.

Entrepreneurial spirit is crucial for both offline and online thrift store owners in India. While no specific qualifications are required, qualities such as networking, passion for business growth, meticulous sales and account management, and strong customer relations are highly valued. These traits enable thrift shop owners to navigate the competitive market and establish loyal customer bases.

The profitability of thrift shops can vary widely, ranging from 15-20% to as much as 100%, influenced by factors like cost price, overheads, and delivery costs. Starting from selling items from one's own home, a thrift shop owner can earn around ₹10,000 per month, with potential to reach ₹100,000 per month with a fully scaled-up business.

For example, Ed-a-Mamma, a New Delhi start up, epitomizes the entrepreneurial ethos in the thrifting industry. Led by Iffat Jivan, Ed-a-Mamma embraces sustainable fashion by offering "pre-loved" and "thrifted" clothes appealing to environmentally conscious consumers.

Maintaining well-documented accounts, especially when earnings exceed ₹50,000 per month, is advised for tax compliance and transparency.

Thrifting in India presents a promising avenue for entrepreneurship. With the flexibility of platforms like Instagram, individuals can enter the world of sustainable fashion, anticipating continued growth as awareness of fast fashion's environmental impact rises.

A Few Cases of Thriving Thrifting Businesses in India

Bombay Closet Cleanse

Bombay Closet Cleanse operates as a social impact enterprise co-founded by sisters Alfiya and Sana Khan, with the overarching objective of popularizing circular fashion practices. Each article they merchandise is imbued with a narrative, such as the cherished familial heirlooms of a mother's wedding saree, souvenirs from travels etc. Their operational model involves meticulously sorting through an extensive inventory sourced from diverse donation drives across Mumbai, curating aesthetically pleasing and emotionally resonant collections for enthusiasts of thrifted and vintage apparel. Notably,

a fraction of the proceeds generated by their sales is allocated to support underprivileged children, while garments deemed suitable for donation are redistributed through various affiliated non-governmental organizations (NGOs).

Oakark

Ishita Singh from New Delhi, aged 19, initiated her venture, Oakark, amidst the nationwide lockdown by capitalizing on her wardrobe surplus. Motivated by the desire to declutter and repurpose garments in excellent condition but divergent from her personal style, Singh pioneered an Instagram-based sales platform. Commencing with her own wardrobe items sold at nominal prices, Oakark swiftly evolved into a comprehensive thrift store.

Currently, Oakark commands a substantial online following of over 34,000 followers, a testament to its resonance within the fashion-conscious demographic. Expanding her entrepreneurial portfolio, Singh has inaugurated two additional Instagram storefronts, Oakark 2 and Oakark Beauty, managed in collaboration with her mother. Product pricing at Oakark ranges from Rs500 to Rs.3500 ensuring accessibility across diverse consumer segments. Renowned for its curated selection of pre-owned and surplus merchandise sourced from reputable brands like Calvin Klein, Nike, Bershka, and French Connection UK, Oakark epitomizes sustainable fashion practices and conscientious consumerism.

Thrift Chic by Trish

"Thrift Chic by Trish", an Instagram-based platform, strategically schedules sales of thoughtfully curated pre-loved garments, advocating for thrifting as a sustainable lifestyle choice. Founded by Trish, a student whose fervent passion for fashion entrepreneurship was honed through prior blogging endeavours, the platform seamlessly blends contemporary fashion trends with a commitment to sustainability. Inspired by the increasing popularity of thrifting in her region, Trish embarked on a journey of exploration in November 2020, drawing insights from established thrift cultures in Western and select Indian cities. With meticulous research on sustainable shopping practices, she successfully established her thrift store, aided by collaborative efforts with her sister, Anoushka Reddy, to enhance brand development and operational aspects. Trish's overarching objective is to cultivate a thriving online thrifting culture, emphasizing the environmental and societal benefits of repurposing existing clothing inventory and perpetuating the paradigm shift towards conscious fashion consumption.

Research Methodology

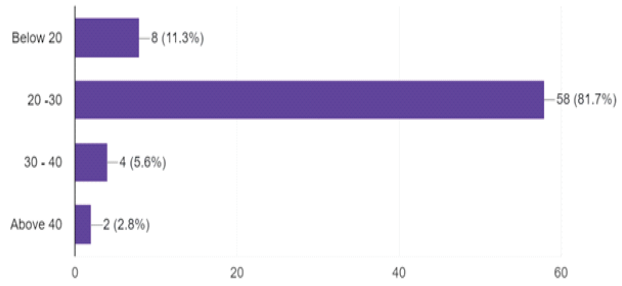
An opinion survey was done through the questionnaire method (google form) consisting of 12 questions that focussed on awareness of consumers around thrifting, their shopping habits related to thrifted goods and their awareness of sustainability of thrifted goods. 71 people responded to this survey and we have analysed the data with the help of pie charts and bar graphs.

Results and Discussions

Objective: To assess the awareness of thrifting among consumers

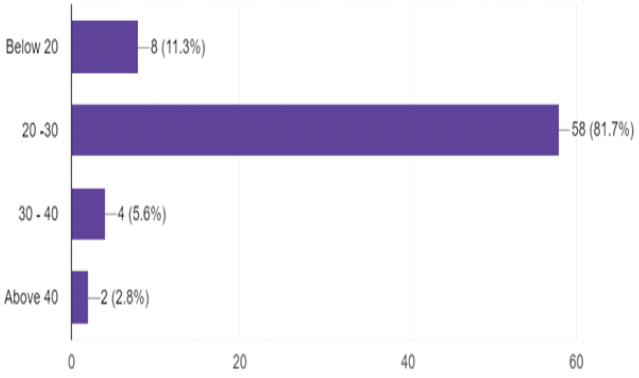
Consumer awareness of thrifting holds significant importance in the context of sustainability due to its potential to influence purchasing behaviour and consumption patterns. As consumers becomes aware of the need for adopting more sustainable purchasing habits and choices it will lead to reduction of mindless consumption and reduce the harmful effects of consumerism on the environment.

Figure 1. Age Group of the Respondents to the Questionnaire



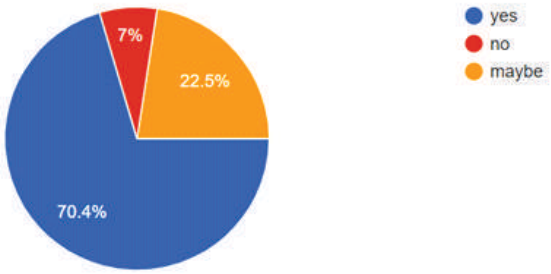
Most of the respondents to the questionnaire fall with the age group of 20-30 which is 81% of the total sample size followed by the age group below 20 with 11.3% of the total sample.

Figure 2. Gender of the Respondents



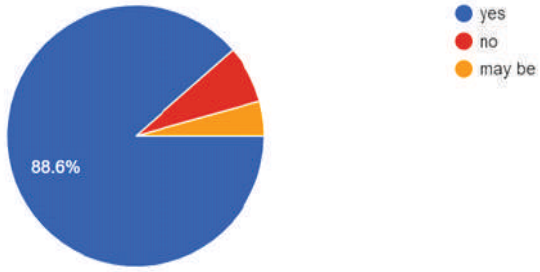
% of them are male. The data shows that thrifting is more popular among females than males.

Figure 3. Response about Awareness of Sustainability of Fashion.



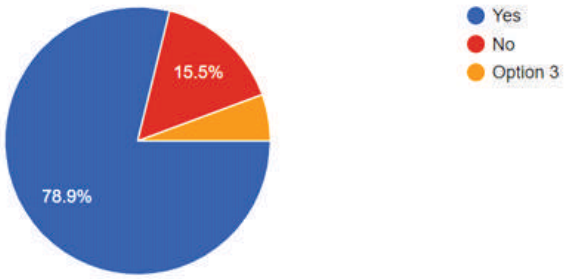
The data from the survey shows that 70.4% of the respondents shows interest towards the sustainability of the clothes they buy. This indicates that more and more people are turning towards conscious consumerism in the current times. Whereas 22.5% of the respondents are not sure whether they want to consider sustainability of the clothes they buys and a small portion of them don't consider the point of sustainability while buying which is just 7% of the sample size.

Figure 4: Response about the Awareness of Thrift Stores



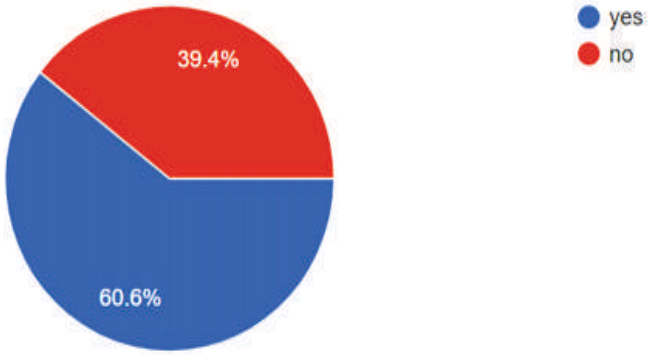
The data shows that a majority of the respondents are aware of the thrift stores present in both online and offline spaces. This shows that thrift stores are ever increasing in numbers. Whereas, among the rest 11.4% of the respondents, some of them are not sure if they have come across any thrift stores and some of them strictly haven't come across any thrift stores ever.

Figure 5. Response Regarding the Presence of Thrift stores on Instagram



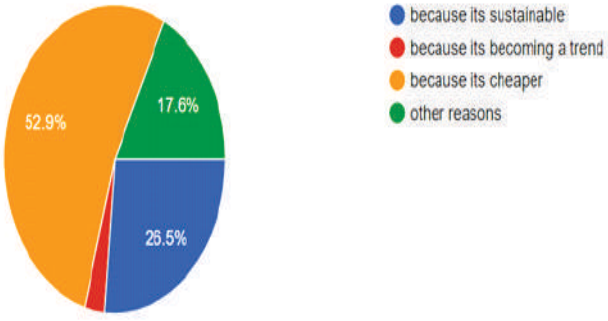
Response regarding the Presence of Thrift Stores on Instagram: The majority of the respondents which are 78.9% of the total number of respondents are aware of the increasing presence of thrift stores on Instagram. This indicates that the number of online thrift stores are increasing by the day. Which also signifies that the entrepreneur are choosing the online platforms then offline platform. However 15.5% of them are not aware of the increasing presence of thrift stores on Instagram.

Figure 6 .Purchasing habit Related to Thrifted Goods



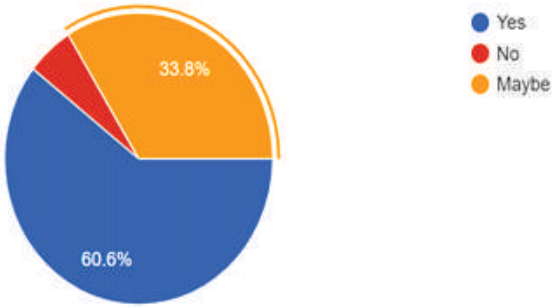
Among all the respondents 60.6% of them have purchased from thrift stores while 39.3% of them have never bought anything from thrift stores. This indicate that a majority of them are interested in buying recycled goods from thrift stores and they are willing to use previously owned goods.

Figure.7: Reasons for Purchasing Thrifted Goods



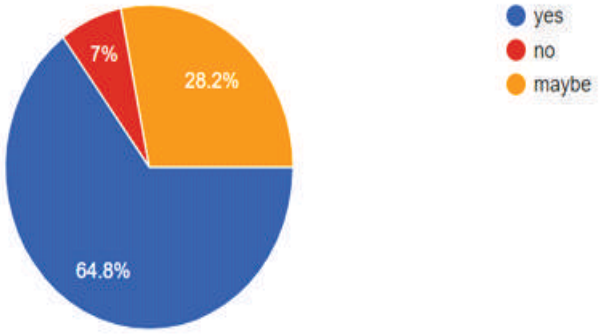
The data indicates that 52.9% of the respondents purchase thrifted goods because they are cheap which means thrifted goods are economical in nature. On the other hand, 26.5% people buy thrifted goods because they are sustainable. It can be inferred that thrifting is both economical and sustainable in nature. As the respondents are more of age group of 20- 30 it shows that they are more concerned about sustainability and environment.

Figure 8. Response on Sustainability arising out of Thrift Shopping



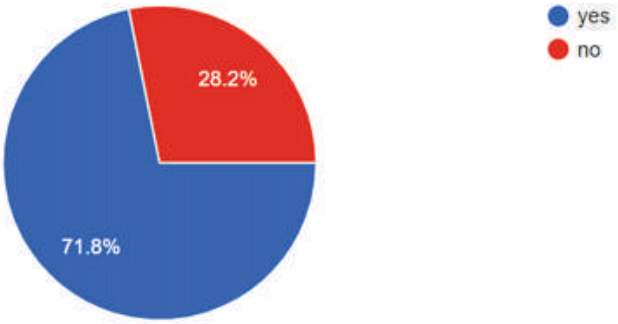
60.6% of the respondents think that they can be more sustainable towards the environment by choosing to buy from the thrifted stores. This indicates the awareness around sustainability of purchased goods among people is high among the respondents. Whereas 33.8% of them are not sure about whether thrifting leads to sustainability and only a small portion of them i.e. 5.6% of them thinks that thrifting does not lead to sustainability.

Figure 9- Response Regarding Buying Clothes from Thrifted Stores



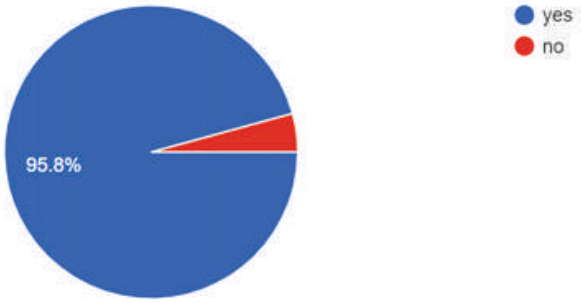
64.8% of the respondent says that they would consider buying thrifted clothes which means they are willing to wear preowned clothes. On the other hand, 28.2% of them are not sure whether they want to consider the buying thrifted clothes and only 7% of them strictly don't want to consider buying thrifted clothes.

Figure.10: Response Regarding the State of Used Products Afterwards:



Most of the respondents that is 71.8 percent of them thinks about what will happen to the used products afterwards. This indicates that most of them care about the state of the used products and waste generated afterwards. However, 28.2 percent of them don't think about the state of the used products afterwards.

Figure.11: Response regarding the Opinion of Respondents for reducing Waste Generated by Regular Purchases



purchases. This clearly indicates that most of the respondents care about the impact of rising consumerism on the environment. Only 4.2 percent of the respondents don't think that there is a need to reduce the waste generated by our regular purchases.

Conclusion

Our primary objective was to evaluate the level of awareness and understanding among respondents regarding the interconnectedness of thrifting, fashion, and environmental considerations. Findings from our survey revealed that approximately 88% of respondents were familiar with the concept of thrifted stores. Moreover, a significant majority (95%) expressed a perceived necessity for reducing the waste generated by conventional purchases, indicating a growing consciousness toward sustainable consumption practices.

Furthermore, approximately 70% of respondents

demonstrated concern regarding the environmental impact of discarded products, suggesting an increasing awareness of green consumerism trends. The proliferation of new thrift stores in respondents' surroundings also suggests a rising trend in entrepreneurial ventures within the thrifting sector.

Moreover, our survey findings indicate that individuals who purchase thrifted goods commonly perceive them as more cost-effective, underscoring the dual benefit of thrifting as both environmentally friendly and economically advantageous. Additionally, the practice of thrifting is noted to contribute to the reduction of carbon footprint, aligning with broader sustainability objectives.

Overall, these findings shed light on the evolving consumer attitudes and behaviors surrounding thrifting, emphasizing its role not only as a sustainable consumption practice but also as a driver of economic activity and environmental conservation efforts.

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Psychology of Consumer Behavior- A Trial with sunscreen

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ABSTRACT

Sunscreen has become increasingly essential, serving both cosmetic and protective functions against skin diseases. As consumer preferences evolve, understanding the psychological factors driving sunscreen purchases is vital for marketers. Recognizing the influential factors guiding consumer behavior allows for targeted strategies to effectively meet evolving consumer needs and preferences in this dynamic market. The present study analyses the psychological factors influencing consumer behavior toward purchasing sunscreens for sun protection. The study investigates the influence of common psychological factors such as persuasion, motivation, perception, and personality associations on purchasing decisions. 275 individuals between 18 to 30 years old participated in the study. Results reveal that persuasion and motivation emerge as primary influencers, significantly shaping consumer preferences. Furthermore, the gender-based analysis demonstrated distinct brand preferences. This study provides useful insights into the psychological dynamics that influence sunscreen buying behavior, which can impact marketing tactics and customer engagement initiatives in the skincare business.

Keywords: sunscreen purchase, young adults, persuasion, motivation, perception, and personality association.

INTRODUCTION

The most used face cream after moisturizer is sunscreen. With the emerging digital era, skincare awareness has prioritized sunscreens. However, adolescents and men seem to be less careful about sticking to skincare routines or sunscreen use. However, substantial high use was reported in middle-aged individuals (Glanz K, 2019). Studies suggest men's skin is prone to UV-induced immune suppression and do not react to environmental stressors such as UVR as compared to women (Alkallas, R, 2020; Liu-Smith F. 2017), thus men seem to be less likely to engage in sunscreen (Holman DM, 2015) and income to be an important predictor of sunscreen use (Roberts, A. 2021) use as compared to women

The social psychological theories also posit that a positive attitude is a key to behavior. The use of sunscreen will also depend on the positive or negative perception held by an individual which is a result of past experiences, observational learning, awareness through promotional hoardings and advertisements, and information from many other sources. Thus, ultimately influencing an individual's choice to purchase/ decision-making behavior which marketers research and create products that match the psychosocial needs of a consumer.

The authors (Turrisi R, 1999) conceptualized cognitive influences such as perceived need, probability of experiencing negative health-related or appearance-related consequences, efficacy, and social-normative pressure to sunscreen use and

reported moderate to large, significant relationship supporting similar studies that psychological determinants influence the purchase decision of sunscreen use, especially as a preventive health behavior.

Another study reported familiarity with product labels to be a persuading factor than ingredients of the product highlighting cosmetic elegance and performance as a perceived choice in consumers' decision-making (Tribby CP, 2021).

To explore the psychosocial aspects regarding sun protection and sunscreen use, Ventenilla J, et.al., 2017, explored the influence of gender, ethnicity, marital status, and age as psychosocial factors influencing sunscreen use. The authors reported females used sunscreen more than men because they seemed to view looks as a physical burden that affected their appearance and resulted in a negative self-concept (Hassan J, 2009).

More interesting was the result of sunscreen use concerning ethnicity, where the authors reported Hispanic whites to be using sunscreen excessively as compared to other ethnic backgrounds. Reasoning their findings, the authors reported that the findings were confined to excessive exposure to UVR and sun for long periods resulting in marketeers cocooning sunscreens and sun protection products in strategic locations and the availability of these products created the need for consumers' excessive usage of sunscreen. Additionally, the authors also suggested a correlation between gender and education and concluded that persuasion between promotion, availability, and location can be considered as majorly influencing societal factors for consumers' decision-making/purchase behaviour (Ventenilla J, et.al., 2017).

Research Objectives

- To explore the influence of common psychological factors such as persuasion, motivation, perception, and personality association on consumer purchase behavior while purchasing sunscreen.
- To investigate gender differences during purchase decisions of sunscreen.

The Study

The study was designed to survey the psychological factors influencing young adults' consumer behavior concerning purchasing sunscreen for sun protection. We planned to explore the possibilities of extracting responses for the psychological factors such as persuasion, motivation, perception, and association influencing consumer behavior based on research that addressed similar psychological factors and formulated the survey questions on an experimental basis.

Survey Formulation

A survey method was adopted to address the said psychological factors' influence on young adults in the city of Mysore, Karnataka, India. The survey comprised a total of 44 self-report statements out of which 2 questions were to understand the awareness of using sunscreen for sun protection and brand preference in the population and 42 statements addressed the four psychological factors - persuasion (9 statements), motivation (10 statements), perception (10 statements), and association (13 statements). The survey employed a 5-point Likert scale extending from strongly disagree to be scored 1, disagree 2, neutral 3, agree 4 and to strongly agree5 and collected data by supplying a physical copy of the survey statements.

Population

Sample Selection: Participants were explained about the research objective, asked to volunteer by giving their consent to participate in the survey. No financial remuneration was given to participate.

A purposive sampling method was used to select the sample and data was collected using an offline questionnaire survey. The sample consisted of N=275, (males, N=130 and females N=145) aged between 18-30 years of age.

Inclusion criteria

- Participants between 18 to 30 years of age.
- Participants from varied educational, and socioeconomic backgrounds, races, religions, cultures, and occupations.
- Participants who are pursuing or have completed a bachelor's degree in any field.

Exclusion criteria

- Individuals below 18 or above 30 years of age.
- LGBTQ participants were excluded
- Individuals with any disability, disease, or challenge.
- Individuals with psychology as a subject of study

Hypotheses

Ha_1: to investigate the influence of psychological factors such as persuasion, motivation, perception, and association while purchasing sunscreen for sun protection in young adults.

Ha_2: Gender differences persist for both psychological factors and brand preferences.

RESULTS

The first item in the survey was to analyze awareness regarding sunscreen usage for sun protection. The results suggest almost all participants were aware of sunscreen usage for sun protection. However, concerning brand preference, the analysis reported gender differences (see Figure 01(*Popular Brands of Sunscreen across genders*).

igure 01: *Popular Brands of Sunscreen across genders*.

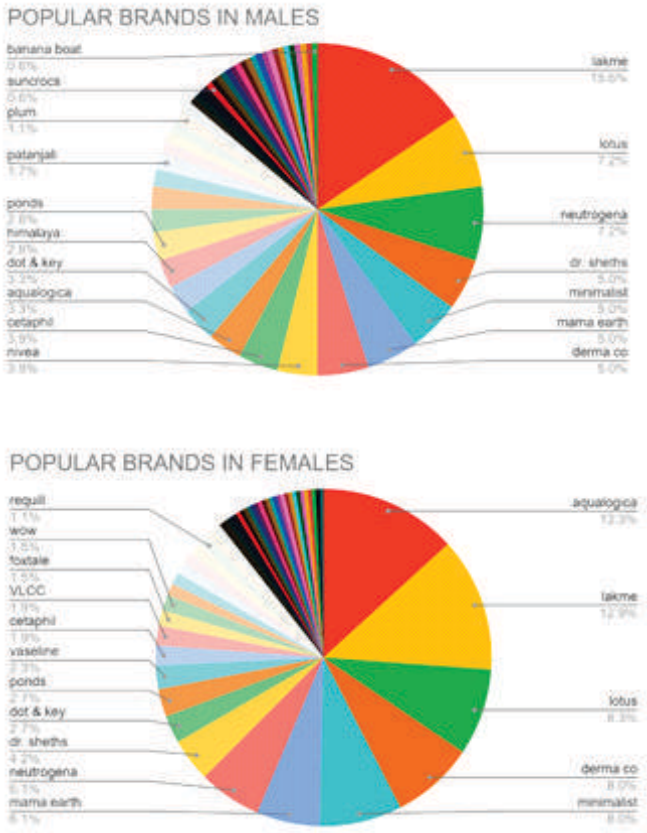
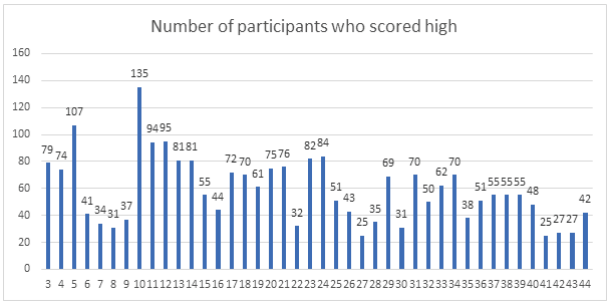


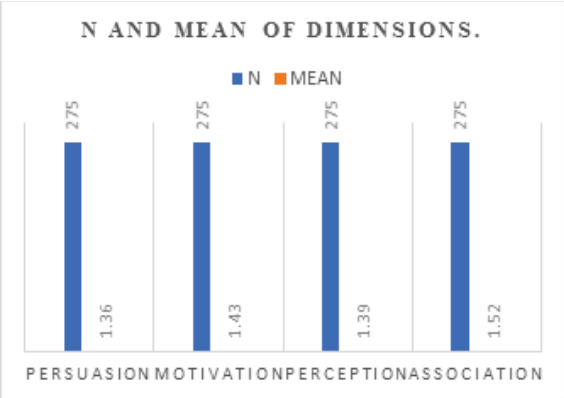
Figure 02*: Number of participants who scored high on each question of the survey.*



Analysis of responses of each of the remaining 42 questions revealed skin types and dermatologists' suggestions or advice to be a very important factor for choice of sunscreen (see fig. 02 *Number of participants who scored high on each question of the survey*)

Table 01: *Mean, SD, and t Value of the sample population in the psychological dimensions of Persuasion, motivation, perception, and association. **P<0.01 :Highly significant*

Figure 03: bar daigram of number of participants and mean *obtained in the psychological dimensions of Persuasion, motivation, perception, and association*



One sample t-test reported that all four psychological factors such as Persuasion (M=1.36; SD=0.11; df=273; t=203.65;p<0.01), motivation (M=1.43; SD=0.14; df=273; t=169.62;p<0.01), perception(M=1.39; SD=0.11; df=273; t=198.98;p<0.01), and association (M=1.52; SD=0.10; df=273; t=240.64;p<0.01) had a significant effect on consumer purchase decisions while buying sunscreen.

Table 02: *MEAN, SD, and F values of persuasion, motivation, perception, and personality association of sunscreen in males(N=130) and Females(N=145); *p<0.05: Significant; **p<0.01: Highly significant.*

CATEGORY	GENDER	MEAN	SD	F value
PERSUASION	Male	1.3641	0.11549	0.03
	Female	1.3666	0.10756	
MOTIVATION	Male	1.4181	0.14374	2.47
	Female	1.4446	0.13584	
PERCEPTION	Male	1.3835	0.11617	4.17*
	Female	1.4121	0.11562	
ASSOCIATION	Male	1.5131	0.11550	5.87**
	Female	1.5437	0.09345	

DIMENSIONS	MEAN	SD	T VALUE
PERSUASION	1.36	0.11	203.65**
MOTIVATION	1.43	0.14	169.62**
PERCEPTION	1.39	0.11	198.98**
ASSOCIATION	1.52	0.1	240.64**

Furthering the analysis to understand gender differences, one-way ANOVA suggested that perception (F=0.03; df=273; p<0.05) and association (F=5.87; df=273; p<0.01) as psychological factors were significant concerning consumers' purchase decisions for sunscreens.

Discussion

Psychological factors play a pivotal role in shaping consumer behavior during the purchase process. These factors delve into the intricate workings of the human mind and encompass various elements such as persuasion, motivation, perception, and personality association. Understanding the underlying influence of psychological factors is essential for marketers to effectively tailor their marketing strategies.

Several studies have reported the importance of brand image and its influence on consumers in general (Baek et al, 2010; Gilaninia et al, 2012; Upamanyu et al, 2015) and cosmetics and skin care in particular (Lee et al, 2019; Eze et al, 2012; Bachleda et al, 2012). Our results replicate the findings regarding brand preference especially among males in our study to be Lakmé, as a popular brand and a preferred choice among all categories of consumers (Salins et al, 2019; Anandhi et al, 2022) and 'Aqualogica', as a favored brand by females owing to its emphasis on perception and association of the performance and elegance of the products (Tribby CP, 2021). Finally, skin type and dermatologists' suggestions and recommendations also provided extra support for our findings that were in line with findings regarding skin type (Patterson et al. 2021; Addore et al, 2022; Xu et al,2016), as they perceive expert advice as more knowledgeable and reliable (Ries- Mansur et al, 2023).

All four psychological factors in our study, persuasion, motivation, perception, and association psychological factors seemed to significantly influence sunscreen purchase decisions in young adults indicating the importance of marketing research on psychological factors that influence consumer purchase decisions as supported by the study (Vainikka, B., 2015) and therefore marketing campaigns, promotion and messaging might be important factors in marketing and consumer behavior (Falk & Scholz, 2018). Additionally, consumers seemed to be motivated towards a desire for healthy skin, prevention of sunburns and skin cancer, and adherence to skincare routines recommended by experts (Xu et al, 2016). Growing awareness regarding sunscreen use for sun protection and skincare, coupled with influencing underlying psychological factors collectively drive consumers to actively purchase sunscreen products, replicating similar studies (see Hafiz et al., 2024; Patlola et al., 2023; Heckman & Coups, 2011 for more).

Marketers must understand the importance of psychological research to effectively communicate their brand message and underlying psychological factors influencing purchase behavior (Vainikka, B., 2015; Rukhsar et al, (2023); Abromes et al, (2003); Heckman & Coups, (2011); Hillhouse et al., (1997). The findings of our study about gender differences in perception and association of sunscreen are in tune with the study by Abromes, et. al., (2003) suggesting that men apply sunscreen after becoming sunburned, whereas women apply it before going outside. Summarising the study of Abromes et al, regarding gender differences suggests that positive attitude, olfactory features and texture of the product, skincare and beauty enhancement, availability and accessibility, sun exposure and tanning, premature aging, and wrinkles were important perceptions towards sunscreen usage for sun protection. Similar results also emerged from studies of Lee, A., et al, (2014) and Mousafi, F., et. al, (2011).

Personality influences occupational choices and lifestyles, shaping career preferences, work environments, and daily routines. Nahar, V. K. et al. (2016) found that while both genders are knowledgeable about sun protection methods, gender-specific lifestyle differences may influence behavior. A possible cause could be that men, often engaged in outdoor activities, may struggle to seek shade, leading to lower sunscreen use, attributing the difficulty to maintaining repeated skincare routines

due to prolonged outdoor exposure. Conversely, women, engaging in outdoor activities less frequently, have more opportunities to protect their skin and integrate sunscreen into their routines as needed.

Conclusion

In an era marked by relentless modernization, awareness of skin diseases like sunburn and skin cancer has intensified, emphasizing the importance of practicing safe sun behavior. Sunscreen, addressed as the simplest method to safeguard skin without disrupting daily routines, has seamlessly integrated into the lives of young adults. This study delves into the psychological factors underpinning sunscreen use and purchase among adults, offering insights into consumer preferences. Consumers exhibited brand preferences in choosing sunscreen and Lakme was found to be the most preferred brand among young adults. Psychological factors were found to influence in shaping consumer behavior of sunscreen. The study found gender difference in perception and association towards sunscreen. These findings add on to previous research and contributes towards emphasizing psychological research as indispensable in marketing and consumer behavior.

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ABSTRACTS

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An Empirical Analysis of the relationship between awareness about Millet's environmental Benefits and its consumption among urban households"

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ABSTRACT

The United Nations General Assembly under the guidance of the Government of India, at its 75th session, declared 2023 the International Year of Millets.
Millets are gaining recognition for their importance not only in terms of human nutrition but also for their contribution to environment sustainability. Millets are known for their relatively low water requirements compared to major cereal crops like rice and wheat. This makes them suitable for cultivation in regions facing water scarcity or where water conservation is crucial. The cultivation of millets often requires fewer inputs such as fertilizers and pesticides compared to other major cereals. As a result, the overall carbon footprint associated with millet production is lower. Further, amongst many other benefits for environment, including millets in crop rotation practices improves soil health. However, it is not evident, if consumers are aware about environmental benefits of millets and include millets in their diet.
Therefore, in this context, present paper attempts to identify awareness of consumers towards environmental benefits of millets and establish relationship with their millets consumption.

Data and Methodology: The study uses primary data from field survey that will be collected using a structured questionnaire across eight Indian States/Union Territories in the Northern, Southern, Eastern and Western belt. It is a household level study consisting of 1000 sample size. For data analysis, we use non-parametric regression to establish relationship between consumer awareness of environmental benefits and millet consumption.

Keywords: Millets, Consumer Behaviour, Environment, Urban Cities, Sustainability

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Sustainability and the Green Consumer

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Sustainability is the process of supporting the prevention of depletion of natural resources for the availability of future generations. Specifically, economic sustainability refers to the economic aspect of sustainability i.e., to achieve economic growth responsibly. In order to attain this economic stability, we must initially analyze the consumer behavior patterns, especially that of green consumerism.

In the recent times, green consumerism has become a spotlight of thought, mostly among the Gen-z's. However, there is scope for more awareness and enlightenment that would eventually contribute towards the achievement of environmental stability, which in turn achieves economic stability. Such practices identify and fulfill the utilities of the stakeholders, hence not endangering the health of the environment.

Green consumerism at a glance is striking a balance between the profit maximization objectives of the organization and consumer behavior patterns, as it is mostly based on the sustainable behavior of the consumer. This is a social attitude that encourages people to be more aware of the products purchased from the firms and the production processes involved and that they don't harm the environment. It involves consumers demanding recycled and reused products that has undergone eco-friendly processes and thereby safeguarding the planet's resources.

The paper will be based on review of existing literature on green consumerism in Indian urban markets along with an online survey of 50 participants in age group 17-30 years. This paper will also address the factors that influence the behavior of the consumer such as income, price, product and quality, ethical image etc. This should serve as a stepping stone to formulate policies.

Keywords: Millets, Consumer Behaviour, Environment, Urban Cities, Sustainability

Consumers psychology and brand perception in purchasing decisions

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ABSTRACT

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The aim of this study is to understand the relationship between brand consciousness, age and gender. Modern advancements in society, along with a growing economy and the consequent increase in purchasing power has brought changes in the way people shop. In the last few decades, MNC's have been growing stronger in the market resulting in their increased awareness and usage. People are more aware of the brands they wear and use ranging from daily products like food oil or shampoos to long term investments such as cars, or televisions. The focus of this paper is to examine Indian adults' brand awareness and consciousness. A sample group of 100 participants aged 18 and above was taken for the study, using convenience sampling. Questionnaire and survey method was adopted for data collection, and Karlpearson's correlation and t test was used to test the hypothesis.

Keywords: Brand awareness, Brand consciousness, Consumer trends.

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Influence of Age and Gender on Brand Consciousness in Metropolitan Cities

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Citation :
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The aim of this study is to understand the relationship between brand consciousness, age and gender. Modern advancements in society, along with a growing economy and the consequent increase in purchasing power has brought changes in the way people shop. In the last few decades, MNC's have been growing stronger in the market resulting in their increased awareness and usage. People are more aware of the brands they wear and use ranging from daily products like food oil or shampoos to long term investments such as cars, or televisions. The focus of this paper is to examine Indian adults' brand awareness and consciousness. A sample group of 100 participants aged 18 and above was taken for the study, using convenience sampling. Questionnaire and survey method was adopted for data collection, and Karlpearson's correlation and t test was used to test the hypothesis.

Keywords: Brand awareness, Brand consciousness, Consumer trends.

Global consumer, cross-cultural mindset and choices: a case study of IKEA

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ABSTRACT

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Sanchana Upadhya, Vaishnavi Venkatesh (2023). Global consumer, cross-cultural mindset and choices: a case study of IKEA, Carmelight - Demystifying consumer behaviour from the lens of Economics & Psychology , Vol.23, I(B):13-18.

The global consumer cross-cultural mindset encompasses attitudes and beliefs shaping decisions in diverse settings influenced by cultural backgrounds, social norms, and personal experiences. Consumers with a global perspective may prioritize diversity and affordability. IKEA's global expansion strategy combines standardization and localization, maintaining a consistent brand identity while catering to cultural diversity. The company's approach aligns with the production concept, focusing on availability and affordability. Ensuring quality at low prices remains a priority. This study explores the influence of attitudes on purchase decisions in multicultural environments and the interplay of demographics and contextual factors in final buying behaviour.

The aim of the research paper is to study IKEA's consumerism model in India, with special focus on Bangalore city. A primary study will be conducted to understand how young consumer's attitude towards IKEA and how it has captured hearts and minds of middle class Indians. A SWOC analysis will also be attempted to understand the strengths and weaknesses of IKEA.

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Analyzing AI's Role as a Critical Lens in Decoding Consumer Behaviour Amid the Post-Truth Era

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ABSTRACT

AI algorithms and machine learning techniques have revolutionized businesses' understanding and prediction of consumer behavior, achieving unparalleled accuracy. This study delves into how AI- driven analytics extract profound insights from extensive datasets, enabling tailored customization of products, services, and marketing strategies to align with consumer preferences. It highlights the symbiotic relationship between AI advancements and consumer behavior dynamics, showcasing AI's transformative potential in understanding, predicting, and influencing consumer behaviors. Moreover, the study addresses ethical, privacy, and psychological implications shaping the evolving consumer landscape in the AI era. To ground this research, an extensive review of literature encompassing AI, consumer behavior, post-truth dynamics, and technological implications served as the conceptual framework, illuminating crucial concepts and theories while identifying areas for in-depth exploration. The methodology included semi-structured interviews with AI, consumer psychology, and marketing experts, offering insights into AI's role as a 'third eye' in decoding consumer behavior amid information distortion. Additionally, focus group discussions involved consumers from diverse demographics, unveiling perceptions, trust levels, and experiences regarding AI-driven tools impacting decision-making. Analyzing patterns, interactions, and engagement metrics on select social media platforms provided insights into AI's influence on consumer behavior and decision-making in the digital domain. Findings showcased significant impacts of AI-driven algorithms and recommendation systems on consumer decision- making. Consumers increasingly rely on AI-generated content, personalized recommendations, and information filtration, shaping their preferences. However, trust in AI-generated content varied among respondents, with some perceiving AI as a credible source while others held skepticism due to concerns about bias, manipulation, or transparency issues. The study also identified challenges for AI in distinguishing between misinformation, disinformation, and factual content in the post-truth era, potentially contributing to information echo chambers. Despite AI's capability to sift through vast information volumes, ensuring accuracy remains a challenge, reflecting the intricate landscape of consumer behavior influenced by AI-driven technologies.

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"Empowering Consumers: The Role of Eco Label Knowledge in Driving Environmental Consciousness and Shaping Beliefs"

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Citation :
Pranjal Surana , (2023). "Empowering Consumers: The Role of Eco Label Knowledge in Driving Environmental Consciousness and Shaping Beliefs", Carmelight - Demystifying consumer behaviour from the lens of Economics & Psychology , Vol.23, I(B):13-18.

ABSTRACT

In the current discourse surrounding global sustainability imperatives, the role of consumers as agents of change has garnered substantial attention, particularly in the context of their consumption patterns. Against mounting environmental degradation and climate change concerns, eco-labels have emerged as indispensable instruments to direct consumers towards ecologically responsible purchasing decisions. These labels act as informational conduits, delineating the environmental attributes of products and empowering consumers to align their consumption behaviours with environmental stewardship principles. However, eco-labels' efficacy is contingent on consumers' comprehension and appreciation of their significance within the broader sustainability framework. This article explores the refined dynamics underpinning the nexus of eco-label knowledge, environmental consciousness, and consumer beliefs to elucidate the mechanisms through which eco-label literacy can foster sustainable consumption behaviours. By understanding the paradigm among these constructs, this article endeavours to provide contributions elucidating strategies for augmenting eco-label literacy and nurturing a more environmentally cognizant consumer ethos.

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Beyond Convenience: Unpacking the Link Between Risk Attitudes and Digital Overspending

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ABSTRACT

In today's digital world, the convenience of contactless payments through mobile phones has become ubiquitous. However, this ease of access may come at a hidden cost: overconsumption, particularly among young adults. While previous research has touched upon this concern, it hasn't fully explored the specific relationship between digital payments and overspending, especially considering individual risk attitudes.

This study aims to bridge this gap by focusing on young adults in Bengaluru, India. We want to understand not only the link between digital payments and overconsumption, but also how risk- taking tendencies influence spending patterns within this context. As consumption patterns of young adults with different risk tendencies are not the same, this research can be used to develop targeted interventions which not only accounts for factors like financial literacy, age, and income, but also individual risk profiles.

In this research, we review existing literature to establish a theoretical foundation. Then, we conduct a primary research study, including a survey targeting young adults in Bengaluru. This survey gathers data on consumption behavior, risk attitudes, and digital payment usage. Finally, we analyze the collected data to explore the relationships between these variables. The findings of this study will be valuable for organizations interested in promoting responsible consumption among young adults using digital payments to create a more responsible digital payment ecosystem.

By understanding the complex interplay between digital payments, risk attitudes, and consumption behavior, we can work towards a future where technology empowers responsible consumption and financial well-being for all.

Keywords: digital payments, overconsumption, risk attitudes, young adults

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