STUDY ON CONSUMPTION OF SOFT DRINKS BASED ON ANALYTICAL PARAMETERS IN INDIAN MARKET

Dr. Abhishek

Assistant Professor,Department of Management, Baba Mastnath University, Rohtak

Parasharabhishek5@gmail.com

Abstract

The main goal of this work is to study and analysis the behavior towards cold drink products in Indian market. The study area of our survey is mainly in Haryana & Punjab region. It mainly works on analytical study on consumption of soft drinks. This analysis is based on gender and marital status. It prefers questionnaire based study for finding the results. In this survey, it prepares 25 questionnaires and get response from 310 respondents. In this survey 185 male and 125 female respondents are participated and also all age group respondents are involved in this survey. The results are presented in terms of gender based analysis and marital status wise results. All results are found by SPSS tool.

Index Terms-Consumer Behavior, Soft Drinks, Coca-cola Products, Data Analysis, North India etc.

1. Introduction

Corporate social duty is an incorporation of the idea doesn't have an organization perceived definition. Corporate social responsibility is, in addition, called corporate citizenship or corporate commitment. Generally speaking, Corporate social duty is refreshing for the organization to improvement of social, condition and financial worries into their worth, society, basic activity and clear and competent way and along these lines, grows better practices inside the organization, make riches and overhaul society. Corporate social duty is basically part of any organization on the grounds that without working and satisfaction of social prerequisite, an organization can't get by in the general public. They are interrelated and complimentary to one another [1].

There is no single customarily recognized importance of corporate social commitment. It very well may be portrayed as "Corporate social obligation is working a business in a manner which meets or surpasses desires the good, real, business and open want that an overall population has from the business. With the understanding that corporate play a key of occupation and wealth creation in the open field, CSR is to a great extent understood to be the manner in which an organization achieves an adjustment or joining Economic Environmental-Social Imperatives. While meanwhile watching out for investor and accomplice want CSR is the most part recognized as applying to firms any place they are working in the local and global economy.

Fig 1: User Decision Making Stages [1]

The manner in which corporate interface with the investor, agents, customers, providers, government, non-authoritative affiliations, widespread affiliation, and another accomplice is ordinarily a key segment of the thought. While companies" consistency with law and control on social, normal and monetary goals set the official degree of CSR execution, it is every now and again grasped as including the private division obligations and activities that loosen up past this foundation of consistency with laws.

The term corporate social duty suggests the possibility of business being answerable for how it manages the impact of systems on accomplices and accept risk for making a useful result on society. Essentially, CSR is a bury is with the disciplinary subject in nature and fuses in its crease: social financial, good and great commitment of organizations and executives, consistence with genuine and deliberate requirements for business and master practice, challenges posed by necessities of the economy and socially drawback bundle.

A. Corporate Responsibility in Developing Countries

The class of 'developing countries is used widely to fuse countries that have respectably cut down per individual profit and less from industrialized. In the posting of countries may fall into this social affair, see the World Bank's game plan is lesser and focus work in the countries. Far from being a united field, exchange on CSR in making countries is to an incredible degree extraordinary, running from confident points of view with respect to business in the open field to exceedingly essential perspectives. Regardless, there is apparently a rising understanding that making countries give a monetary and social setting for CSR, which is, from various perspectives, not equivalent to made countries. In particular, CSR in making countries has the going with traits and obvious [2].

Table 1: Components for CSR [2]

Political Reform	Democratization, globalization and advancement, which can drive business conduct towards coordinating social and moral issues.
Socio-Economic Priorities	Poverty easing, human services arrangement, foundation improvement, training and strengthening of underestimated gatherings.
Crisis Response	Philanthropic reactions to monetary, social, ecological, wellbeing related or modern emergencies, disasters or mishaps.
Market Access	Unfulfilled human needs as an undiscovered market, remembering the now expanding writing for base of the pyramid' systems.
International Standardization	Adoption of worldwide CSR codes and measures by the auxiliaries of multinationals or national organizations wishing to send out.

Investment Incentives	Investments in creating nations being screened for CSR execution through the pattern of socially dependable venture
Stakeholder Activism	Absence of solid administrative powers over the social, moral and natural execution of organizations.
Supply chain	Social and natural prerequisites that are being forced by multinationals on their flexibly chains, particularly among little and medium-sized organizations

Authors introduced ICatador, a product stage witch make simpler the cheddar quality control exercises. At present, food quality control can be performed with tactile assessments or organoleptics of items. With ICatador apparatus was conceivable to virtualized the quality control exercises of cheeses, it make that they can be completed all the more effectively and on-line, making conceivable the absolute quality control of made items. Through ICatador the food business has a scope of administrations to guarantee buyer acknowledgment of the item [6]. H.Fidan et. al. [2018] introduced that the principle objective of this examination was to read the shopper's mentality for decision of an eatery, that place significance on the fixings quality and cause, making the menu and to portray the potential need of building up an online B2B stage, which primary reason for existing was to fabricate a connection between nearby ranchers of food and refreshments and the agents of the HoReCa area in Plovdiv region..The introduced results demonstrate that great food to an enormous degree decides the decision of a café, yet it was anything but an adequate condition. Despite the scale, cafés ought to be overseen as an expert business past the great kitchen. The outcomes likewise demonstrate that shoppers lean toward eateries that get ready delicious dishes of high caliber with new fixings and engaging introduction and furthermore offer an assortment of decisions on the menu [7].

2. Rural Consumers in India

Common buyers are from a general perspective not equivalent to their urban accomplices socially, intellectually, physiologically and really. There is mass usage among them with respect to a particular thing or brand since they are homogeneous at the town or regional level. In provincial market, since women have practically no contact with the market, men chooses the purchase decision. The society dynamic is exceptionally fundamental in a provincial market because of strong station and social structures and low training levels.

Country buyers by and large feel repressed and sick prepared to purchase unhesitatingly, since they have just lesser presentation to the item quality, administration backing and friends accreditations. Rustic buyers are unskilled according to the evaluation definition, however he is unintelligent. The brand mindfulness, inclination, and steadfastness among the country customers are relatively not exactly their urban partners. The level of brand devotion changes among the rustic buyer as indicated by the idea of items. In the event that the rustic purchasers are faithful to one brand, it is extremely hard to change. Measurements 2001 reveals that 74 crores people that was around 70 percent of India's finished masses live in towns
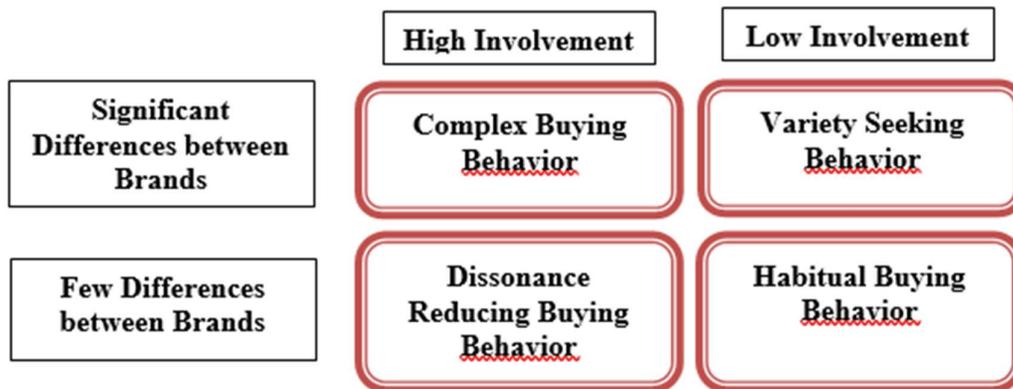
Fig 2: Buying Decision Behavior of User [3]

A. Rural Consumer Behaviour Legends And Possible Realities
1. Metros and Mini Metros Wealth, Subsequently the Demand for Urban Goods

Advertisers are intrigued distinctly with regards to the discretionary cash flow of the purchasers and least fretted over the gross pay. The individual procuring 1000 Rs. every month in a town may have nearly 3000 Rs. as extra cash whiles his/her urban partners may need to deal with just 500 Rs. This be that as it may, doesn't suggest straightforwardly affecting inclination for explicit merchandise/administrations for utilization.

2. Rural Buyers are Price Receptive

It tends to be said that country purchasers typically esteem cash more since they don't have a customary progression of money salary. They give due thought to usefulness as a rule, especially if there should arise an occurrence of durables. The middle people would prefer not to manage unpredictable and costly items in provincial regions as a result of post-deals administration entanglements. The maker advertiser attitude additionally attempts to promote costly items in urban focus.

3. Role of Opinion Leaders Elders and Women

The customary jobs are evolving. The old legends of expansion labourers, instructors, town heads being supposition pioneers need confirmation among the provincial masses. In numerous regions more youthful, progressively taught and forceful people from prevailing ranks have become good examples and conclusion pioneers; resigned people from the military and Government administrations have played these jobs somewhere else. Graciousness Self-Help Groups and relocation of physically fit guys, ladies have played the predominant dynamic job in numerous more unfortunate families [16].

4. Traditional vs. Modern

Ironically advertisers when all is said in done, target country showcases as the last need and continue to arrange them as slow pokes, conventional, hazard loath, impervious to change, etc. The experience of Green upheaval, current dairy rehearses, acknowledgment of advancements show that provincial purchasers look for esteem (generally utilitarian) yet embrace new

practices warily in light of the fact that for a large number of them the change could bring about long lasting servitude, starvation or even passing.

5. Brand Awareness– High Loyalty, Low Exposure

Appeared differently in relation to their urban accomplices, common buyers are on an ordinary low on brand care and introduction. Nevertheless, this is changing with improved correspondence, progressively visit contact with the urban world and improving capability. As opposed to names, the country world despite everything esteems logos, hues, and diaries for brand distinguishing proof. The low mindfulness and introduction is additionally connected with the flexibly side requirements, to be specific, poor physical accessibility of items, premium evaluating, low promoting, and correspondence endeavours with respect to the advertisers. Brand faithfulness may not be high any longer as a result of expanded decision, poor saw estimation of the marked items and poor buyer steadfastness with respect to the advertisers.

3. Research Strategy
Here is what each of these strategies entails:

•   **Case Study:** This focuses on an in-depth investigation of a single case (e.g., one organisation) or a small number of cases. In case study research generally, information is sought from different sources and through the use of different types of data such as observations, survey, interviews and analysis of documents. Data can be qualitative, quantitative or a mix of both. Case study research allows a composite and multifaceted investigation of the issue or problem.

•   **Qualitative interviews:** There are different types of qualitative interviews (e.g., structured, semi-structured, unstructured) and this is the most widely used method for gathering data. Interviews allow access to rich information. They require extensive planning concerning the development of the structure, decisions about who to interview and how, whether to conduct individual or group interviews, and how to record and analyse them. Interviewees need a wide range of skills, including good social skills, listening skills and communication skills. Interviews are also time-consuming to conduct and they are prone to problems and biases that need to be minimised during the design stage.

•   **Quantitative survey:** This is a widely used method in business research and allows access to significantly high numbers of participants. The availability of online sites enables the wide and cheap distribution of surveys and the organisation of the responses. Although the development of questions may appear easy, to develop a meaningful questionnaire that allows the answering of research questions is difficult. Questionnaires need to appeal to respondents, cannot be too long, too intrusive or too difficult to understand.

A. Population
A researcher population is also known as a well-defined collection of individuals or objects known to have similar character statics. Research studies are usually carried out on sample of objects rather than the whole population. The population required for this study concentrated on private institutions, common public and employee of coca cola company. So, in Rohtak, Ambala, Chandigarh and Nabipur there are several contractors and now a days a lot of online

platform as well where we get the population for our research purpose. In our survey we did survey on 310 people and collected data for our questionnaire which is required for our research for consumer behavior on soft drinks. In our survey you can see that in table 2 the age group of people who involve in this survey. Also, you can see that the male and female respondents in figure 3.6.

Table 2: Age group of People

S.N	Particular	No. of Respondents	Percent of Respondents
1	41-50 years	53	17.10
2	51-55 years	30	9.68
3	Above 30 year	44	14.19
4	Below 30 years	183	59.03
	Total	310	100.00
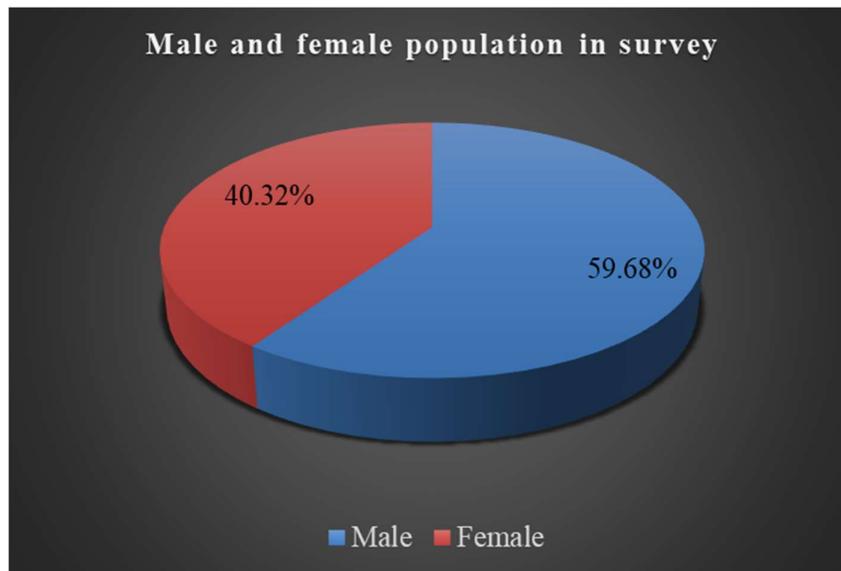
Figure 3: Male and Female Population in Survey

A research gap is the gap by which researcher cannot reach to their conclusion due to insufficient or missing information. A researcher defined research gap so that they limit the ability of decision making. In this research, researcher must have found some research gap so that they can improve those points which are not included in previous thesis. In this work, for consumer behavior on soft drinks research methodology the researcher classified research gap in following 6 types - Population gap, methodology gap, Evidence gap, Knowledge gap, practical knowledge gap and theatrical gap. The main work is to analyze the study on consumer behavior on soft drinks in north India. The population gap is basically due to undefined

population for this consumer behavior. The evidence gap is mainly due to requirement of evidence document for consumer behavior or trend towards soft drinks. The methodology gap is due to undefined method to generate analysis towards this study. All these gaps will be closely taken and necessary actions are taken against these. It may create because this concept and idea has not been studied or existing research is out dated and need to updated as per current demand.

4. Data Analysis

In this survey, it prepares 25 questionnaires and get response from 310 respondents. In this survey 185 male and 125 female respondents are participated and also all age group respondents are involved in this survey. Table 4.1 shows the demographic variables like age, sex, educational qualification, and marital status.

- The study was held in the 4 region of India which are Chandigarh, Ambala, Rohtak and Nabipur.
- Out of 310 respondents 59.67% respondents are male and 40.32% are female respondents
- The maximum 183 number of respondents from the age group of below 30 and minimum number of respondents from the age group of 31-40 years.

A. Analysis Based on Gender
Table 3: Data Analysis based on Gender

Group Statistics					
	Gender 1	N	Mean	Std. Deviation	Std. Error Mean
How Much you like soft drinks?	Female	125	3.99	1.195	.107
	Male	185	3.94	1.182	.087
Frequency of consumption of soft drink in a week?	Female	125	4.19	1.162	.104
	Male	185	3.77	1.248	.092
How much advertisements affect your purchases?	Female	125	2.09	1.178	.105
	Male	185	2.32	1.225	.090
How do you rate canned juices as compare to fresh juices?	Female	125	2.17	1.196	.107
	Male	185	2.17	1.165	.086
Do you think taking too much soft drink would cause health problems?	Female	125	3.73	1.207	.108
	Male	185	3.64	1.282	.094
Are you aware that you are being priced more than 10 times than that of real price of the drink?	Female	125	1.24	.429	.038
	Male	185	1.32	.469	.035
Do you think the superstars should stop promoting unhealthy soft drinks?	Female	125	3.74	1.135	.102
	Male	185	3.61	1.307	.096
Soft drinks such as Coca-Cola contain significant quantities of Caffeine, Nicotine?	Female	125	3.86	1.162	.104
	Male	185	4.00	1.103	.081
	Female	125	3.18	1.578	.141

Do you prefer the after usage of plastic bottles of soft drinks?	Male	185	3.32	1.475	.108
What time do you normally purchase soft drinks?	Female	125	2.57	1.416	.127
	Male	185	2.91	1.649	.121
What is your view on the mass media advertisement of coca cola?	Female	125	3.53	1.359	.122
	Male	185	3.59	1.344	.099
Are you concerned by the levels of sugar in soft drinks?	Female	125	1.74	.443	.040
	Male	185	1.72	.451	.033

Table 4: Independent Samples Test Analysis based on Gender

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How Much you like soft drinks?	Equal variances assumed	.182	.670	.414	308	.679	.057	.137	-.214	.327
	Equal variances not assumed			.413	264.390	.680	.057	.138	-.214	.328
Frequency of consumption of soft drink in a week?	Equal variances assumed	5.067	.025	2.981	308	.003	.419	.141	.142	.696
	Equal variances not assumed			3.023	278.559	.003	.419	.139	.146	.692
How much advertisements affect your purchases?	Equal variances assumed	.696	.405	-1.653	308	.099	-.231	.140	-.506	.044
	Equal variances not assumed			-1.666	273.178	.097	-.231	.139	-.504	.042

How do you rate canned juices as compare to fresh juices?	Equal variances assumed	.591	.443	.003	308	.997	.000	.136	-.268	.269
	Equal variances not assumed			.003	261.497	.997	.000	.137	-.269	.270
Do you think taking too much soft drink would cause health problems?	Equal variances assumed	.073	.788	.584	308	.559	.085	.145	-.201	.370
	Equal variances not assumed			.591	276.695	.555	.085	.143	-.197	.367
Are you aware that you are being priced more than 10 times than that of real price of the drink?	Equal variances assumed	11.105	.001	-1.606	308	.109	-.084	.053	-.188	.019
	Equal variances not assumed			-1.634	281.653	.103	-.084	.052	-.186	.017
Do you think the superstars should stop promoting unhealthy soft drinks?	Equal variances assumed	3.324	.069	.965	308	.335	.139	.144	-.144	.421
	Equal variances not assumed			.991	289.200	.322	.139	.140	-.137	.414
Soft drinks such as Coca-Cola contain significant quantities of Caffeine, Nicotine?	Equal variances assumed	.438	.509	-1.103	308	.271	-.144	.131	-.401	.113
	Equal variances not assumed			-1.092	256.871	.276	-.144	.132	-.404	.116
Do you prefer the after usage of plastic bottles of soft drinks?	Equal variances assumed	2.134	.145	-.799	308	.425	-.140	.176	-.486	.205
	Equal variances not assumed			-.788	254.025	.431	-.140	.178	-.491	.210

		F	Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	assumed									
What time do you normally purchase soft drinks?	Equal variances assumed	4.019	.046	-1.913	308	.057	-.346	.181	-.701	.010
	Equal variances not assumed			-1.970	290.837	.050	-.346	.175	-.691	.000
What is your view on the mass media advertisement of coca cola?	Equal variances assumed	.038	.845	-.426	308	.670	-.067	.156	-.374	.241
	Equal variances not assumed			-.425	264.274	.671	-.067	.157	-.375	.242
Are you concerned by the levels of sugar in soft drinks?	Equal variances assumed	.441	.507	.330	308	.742	.017	.052	-.085	.119
	Equal variances not assumed			.331	269.508	.741	.017	.052	-.085	.119

B. Analysis Based on Marital Status
Table 5: Data Analysis based on Marital Status

Group Statistics					
	Marital Status	N	Mean	Std. Deviation	Std. Error Mean
How Much you like soft drinks?	Married	129	3.80	1.271	.112
	Unmarried	181	4.07	1.111	.083
Frequency of consumption of soft drink in a week?	Married	129	3.67	1.232	.108
	Unmarried	181	4.13	1.194	.089
How much advertisements affect your purchases?	Married	129	2.49	1.200	.106
	Unmarried	181	2.04	1.185	.088
How do you rate canned juices as compare to fresh juices?	Married	129	2.33	1.181	.104
	Unmarried	181	2.05	1.161	.086
Do you think taking too much soft drink would cause health problems?	Married	129	3.56	1.397	.123
	Unmarried	181	3.76	1.132	.084
Are you aware that you are being priced more than 10 times than that of real price of the drink?	Married	129	1.33	.470	.041
	Unmarried	181	1.27	.443	.033
Do you think the superstars should stop	Married	129	3.57	1.345	.118
	Unmarried	181	3.73	1.159	.086

promoting unhealthy soft drinks?					
Soft drinks such as Coca-Cola contain significant quantities of Caffeine, Nicotine?	Married	129	3.78	1.174	.103
	Unmarried	181	4.06	1.081	.080
Do you prefer the after usage of plastic bottles of soft drinks?	Married	129	3.27	1.504	.132
	Unmarried	181	3.27	1.530	.114
What time do you normally purchase soft drinks?	Married	129	2.97	1.754	.154
	Unmarried	181	2.64	1.406	.105
What is your view on the mass media advertisement of coca cola?	Married	129	3.49	1.437	.127
	Unmarried	181	3.62	1.283	.095
Are you concerned by the levels of sugar in soft drinks?	Married	129	1.70	.461	.041
	Unmarried	181	1.75	.437	.032

Independent Samples Test										
		Levene's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How Much you like soft drinks?	Equal variances assumed	3.628	.058	-2.011	308	.045	-.273	.136	-.541	-.006
	Equal variances not assumed			-1.966	252.148	.050	-.273	.139	-.547	.000
Frequency of consumption of soft drink in a week?	Equal variances assumed	.880	.349	-3.286	308	.001	-.458	.139	-.733	-.184
	Equal variances not assumed			-3.268	270.573	.001	-.458	.140	-.734	-.182
How much advertisements affect your purchases?	Equal variances assumed	.010	.922	3.277	308	.001	.450	.137	.180	.720

		F	Sig	t	df	Sig (2-tailed)	Mean Diff	Std Error	Lower	Upper
	Equal variances not assumed			3.270	273.756	.001	.450	.138	.179	.720
How do you rate canned juices as compare to fresh juices?	Equal variances assumed	.159	.691	2.105	308	.036	.284	.135	.018	.549
	Equal variances not assumed			2.098	272.873	.037	.284	.135	.018	.550
Do you think taking too much soft drink would cause health problems?	Equal variances assumed	7.915	.005	-1.419	308	.157	-.204	.144	-.488	.079
	Equal variances not assumed			-1.371	238.709	.172	-.204	.149	-.498	.089
Are you aware that you are being priced more than 10 times than that of real price of the drink?	Equal variances assumed	5.048	.025	1.153	308	.250	.060	.052	-.043	.163
	Equal variances not assumed			1.142	265.377	.255	.060	.053	-.044	.165
Do you think the superstars should stop promoting unhealthy soft drinks?	Equal variances assumed	4.045	.045	-1.144	308	.254	-.163	.143	-.444	.118
	Equal variances not assumed			-1.116	249.542	.266	-.163	.146	-.452	.125
Soft drinks such as Coca-Cola contain significant quantities of Caffeine, Nicotine?	Equal variances assumed	3.360	.068	-2.212	308	.028	-.286	.129	-.540	-.031
	Equal variances not assumed			-2.181	261.489	.030	-.286	.131	-.543	-.028
Do you prefer the after the usage	Equal variances assumed	.181	.671	.035	308	.972	.006	.175	-.338	.351

		F	Sig.	t	df	Sig.	Mean Diff	Std. Error	Lower	Upper
of plastic bottles of soft drinks?	Equal variances assumed									
	Equal variances not assumed			.035	278.645	.972	.006	.175	-.337	.350
What time do you normally purchase soft drinks?	Equal variances assumed	8.852	.003	1.856	308	.064	.334	.180	-.020	.687
	Equal variances not assumed			1.789	236.777	.075	.334	.186	-.034	.701
What is your view on the mass media advertisement of coca cola?	Equal variances assumed	5.964	.015	-.874	308	.383	-.136	.155	-.442	.170
	Equal variances not assumed			-.858	256.074	.392	-.136	.158	-.448	.176
Are you concerned by the levels of sugar in soft drinks?	Equal variances assumed	3.377	.067	-.936	308	.350	-.048	.051	-.150	.053
	Equal variances not assumed			-.927	266.484	.355	-.048	.052	-.151	.054

5. Conclusion

This work mainly presents an analytical study on consumer behavior on soft drinks related to coca-cola India plant. For analysis, it uses the SPSS tool and performs independent Samples Test. It analyzed the results on the basis of gender & marital status. The study was held in the 4 region of India which are Chandigarh, Ambala, Rohtak and Nabipur. Out of 310 respondents 59.67% respondents are male and 40.32% are female respondents were participated in this survey. From survey, it is concluded that unmarried people love more soft drinks as compared to married people and male people consumes more as compared to female based on study. Data was collected by the survey and some important observations are concluded: In Chandigarh Region, male consumes soft drinks far more than the female. After analyzing the data by location, the Chandigarh location provides maximum response in terms of soft drink contains caffeine reviews and by the age, less than 30 year persons like soft drinks more as compared to other persons and results are shown analytically by SPSS tool.

In Future, it will hope to apply for other plants against the quality of these soft drinks with decidation of gender for consuming these soft drinks etc.

References

[1].   W. Zilin, and Z. Nan, "Simulation of Consumer Purchase Behaviour Based on Computational Experiments," International Conference on Intelligent Transportation, PP.365-368, 2019.

[2].   M. Guermandi and S. Benatti, "Towards a Wearable Interface for Food Quality Grading through ERP Analysis," IEEE, 2019.

[3].   M. Menegoli and A. Corallo, "A Business Process Modelling Approach for Supporting Traceability in Food Industry," International Conference on Industrial Technology and Management, PP.265-269, 2019.

[4].   W. Khan and Y Aalsalem, "Five Acts of Consumer Behaviour: A Potential Security and Privacy Threat to Internet of Things," IEEE International Conference on Consumer Electronics, 2018.

[5].   J. Esteban and B. Curto and V. Moreno, "A Cloud Platform for Food Sensory Estimations Based on Artificial Intelligence Techniques," IEEE, 2018.

[6].   H. Fidan and A. Teneva, "Consumers Behavior of Restaurant Selection," European Union, 2018.

[7].   R. Destari and L. Wahyuni, "Improvement Accuracy of Instant Noodle Product Selection Using Method ANP," International Conference on Cyber and IT Service Management. 2018.

[8].   F. Ariyanti and S. Hadita, "Food Safety Knowledge and Practices on Food Virtual Shop," International Conference on Science in Information Technology, PP.396-400. 2017.

[9].   G. Stevens and P. Bossauer, "Using Shopping Data to Design Sustainable Consumer Apps," IEEE, 2017.

[10].   E. Camilleri and S. Miah, "A Consumer Analytics Framework for enabling Data Driven Marketing Intervention Methods," Asia Pacific World Congress on Computer Science & Engineering, 2017.