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AN EMPIRICAL STUDY TO MEASURE CONSUMER PREFERENCES TOWARDS NUTRACEUTICALS AND DIETARY SUPPLEMENTS IN GUJARAT- NEED OF AN HOUR CONSIDERING COVID-19

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Abstract

“Precaution is better than cure.” Nutraceuticals industry is founded on this value which is a prevention driven model. Since Nutraceuticals and dietary supplements industry are developing significantly nowadays, but still, it is a growing industry. During covid-19 pandemic it is essential that you have to be health conscious so it can be an affect the nutraceutical market which provide consumer value they expect. Dietary supplements are the nutrients which was extracted from food on the basis of necessities. The range of products which is helpful to children, aged people by its features and outcomes which is accessible in various forms and contents. This research paper intentions to identified the awareness preference concerning this industry.

Research Objective

The persistence of the learning is to measure the factor affecting the selection of nutraceuticals and dietary supplements with reference to preference, Health consciousness and awareness.

Research Methodology

The experimental research design method for this study. Sample were chosen here is non probability convenience sampling method. Sample size is 412. Who used or willing to use these products are considered as sample unit. Data for this study collected from primary (Collected by organized questionnaire) and secondary resources.

Data Analysis

Data analysis concludes that there is a substantial impact of the preference of the customer, health consciousness and awareness of the customer towards nutraceutical and dietary supplements.

Social Implication

This research makes available the valuable insinuation to the sellers, civilization and customer by provided that more in depth insight into the product of nutraceuticals and dietary supplements.

Originality/Value

Few studies conducted in abroad and also in India but there is research gap on mentioned topic which will add more knowledge, information and provide new direction to the nutraceutical market.

Key Words: Nutraceuticals, Dietary supplements, Health consciousness, Nutrition, Covid-19.

Introduction

Contrived the term Nutraceuticals by Dr. Stephen which is amalgamation of pharmaceutical and nutrition. Passageway of the 1994 act of dietary supplement health & education, Nutraceuticals has been expanded to incorporated vitamins, minerals, amino acids & other botanicals, basils, and dietary ingredient for human usage as supplement diet, which is a definition of Nutraceuticals.”(bahadoran, mirmiran, & azizi, 2013; bull, rapport, & lockwood, 2000) “Excluding water, all foods are a mix of some micronutrients, Phyto-nutrients and/or macronutrients and are therefore complex systems.” (chaudhari, power, & pratapwar, 2017)

From the survey in France, Germany and U.K the concept of nutraceutical was stared. which determined by consumers that food is valued more extremely than workout or genetic influences for accomplishing healthiness. Humanoid body Nutraceutical may be a term think of to explain substances which aren't conventionally have optimistic physiological effects but recognized nutrients. In nutraceuticals they are doing not effortlessly fall under the authorized class of nutriment, drug and sometimes reside grey area amid the antagonistic effect or Risk of toxicity of medicine which is controlled us to think about harmless functional food and nutraceuticals grounded tactics for the fitness management. During a universal nutraceutical revolution this resulted. “Author also says that Into a replacement era of medication and health the nutraceutical rebellion will bring us, wherein the food manufacturing will developed search concerned with one parallel to the pharmaceutical industry.” (das, bhaumik, raychaudhuri, & chakraborty, 2011) “In this Contain one or more than one of the subsequent dietary elements, vitamin, mineral, herb or further botanical, amino acid, dietary ingredient for use by the people to increasing total daily intake of supplement in the diet, or a metabolite, concentrate, combinations, extract, constituent or of these components.” (Wadekar, 2009)

The nutraceuticals & functional foods advantageous effects can be determined that: cardiovascular diseases danger decreases, also abridged risk of cancer, weight management, better-quality of reminiscence, abridged osteoporosis, faster reaction time, better fetal health and also reduced risk of many different types of other diseases.”(jain & ramawat, 2013) “Nutraceuticals and Functional foods will have good well-being for the civilization in future; to be beneficial it has been credibly verified for their envisioned purposes when consumed by way of fragment of a commonly proportionate & wholesome diet.”(jain & ramawat, 2013) “Correspondingly, many supplementary evidences & information requirement to be accessible to assistance consumer for the accurate choosing & using the functional foods and/or

nutraceuticals to accomplish the promised health reimbursements.” (jain & ramawat, 2013) “We also can say about substances that provide protection against chronic diseases or have physiological benefits. Nutraceuticals might be utilized to increase life expectancy, postponement of the aging process in normal human body, improve health, avoid chronic illnesses or provision the construction or function of the normal human body. These days, because of potential nutritional for human body, protection and therapeutic effects nutraceuticals have received considerable interest.” (kalra, 2003) “Nutraceuticals make available all the essential substances that should be existing in a healthy diet for the human.” (Keservani, et al., 2010) “Currently more than 470 functional food and nutraceutical products are available with standard health benefits.” (R.venkataraman, 2011) This goes on: “Any combination or substance of elements which maybe serve to animals or human lives with a sight to making diagnosis of a constructive disease in body or to correcting, restoring or treatable physiological functions in animals or human which can help a lot to the nutrition science and its research which conducting continuously. Correspondingly measured a medicinal product.” The product describes by this definition which has a medical function regardless of whether these entitlements have been stated or not, which would consist of numerous supplements being taken for medical purposes.” (shahidi, 2012)

Literature Review

(barnes & prasain, 2005) said that “Let food be the medicine and medicine be the food”. Here the products or items of nutraceuticals are perceived and produce medical advantages like lightening the danger of malignancy and heart infection and furthermore to forestall or treat high blood pressure, high level of cholesterol in body, over the top weight, diabetes and many more disease. (prabhu, SuriyaPrakash, kumar, kumar, & Raghavendran, 2012). (Maughan, King, & Lea, 2003) said that, “The fact that extensively accepted that health-promoting properties of foods are not necessarily because of single components which present in the food, but rather than few or more than a few active ingredients.” “Today’s era peoples have high interest in Nutraceuticals due to their potential nutritional present in component and safety profile provided in nutraceutical foods, also other than therapeutic capability of nutraceuticals. Pharmaceutical and nutritional companies which manufacturing the nutraceuticals or related to nutraceutical products are aware of the moving trends which are due to the beneficial advantages of these compounds. Although Utmost of the nutraceutical’s products possesses many therapeutic benefits.” (nasri, baradaran, shirzad, & kopaei, 2014). Peoples in a large proportion wants to get rid from the effects of aging, Novel concentration on averting medicine and Civic perception and their belief that “natural is good”. (radhika, rawat, & thangavel). “A normal person’s aging process of human cell which is develop continuously in human body is nonstop influenced by the factors like internal and external for example the biological evolution of human cells, ultraviolet radiation comes from sun radiation, if person have habit of tobacco, deficiencies of nutrition and also imbalance of the hormones which cause to the degradation of human derma cells. Over the human derma layer cells degradation, free radicals present in body and swelling made repair mechanisms system weak and outcome in fiber of elastic and collagen breakdown.” (nasri, baradaran, shirzad, & kopaei, 2014; souyoul, saussy, P, & lupo, 2017) “The purpose behind this study is to support or for help of dermatologists for study and the mechanism of action of widely used nutraceuticals and their conceivable efficacy in skin health and antiaging.” (Mishra, 2018) “Functional food

and nutraceutical industry grow exponentially and also it has an exceptional position among interest of consumer.”(rajasekaran, sivagnanam, & xavier, 2008) Administrative system of nutraceuticals in India needs consideration from the applicable specialists (Gupta, chauhan, mehla, sood, & nair, 2010). Green tea polyphenols have been appeared to have amazing cancer prevention agent, calming, and anticancer advantages. The most celebrated of these is epigallocatechin-3-gallate (EGCG). (gupta & prakash, 2014; laturkar, 2011) In India Changing Food habits nowadays are the serious concern” (sharma, 2017; shinde, bangar, deshमुख, & kumbhar, 2014) “The unenlightened, nutraceutical speaks to a developing portion of nourishments that are accepted to be stacked with common therapeutic properties, or what have come to be known as "useful nourishments." Good models incorporate red wine (a cell reinforcement) broccoli (malignancy precaution) and soy and clover that, a few scientists guarantee improves blood vessel wellbeing in ladies.” (Basak, 2011; Bajtelsmit, 1996)

The United States of America as of now has the biggest and most quickly extending useful food and nutraceutical showcase on the planet. In 2006 estimation of the business was \$21.3 billion. (basu, thomas, & acharya, 2007) “The person who are athlete by profession or sports man are highly need of nutraceuticals products because of their wide range are goal they need the most.” (Pandey, verma, & saraf, 2010; radhika, rawat, & thangavel) “Nowadays how health care is managed the Consumers are deeply concerned about, priced and administered. patients are irritated with the modern, expensive disease treatment and especially in modern medicine” (barnes & prasain, 2005; Maughan, King, & Lea, 2003; Sohaimy, 2012) “In the year of 2016, the appraised occurrence of Cardio Vascular Diseases in India was predictable to be approx 54.5 million. If 4 death occurs so 1 out of 4 deaths in India are now because of Cardio Vascular Diseases with ischemic heart disease & Heart attack responsible for >80% of this burden.” (Ahmad A. Abdul-Aziz, 2019) “The percentage of overweight or obese person in India expectedly are going to 9% in 1995 to 24% in 2025 said by Scientists. With reference to Time magazine Scientists expect that by 2020, 40 million people will suffer from Osteoarthritis.” (Time Magazine, 2003) Suggestive Facts are that- “In India More than 40% deaths can be credited to risk factors arising from nutritional imbalance.” (World Health Statistics 2009, 2009; World Bank, 2007) “Due to deficiency of Vitamin A approx 330,000 child deaths occur every year in India.” (Kotecha, 2008)

Scope of The Study

1. Scope of the study is circumscribed to Ahmedabad, Vadodara, Surat and Rajkot.
2. Researchers have taken all the age group as sampling unit. Study is restricted to Products include in Nutraceuticals and dietary supplements.
3. Further the conceptual scope of study is limited to Brand awareness, Brand image, Health Consciousness, Preference and attitude for Nutraceuticals and dietary supplements.
4. Diverse statistic components such as age, Gender, conjugal status, Education occupation, salary and family individuals are taken in to consideration.

Research Gap

Many researches have been done in India as well as abroad on Antioxidants supplements, but there is a research gap to measure the preference of customers towards

Antioxidants supplements on the relationship between Brand awareness, Image, Quality, price, Health Consciousness and preferences in Gujarat.

Need of Study

Nutraceuticals and dietary supplements are the range of products which is nourished by nutrition which necessary for a human body. Nutraceuticals are helping the people to fulfill the daily requirements of nutrition of body that's why it is a growing industry in current scenario.

In today's competitive world the people have less time to accomplish their daily requirement of nutrition also people are diverting towards junk food and street food which has poor nutrition and it cooked in oil and full of sugar also which harm our body. So, the solution is nutraceuticals and dietary supplements which accomplish nutritional need of body. This study focuses to contribute new findings to the emerging era of Nutraceuticals and dietary supplements. From the practical contributions perspective, current study focuses to provide statistical proven outcomes to marketers, doctors, healthcare experts to plan and draft strategies. If we see from the decision-making point of view along with view point of practitioners, working with corporate, society and government, this research will provide a valuable information and knowledge to same.

Research Methodology

Here the experimental research design method for this study. Sample were chosen here is non probability convenience sampling method. Here the sample size is 412. Individual who are used or willing to used nutraceuticals and dietary supplements are considered as a sample unit. The data for this study collected from secondary sources and 412 respondents that is primary data collection. Here in this research study the researcher collects the primary data by the assistance of structured questionnaire. The type of research paper will be exploratory, conclusive and descriptive research where data analysis is quantitative and test the specific hypothesis.

Survey is done in four major cities of Gujarat namely Ahmedabad, Vadodara, Surat and Rajkot. Descriptive Statistics and Inferential statistics such as Anova Test, Chi-Square Test, Reliability Test, Regression Test and Mean Test is applied using SPSS

Objectives of Study

- To study preference of consumers for the Nutraceuticals dietary supplements.
- To know the Health consciousness of people.
- To study the awareness level of people towards Nutraceuticals dietary supplements.

Research Instrument

Here researcher used structured questionnaire having close ended questions with Non-comparative scaling techniques used in this study. In this non-comparative scale Researcher used Likert scale like, 1= strongly disagree to 5= strongly agree.

By the help of Structured questions: multiple choice and Likert scale.

Construct us in study

Sr.No.	Author name	Year	Variables
1	Teoh, Ngorsuraches, Ming Lai, Bangpan, & Chaiyakunapruk	2020	Price
2	Teoh, Ngorsuraches, Ming Lai, Bangpan, & Chaiyakunapruk	2018	Quality / Safety
3	Banerjee	2018	Brand preference
4	shinde, bangar, deshमुख, & kumbhar	2014	Packaging / Labelling
5	Fardet	2015	Health consciousness
6	cicero & colletti	2017	Awareness through advertisement
7	Mehta & Huynh-ba	2010	Shelf-life
8	dureja, kaushik, & kumar	2003	Demographics
9	Teoh, Ngorsuraches, Ming Lai, Bangpan, & Chaiyakunapruk	2018	Ease of purchasing
10	Cardello.Armand & Schutz	2003	Taste and acceptability

Data Analysis

Respondent's Profile

Factors	Particulars	Frequency	Percent	Cumulative Percent
Gender	Male	283	68.7	68.7
	Female	129	31.3	100
	Total	412	100	
Age Group	18-28	98	23.78	23.78
	29-38	93	22.57	46.35
	39-48	81	19.66	66.01
	49-58	92	22.33	88.34
	Above 58	48	11.66	100
	Total	412	100	
Marital Status	Married	326	79.13	79.13

	Unmarried	86	20.87	100
	Total	412	100	
Education	No formal education	10	2.4	2.4
	Up to higher secondary	40	9.7	12.1
	Diploma	25	6.1	18.2
	Graduation	235	57.0	75.2
	Post-graduation and above	102	24.8	100
	Total	412	100	
Occupation	Student	97	23.54	23.54
	Home maker	33	08.00	31.54
	Self employed	62	15.04	46.58
	Salaried	108	26.21	72.79
	Business	112	27.21	100
	Total	412	100	
Annually Family Income	Below 2,00,000	87	21.1	21.1
	2,00,001 – 4,00,000	94	22.8	43.9
	4,00,001 – 6,00,000	78	18.9	62.9
	6,00,001- 8,00,000	63	15.3	78.2
	8,00,001- 10,00,000	52	12.6	90.8
	Above 10,00,000	38	9.2	100
	Total	412	100	

Family Members	1-2	24	5.8	5.8
	3-4	248	60.2	66.0
	5-6	117	28.4	94.4
	More than 6	23	5.6	100
	Total	412	100	

Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.950	.953	39

Conferring to reliability analysis, Cronbach's is 0.950, so the data is reliable for the further studies.

Mean Test

Particulars	N	Mean	Std. deviation
Price - Affordable price	412	4.2184	.92589
Price - Rate product in terms of price	412	3.9393	1.04344
Price - Inexpensive product	412	3.7985	1.15077
Price - Value for money	412	4.1262	.99321
Price - Conscious towards low price	412	3.6359	1.20964
Brand - Brand name while purchasing	412	3.9830	1.02390
Brand - Known brand	412	4.0995	1.00959
Brand - Well-known brand is first priority	412	4.1553	.86576
Quality - Quality over price	412	4.3869	.73499
Quality – Quality is better than other brands	412	4.4150	.74486
Quality - Repurchase on basis of quality	412	4.4248	.75240
Packaging – Attractive packaging	412	3.7718	1.08804

Packaging – Packaging on purchase behavior	412	4.0437	1.03140
Packaging - Clear information package	412	4.4660	.74892
Quantity –Offer good quantity	412	4.3689	.75764
Quantity – Quantity is main factor	412	4.0655	.95804
Quantity – More quantity in single package	412	3.9515	1.00004
Health – Immunity booster	412	4.2039	.84989
Health – Health conscious	412	4.2573	.86950
Health - Conscious about immunity	412	4.3422	.77796
Advertisement – Attractive advertisement	412	4.0947	.90324
Advertisement – Awareness through advertisement	412	4.0995	.90540
Advertisement – Attractive advertisement brand recognition	412	4.1723	.89710
Acceptability – Pleasant taste	412	4.1456	.89777
Acceptability – Different flavor	412	4.1359	.86058
Acceptability – Easily acceptable taste	412	4.2985	.73209
Shelf life – Long expiry date	412	4.2209	.76559
Shelf life – Long term use	412	4.3398	.75201
Shelf life – Remain as it is	412	4.2573	.74600
Wide range – Available in wide range	412	4.3689	.70439
Wide range – Various physical form	412	4.3131	.78087
Wide range – Purchase in different quantity	412	4.2330	.77307
Brand choice – Brand who think more for customer	412	4.4345	.75974
Brand choice – Customer perspective	412	4.4442	.71772
Brand choice – Customer centric approach	412	4.3592	.77810

Brand quality approach – Quality conscious brand	412	4.5316	.66287
Brand quality approach – Brand loyal based on quality	412	4.3374	.83725
Brand quality approach – Good image for quality	412	4.3641	.79443
Overall preference	412	4.2646	.83733

Here the Mean test concluded that the complete mean test is positive in nature that majority of the respondent has positive preference towards Nutraceuticals and dietary supplement.

Analysis and Hypothesis Testing

H0₁ = There is no association between gender and consumer preference towards price with reference to nutraceuticals and dietary supplements.

Chi- Square	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.632 ^a	4	.000
Likelihood Ratio	29.259	4	.000
Linear-by-Linear Association	.044	1	.835
N of Valid Cases	412		

Here the significance level is 0.000, which is less than 0.05 so, we do not accept Null Hypothesis (H0) and we accept Alternative Hypothesis (H1). There is association between gender and consumer preference towards price with reference to nutraceuticals and dietary supplements.

H0₂ = There is no significant difference between income and consumer preference towards brand with reference to nutraceuticals and dietary supplements.

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
I would prefer the brand who think more for customer	Between Groups	15.311	6	3.062	5.602	.000
	Within Groups	221.919	406	.547		
	Total	237.231	412			
The brand should always make products from	Between Groups	7.213	6	1.443	2.864	.015
	Within Groups	204.503	406	.504		

customers perspective	Total	211.716	412			
The brand should have customer centric approach	Between Groups	17.856	6	3.571	6.277	.000
	Within Groups	230.979	406	.569		
	Total	248.835	412			
I would prefer the brand Which is more Quality conscious.	Between Groups	12.410	6	2.482	5.992	.000
	Within Groups	168.180	406	.414		
	Total	180.590	412			
I am that type of person who is loyal to the brand for the quality	Between Groups	28.445	6	5.689	8.895	.000
	Within Groups	259.659	406	.640		
	Total	288.104	412			
The brand should have good image for the quality parameter	Between Groups	26.165	6	5.233	9.110	.000
	Within Groups	233.223	406	.574		
	Total	259.388	412			

In this data analysis the significant value at confidence level respectively at 95%, is 0.000, 0.015, 0.000, 0.000, 0.000, 0.000 which is not more than 0.05 so here null hypothesis (H₀) is not accepted and alternative hypothesis (H₁) is accepted so there is difference between income and their preference towards brand.

H₀₃ = There is no significant difference between awareness and consumer preference with reference to nutraceuticals and dietary supplements.

ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.500	1	3.500	5.041	.025
Within Groups	284.662	411	.694		
Total	288.163	412			

Here the Significant value at confidence level at 95% is 0.025, which is not more than 0.05 so here null hypothesis (H₀) is not accepted and alternative hypothesis (H₁) is accepted so there is significance difference between awareness and their strong preference.

H₀₄ = There is no significant difference between Consumer's preference of product in terms of price and income with reference to nutraceuticals and dietary supplements.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	20.662	6	4.132	3.931	.002
Within Groups	426.821	406	1.051		
Total	447.483	412			

Here the significance level is 0.002, which is less than 0.05 so, we do not accept Null Hypothesis (H0) and we accept Alternative Hypothesis (H1). There is association between their preference of product in terms of price and income.

H0₅ = There is no significant difference between education and preference about quality product with reference to nutraceuticals and dietary supplements.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.343	6	1.586	2.833	.024
Within Groups	227.205	406	.560		
Total	233.547	412			

Here the significance level is 0.024, Which is less than 0.05 so, we do not accept Null Hypothesis (H0) and we accept Alternative Hypothesis (H1). There is association between education and their preference about quality product.

H0₆ = There is no significant difference between consciousness towards immunity and preference during and after covid-19 pandemic with reference to nutraceuticals and dietary supplements.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	59.511	1	59.511	102.795	.000
Within Groups	237.362	411	.579		
Total	296.874	412			

Here the significance level is 0.000, Which is less than 0.05 so, we do not accept Null Hypothesis (H0) and we accept Alternative Hypothesis (H1). There is association between consciousness towards immunity and preference during and after covid-19 pandemic.

H0₇ = There is no significant difference between among education and perception regarding consciousness towards their immunity with reference to nutraceutical and dietary supplements.

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.
Education	Pillai's Trace	.045	2.357	8.000	814.000	.017
	Wilks' Lambda	.955	2.356 ^b	8.000	812.000	.017
	Hotelling's Trace	.047	2.356	8.000	810.000	.017
	Roy's Largest Root	.034	3.429 ^c	4.000	407.000	.009
a. Design: Intercept + Education						
b. Exact statistic						

Here P value for the multivariate assessments namely Pillai's Trace test, Wilks' Lambda & Hotelling's Trace tests and Roy's Largest Root test have shown in the above table that is less than 0.05 with the F value of respectively 2.357, 2.356, 2.356 and 3.429.

The P value of MANOVA test is 0.017 and 0.009 which is less than the significant value so here we reject a null hypothesis. It can also be determined that there is a significant difference among education and perception regarding consciousness towards their immunity.

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Education	Health – Health conscious	7.684	4	1.921	2.580	.037
	Health - Conscious about immunity	7.611	4	1.903	3.212	.013

Here tests of Between the Subject Effects show the result of an individual ANOVA for two statement consciousness towards their health and immunity which reveals that P values varies between 0.013 to 0.037. Individual ANOVA conclude that education has the significant impact on health consciousness of people and it conclude that mean value of different education categories for consciousness towards their health and immunity are different.

Mean value table also indicates that the mean value is significantly different for all education categories both two statements. High education is having more positive effect on consciousness towards health and immunity compare to lower education.

H0₈ = There is no significant difference between among family annual income and perception regarding Price of the product with reference to nutraceuticals and dietary supplements.

MANOVA						
Multivariate Tests^a						
Effect		Value	F	Hypothesis df	Error df	Sig.
Annual Family Income	Pillai's Trace	.164	2.755	25.000	2030.000	.000
	Wilks' Lambda	.844	2.801	25.000	1494.866	.000
	Hotelling's Trace	.176	2.825	25.000	2002.000	.000
	Roy's Largest Root	.093	7.560 ^c	5.000	406.000	.000
a. Design: Intercept + AnnualFamilyIncome						
b. Exact statistic						

Here P value for the multivariate assessments namely Pillai's Trace test, Wilks' Lambda & Hotelling's Trace tests and Roy's Largest Root test have shown in the above table that is less than 0.05 with the F value of respectively 2.755, 2.801, 2.825 and 7.560.

The P value of MANOVA test is 0.000 which is less than the significant value so here we reject a null hypothesis. It can also be determined that there is a significant difference among family annual income and perception regarding Price of the product.

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
AnnualFamilyIncome	Price - Affordable price	6.883	5	1.377	1.618	.154
	Price - Rate product in terms of price	20.662	5	4.132	3.931	.002
	Price - Inexpensive product	28.862	5	5.772	4.547	.000
	Price - Value for money	27.964	5	5.593	6.015	.000

	Price - Conscious towards low price	30.612	5	6.122	4.355	.001
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Here tests of Between the Subject Effects show the result of an individual ANOVA for all five Price of the product which reveals that P values varies between 0.000-0.154. Individual ANOVA conclude that a significant difference between among family annual income and perception regarding Price of the product with reference to nutraceuticals and dietary supplements.

Mean value table also indicates that the mean value is significantly different for all the annual income categories all five statements. High family income is having more positive effect on Price of the product compare to lower family income.

H0₉ = There is no significant impact of consumer preference on consciousness towards immunity with reference to nutraceuticals and dietary supplements.

Regression Analysis ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	44.860	1	44.860	90.210	.000 ^b
	Residual	203.885	411	.497		
	Total	248.745	412			

This resulted table designates that regression model forecasts the dependent variable significantly well. This shows the statistical significance of the regression model that was run. This point, p of f test value is 0.00, which is under 0.05, and designates that, the model of regression statistically suggestively forecasts the result variable.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.660	.181		14.732	.000
	Overall i have strong preference of Nutraceuticals and dietary supplements.	.395	.042	.425	9.498	.000

According to the Coefficients, having a 0.000 as a significance level, It rejects a null hypothesis and concludes a significant impact of consumer preference on consciousness towards immunity.

Finding and Discussion

- From the total 412 respondents, 66.7 % respondents were male in numeric 283 and 31.7 % were female in numeric 129.
- There are five categories of age group with 412 respondents, 98 respondents were belonging to age group of 18-28 which is 23.78%, 93 respondents belonging to age group 29-38 which is 22.57%, 81 respondents were belonging to age group 39-48 which is 19.66%, 92 respondents were belonging to age group of 49-58 which is 22.33% and 48 respondents were belonging to above 58 years category which is 11.66%.
- 79.13% respondents are married and remaining are unmarried (20.87%). From the education perspective, Majority of respondents are Graduate or Post graduate (81.8%%). As far as occupation is concerned, Majority of respondents are having either business (27.1%), or they are salaried (26.21%). Majority of respondents have 3-4 family members in household (60.2%). Majority of the respondents have annual family income above 2 Lacks (78.88%).
- 34% respondents got information about Nutraceuticals and dietary supplements from doctors which indicates doctors respondents to get information about Nutraceuticals and dietary supplements.
- 76.2% respondents prefer Nutraceuticals and dietary supplements as self-medication.
- 40.29% respondents prefer the Nutraceuticals and dietary supplements in Liquid form, while rest prefer Nutraceuticals in other forms such as powder, Tablet/capsule and sachet.
- 85.4% respondents prefer Nutraceuticals and dietary supplements during and after Covid-19 pandemic.
- 48.5% respondents prefer Nutraceuticals and dietary supplements as an Individual and 51.5% respondents prefer Nutraceuticals and dietary supplements in Combination.
- Cronbach's alpha value is 0.950 which indicates very high reliability for collected data.
- Data analysis suggest that association between gender and consumer preference towards price with reference to nutraceuticals and dietary supplements.
- Analysis of Variance (ANOVA) test conclude that significance difference between income and consumer preference towards brand with reference to nutraceuticals and dietary supplements.

- Awareness toward products plays vital role for marketer and Analysis of Variance study suggest that significance difference between awareness and consumer preference with reference to nutraceuticals and dietary supplements.
- Price has significant effect on consumer and data analysis conclude that association between Consumer's preference of product in terms of price and income with reference to nutraceuticals and dietary supplements.
- Study suggest that the education of people influence the buyer's preference towards quality product as per data analysis.
- The consciousness towards immunity people effect on preference of people during and after covid-19 pandemic.
- There is significant impact of consumer preference on consciousness towards immunity with reference to nutraceuticals and dietary supplements.
- Multivariate Analysis of Variance (MANOVA) study concludes a significant difference between among family annual income and perception regarding Price of the product additionally it has also been found that is a significant difference among education and perception regarding consciousness towards their immunity.

Managerial Implication

- This report study is very beneficial to the society and marketers by this study they can give more concentration on factors like Quality, price, brand which makes signification impact and contribute on consumer preference. Also, the demographic statistics gives vital information for marketers for product development and marketing aspects.
- Awareness plays vital role for grow a product here also the study suggests that awareness towards nutraceutical and dietary supplements and health consciousness of people towards health and their immunity can make major impact for product purchasing. Marketers have to focus on increase awareness of nutraceuticals and dietary supplements and also regarding awareness of health which will makes drastically increase in sales.
- As the regression study suggest that people are more conscious about health, they prefer more nutraceuticals and dietary supplements because it focused on health benefits. Health-conscious people can target first. Marketers also can create the awareness among the people towards their health consciousness.

- 76.2% respondents are preferring nutraceuticals and dietary supplements as a self-medication accordingly marketers can target the large population.
- 34% respondent's source of information is doctors therefore marketers have to make doctors aware so they can suggest to their patients. As the nutraceuticals product does not require the prescription of doctor but when doctor suggest than the quality and result of product could lead a positive perceptual effect on consumer.

Conclusion

The research study was focusing on objectives 1) To study preference of consumers for the Nutraceuticals dietary supplements. The study concludes that 80.5% people are prefer nutraceutical and dietary supplements product as their health supplements to improve their health. 2) To know the health consciousness of the people. The study concludes, The health consciousness makes strong impact on preference of people that prefer more nutraceuticals and dietary supplements as these product concentrate on health of a society. The health consciousness of people is 82.8%. 3) To study the awareness level of people towards Nutraceuticals dietary supplements. By the study came to know that 100% people on which the study conducted they are aware about nutraceuticals and dietary supplements. The study also concludes a significant impact of consumer preference on consciousness towards immunity with reference to nutraceuticals and dietary supplements.

Future Scope of Study

Further study can be conducted across different states of India, with more sample size and outcome can be validated with statistical soft wares like AMOS or R.

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