

Analyzing a new paradigm for Ayurvedic products in Noida (NCR region): - Factor analysis Approach.

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Life (ayu) is the combination (samyoga) of body, senses, mind and reincarnating soul. Ayurveda is the most sacred science of life, beneficial to humans both in this world and the world beyond. Charaka

Abstract: This paper is an attempt to identify the basic factors that are responsible for changing mindset of consumer behavior of Noida (NCR region) customers, from chemically processed products and medicines to Ayurvedic products. Consumers are showing a remarkable change in their buying and consumption pattern. Changing buying behavior represents a transformational change in attitude towards chemically processed products and related process to shift for the Ayurvedic product. Retail stores and their shelves are now showcasing distinguished aroma and eliteness in suggesting with printed indulgence for ayurvedic product for selection and consumption for better health. This research uses the statistical approach of factor analysis for generating factors responsible for changes.

Keywords:- Ayurvedic, factor analysis, consumer behavior, factors.

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I. Introduction

The term Ayurveda stands for (Sanskrit) an ancient medical treatise summarizing the Hindu art of healing and prolonging life; sometimes regarded as a 5th Veda(definitions.net). Ayurveda is a system, which avails the essential fundamentals of nature, to maintain health in a person by preserving the individual's mind, body and spirit in adept equanimity with nature(Arya, Thakur, Kumar, et.al. 2012). Ayurveda means “knowledge of life” and is about 5000 years old traditional Indian system of medicine(RAJANI, 2016). A well-known yoga guru Baba Ramdev started an association Patanjali Ayurved in 2007. The main aim of the company is to bring awareness among Indian people towards swadeshi products (KUMAR & AHUJA, 2017). Fast globalization and changing lifestyle lead to health changes and deterioration in daily life, passing adverse effect on health. Intensive industrialization and long working hours deliver drastic damage to health especially in metros and NCR Region only medicine which can help human beings is nature mother “Ayurveda”. Definition of consumer behavior “Consumer behavior is the study of how individual customers, groups or organizations select, buy, use, and dispose of ideas, goods, and services to satisfy their needs and wants. It refers to the actions of the consumers in the marketplace and the underlying motives for those actions (Smriti, yourarticlelibrary). Definition of consumer behavior suggests about consumer and their satisfying need from time to time with changes desired. changing the environment on the planet and degrading life quality poses human being for searching new ways for managing health and long life by certain other means that is only “Ayurveda”. “old is gold”. Consumer behavior is the study of how people make decisions about what they buy, want, need, or act in regards to a product, service, or company(study.com)

II. Literature Review

Indian customers and their strong belief in Ayurveda provide a ready base ground for ayurvedic products and industries. Ayurveda was first recorded in the Veda, the world's oldest existing literature. The three most important Veda texts containing the original and complete knowledge of Ayurveda, believed to be over 1200 years old, is still in use today. These Ayurvedic teachings were customarily passed on orally from teacher to student for over 1000 years (http://www.healthandhealingny.org/tradition_healing/ayurveda-history.html). A separate Department was constituted in November 2003, named as Department of Ayurveda, Yoga, and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) (Joshi, K. 2009). Constant changes in the environment and related side effects started cornering the allopathic ways of treatments and gesturing for Ayurvedic products are the new ways to connect with Mother Nature. The demand for medicinal plants is increasing every day and the World Health Organization (WHO) has projected that the global herbal market will grow to \$ 5 trillion by 2050 from the current level of \$ 62 billion (4) India and China are the largest producers of more than 70% of the global diversity. India's share is 2. 5%, against China's 13%(Bhattacharya, KRC & Mishra. 2014). Charaka was one of the main contributors to Ayurveda. His most famous work is the Charaka Samhita. Charaka is often known as the Father of Medicine in India(<https://allayurveda.com/blog/ancient->

ayurvedic-vaids-and-their-contributions/).As per the latest statistics available from Pharmexcil, China is the top country leading in the world in the export of herbals with \$1329.72 million followed by India with an export figure of \$ 790.56 million for the year 2010(pharmabiz.)

III. Research Objective

Objective 1:- What are the indicators responsible for changing behavior transformation to ayurvedic products?

Objective 2:- Suggestions to Corporates for marketing strategy in NCR Region.

RESEARCH METHODOLOGY:-

1. **Research design:-** Exploratory Research is exercised for managing the problem audit
2. **Sample framework:-** Noida and greater Noida markets
3. **Sampling element:-** users of the ayurvedic product.
4. **Sample size :-** 150
5. **Sampling Technique:-** judgmental sampling.
6. **Sampling location:-** cafeterias and eating joints.
7. **Scale used:-** Likert scale
8. **Scale description:-** 1= strongly disagree, 2=disagree, 3= neither, 4=agree,5=strongly agree
9. **Sampling time:-** evening time
10. **Statistical method:-** reliability analysis and factor analysis.
11. **Experimental instrument:-** questionnaire(made was designed by studying thoroughly the literature with theoretical models) and a short discussion were conducted to understand the respondents and their understanding of ayurvedic products.
12. **Experimental time:-** 20 minutes
13. **Experimental control:-** respondents are advised to switch off the phone. interview technique is used to filter the information from respondents and then questionnaire was given to respondent by permission of respondent with the close caution of observation is exercised while the respondent is attempting the questionnaire.
14. **Data sources used:-** primary, secondary, and computer databases are consulted for understanding the subject.
15. **Consumer model took into account:-** Sociological model

Sociological model:-This is concerned with the society. A consumer is a part of the society and he may be a member of many groups in a society. His buying behavior is influenced by these groups. Ayurvedic products sales and consumer acceptability are analyzed by this model. Model advice about primary groups (family and close relations stimulate the behavior of products) and other associated group influence the buying behavior.

IV. Analysis And Interpretation

Reliability analysis:- Reliability refers to the extent to which a scale produces consistent results if the measurements are repeated a number of times. The analysis of reliability is called reliability analysis (statisticssolutions). Cronbach's alpha is used in this research for internal consistency of the variables.Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1(Tavakol&Dennick, 2011). The internal consistency coefficient that is most commonly used in psychology and other behavioral sciences is coefficient alpha(Warrens,2014).

Factor analysis:- Factor analysis attempts to represent a set of observed variables $X_1, X_2 \dots X_n$ in terms of a number of 'common' factors plus a factor which is unique to each variable. The common factors (sometimes called latent variables) are hypothetical variables which explain why a number of variables are correlated with each other -- it is because they have one or more factors in common (researchgate).

Factor analysis is used in many fields such as behavioral and social sciences, medicine, economics, and geography as a result of the technological advancements of computers (Yong & Pearce, 2013).

Reliability analysis is conducted and Cronbach's Alpha value shows value (.826) this represents the overall consistency of all the items and value suggests the best acceptable range. Cronbach's Alpha suggests the overall consistency of the items in research.Cronbach's alpha value now suggest's for further computation required to move forward in the statistical analysis. Factor analysis is used for further generating the factors and VARIMAX rotation is used for attaining the final factors. Factor analysis results are given below for analysis:-

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
I use Ayurvedic products very easily	4.4533	.64075	150
I use ayurvedic products because it is good for health	4.4933	.57634	150
I use Ayurvedic products daily	4.3333	.83277	150
Using Ayurvedic products is a new trend in society.	4.2000	.77719	150
Using Ayurvedic products saves my money.	4.1400	.85945	150
I feel happy while seeing advertisement of ayurvedic products	4.0067	.81510	150
I use to discuss ayurvedic products on social media (WhatsApp)	3.8133	1.06429	150
I feel good to speak for Ayurvedic products for positive effects on health	4.1667	.75455	150
Ayurvedic products give assurance of healthy life.	4.3000	.73958	150
I use to recommend ayurvedic products to everyone.	3.9933	1.04590	150

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Approx. Chi-Square		761.284
Bartlett's Test of Sphericity	df	45
	Sig.	.000

Kaiser-Meyer-Olkin (KMO) represents sampling adequacy and its value represents (0.713) which is greater than 0.6. P-value of Barlett's test is showing a value less than 0.05. These results represent that factor analysis can be further undertaken in this data set. Anti-image correlation values are given below indicating high interrelationships among the variables.

I use Ayurvedic products very easily (.784)
I use ayurvedic products because it is good for health (.806)
I use Ayurvedic products daily(.757)
Using Ayurvedic products is a new trend in society.(.530)
Using Ayurvedic products saves my money.(.672)
I feel happy while seeing advertisement of ayurvedic products(.805)
I use to discuss ayurvedic products on social media (WhatsApp) (.736)
I feel good to speak for Ayurvedic products for positive effects on health. (.786)
Ayurvedic products give assurance of healthy life.(.555)
I use to recommend ayurvedic products to everyone.(.664)

Now all the results in anti-image correlation is found significant and further factor Analysis can be conducted. Total variance explained table is given below as further analysis in this research indicates that three factors are generated and shows 72 % of variance of ten variables.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.107	41.072	41.072	4.107	41.072	41.072	2.863	28.633	28.633
2	2.099	20.988	62.060	2.099	20.988	62.060	2.788	27.881	56.513
3	1.019	10.190	72.250	1.019	10.190	72.250	1.574	15.737	72.250
4	.718	7.181	79.431						
5	.577	5.766	85.197						
6	.451	4.514	89.711						
7	.389	3.892	93.603						
8	.287	2.866	96.469						
9	.228	2.285	98.754						
10	.125	1.246	100.000						

Extraction Method: Principal Component Analysis.

Now communalities table is given below in the table is reflecting the values with higher values that Reflects the significant communalities are present (higher communalities shows high variance in the variables resulted by factors).

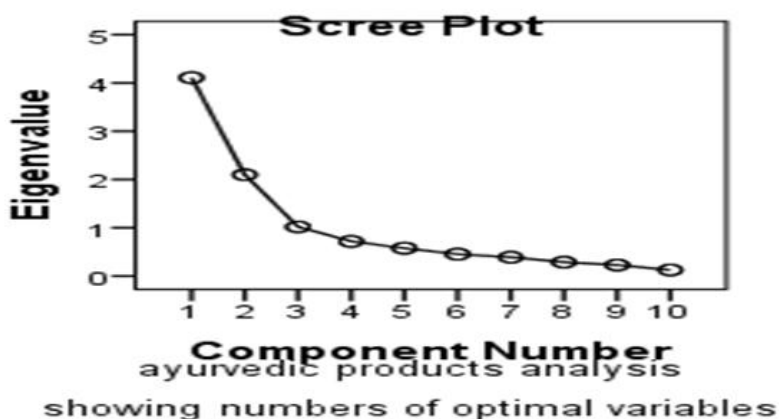
Communalities

	Initial	Extraction
I use Ayurvedic products very easily	1.000	.797
I use ayurvedic products because it is good for health	1.000	.782
I use Ayurvedic products daily	1.000	.773
Using Ayurvedic products is a new trend in society.	1.000	.863
Using Ayurvedic products saves my money.	1.000	.813
I feel happy while seeing advertisement of ayurvedic products	1.000	.661
I use to discuss ayurvedic products on social media (WhatsApp)	1.000	.644
I feel good to speak for Ayurvedic products for positive effects on health	1.000	.648
Ayurvedic products give assurance of healthy life.	1.000	.544
I use to recommend ayurvedic products to everyone.	1.000	.700

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.

Scree plot shows the significant number of variables required by this factor solution. Scree plot is given below:-



Three variables are positioned on the steeper side of scree plot. These three are now are the significant numbers.

The final stage is factor extraction: - Varimax rotation is used for finally generating the factors and rotated component matrix is used for locating the extraction of final factors for given research.

Generating first factor: - Variables (8,7,10,9) are showing values (.793,.791,.771,.712), these variables highlight elements of social media discussion, peoples positive conversations, sometimes recommendations and assurance of healthy life and acceptance in society so research can name this factor as **RECOGNITION FACTOR**.

Since society is now recognizing the ayurvedic products that make ayurvedic products known to different markets and also known to different part of the world.

Generating second factor: - Variables (2, 1, and 3) are suggesting values (.878, .875, and .799) these variables highlights easiness in use, goodness in ayurvedic products. Research can suggest a name for this factor as **UTILITY FACTOR**.

Since society is using the ayurvedic products this gives rise to another segment of ayurvedic marketing and different channel partners for distribution.

Generating third factor: - Variables (4, 5, 6) are indicating values (.912, .572, .391) these variables highlights ayurvedic products as a new trend, saves money, advertisement presence by companies. Research can name this factor as **POTENTIAL FACTOR**.

Since society is considering a new trend for ayurvedic products and advertisements supplementing the pace, the potential is available in the market for companies in the home country and in global space to catch new profit of upcoming market.

Marketing insights for ayurvedic companies:-

1. The ayurvedic market requires a clear-cut branding policy (society is now approving old age concept and moving to go with ayurvedic products but branding is absent in market to create an identifiable picture for products).
2. Segmentation, Targeting, and positioning are required for market expansion.
3. Companies must focus on exports for easy acceptability.
4. Marketing activities for ayurvedic products must answer to society why to go with ayurvedic products (consultation mode is required).
5. Consumer behavioral research is advised for analyzing the future growth of the ayurvedic market.
6. Companies are suggested to use (**The Psychoanalytic Model**) by utilizing this model
Companies can understand human needs and its operations at various levels of consciousness, the normal observer cannot see or observe these issues clearly only specialized searching is utilized for this purposes.
7. Companies can utilize Recognition factor as a base tool for growth because customers are aware of ayurvedic products and intent to buy is also available in the latent stage.

V. Suggestions:

Ayurvedic products requires support in the areas of advertisements, consultancy, strong distribution network, word of mouth publicity and continuous improvement in the area of product development. Customers are available in the market but a right consultation can hit this old age concept for future profits of companies. Retail management is advisable that shelf spaces have given a separate identification for ayurvedic products for better understanding between product and customers.

VI. Limitations

Research only highlights marketing efforts with respect to customers. Research suggests marketing activities pertaining to society. Research in this paper not covering technological knowhow of products. Research supplements model based learning for customers.

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