LIFESTYLE SEGMENTATION IN THE CONTEXT OF COVID-19

Mansurali

Assistant Professor (Senior Grade)
PSG Institute of Management, India

Deepa

Associate Professor
PSG Institute of Management, India

Abstract

Lifestyle is a set of characteristics consisting of daily routine, diet, fun activities, work and family of individuals. A review of previous research revealed that many studies were conducted to analyze the lifestyles of respondents using attitudes, opinions and interests with an objective to understand their buying behavior. A general clustering of respondents based on their lifestyles, in the context of COVID-19, would be useful for stakeholders like marketers, health care professionals and Government officials. Hence this paper attempts to group respondents based on their lifestyles. The study had a sample of 275 respondents from Tamilnadu, South India. A set of 32 questions based on the Activities, Interests and Opinions (AIO) model were used. Factor analysis, to arrive at meaningful aspects to group the respondents yielded 6 factors, based on which the respondents were grouped. Their demographic constitution was also examined. The study showed the existence of six distinct clusters in the context of COVID-19. This grouping has important implications for Government, Marketers and Healthcare officials to direct their communication, products and services, specific to those clusters. A review of literature showed a dearth of studies on lifestyle conducted during a pandemic in the Indian context. This study addresses the lacuna and would serve as a prototype that can be replicated on larger samples across countries to understand the impact of a pandemic on lifestyles of people. The study also threw light on the perspectives people have about them, their work and life.

Keywords: COVID-19, lifestyle segmentation, cluster analysis, pandemic, lifestyle changes

Introduction

Lifestyle is a way of life of individuals. It is a set of characteristics, consisting of the daily routine of individuals, concerning their diet, fun activities, work, and family. Marketers always had a great interest in understanding the lifestyle of people, as it helps them to devise appropriate marketing communication to grab the attention of their target customers. It is also considered important to understand the standard of living of people and their health conditions, so that the Government can design appropriate schemes for their benefit. From the perspective of marketers, lifestyle means that people can be grouped based on the things they like, things they do, how they spend their leisure time and how they

spend money (Krishnan, 2011). Life style has been studied to a great extent by marketers. (Lazer, 1963) brought out the relationship between lifestyle and marketing and since then it has become an important concept in segmenting markets and understanding target customers. Alexander (2020) states that lifestyle segmentation is more accurate in predicting consumer behavior, compared to demographic segmentation and it is of greater value to marketers. Lifestyle of people was understood and analyzed based on various dimensions. For example, lifestyle can be seen as a combination of attitudes, values and opinions (Pessemir & Tigert, 1966). Alternatively, the VALS framework segmented US adults using two dimensions namely primary motivation and resources (Strategic Business Insights, 2021). The List of Values (LOV) is a methodology to classify people base on the values they prioritize (Kahle & Kennedy, 1988). PRIZM is proprietary census-based database, which can be used with VALS to classify adults in the US context (Moss, Kirby & Donodeo, 2009). All these frameworks were developed in the US context and hence have to be adapted for contexts outside of the United States. A recent study has proved that traditional methods like factor analysis and cluster analysis can be used to segment people effectively and hence could be a viable alternative for proprietary frameworks such as VALS and PRIZM (Alexander, 2020). Since its origin at Wuhan, China in 2019, COVID-19 has had a significant impact on the life of individuals. Given this context, this paper aims to examine the effect of COVID-19 on the lifestyle of people and group them based on their lifestyles using cluster analysis which was proven to be a viable alternative. Considering the impact created by COVID-19 on the day-to-day life of people, this paper has important implica-

tions for marketers who wish to understand their target customers.

Literature Review

Lazer defined lifestyle pattern as "a system concept. It refers to a distinct mode of living in its aggregate and broadest sense.It embodies the patterns that develop and emerge from the dynamics of living in a society" (1963, p.130). The roots of the concept can be traced back to the sixteenth century, where it featured in the writings of poets, naturalists and philosophers (Ansbacher, 1976). Alfred Adler played a major role in developing the lifestyle concept, as it was the crux of Adlerian psychology (Anderson & Golden, 1984). While Adler believed on the uniqueness of each individual, he also recognized similarities among individuals and their lifestyle, "suggesting the existence of lifestyle typologies" (Ansbacher, 1976). The lifestyle concept was considered in the context of consumer behavior as early as the fag end of 1950. Several researchers (Bell, 1958; Rainwater et al., 1959; Havinhurst & Feigenbaum, 1959) pointed to the significance of understanding and predicting consumer behavior in devising marketing strategies and thus lifestyle was extensively researched by marketers.

Lifestyle has been conceptualized in many ways. In the marketing literature, it has been persistently defined as characteristic pattern of behavior (Anderson & Golden, 1984). It is an integrated system of attitudes, values, opinions, and interests as well as overt behavior (Berkman &Gilson, 1978). However, Wilson (1966), Pessemier and Tigert (1966), and Wells (1968) came out with the most popular and widely used conceptualization of lifestyle namely attitudes, interests and opinions. Activities show how people spend their time, interests denote their priorities and preferences, and opinions are how they feel about a

variety of events. The VALS framework classifies people into 8 groups based on two dimensions namely primary motivation and resources. The framework identifies innovators, thinkers, achievers, experiencers, believers, strivers, makers and survivors based on the ideals, achievement and self-expression of respondents. VALS framework is also based on the premises that an individual's desire to buy products and services goes beyond age, income etc., and includes factors like energy, novelty seeking, intellectualism, impulsiveness, innovativeness etc. (Strategic Business Insights, 2021).

Lifestyle analysis is considered as a very important prerequisite for formulating marketing strategies (Lazer, 1963; Jones, 1962). It also helps in the accurate assessment of needs of the target market segment, in which case, the demographic details alone are not adequate (Forrest & Blumberg, 1981). According to Ahmed and Jackson (1979), lifestyle analysis reduces a large group of heterogeneous customers into a few basic groups and hence is of great value to marketers. Lifestyle analysis can also be used to monitor changes in the population (Blackwell & Rogers, 1980; Mitchell, 1983). Aaker and colleagues (1982) confirm that lifestyle analysis could be used in promotion. According to Berry (1983) it could be used to create brand identity. Krishnan (2011) claims that lifestyle analysis provides a three dimensional view of customers and hence is an effective tool for marketers to devise their strategies. The lifestyle of people was analyzed by many researchers for various purposes. The lifestyle profiles of commercial credit card users was studied by Plummer (1971). In a study on slimmer brand apparel users, Richard and Sturman (1977) analyzed the lifestyle of 1000 women from urban households and classified them as conservative, fashionable,

brand-conscious, outgoing and home/-price oriented. Burns and Foxman, (1988) used lifestyle analysis to build the lifestyle profiles of working women, whereas Robertz and Wortze (1979) used the same to understand the shopping behavior of women. Reynolds and Wells (1978) used lifestyle analysis to segment the market, develop product strategy and marketing communication strategy.

In the Indian context, a few studies have used lifestyle analysis to segment the consumers. Jain (2020) conducted a study on the consumer behavior of respondents situated in Delhi and National Capital Region (NCR) and classified them into three clusters namely nesters, opinion leaders and collectivists. The characteristics used to cluster them were dependencies on parents, group or community orientation, attitude towards health etc. In another study on buyer behavior, Chari and Reddy (2021) used VALS framework in the Indian context to segment consumers in the food and grocery retail area to understand their eco-label awareness. However, their paper does not discuss whether the VALS framework was effective. Neither do they discuss the characteristics of different categories under VALS. Ota and colleagues (Ota, Verma, & Agarwal, 2020) used VALS framework to study the effect of consumer lifestyle on buyer behavior, in the FMCG sector. Krishnan (2011) classified the respondents into purchase interested, family oriented and innovative lifestyle clusters. The purchase interested cluster preferred to be in large groups; the family oriented cluster wished to spend time with family and the innovative lifestyle cluster were interested in voluntary activities and community projects. Verma and Hanspal (2000) used lifestyle analysis to profile the middle class consumers of Delhi. They classified the customers into clusters namely stay-at-home traditional-

ists (enjoy household work, love cooking but do not enjoy eating), progressive providents (make effort to save money, no interest in newspapers and shopping), security seekers (outgoing, get away from home to enjoy, not store loyal), conservatives (vote regularly in election, do not watch television much), the privileged (enjoy shopping and try new brands), and the independents (favorthe concept of nuclear family, not store loyal). Shirali and Singh (1997) used lifestyle analysis to group men into lifestyle groups based on their status symbol. Lifestyle analysis was also used to examine the purchasing pattern of individuals (Rao & Natarajan, 1996), and understand the behavior of two -wheeler owners (Kapur, 1995). Roy and Goswami (2007) studied the purchase frequency of college goers and clustered them into five groups namely life-loving go-getters, politically conscious positivists, independent-minded, destiny believing pessimists, and happy-go-lucky dependants. The studies conducted in the Indian context had segmented the respondents based on their lifestyles. However, the objective was to understand their buying behavior and purchase frequency which has a marketing orientation. Given the impact of COVID-19, it will be of great value to understand how the pandemic has affected the lifestyles of people. A general clustering of respondents in the context of COVID-19 would be useful for many stakeholders like marketers, health care professionals and Government officials. A review of literature showed a dearth of studies on lifestyle segmentation conducted during a pandemic in the Indian context. This study aims to address the lacuna and attempts to group the individuals based on their attitudes, interests and opinions, at a time when they were living through the pandemic. The study also aims to demonstrate that traditional methods like cluster analysis can be used to segment people based on lifestyles in

order to understand the various attributes of people. It has the following objectives.

Objectives
To assess the lifestyle of respondents and cluster them according to the same
To describe the characteristics and demographic constitution of the clusters.

Methodology
The study employed a descriptive research design as it aimed to describe the lifestyle patterns of respondents in the context of COVID-19. Descriptive research involves gathering data that describe events, organizing, and tabulating in order to understand a particular aspect of the respondents (Glass & Hopkins 1984). The study is quantitative in nature since it aims to identify the pattern and relationship among variables within a specific sample of a population (Cooper & Schindler, 2008). Research was carried out in the state of Tamil Nadu where the reported Covid'19 infections were high among the states of India (Mygov.in, 2020). A strict lockdown was imposed by the Government and hence it was considered as an ideal ground for this research. Snowball sampling, a non-probabilistic sample method was used to include respondents from all walks of life. Since the study had to include respondents from all walks of life, that too when the pandemic was in progress and the population was diverse and hence hard to reach, snowball sampling was used. In the first stage, the survey link was sent to the close contacts of the authors, with a request to share the same among their contacts. This approach yielded 300 responses, out of which 275 were complete and considered as the sample for the study. The sample size is justified according to Mundfrom and colleagues (2005) who stated that the sample size is good enough if its 3 to 20 times the number of variables considered

for factor analysis. Data collection was carried out primarily through the survey using a structured questionnaire. In order to assess the lifestyle, the framework proposed by Plummer (1971) was used. The framework included attitudes, interests, opinion and demographics. Statements were constructed on a five-point scale to assess activities, interests and opinions. The final questionnaire had 32 statements. The demograph-ics like age, gender, education level, economic status, COVID-19 zone etc were also collected. The survey link was sent to the respondents through Google Forms. Analysis and results of the research were presented employing methods such as factor analysis, ANOVA and descriptive statistics using a statistical analysis tool SPSS 22. The demographics of the respondents is presented in Table I

TABLE I: DEMOGRAPHICS OF RESPONDENTS

1	Gender	N	%	2	Relationship status	N	%
	Male	163	59.3		Single	110	40
	Female	112	40.7		Married	163	59.3
	Total	275	100		Divorced	2	0.7
					Total	275	100
3	Received Salary during Lock down	N	%	4	Connect with family	N	%
	Yes	189	68.7		Away From Family	47	17.1
	No	86	31.3		With Family	228	82.9
	Total	275	100		Total	275	100
5	Economic status	N	%	6	Corona Zone	N	%
	Lower Middle Class	6	2.2		Green	34	12.4
	Middle Class	144	52.4		Orange	53	19.3
	Upper Middle Class	118	42.9		Red	188	68.4
	Upper Class	7	2.5		Total	275	100
	Total	275	100				
7	Lockdown job status	N	%	8	Age	N	%
	Not Working	89	32.4		18-25	82	29.8
	Work from Home	156	56.7		26-35	88	32.0
	Going to Office	30	10.9		36-45	51	18.5
	Total	275	100		46-55	32	11.6
					Above 55	22	8.0
					Total	275	100
13	Education	N	%	14	Employment Status	N	%
	Diploma	4	1.5		Unemployed	38	13.8
	UG	56	20.4		Home Maker	18	6.5
	PG	189	68.7		Employed	175	63.6
	PhD	26	9.5		Self-employed	44	16.0
	Total	275	100		Total	275	100

Analysis

A non-hierarchical cluster analysis technique was used to group the respondents into distinct clusters. As a preamble for cluster analysis, a principal component factor analysis (with varimax rotation) was performed on the 32 statements to group them into meaningful constructs, with which the clusters could be described. Factor analysis helps to regroup the variables into clusters, using the variance existing among the factors. It is a dimension reduction technique, which employs mathematical procedure to explore the inter related measures to identify patterns among the set of variables (Child, 2006)

A set of conditions like outliers, sample size adequacy, and the linear relationship among the individual variables need to be checked before attempting to do the factor analysis. In this study, there were no outliers in the sample and the sample size was adequate as confirmed by the G-power analysis.

In order to understand the linear relationship between variables, the Kaisey-Meyer-Olkin (KMO) test for sampling adequacy was done. This is a pre-requisite to run principal component analysis. The KMO value ranges from 0 to 1 and a value above 0.6 is the minimum requirement for sampling adequacy, a value above 0.8 is considered as a strong measure. The KMO test yielded a value of 0.87, and the Bartlett's test of sphericity, with a significant value of .000 affirmed the suitability of data for the factor analysis using principal component method. After checking the prerequisites, a factor analysis was performed, which yielded 6 factors with 65.5 percent of variance being explained. The factors were named as daily routine, coping mechanism, perspectives about work, perspectives about life, leisurely activities, and perspectives about self.

Using these factors as the basis, the respondents are to be classified into clusters. K-means clustering is widely used to group the people based on their psychographic characteristics. Voges et al., (2002) and Moran (2003) segmented the variables related to psychographic characteristics of shopping orientation and web purchase intentions with K-means clustering and the rough clustering method validated the importanceof clustering techniques for marketers to target right consumers. Hoontrakul and Sahadev (2008) applied K- means clustering for the creation of market segments using the consumer profiles of online travel industry. In this study also, the factors yielded by the factor analysis were used as the basis and a k-means clustering was performed. As a result, the respondents were grouped into six clusters. The mean values of the factors across these clusters are presented in Table II.

TABLE II: CLUSTERS AND MEAN VALUES OF FACTORS ACROSS CLUSTERS

Factors	Mean Values of Factors in Clusters					
	A	**B**	**C**	**D**	**E**	**F**
Daily Routine	3.92	4.14	2.94	1.79	2.11	2.68
Coping Mechanism	3.89	4.31	2.28	2.37	4.14	3.86
Perspectives about work	4.30	4.08	3.52	3.12	4.01	2.60
Leisurely activities	4.03	2.34	3.02	2.85	2.70	3.98
Perspectives about Self	4.03	4.24	3.70	2.83	3.90	3.69
Perspectives about Life	4.67	4.34	3.84	3.04	4.48	4.26
Number of Respondents	**42**	**77**	**56**	**18**	**48**	**34**

To examine the distinct nature of the clusters, an ANOVA was performed to examine if there are significant differences across the clusters. The results of ANOVA are presented in Table III.

A description of the individual clusters will yield important implications for readers from different domains.

TABLE III: ANOVA ACROSS CLUSTERS

	Cluster		Error			
	Mean Square	Df	Mean Square	df	F	Sig.
Daily Routine	38.981	5	.367	269	106.354	.000
Coping Mechanism	36.700	5	.370	269	99.248	.000
Perspectives about work	15.955	5	.418	269	38.134	.000
Leisure Activities	23.104	5	.488	269	47.313	.000
Perspectives about self	6.759	5	.277	269	24.411	.000
Perspectives about life	9.233	5	.352	269	26.251	.000

It is evident from the ANOVA results that the respondents have been grouped into distinct clusters, as there is a significant difference in the mean values of the factors, based on which clustering was done. The respondents have been grouped into six groups, based on their daily routine, leisure activities, coping mechanisms, and their perspectives about self, work, and life. Previous research in the Indian context (Jain, 2020; Krishnan, 2011; Roy & Goswami, 2007; Verma & Hanspal, 2000) had used segmentation from the marketing perspective, to understand their buying behavior and the clusters were formed in accordance with that objective. This study differs from the previous studies and has used factors such as perspectives about self, work, life, coping mechanisms as basis for clustering and hence is a unique effort in the context of COVID-19.

Description of clusters

Each cluster has some distinct features and a specific demographic configuration.

Cluster A

This cluster is characterized by a systematic life style, complemented by good coping strategies. There is enough time invested on leisurely activities and there is an optimistic perception about self and work. The perspective of this cluster towards life is extremely optimistic.

Out of the respondents, 67 percent have a family size of 3 to 4 members, 64 percent are men, 93 percent are from middle and upper middle class, 70 percent had received their salaries and 74 percent are working from home. Most of the respondents (74 percent) are from the red zone, where COVID-19 is in its peak and 79 percent of the respondents were with their families.

Cluster B

The respondents in this cluster lead a systematic life style with good coping strategies. However, they do not spend much time on leisurely activities. They

seem to be seriously oriented towards work. Their overall perception about self, work and life is optimistic.

This cluster has significant representations (14 to 28 percent) from all age groups and gender. Among the respondents, 82 percent are married, most of them (70 percent) have 3 to 4 family members, and were largely connected with their family (87 percent). About 22 percent of respondents in this cluster had to go the office for work, even during lockdown period. The cluster consists of 21 percent people with a PhD degree. Most of the respondents in this cluster (96 percent) are from the middle and upper middle class. As most of them are married, they might have had the necessity to balance work and life and hence were not able to spend time on leisure activities.

Cluster C

The respondents who constitute this cluster are moderately systematic in their daily routine. However, their coping strategy is not positive and they do not seem to spend much time in leisure activities. They are moderately optimistic about their self, work and life.

In this cluster, 46 percent of respondents did not receive their salary and 48 percent were not working. The cluster had equal numbers of married and single respondents, and 98 percent of the respondents were from middle class and upper middle class.

Cluster D

This cluster is characterized by an irregular daily routine. There is not much time for leisure activities and added to that their coping strategies are also not good. Their perception about themselves is pessimistic. However, they seem to be slightly optimistic about their work and their life.

In this cluster, 44 percent of respondents are in the 18-25 age group and 72 percent of them are singles. About 83 percent of respondents belong to a family of 3 to 4 members and 78 percent of them lived in the red zone. Among the respondents, 67 percent had to work from home and only 67 percent were with their families. The age group, being in the red zone and most of them being away from family could be the reasons for the irregular lifestyle and poor coping strategies. As they were in the red zone and away from family, their perspective about self was pessimistic. However, they were positive about their work and life.

Cluster E

Despite having an irregular daily routine and spending less time on leisure activities, the respondents of this cluster seem to have good coping strategies. They are moderately optimistic about self and work and have a positive perspective towards life.

This cluster had 63 percent of married respondents and 92 percent of respondents in the red and orange zones. All the respondents belonged to the middle and upper middle class and 88 percent of the respondents were between 18 to 45 years of age. Among the respondents, 85 percent were with family and 60 percent had to work from home.

Cluster F

The respondents of this cluster have a moderately regular lifestyle and adopt good coping strategies. However, their perspective about work is pessimistic. They are optimistic about self, and life.

In this cluster, 59 percent of the respond-

ents are single, men and women are in equal numbers and 62 percent of the respondents are not working. The cluster also has 77 percent of respondents from the red zone and 82 percent of them are with their families. As most of them are not working, the perspective about work is pessimistic. Most of them are with their families and hence they have healthy coping mechanisms, despite being in the red zone and not having a job to focus on.

Demographics of Clusters

The 275 respondents were grouped based on 6 lifestyle variables namely daily routine, leisure activities, coping mechanisms, perspectives about self, work and life. The resultant 6 clusters were significantly different in the mean values of these variables. The demographics of the clusters is presented in Table IV.

TABLE IV: DEMOGRAPHICS OF CLUSTERS

Demographics	Category	A		B		C		D		E		F	
		N	%	N	%	N	%	N	%	N	%	N	%
Age	18-25	14	33.3	10	13.0	18	32.1	8	44.4	15	31.3	17	50.0
	26-35	16	38.1	19	24.7	21	37.5	7	38.9	12	25.0	13	38.2
	36-45	0	0.0	21	27.3	12	21.4	3	16.7	15	31.3	0	0.0
	46-55	8	19.0	16	20.8	2	3.6	0	0.0	2	4.2	4	11.8
	Above 55	4	9.5	11	14.3	3	5.4	0	0.0	4	8.3	0	0.0
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Gender	Male	27	64.3	45	58.4	36	64.3	8	44.4	30	62.5	17	50.0
	Female	15	35.7	32	41.6	20	35.7	10	55.6	18	37.5	17	50.0
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Marital Status	Single	17	40.5	14	18.2	28	50.0	13	72.2	18	37.5	20	58.8
	Married	24	57.1	63	81.8	28	50.0	5	27.8	30	62.5	13	38.2
	Divorced	1	2.4	0	0.0	0	0.0	0	0.0	0	0.0	1	2.9
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Family Size	1 to 2	4	9.5	5	6.5	6	10.7	1	5.6	3	6.3	3	8.8
	3 to 4	28	66.7	54	70.1	38	67.9	15	83.3	35	72.9	18	52.9
	5 to 6	5	11.9	12	15.6	8	14.3	2	11.1	6	12.5	12	35.3
	Above 6	5	11.9	6	7.8	4	7.1	0	0.0	4	8.3	1	2.9
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Education	Diploma	2	4.8	2	2.6	0	0.0	0	0.0	0	0.0	0	0.0
	UG	5	11.9	14	18.2	15	26.8	5	27.8	10	20.8	7	20.6
	PG	27	64.3	45	58.4	40	71.4	13	72.2	37	77.1	27	79.4
	PhD	8	19.0	16	20.8	1	1.8	0	0.0	1	2.1	0	0.0
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Emp. Status	Unemployed	7	16.7	4	5.2	9	16.1	2	11.1	7	14.6	9	26.5
	HomeMaker	0	0.0	7	9.1	3	5.4	1	5.6	4	8.3	3	8.8
	Employed	27	64.3	52	67.5	32	57.1	13	72.2	32	66.7	19	55.9
	Self Employed	8	19.0	14	18.2	12	21.4	2	11.1	5	10.4	3	8.8
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Lockdown Job Status	Notworking	9	21.4	11	14.3	27	48.2	5	27.8	16	33.3	21	61.8
	Work from H	31	73.8	50	64.9	25	44.6	12	66.7	29	60.4	9	26.5
	Going to Off	2	4.8	16	20.8	4	7.1	1	5.6	3	6.3	4	11.8
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Salary Paid	No.	12	28.6	15	19.5	26	46.4	4	22.2	13	27.1	16	47.1
	Yes	30	71.4	62	80.5	30	53.6	14	77.8	35	72.9	18	52.9
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Economic Status	L. Middle	1	2.4	0	0.0	1	1.8	1	5.6	0	0.0	3	8.8
	Middle	23	54.8	33	42.9	35	62.5	12	66.7	25	52.1	16	47.1
	U. Middle	16	38.1	40	51.9	20	35.7	5	27.8	23	47.9	14	41.2
	Upper	2	4.8	4	5.2	0	0.0	0	0.0	0	0.0	1	2.9
	Total	42	100	77	100	56	100	18	100	48	100	34	100
Corona Zone	Green	6	14.3	14	18.2	6	10.7	0	0.0	4	8.3	3	8.8

Thus the study used the attitudes, interests, opinions framework of Plummer (1971) to define lifestyles in the context of COVID-19 and grouped the respondents based on their lifestyles. From the literature review it is evident that the lifestyle framework was used only for market segmentation. This study used the lifestyle attributes to understand the impact of a pandemic on the lifestyles of people. The pandemic has impacted the lifestyle of every individual on this planet and it is imperative to understand the lifestyle changes. This study is only a first step to understand the implications of a pandemic on the lifestyles of individuals and can be replicated on larger samples from different countries for better understanding.

Implications

The study attempted to cluster respondents on attributes like daily routine, leisure activities, coping mechanisms, perspectives about self, work and life. These attributes are different from the attributes used in the VALS framework. VALS describes clusters in terms of a diverse set of characteristics like views towards Government, nature of employment, trends followed, fun loving nature, family orientation and etc. This diversity makes segmentation complex. This study focuses on a few crucial attributes of the lifestyle and arrives at a relatively simple clustering, which facilitates better understanding. This clustering helps us to know the different ways in which individuals had coped with the pandemic. This also throws light on how their perspectives about self, work and life had changed. These attributes are vital to understand the psychographic characteristics of people. The information on daily routines and leisure activities also throw light on the way of life of respondents, which is crucial for designing and delivering policy measures to provide financial, mental and societal aids to various

clusters. The study also has implications for organizations as they can understand how the pandemic has changed people's perspective towards work. The pandemic had made work from home an important aspect of life and hence this clustering would also be vital for organizations to devise measures to engage their work force. The demographic configuration of the clusters are valuable inputs to health-care officials, marketers, Government officials, and other product and service providers. This study will serve as a prototype for future studies and can be replicated on large sample sizes across different countries to gain better understanding about lifestyles of people. This understanding would help us to equip ourselves with mechanisms to mitigate the effects of the pandemic on the life of people.

Conclusions

The study has addressed the lacuna in studies which had used lifestyle based clusteringfor market segmentation alone. It has demonstrated the use of traditional methods like factor analysis and cluster analysis to segment people based on their lifestyles. It has also used a different set of lifestyle attributes attune with the context of COVID-19, to segment people. The clusters were unique in terms of how they manage their daily routines, how they look at work and life, and how they spend their leisure time. These have important implications for Government and Health Care Organizations. The study also threw light on the perspectives people have about them, their work and their life. This study can be repeated on a larger sample size across different strata of society to have a big picture in terms of critical decision-making. A geographic database similar to PRIZM that can give census related data for the Indian context can also be used to arrive at better demographic characteristics of the

clusters. The clustering can also be done on several other attributes, based on the purpose of segmentation. The authors believe that this study will be a first step in terms of using cluster analysis for the segmentation of respondents with different attributes to attain different outcomes.

References

Aaker, A. D., Yashyoshi, F., & Fred, R. D. (1982). Is Life Style Research Limited in Its Usefulness to Japanese Advertisers, Journal of Advertising, 11, 31-36 and 48.

Ahmed, S.A., &Jackson, D. N. (1979). Psychographics and Public Policy Decisions: Welfare Assistance, Journal of Consumer Research, 5, 229-239.

Alexander, K. P. (2020). Adaptive methods for creating consumer lifestyle models. Applied Marketing Analytics, 5(3), 266 - 281

Anderson, W. T. Jr., & Golden, L. L. (1984). Lifestyle and Psychographics: a Critical Review and Recommendation, in NA - Advances in Consumer Research Volume 11, eds. Thomas C. Kinnear, Provo, UT: Association for Consumer Research, 405-411.

Ansbacher, H.L. (1967). Life Style: A Historical and Systematic Review, Journal of Individual Psychology, 23, 191-212.

Bell, W. (1958). Social Choice, Life Style, and Suburban Residence, in The Suburban Community, ed. William M. Dobriner, New York: G. P. Putnams Sons, 225-242.

Berkman, H.W., & Gilson, C.C. (1978). Consumer Behavior: Concepts and Strategies, Encino, CA: Dickenson Publishing Co.

Berry, E.J. (1983). Ads Enlist Ambiguity to Target varied Life styles, values, Ad Forum, 4, 10-11.

Blackwell & Roger, D. (1980). Successful Retailers of 80s will cater to specific Life style segments, Marketing News, 3, 3.

Burns, A.C., & Foxman, F. R. (1989). Some Determinants of the Use of Advertising by Married Working Women, Journal of Advertising Research, 29, 57-58

Chari, S. V., & Reddy, S. (2021). A study on the customer segmentation based on psychographics towards the Eco Label Awareness among the Indian Food and Grocery Retailing Customers. Turkish Journal of Computer & Mathematics Education. 12(3), 5509-5510

Child, D. (2006). The essentials of factor analysis. A&C Black.

Cooper, D. R., & Schindler, P. S. (2008). Business Research Methods, McGraw Hill Education.

Forrest E.J., & Blumberg. L. (1981). Mailing list Psychographics: An Inside Look for Prospects, Direct Marketing, 4, 458-61.

Glass, G. V., & Hopkins, K. D. (1984). Inferences about the difference between means. Statistical methods in education and psychology, 230-232.

Havighurst, R.J., & Feigenbaum, K. (1959). Leisure and Life Style, American Sociologist, 64, 396-404.

Hoontrakul, P., & Sahadev, S. (2008). Application of data mining techniques in the on-line travel industry. Marketing Intelligence & Planning, 26(1), 60-76.

Jain, R. (2020). Analysis of Indian Consumers Behaviour using Lifestyle Segmentation. Journal of Business Thought, 10, DOI: 10.18311/jbt/2019/23573

Jones, M.D. (1982). Properly Applied Psychographics Add Marketing Luster, Marketing News, 16 November 12, 10.

Kapur, S. (1995). Lifestyle on Two Wheels, Business World.

Kahle, L.R. & Kennedy, P. (1988), Using the list of values (lov) to understand consumers, Journal of Services Marketing, 2(4), 49-56. https://doi.org/10.1108/eb024742

Krishnan, J. (2011). Lifestyle – A Tool for Understanding Buyer Behavior, Int. Journal of Economics and Management, 5(1), 283 – 298

Lazer, W. (1963), Life Style Concepts and Marketing, in Toward Scientific Marketing, ed. Stephen

A. Greyser, Chicago, IL: American Marketing Association, 130-139.

Mitchell, A. (1983). Styles in the American Bullring, Across the Board, 20, 45-54.

Mundfrom, D. J., Shaw, D. G., & Ke, T. L. (2005). Minimum sample size recommendations for conducting factor analyses. International Journal of Testing, 5(2), 159-168

MyGov.in. (2020). COVID 19 STATEWISE STATUS. available at https://www.mygov.in/corona-data/covid19-state-wise-status/ (accessed 20 June 2020)

Ota, R., Verma, S., & Agarwal, S. (2020). A study on the influence of consumer lifestyles over the buying behavior towards FMCG products: Special Reference to Dabur. South Asian Journal of Marketing & Management Research. Vol. 10, Issue. 9.

Pessemier, E.A., & Tigert, D. J. (1966). Personality, Activity, and Attitude Predictors of Consumer Behavior, in New Ideas for Successful Marketing, eds. J. S. Wright and J. L. Goldstucker, Chicago, IL: American Marketing Association, pp 332-347.

Plummer, J. T. (1974). The Concept and Application of Life Style Segmentation, Journal of Marketing, Vol. 38, 33-37.

Rainwater, L., Coleman, R. P., & Handel, G. (1959). Workingmans Wife. Oceans Publications: New York.

Rao & Natarajan. (1996). The New Market Place, Business Today, 83-93.

Reynolds, F.D., Crask, M.R., & Wells, W. D. (1977). The Modern Feminine Life Style, Journal of Marketing, 38-45.

Richard, E.A., & Sturman, S. S. (1977). Lifestyle Segmentation in Apparel Marketing, Journal of Marketing, 43, 79-87.

Roy, S. & Goswami, P. (2007). Psychographics and Its Effect on Purchase Frequency–A Study on College Goers of Kolkota, India, Decision –Journal of Indian Institute of Management, Calcutta, 34, 63-93.

Shirali, A., & Singh, I. (1997). Status Symbols an A & M, ORG-MAR G Survey, Advertising and Marketing, 36-54.

Strategic Business Insights. (2021). About VALS. available at http://www.strategicbusinessinsights.com/vals/about.shtml (accessed 10 July 2021)

Verma, D. P. S. & Savita Hanspal.

(2000). Influence if lifestyles on Consumers Buying Behavior, Paradigm, 4(2), 52-65.

Voges, K. E., Pope, N. K., & Brown, M. R. (2002). Cluster analysis of marketing data examining on-line shopping orientation: A comparison of k-means and rough clustering approaches. In Heuristic and Optimization for Knowledge Discovery (pp. 208-225). IGI Global

Wells, W.D. (1975). Comment on the Meaning of LifeStyle, in Advances in Consumer Research, ed. Beverlee B. Anderson, Ann Arbor, MI: Association for Consumer Research, 498.

Wilson, C.C. (1966), Homemaker Living Patterns and Marketplace Behavior - A Psychometric Approach, in New Ideas for Successful Marketing, eds. J. S. Wright and J. L. Goldstucker. Chicago, IL: American Marketing Association. 305-347.