



THE NEW GREEN CONSUMER: IMPACT OF COVID-19 PANDEMIC ON GREEN CONSUMPTION BEHAVIOUR IN DAKSHINA KANNDA DISTRICT

¹Manjula Mallya M, ²Prof. U Arabi

¹Assistant Professor, ²Professor,
Department of Economics
Government First Grade College Haleyangadi

Abstract: COVID-19 pandemic has caused irreversible changes in market dynamics all over the world. In every market, consumers are the drivers of the market competitiveness, growth and economic integration. With economic instability, consumers are also experiencing a transformation in behaviour. This paper explores the consumer attitude and behaviour towards green products during COVID-19 crisis and in the subsequent lockdown period when the world stood still for many months. The present study applied a quantitative approach to investigate the underlying influences on consumers' green buying. This paper also seeks how a consumer reacts towards green products in the new normal. Research data were derived by using structured questionnaire from hundred customers and analysed using statistical tools. The findings identified factors that influenced buying decisions and the changes in buying patterns in the new normal period. In addition, the results revealed that the COVID-19 crisis increased consumers' green purchase intentions, whereas there is gap between intentions and behaviours as a result of issues of unavailability due to lock down restrictions, price etc.

Index Terms - Covid- 19 pandemic, green buying behaviour, green purchase intentions, lock down restrictions etc.

1. INTRODUCTION

The business, industries and marketers have been touched by recent internal and external changes affecting the very survival of these concerns. Being a part of market, a consumer has to adopt to these changes rigorously. Therefore, a solution was introduced by the world's ecologically concerned community to balance the economy and environment both, which is known as sustainable development. However, it has been too challenging. But marketers started to pursue the green path due to consumers' preference and choices for products. Consumer attitude and behaviour are undergoing a drastic change all over the world. The pandemic triggered by the spread of the coronavirus disease 2019 (COVID-19) has had a major impact on numerous collective behaviors, while also changing individuals' consumption choices. Thus, social researchers dealing with consumption patterns need to reflect on the changes of individual practices. The change in consumer behaviour during crisis times led authors' interest to explore consumer behaviour during COVID-19.

The present paper is a quantitative research project aiming at understanding the green consumption behaviour in COVID-19 era, aiming to test whether and how the coronavirus pandemic has changed that attitude.

The Evolution of Green Consumerism

In recent years, consumers have begun to understand that they are kings in the real sense and their purchasing decision can make change happen.

There is a paradigm shift in consumer's attitude. In olden days consumers used to boycott brands which were practicing unethical trade practices. In recent reports it has been found that majority of consumers show support for companies which are responsible by purchasing their products.

In today's virtual world where purchasing decisions are influenced by social media and advertising, the impact of consumer supports on a brand's reputation is immense.

The COVID-19 pandemic is another factor which drives increased consumer consciousness towards sustainability. The Pandemic has demonstrated that everyone on earth is interconnected. As a result, for consumers, the sustainability agenda has taken on new importance.

A recent study found that nine-tenths of respondents were of the opinion that they are more concerned about environmental issues in the wake of the Corona Virus Outbreak, and nearly 95% said they believed their personal actions could help reduce solid waste, tackle climate change, and protect biodiversity.

The new green consumer of today not only wants to know the origins of what they buy, or how it's packaged but also, they want to see real commitments by companies that they are doing everything they can to minimize their impact on the environment. Sustainability is no longer an add-on.

In a study conducted by AVIVA Insurance of UK a survey of 4000 UK adults showed that around 52% of people say they are 'more environmentally aware' than before. The insurance company found that people are not transforming their attitudes into action. They are taking 'considerably lesser steps towards going green'. Consumer's actions are less eco-friendly than before. The survey has shown as their green intentions are limited due to lockdown restrictions. There was serious fall in recycling rates. 73% people said they recycled in 2019. The rate fell to just 51% in 2021.

Older people 'lead the way' in green living

The 2019 and 2021 studies revealed a consistency; older people are more likely to adopt green lifestyle than younger people.

Those who are above 65 are more likely to adopt greener life style than their younger counter parts.

As Cohen (2020) points out the spread of COVID-19 virus is simultaneously a public health emergency and a real-time experiment in downsizing our consumer economy. In fact, in response to the spread of the virus, consumers have enacted practices modifying their consumption behavior and reorganizing their purchasing strategies according to the conditions of lockdown and social distancing imposed by the authorities.

According to several studies on the relationship between Covid 19 Pandemic and consumer behaviour, the first phase of the pandemic has been characterized by highly emotional and irrational behaviors leading consumers to empty the stores shelves by hoarding products such as food items or other convenience goods popularly called as "panic buying".

Covid -19 and Dakshina Kannada District

Statistics show that Dakshina Kannada is one of the worst affected districts of Karnataka, which is of the worst Covid hit states of India. In Dakshina Kannada district, restrictions on mobility and interpersonal contact remained in place during the first phase of the lockdown, which lasted from roughly late March to the beginning of June 2020. Due to the restrictive measures imposed by the government, consumers started to buy larger quantities of products, so as to decrease the frequency of purchases and avoid gatherings and long queues in front of supermarkets. However, over time, the easing of restrictions has led to a gradual return to normality, reducing the consumption of products such as vegetables and groceries which, at the height of the pandemic, had experienced a boom in sales.

Since the COVID-19 pandemic had a major impact on consumer behaviour, this paper aims to illustrate the results of a quantitative research project aimed at exploring sustainable consumption. Authors wanted to confirm whether and how the pandemic changed the respondent's attitude towards the most widespread forms of consumption, while analyzing their willingness to engage in more conscious and responsible choices of consumption.

2. Research Methodology: The questionnaires were sent to consumers from all the seven Taluks of Dakshina Kannada District through online mode. Based on 100 sample units the statistical analysis has been done to know the impact of COVID-19 on customers' attitude towards green products. To find out the answers of these questions the methodology is used as analytical and descriptive by conducting a survey and using the SPSS software to calculate the acceptance for green products by the consumers. Through an analysis of relevant published surveys during COVID-19 this article has analysed main changes in consumer behaviour caused by the COVID-19 and subsequent lockdown period.

3. Objectives of the Study

- i. To know the impact of Corona Pandemic on green life style through previously published surveys.
- iii. To understand the impact of Corona Virus Pandemic on green consumer behaviour
- iv. To know the relationship between education and willingness to pay more for eco-friendly products.
- v. To know the relationship between age and awareness of green products
- vi. To highlight significant differences in the environmental attitudes when analyzed by demographic variables.

4. Hypothesis

To verify the impact of Pandemic on consumer attitude towards green products the authors therefore formulated the following hypothesis:

H1: There exists a significant association between household monthly income of the individuals and their willingness to pay for environmentally friendly products.

H2: There exists a significant association between age group and purchase behavior of eco-friendly products.

5. Demographics

a. Age-wise classification of the respondents.

Table 5.1. Age-wise classification of the respondents.

Age Group	Frequency	Percent
19-29	26	26.0
30-39	44	44.0
40-49	27	27.0
50 and above	3	3.0
Total	100	100.0

Source: Field survey data

b. The sample by sex

Table 5.2 Sample by sex:

Gender	Frequency	Per cent
Female	74	74
Male	26	26
Total	100	100

Source: Field survey data

Out of the 100 respondents 74 per cent were female and 26 per cent were male.

c. Educational level

Table 5.3 Educational Qualifications of the respondents.

	Frequency	Percent
Graduation	21	21.0
High school	2	2.0
LLB(3yrs)	2	2.0
MPhil	2	2.0
PhD	1	1.0
Post-Graduation	70	70.0
PUC	2	2.0
Total	100	100.0

Source: Field survey data

Out of the hundred respondents 70 per cent were postgraduates. This shows the higher educational qualifications of the respondents.

d. Household Monthly Income

Table 5.4 Household Monthly Income

Income	Frequency	Percentage
Below 15000	22	21.8
15000-30000	35	34.7
30000-50000	19	18.8
50000-75000	9	8.9
75000+	16	15.8
Total	100	100.0

Source: Field survey data

Table 5.4 shows the distribution of the respondents based on their household monthly income. The average household monthly income of 34.7 percent of the respondents is in the income- group of 15 to 30 thousand and 8.9 per cent earn an average emolument between 50,000 to 75,000. The respondents whose monthly income is above-75,000 account for 15.8 per cent. 21.8 8 per cent of the respondents stated that their total income is below 15,000.

e. Marital Status

Table 5.5. Marital status of the respondents

	Frequency	Percent
Married	78	78.0
Unmarried	22	22.0
Total	100	100.0

Source: Field survey data

Out of the hundred respondents 78 per cent were married and 22 per cent are not married.

6. Key Findings

This section will present the most significant findings emerged from the research, aiming to highlight how the COVID-19 outbreak has affected the consumption habits of the selected sample.

6.1 Consumers' awareness on environmental issues.

In order to understand the level of consumers awareness on major environmental issues such as global warming, pollution and climate change the respondents were asked whether they know about these issues.

Table 6.1. Consumers' awareness on environmental issues.

Are you aware of the environmental issues such as global warming and climate change?	Frequency
YES	100
No	0

Source: Field Survey Data

The data from the study revealed a high level of environmental awareness on the part of respondents.

6.2 Consumer's awareness on eco-friendly projects.

Recently, consumers have increasingly shown their concerns and responsibility towards environmental and sustainable issues, which are found to have a positive influence on green purchase intention. Particularly, environmental consciousness is identified as a very important motivator for environmentally friendly products consumption, which is perceived as one pro-environmental and sustainable behaviour.

Table 6.2 Consumer's awareness on eco-friendly projects.

Do you know about green product? (Eco friendly product)	Frequency
YES	100
No	0

Source: Field survey data

All the respondents were aware of green products. This study reveals that green products awareness as the critical factor, which affects consumers green purchasing decision.

6.3 Consumer's preference for recyclable product over conventional product?

Sustainability is becoming a big trend in the packaged goods and fashion industry as environmental concerns are increasingly top of mind for consumers. Authors wanted to know the preference of consumers for recyclable product.

Table 6.3 Consumer's preference for recyclable product over conventional product.

Will you prefer recyclable product over conventional product?	Frequency
YES	96
No	2
May be	2

Source: Field survey data

Majority of the respondents (96%) of the respondents answered Yes to the question Will you prefer recyclable product over conventional product. This shows the readiness of the consumers to use recyclable product over conventional product.

6.4 Health consideration

Eco-friendly, all natural products ensure safety from all dangerous chemicals, and allows families to avoid risky additives that can cause any of these issues. Using eco-friendly products improves quality of life in terms of mortality, age, diseases, and illnesses. They ensure the safety of families and the planet.

Table 6.4 Consumer's preference for recyclable product over conventional product.

Do you keep in mind the health aspect while purchasing a product?	Frequency
YES	94
No	2
May be	4

Source: Field survey data

Many participants (94%) reported that health concerns were the most important reason for generating their green purchase intentions. Moreover, they felt that the health benefits offered by green products were greater than its cost, thus they were more likely to buy it.

6.5 Paying premium for eco-friendly products

Higher prices are reported to be one main barrier for consumers to transform their intentions into the final purchasing of environmentally sustainable products, because most of the consumers perceive the price as premium and addressed to a niche segment. Consumers are usually sensitive towards price, and they are willing to buy eco-friendly food products, but not at higher prices. Even for regular buyers of eco-friendly food products, the most important reason for not purchasing these products was high pricing issues. In contrast to the above statements 96 participants in our investigation reported that they are ready to pay higher price for green products and it is not a cause for concern.

Table 6.5. Paying premium for eco-friendly products.

Are you ready to spend more for eco-friendly products in this new normal?	Frequency
YES	96
No	4

Source: Field survey data

Even for regular buyers of eco-friendly food products, the most important reason for not purchasing these products was high pricing issues. In contrast to the above statements 96 participants in our investigation reported that they are ready to pay higher price for green products and it is not a cause for concern.

6.6 Impact of Corona Virus Pandemic on consumer awareness of green lifestyle.

The impact of the COVID-19 crisis on consumers' awareness of green products was investigated in the study. In general, most of the participants perceived that the pandemic has increased their awareness on green products.

Table 6.6 Perceived impacts of COVID-19 on participants' awareness of green products.

Do you think corona virus pandemic has increased consumer awareness on green life style?	Frequency
YES	79
No	6
May Be	15

Source: Field survey data

To a question on impact of Corona Virus Pandemic on Consumer Awareness of green products around 79 per cent respondents agreed that Corona Virus pandemic has raised consumer awareness whereas 15 per cent were not sure about the impact of pandemic on consumer awareness. Around 6 per cent were of the opinion that pandemic situation has not affected consumer awareness of green products.

6.7 Factors affecting purchasing decisions of the consumers.

The factors that influence purchasing decisions of the consumers are many and complex. For example, men and women express very different needs and behaviours regarding personal-care products. A consumer with a lot of prior purchasing experience in a product category might approach the decision differently from someone with no experience. As marketers of green products gain a better understanding of these influencing factors, they can draw more accurate conclusions about green consumer behavior.

Table 6.7 Factors affecting purchasing decisions of the consumers.

Factors	Frequency	Percent
Brand image	3	3.0
Eco friendly components	41	41.0
Price	6	6.0
Quality	50	50.0
Total	100	100.0

Source: Field survey data

When respondents were asked what factors influence their purchasing decisions 50 per cent of them revealed quality of the products as the major influencer in buying decisions. Whereas 41 per cent answered eco-friendly component of the product is the major determinant. Price of the product is the influencing g factor according to 6 per cent and only 3 per cent gave importance to brand image as the major determinant of the purchase decisions. Most of the interviewees preferred high-quality products rather than compromising quality. Therefore, quality consciousness was also one salient motivator for the participants when considering their green product choice.

6.8 Purchase frequency of the clothing product/service

Consumers bought far fewer clothes last year as lockdowns meant people had less opportunity to socialise and go out.

According to official statistics clothes sales slumped 25%, the biggest drop in 23 years when records began. And despite a pick-up in December, clothing sales remain lower than before the pandemic struck.

"With few opportunities to socialise during lockdown and many people working from home, the clothing sector has been one of the "worst-affected by restrictions", according to BBC news 22 January.

Table 6.8. Purchase frequency of the clothing product/service

	Frequency	Percent
Decreased	87	87.0
Remained unchanged	13	13.0
Total	100	100.0

Source: Field survey data

Corona Pandemic has caused the informants' changes in purchasing specific product categories in Dakshina Kannada district. There is a sharp decrease in clothing purchases. Around 87 per cent of the consumers opined that they have decreased the purchase of clothing/product or service.

6.9 Purchase frequency of entertainment product/service categories

According to the report titled 'Covid-19: A Game Changer for Media and Purchasing', globally, those that provide entertainment, have seen the largest increases in consumption. The circumstances surrounding Covid-19 and the resulting shifts in consumer values, attitudes and behaviour have driven a significant change in the patterns of media consumption across the globe. With people being confined to their homes, the big winners are the media channels that are consumed in the home, particularly those that provide entertainment.

Table 6.9 Purchase frequency of the clothing product/service

	Frequency	Percent
	2	2.0
Decreased	43	43.0
Increased	30	30.0
Remained unchanged	25	25.0
Total	100	100.0

Source: Field survey data

COVID-19 outbreak and subsequent lockdown has led to a sharp increase in purchases for home entertainment products such as books, films, or TV series. 43 per cent of the respondents reported that their purchase of books, films, online games etc have decreased and 30 per cent reported that their consumption of these have increased after lockdown whereas 25 per cent said it remain unchanged even during lockdown.

Since consumption is contextual, new regulations and unexpected events such as a pandemic can affect consumers' habits. Indeed, the responses of the analyzed sample revealed, for example, a decrease in the number of visits to the supermarket, a change that involved almost 88% of respondents, probably as a result of both the fear of contagion and the rules imposed by the Government.

Table 6.10 Purchase frequency at the super market

	Frequency	Percent
No	12	12.0
Yes	88	88.0
Total	100	100.0

Source: Field survey data

6.11 Importance of environmentally friendly products in their buying decisions.

Table 6.11: Importance of environmentally friendly products in their buying decisions.

	Frequency	Percent
2	8	8.0
3	44	44.0
4	48	48.0
Total	100	100.0

Source: Field survey data

Respondents were asked to give their opinion on importance of environmentally friendly products in their buying decisions. They were given a scale of 1 to 4. 1 represents Not at all important 4 Represents very important. Out of the 100 respondents a majority 48 per cent opined that when they buy a product, they always check the environmentally friendliness of the products.

6.12 Corona Pandemic impact on the green life style of the people

Table 6.12: Corona Pandemic impact on the green life style of the people

	Frequency	Percent
No	74	74.0
Yes	26	26.0
Total	100	100.0

Source: Field survey data

To a question on whether Corona Pandemic has turned people less green than before a vast majority have answered that Pandemic has not changed people's attitude towards green products. Whereas 26 per cent agreed that people have turned less green than before.

6.13 Respondents opinion about the transformation in consumers' attitude.

The pandemic has impacted virtually all aspects of our lives. Some developments have been sudden and involuntary, such as social distancing, wearing masks, stopping public transport, restrictions on travel, etc. For others, it has merely accelerated the adoption of behaviours already gaining traction, such as the digitalisation of shopping, banking and more. Will these changes in behaviour last after COVID-19 subsides, or will consumers' old habits die hard?

Table 6.13: Respondents opinion about the transformation in consumers' attitude.

	Frequency	Percent
	2	2.0
No	10	10.0
Yes	88	88.0
Total	100	100.0

Source: Field survey data

A majority of the respondents (88%) believed that this transformation is temporary and people will go back to their green lifestyle gradually.

6.14 Consumers expectations from marketers/brands in the new normal period.

The Pandemic has changed the entire ball game for brands and the marketing industry at large. Consumer expectations have shifted and so has the ways of reaching out to them. While the new normal welcomed a whole new lot of opportunities for some industries, a lot of businesses struggled to survive and retain their good old customers. As consumers are more attracted to brands which promise health and hygiene, their demand for natural, organic and fresh products has accelerated.

While most of the marketers are reorganizing themselves in this new normal period, the authors have made an attempt to analyse consumers expectations from marketer/brands in the new normal period.

Consumers' opinion was divided. Around 39 per cent of them said they expect traders to reduce the negative effect on environment and 34 per cent wanted these industries to care for health of the employees. Whereas 21 per cent expected opportunities for safe and hygienic instore shopping.

Table 6.14 Consumers expectations from marketers/brands in the new normal period.

	Frequency	Percent
Care for health of employees	34	34.0
Contribute to helping low-paid workers in factories	6	6.0
Enable safe and hygienic in-store shopping	21	21.0
Reduce negative impact on environment	39	39.0
Total	100	100.0

Source: Field survey data

6.15 Association between household monthly income and consumers' willingness to pay for eco-friendly products.

Table 6.15 Results of Chi – Square Test

			Household Monthly Income (in Rs.)					Total
			Below 15,000	15,000-30,000	30,000-50,000	50,000-75,000	75,000+	
Willingness to pay for Environmentally Friendly Products	No	OC	1	0	1	1	0	3
		EC	0.7	1.0	0.6	0.3	0.5	3.0
	Yes	OC	21	35	18	8	16	98
		EC	21.3	34.0	18.4	8.7	15.5	98.0
Total		OC	22	35	19	9	16	101
		EC	22.0	35.0	19.0	9.0	15.0	100.0
χ^2 value = 4.759					p value = 0.313			

Source: Field Survey Data

Note: Here, OC and EC stand for observed count and expected count respectively. The Table shows that there is no significant association between income of the respondent and their willingness to pay. This is because the resulting p value is greater than 0.05 (p value=0.313). Therefore, the hypothesis there exists a significant association between household monthly income of the individuals and their willingness to pay for environmentally friendly products (H1) is rejected.

6.16 Association between age group and purchase behaviour of eco-friendly product

We also test for difference in means of all the factors that we used to examine the environmentally friendly buying behaviour in terms of age group. To carry out this analysis we first put our data to check whether they follow normal distribution using the Shapiro-Wilk test. The test revealed non-normality situation in all the cases and hence, we rely on the non- parametric version of ANOVA, that is, the Kruskal-Wallis test for the purpose. The test statistic reveals that the response of the different age groups varies significantly only in case of their purchase behaviour relating to boycotting tuna, ivory and leather products since the p values (8 percent) is less than the significance level of 10%. This is an indication that most of the respondents do not pay more attention on the purchase (avoidance of purchase) of eco-friendly products (non-friendly products). Therefore, the hypothesis there exists a significant association between age group and purchase behavior of eco friendly products (H2) is rejected.

Table 6.16 Results of One-way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.044	1	.044	.062	.803
Within Groups	69.046	99	.697		
Total	69.089	100			

Source: Survey Data

7. Findings and Suggestions

This study showed changes in attitudes during the pandemic that people have adopted 'survival' mode than 'green' mode, though how much of transformation experienced during the crisis will sustain is a question.

As a result, we found that the independent factors as environmental knowledge, environmental concern, perceived knowledge, organizational green image and social influence always reflect in the mind of consumers as green perception. These factors will also help in making a world greener and more harmless with sustainable development.

According to our study, respondents' frequency of purchase of certain products such as books and TV series, remain the same while reducing the frequency of purchase of others, such as fashion and clothing items. As for sustainability, our results highlight the commitment of our sample of young, educated women toward a more responsible attitude in consumption.

The brands which promise to make the world a better place find customer loyalty and growing sales. Companies are improving on sustainability and environmental issues. "Green washing" (using eco-friendly cliché to avoid actually doing anything eco-friendly) is becoming an increasingly bigger problem. The ICPEN has revealed that as many as 40% of environmental claims found online could be misleading consumers into making purchases. New research says that people are more environmentally aware since the onset of Covid-19 pandemic but also shows that this is not translating into green buying behaviours. Green ambitions are still strong among people. But the steps taken to support green living have fallen considerably. This may be a result of practical limitations as the closure of shops and services may have hampered their environmental efforts. We can hope that once people exit 'survival' mode their green behaviours will be boosted again. Specifically, these findings reported that health awareness and environmental consciousness were identified as major drivers for generating consumers' green buying intentions. High prices of eco-friendly products, unavailability issues, and limited knowledge were factors triggering the gap between green buying intentions and behaviours. These findings will help stakeholders build future policy and suitable strategies to better promote eco-friendly products in a larger scale. Being eco-friendly is important to consumers, even among those we might not expect. It's a promising sign. Older generations, just like their younger counterparts said they would buy high-price, eco-friendly products. Even less educated people or those who describe themselves as price-conscious will still prefer to be eco-friendly than not. While these are challenges for all industries to consider, clarity should always be a priority and consumers are alert about the brands that ignore this. Eco-consciousness has become so imbibed in our culture; we feel confident enough to tackle climate change for good. It can't be done alone, and while it's important for brands to do their part, it's more important they commit to it. It would also be interesting to explore the correlates of this forced consumer behaviour with other variables such as learning from crisis, changing needs, personality, nationality, culture, new market segment and age to develop new models of consumer behaviour.

References

- [1] Elangovan, A. (2006) Vol.2 (7), July (2013)
- [2] Exploring Influential Factors Including COVID-19 on Green Food Purchase Intentions and the Intention–Behaviour Gap: A Qualitative Study among Consumers in a Chinese Context
- [3] Basu, S. 1997. The Investment Performance of Common Stocks in Relation to their Price to Earnings Ratio: A Test of the Efficient Markets Hypothesis. *Journal of Finance*, 33(3): 663-682.
- [4] Impact Of Covid-19 Pandemic: Consumer Buying Behaviour Towards Food Items Dr. Sundarameenasenthil, M. Mahalakshmi, M. Malathy, P. Deepa Turkish Journal of Computer and Mathematics Education
- [5] Impact of covid 19 on Customers Attitude towards Green product with special reference to Chennai city Ms. R Vaishali, Dr. M. Hemanathan
- [6] https://economictimes.indiatimes.com/magazines/panache/majority-indians-purchasing-based-on-social-responsibility-inclusiveness-and-environmental-impact/articleshow/77299600.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- [7] Gupta, S. & Ogden, T.D., (2006) 19 Oct 5-6, 2006, 199 - 205. 15.
- Ottman, J.A., Stafford, E.R. & Hartman, C.L. (2006), "Avoiding Green Marketing Myopia", *Environment*, Vol. 48, No. 5, 22 – 36.
- [8] Dubey, P. (2007) Volume 160, February 2015, Pages 120-132.