

Insights into consumer perceptions towards sustainability and well-being during COVID-19 pandemic

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Abstract

This study aims to examine the behaviour of urban and non-urban consumers towards sustainable household care products amid the COVID-19 pandemic. Qualitative interviews of 248 Filipino respondents was followed by a quantitative analysis in this mixed-methods research. The findings suggest that the value attitude towards sustainability and well-being efforts is positively significant for urban consumers' sustainable behaviour—highlighting the consumer shift towards more well-being and sustainability-oriented predispositions. The study offers valuable empirical data in understanding the sustainable behaviour of urban and non-urban consumers towards household care products during a pandemic, providing a strong foundation in the decision-making of relevant stakeholders.

Key Words: Sustainable Consumer Behaviour, Household Care, COVID-19, Filipino, mixed methods

Introduction

The pandemic caused an immediate rise in the sales of health-related products. Consumers were compelled to stockpile essential items due to the uncertainty regarding the availability of products, such as household care products. In the Philippines, the household care segment has shown significant growth annually and is forecasted to have a compound annual growth rate of 4.5% from 2020 to 2025 (Statista, 2020).

According to Euromonitor International (2020), Filipinos' awareness when purchasing everyday products has increased in recent years, wherein sustainability is becoming an important concern. As such, the key difference between a sustainable and conventional household care product is that a sustainable household care product is natural, which does not contain ingredients that negatively impact the environment or health. However, many Filipinos are constrained to buy organic products due to their price, unavailability, and lack of knowledge (Statista, 2019).

There are a limited number of studies which compare the sustainable consumer behaviour of urban and non-urban consumers in a Philippine setting, especially in the context of the COVID-19 pandemic. Studies that observe the sustainable consumer behaviour towards household care products, one of the top-selling categories during the pandemic are also limited. Hence, this study aims to investigate the difference between urban and non-urban consumers in terms of their sustainable consumer behaviour during the COVID-19 pandemic.

Statement of problem

There are a greater number of sustainable products in the local market today, because of the positive impact they bring to the environment and society. Sustainable and environmentally friendly alternatives for conventionally manufactured products, such as household care cleaning products are available. The COVID-19 pandemic has caused a shift in attitude wherein consumers are now willing to pay more for products that contribute positively to the environment and the society, protect their family against germs by killing germs naturally and effectively, and are unique from other options (Nielsen, 2015; Nielsen, 2020). However, in developing countries like the Philippines, there is a significant gap between the lifestyle of urban and non-urban areas (Hori, Kondo, Nogata, & Ben, 2013). Urban areas are more likely to adopt the latest trends, whereas non-urban areas remain stable with their traditional lifestyles.

The researchers aim to provide insights on how the household care industry can effectively cater to their consumers, especially in a pandemic setting. Therefore, two research questions arise – (1) what are the consumption values that influence urban and non-urban sustainable consumer behaviour towards the household cleaning industry in a pandemic? (2) How did sustainable consumer behaviour in both urban and non-urban areas change during the pandemic, if at all?

The aim of this study is to 1) To identify if there is a significant relationship between the independent variables (price value, intrinsic attributes, risk perception, perceived consumer effectiveness, attitude toward sustainable efforts, social norms, accessibility, and epistemic value) and dependent variable (sustainable consumer behaviour) of urban and non-urban consumers towards household care products in a pandemic 2) To provide significant findings that will serve as a foundation for the decision-making of marketers, governments, academic institutions, and aspiring entrepreneurs in relation to sustainable consumer behaviour for household care products of urban and non-urban consumers.

The finding of this study will be useful for:-(1) *marketers* - the results of the study can guide managers in making decisions when it comes to the marketing of their products, (2) *governments* - the results of the study can contribute to encouraging policymakers to facilitate and advance the sustainable goals of businesses, (3) *academic institutions* - the study can serve as a reference for faculty and students interested in gaining insight about sustainable consumer behaviour towards the household care industry in the context of a pandemic in the urban and non-urban areas, (4) *aspiring entrepreneurs* - the study can serve as a reference for aspiring entrepreneurs to understand where they can focus their marketing efforts.

Literature Review and Theoretical Framework

COVID-19 Pandemic

With the rapid spread of the COVID-19 virus, the world was unprepared for the pandemic (World Health Organization, 2020). In the Philippines, around 90,000 businesses were forced to close down while some were forced to lay off their employees (Ramos, 2020). Before the pandemic, only 2% of Filipinos made online purchases. However, due to the pandemic, 90% of mobility was curtailed in April, causing a sudden shift from retail stores to e-commerce

(Sanchez, 2020b). A survey (Sanchez, 2020b) shows that online purchases increased to 44%, with contributions from the age group 35 to 44. According to the Associate Director of Shopee Philippines, there was a nationwide increase in the buying of personal hygiene products and necessities on their online platform (Villanueva, 2020). The country manager of Visa, Dan Wolbert, also noticed how COVID-19 caused the sudden shift to online platforms as over 77% of Filipino consumers consider online retail stores a necessity.

Household Care Industry

According to Euromonitor International (2020), the household care industry in the Philippines is expected to generate substantial sales over time due to the continuous growth of the population and rising incomes. The household care industry comprises eight categories: air care, bleach, dishwashing, insecticides, laundry care, polishes, surface care, and toilet care (Euromonitor International, 2020). According to previous research on household care products (Nielsen, 2020), the quality and efficacy are the main factors that drive the sales of these products, especially due to the risks associated with the pandemic. In comparison, consumer preferences before the COVID-19 pandemic were for products that advocated natural and sustainable qualities (Nielsen, 2020). In response to the lockdown, several Filipino consumers panicked and hoarded essential goods - 80% of the consumers bought medical supplies and 64% bought hygiene paper products in bulk (Sanchez, 2020a).

Urban and Non-Urban Demographics

The National Capital Region is the capital of the Philippines and is considered entirely urban. The National Statistics Office (Philippine Statistics Authority, 2003) defines urban areas as all settlements that have the following: population size of at least 1,000 inhabitants, a population density of at least 500 individuals per square kilometer, essential infrastructure, and customary non-agricultural occupations. The NCR of the Philippines reported the highest number of COVID-19 cases, with the most significant number of positive cases in the country (Co, 2020). The pandemic and the precautionary measures enforced in its wake caused a change in the urban consumption behaviour (Liu, Pan, & Yin, 2020). The Household Final Consumption Expenditure in Philippines increased by 4.25% from the P1.37 trillion from 2017, making them the biggest spenders and consumers in the country (Ordinario, 2019). However, there was a

decrease in consumption during the pandemic compared to pre-pandemic levels as urban households have a high level of dependency on consumer goods (Liu et al., 2020).

On the other hand, CALABARZON is known as Region IV-A in the Philippines. The region comprises five provinces, namely - Cavite, Laguna, Batangas, Rizal, and Quezon. Despite a higher population of over 14 million, and a higher level of urbanization at 66.4% compared to the NCR, Region IV-A is not entirely an urban region. Non-urban areas are the settlements outside urban areas or cities, and are considered smaller municipalities (Idris et al., 2007). Based on the number of cases in the Philippines, CALABARZON ranked next to the NCR, with the most significant number of positive COVID-19 cases (Co, 2020). However, consumption was less affected by the pandemic in the rural households, compared with urban households (Liu et al., 2020). While CALABARZON is the next largest consumer of goods and services after the NCR (Ordinario, 2019), in general, rural consumers engage in agriculture, thus, satisfying their needs, and placing less reliance on consumer goods than urban consumers (Liu et al., 2020).

Sustainable Consumer Behaviour

According to Trudel (2018), sustainable consumer behaviour is “behaviour that attempts to satisfy present needs while benefiting or limiting environmental impact” (p. 85). Moreover, it encompasses situational factors, such as personal and behavioural factors at the individual and household levels (Lee, 2014; Milfont & Markowitz, 2016). Thus, it is considered an intertemporal process where benefits are realized in the future rather than in the present (Trudel, 2018). Several studies have indicated that the COVID-19 pandemic has caused the development of sustainability consciousness and awareness in people, marking the pandemic as a beginning of the transition to sustainable consumption (Severo, de Guimarães, & Dellarmelin, 2020). A broader view of sustainable consumer behaviour should therefore be investigated by exploring its antecedents or predictors. The predictors of sustainable behaviour can be classified into two distinct categories — individual-related and context-related or situational factors (Kostadinova, 2016).

Research Gap

Prior studies have focused on sustainable consumer behaviour, mainly green purchasing, through various theories such as the theory of planned behaviour (Ajzen, 1991) and the theory of consumption values (Sheth, Newman, & Gross, 1991). Since sustainable consumer behaviour is observed from a multilevel perspective, different factors and variables have been utilized to test it. However, there are limited studies that have covered sustainable consumer behaviour towards household care products in a Philippine setting. Furthermore, a pandemic of such proportions has not occurred in a long time, therefore, not many studies delved into sustainable behaviour amidst a pandemic and none compared sustainable consumer behaviour in different regions during a pandemic.

Theoretical Framework, Research Design, and Methodology

Theory of Consumption Values

The paper utilizes the theory of consumption values (Sheth et al., 1991) as the foundation of the study. The theory was developed by Sheth et al. (1991) to analyze the consumption behaviour of consumers through five independent values. It states that a decision made by a consumer is influenced by each of these values, albeit in different proportions. These five values are: (1) ***epistemic value*** or the perceived benefits a consumer obtains from a product's ability to satisfy curiosity and knowledge, (2) ***emotional value*** or perceived benefits a consumer obtains from the product's ability to arouse emotions, (3) ***social value*** or perceived benefits a consumer obtains from how the product associates with people, (4) ***functional value*** or perceived benefits a consumer obtains from a product's physical or functional attributes, and (5) ***conditional value*** or perceived benefit a consumer obtains from a choice in a set of conditions. The application of this theory is significant to this study because it describes how consumers make choices concerning their consumption (Sheth et al., 1991).

This theory enables researchers to predict and describe a consumer's consumption behaviour as it provides an understanding of the consumers' choices (Sheth et al., 1991). These values are independent, thereby establishing their own influence on a consumer's choice. Although people may want to utilize all five values, it is not necessarily practical as consumers tend to make decisions based on a trade-off. However, this does not mean that it is impossible to have all five values positively influence a consumer's decision (Sheth et al., 1991).

Price

Price is based on how a consumer perceives the value for money derived from using a product, based on perceived costs (Sweeney & Soutar, 2001). A study conducted by Komaladewi and Indika (2017) found that price is a salient factor influencing purchase decisions and buying behaviour. Moreover, their study suggests that suitable pricing increases the willingness of consumers to purchase products. During a financial crisis, price is the most significantly influential factor that affects a consumer decisions. This was corroborated by a study by Wright (2020) which found that consumers became more price-sensitive due to the recession brought about by the COVID-19 pandemic. This led us to formulate the following hypothesis.

H1: Price is positively related to sustainable consumer behaviour towards household care products during COVID-19.

Intrinsic Attributes

Intrinsic attributes refer to the physical composition of a product that cannot be changed without modifying the nature of the product itself. It is measured as the product is consumed, such as its composition and design (Jiménez-Guerrero, Gázquez-Abad, Huertas-García, & Mondéjar-Jiménez, 2012). A 2014 study by Banerjee, Mehta, and Bagchi states that intrinsic attributes significantly affect buying decisions as consumers rely heavily on these attributes to predict product quality. However, an individual's internal process in discerning intrinsic aspects are subjective, which makes it difficult to determine. Moreover, due to COVID-19, product quality assumed dominance as the deciding factor when purchasing (Parson & Vancic, 2020). Therefore, a second hypothesis was formulated as follows:

H2: Intrinsic attributes of a product are positively related to consumer behaviour towards household care products during COVID-19.

Risk Perception

Risk pertains to the possibility of consumers' subjective feelings of losses, such as contracting a disease and its severity, when purchasing a sustainable product (Bauer, 1960). Risk perception is a critical determinant in forming perceptions of value, particularly with emotional

benefits and sacrifices (Scridon, 2019). Previous studies found that risk perception had a direct negative influence on consumers' purchase behaviour (Li et al., 2020). In line with this, the COVID-19 pandemic has caused consumers to start seeking more risk-free products, particularly food and cleaning products (Legget, 2020). This shows that that health concerns and perceived risks may impact consumers' intention to purchase sustainable household products. This led to the third hypothesis described below:

H3: Risk perception is positively related to sustainable consumer behaviour towards household care products during COVID-19.

Perceived Consumer Effectiveness

Perceived consumer effectiveness measures an individual's judgment with regards to their ability to affect environmental resource problems (Roberts, 1996). According to Kim (2011), the level of perceived consumer effectiveness is a significant component in drawing the confidence of green consumers and in affecting an individual's willingness to engage in environmental behaviours. Based on a study by Kang, Liu, and Kim (2013), perceived consumer effectiveness was found to significantly influence the socially responsible behaviours of consumers. Furthermore, because of COVID-19, consumers want to ensure that the products they purchase are efficient and safe for both their families and the environment (Novozymes, 2020). The next hypothesis is as follows:

H4: Perceived consumer effectiveness is positively related to sustainable consumer behaviour in the form of purchase of household care products during COVID-19.

Attitude Towards Sustainability and Well-being Efforts

Attitude towards sustainable efforts refers to an individual's feeling of moral obligation or response to the conservation of the environment and the protection of people (Hume, 2010). According to Allport (1935), attitude is an essential factor of an individual's predisposition to respond and has a positive relationship to behaviours of interest. Ali, Khan, Ahmed, and Shahzad (2011) find that attitude towards green products is significantly correlated to a consumer's green purchasing intention. Moreover, concerns about sustainability are an influence consumer

behaviour in terms of consuming more sustainable products (Capgemini, 2020). Therefore, a fifth hypothesis was formulated as follows:

H5: Attitude towards sustainable efforts has a positive relationship with sustainable consumer behaviour in the form of purchase of household care products during COVID-19.

Social Norms

Social norms are shared understandings about actions that are obligatory, permitted, or forbidden (Ostrom, 2000). They are customary rules that govern the expected behaviour of individuals in groups and societies (Bicchieri, Muldoon, & Sontuoso, 2018). Social norms strongly influence the sustainable buying behaviours of consumers (Salazar, Oerlemans, & Van Stroe-Biezen, 2012). Moreover, individuals from social groups, particularly peers who share a close relationship, have a stronger influence on the consumers' decision-making process. When people are exposed to risk events, like COVID-19, they are more likely to imitate the behaviour of other people (Xie, Stone, Zheng, & Zhang, 2011). The next hypothesis states that:

H6: Social norms are positively related to sustainable consumer behaviour in the form of purchase of household care products during COVID-19.

Accessibility

Accessibility is the convenience of store access in terms of ease, speed, and simplicity, as perceived by consumers (Teller & Reutterer, 2008). It refers to the availability of products, such that consumers find it easy and convenient to purchase such products. The 2019 study by Qasim, Yan, Guo, Saeed, and Ashraf reveals that conditional value, because of the easy availability of products, is the most significant factor that affects behavioural intentions. Due to business closures and limited accessibility caused by the pandemic, consumers had begun to embrace e-commerce for grocery shopping. In fact, e-commerce became a necessity because of its accessibility and convenience (Accenture, 2020). This led to the formulation of the seventh hypothesis, described below:

H7: Accessibility does influence sustainable consumer behaviour towards household care products during COVID-19.

Epistemic Value

Epistemic value is described as the perceived utility obtained from a product's capability to prompt curiosity, provide novelty, and satisfy a desire for knowledge (Sheth et al., 1991). Past research studies suggest that epistemic value positively influences sustainable consumer behaviour (Wang, Lin, & Li, 2018). Consumers opt for sustainable products because of their eagerness to gain knowledge about the product (Lin & Huang, 2012). In a pandemic setting, epistemic value may be imbued when consumers shift to alternatives that are perceived to be better in addressing their health concerns (Sheth et al., 1991). The eighth and final hypothesis was derived as follows:

H8: Epistemic value does influence sustainable consumer behaviour towards household care products during COVID-19.

Methodology

The researchers utilized both quantitative surveys and qualitative interviews for the research designs (Creswell, 2014). For the quantitative measure, a survey questionnaire was administered, using a Likert scale. The data underwent multiple linear regression runs separately for both urban and non-urban segments for an analysis of the effect of independent variables on the dependent variable. For the qualitative research design, the researchers held interviews via video call with individuals from both urban and non-urban areas. The respondents were asked to provide the researchers in-depth understanding of their answers to the quantitative survey. Afterwards, the qualitative data was summarized with key themes highlighted related to the variables in the conceptual framework. To improve the qualitative study's reliability and convergent validity, the research group conducted a series of analysis sessions until group consensus was achieved. Lastly, the quantitative and qualitative data of the urban and non-urban segments were integrated and synthesized to provide in-depth answers to the research questions.

Data Results and Analysis

Data was obtained from 248 respondents that fit the criteria of the study and answered the survey distributed through Google Forms. Out of the total respondents, 136 reside in urban areas or the National Capital Region, while the remaining 112 reside in non-urban areas or CALABARZON. All urban respondents were born between 1963 to 2001, while all non-urban respondents were born between 1958 and 2001. The majority of the respondents for both areas are female. Lastly, over 51% of the respondents from both areas are the decision-makers in purchasing household care products in their households. The researchers conducted rigorous checking of assumptions for regression diagnostics through various tests to ensure conclusions can be drawn from the study. The tests conducted determined the variables to be reliable, multivariate normal, not multicollinear, homoscedastic, and not misspecified. Therefore, the researchers deemed all variables as acceptable and fit to run for regression. Table 1 illustrates the results of urban and non-urban's linear regression conducted on the adapted determinants of the theory of consumption values.

Table 1
Summarized Regressions Results of Adapted Determinants for theory of consumption values for Urban and Non-Urban Consumers

Model and Variables	Standard Error (t-statistic)	p-value	Standardized Estimate	95% Confidence Interval		VIF	R ²	Adjusted R ²	F-statistic	Model p-value
				Lower	Upper					
Model 1: Urban: Adapted determinants for theory of consumption values							0.344	0.302	F (8,127) 8.31	<.001
Price	0.1307 (1.766)	0.080	0.1525	-0.0279	0.489	1.44				
Intrinsic Attributes	0.0884 (0.381)	0.704	0.0298	-0.1413	0.209	1.19				
Risk Perception	0.0704 (1.468)	0.145	0.1254	-0.0359	0.242	1.41				
Perceived Consumer Effectiveness	0.1288 (0.621)	0.536	0.0605	-0.1749	0.335	1.84				
Attitude Towards Sustainable Efforts	0.1098 (2.763)	0.007	0.2262	0.0861	0.521	1.30				
Social Norms	0.1281 (0.748)	0.456	0.0792	-0.1576	0.349	2.16				
Accessibility	0.0840 (0.619)	0.536	0.0475	-0.1142	0.218	1.14				
Epistemic Value	0.1023 (1.852)	0.066	0.1815	-0.013	0.392	1.86				
Model 2: Non-urban: Adapted determinants for theory of consumption values							0.398	0.352	F(8,103) 8.52	<.001
Price	0.1741 (-0.789)	0.432	-0.0775	-0.4827	0.2079	1.65				
Intrinsic Attributes	0.1109 (-1.152)	0.252	-0.0898	-0.3476	0.0921	1.04				
Risk Perception	0.0873 (3.817)	<.001	0.3417	0.160	0.5061	1.37				

Perceived Consumer Effectiveness	0.1331 (2.064)	0.041	-0.210	-0.5389	-0.0108	*** 7
Attitude Towards Sustainable Efforts	0.1548 (2.838)	0.005	0.2665	0.1324	0.7465	1.5 1
Social Norms	0.1507 (2.556)	0.012	0.2743	0.0863	0.684	1.9 7
Accessibility	0.0952 (1.440)	0.153	0.1111	-0.0517	0.3259	1.0 2
Epistemic Value	0.1224 (1.258)	0.211	0.1397	-0.0888	0.3967	2.11

The model for urban areas garnered an adjusted R^2 of 0.302 while the model for the non-urban areas garnered an adjusted R^2 of 0.352. The researchers conducted interviews to address the variability from the quantitative data, which provided an in-depth understanding of how the pandemic has affected the sustainable consumer behaviour of urban and non-urban consumers. The results suggest that attitude towards sustainability and well-being efforts significantly affects both urban and non-urban consumer sustainable behaviour. In contrast, risk perception, perceived consumer effectiveness, and social norms significantly affect non-urban consumer sustainable behaviour. The insights from the qualitative data, which are integrated into the discussion, support and explain the results.

Price

Even though some consumers may feel that sustainable household care products are more expensive than conventional household care products, the purchasing decisions of both urban and non-urban consumers are not affected, since other factors, such as health benefits, outweigh their decision. Such consumers do not consider price, because they believe that sustainable products are beneficial for the environment, hence offsetting their purchase costs. In addition, most consumers did not notice any price difference before and during the pandemic; most interviewees specified that they have long acknowledged that sustainable products are generally pricier than conventional products. Respondent A mentioned:

To be honest, the price does not really affect our decision to purchase sustainable household care products. Ever since the pandemic happened, I did not notice any price change or price hike with these products (the ones available in the market or official shops in several platforms like Lazada and Shopee) unless you are going to purchase it through resellers. Yes, sustainable household care products are a bit more expensive than the conventional ones but it really serves its purpose especially when you have kids who are sensitive when it comes to chemicals/smell which makes it reasonable.

Intrinsic Attributes

Consumers' perception of quality is still very subjective, which makes it hard to determine whether a product is satisfactory for them or not. Furthermore, both urban and

non-urban consumers recognize that there is minimal difference between sustainable household care products from conventional products, which prevents a complete transition to sustainable household care products. Such interviewees preferred conventional household care products that they have already established their trust in, because of their belief in the effectiveness of a certain product. This suggests that Filipinos are more willing to try new alternatives if they offer superior quality or effectiveness compared with their trusted brand. Respondent B mentioned:

Peers and family are still interested in sustainable products and willing to replace traditional products one step at a time. The only thing that is holding them back is the functionality of sustainable products as some of them cannot match the quality of traditional products.

Risk Perception

Non-urban consumers believe that both conventional and sustainable products fulfill their purpose - cleaning and keeping people safe from risks posed by the pandemic. Therefore, as long as they are properly labeled as cleaning products, non-urban consumers will consider them to be effective in performing their stated function. On the other hand, urban consumers are skeptical about the effectiveness of sustainable products, because there is still no evidence that sustainable products work the same as conventional products. Urban consumers would, therefore, have to be convinced that sustainable products are effective. Respondent C mentioned:

... I mean, I would be willing to try but I would not completely switch. Like what I said, we can be sustainable in other ways just like throwing our waste responsibly by donating them to factories that collect or upscale plastic.

Perceived Consumer Effectiveness

The perceived risk of the pandemic clouds an urban consumer's actions. In times of distress, urban Filipinos would rather prioritize the health and safety of their family and themselves than the well-being of others and the environment. This means that although they are aware of its importance, it does not necessarily translate to action, because they prioritize their well-being, magnified because of the risks and threats associated with the pandemic. In contrast,

non-urban consumers acknowledge that their actions, however small, can contribute to the preservation and betterment of the environment. This belief can be attributed to their strong rural identity and living patterns.

Attitude Towards Sustainable Efforts

Filipino consumers have shown a growing awareness of the impact of their actions on the environment and acknowledged the consequences and effects on the future generation. The COVID-19 crisis is causing everyone to pay more attention and be more mindful about their consumption. Urban and non-urban consumers both recognize that sustainable products are relevant in the Philippines to protect the environment and provide opportunities for the less fortunate. They also recognize that conventional household care products are still preferred because the government does not support the shift to a sustainable lifestyle. As a result, consumers do not want to take any risks in a pandemic. Respondent D mentioned:

“It is important to help the environment but at the same time I would also prefer products that really does the job even if they don’t really contribute to the betterment of the environment/society especially with the risk of COVID.”

Therefore, while consumers may recognize this as an issue, they may not advocate it. This shows that consumers who have strong beliefs in contributing to the environment and society tend to be sustainable, supporting the quantitative results.

Social Norms

Non-urban Filipinos tend to be more straightforward when purchasing. They are easily influenced by the opinions of their family or peers, as products such as sustainable household care items tend to be less widespread in their areas. Additionally, they view them as a credible source of information regarding sustainable products. On the other hand, most urban consumers refuse to try or switch to sustainable products as they would still opt to use conventional products. This is because they believe that these are long-established and have proven to be effective. Respondent E mentioned, *“The only thing that is holding them (family members) back*

is the functionality of sustainable products as some of them cannot match the quality of traditional products.”

Moreover, urban users have already been using sustainable products for a long time, which is why they would not be influenced by their peers or other family members. Nonetheless, urban consumers acknowledge and listen to recommendations, but do not necessarily act on them. Respondent F shared:

Not a lot of my peers or family members practice purchasing or using sustainable products however they are aware of it. I am encouraged to buy sustainable products if a lot of people highly recommend it.

Accessibility

Most Filipino consumers still opt to purchase from nearby supermarkets as they find them more familiar and convenient, even if they can also shop online. This can be attributed to the fact that Filipino consumers find it more efficient to buy everything in one go in physical stores, rather than purposefully searching for different sellers online and purchasing multiple times. Respondent G shared, *“Location is really important for us, especially with the pandemic. We purchase whatever is available to the nearest supermarket in our area in order to minimize the contraction of the said virus.”* It is evident that consumers have a clear preference in terms of what and where to avail household care products. This supports the view that availability does not necessarily influence consumer decisions to purchase sustainable products.

Epistemic Value

Filipino consumers are starting to incorporate a more sustainable approach in their cleaning routines and to educate themselves on the chemical composition of the products they use. However, they do not purposefully seek new information or switch to sustainable options, given that there are more important factors to keep in mind considering the pandemic. Some have also mentioned that the only time they would seek out information is to aid their purchasing decision, particularly by reading the label, ingredients, and reviews about a product that they are planning to buy. Nowadays, these consumers find it difficult to take their time to search for and

experiment on sustainable products that may work for them because of the limitations caused by the pandemic; making it difficult for them to focus solely on or express their intent in learning more about sustainable household care products.

Sustainable Consumer Behaviour

The pandemic pushed consumers to adopt new habits and shift priorities. While a considerable number of consumers switched to online shopping because of mobility restrictions and COVID-19 risks, most consumers still opt to visit stores near their residences. Other changes brought about by the pandemic include the increase in consumption of household care products. Most consumers have also become more conscious of their health and what they purchase, but admittedly have not fully adopted a sustainable lifestyle due to their preference in buying in stores nearby during the lockdown and their loyalty to the products they have used for a long time. The striking difference between urban and non-urban consumer sustainable behaviour is that urban consumers look for more than just environmental factors. Respondent H expressed:

When you use traditional products, you only think of consuming them and disposing them right after. There's no story to those products and the producing company only gets recognition for the success of the products. Unlike in sustainable products, you get to learn about the story of the company, the owners, the workers, the beneficiaries, their plans of actions from the success of the products and many more. I would say that sustainable products are more of an experience as you become involved with the cause.

They consider other benefits, such as from sustainable products in comparison to conventional products, such as health benefits, whereas non-urban consumers mainly purchase because they want to support advocacy of the product.

With these findings, we summarize our answers to our research questions in Table 2.

Table 2*Summary of Research Questions, Hypothesis, and Results for Urban and Non-urban*

Research Questions	Summary of Results for Urban	Summary of Results for Non-urban
RQ1: What are the consumption values that influence consumers' sustainable consumer behavior towards the household cleaning industry in a pandemic?	<p>Supported: H1-5</p> <p>Not supported: H1-1, H1-2, H1-3, H1-4, H1-6, H1-7, H1-8</p> <p>Attitude Towards Sustainable Efforts ($\beta = 0.2262$, 95% CI [0.086, 0.521], $p = 0.007$) influenced sustainable consumer behavior.</p>	<p>Supported: H1-3, H1-4, H1-5, H1-6</p> <p>Not supported: H1-1, H1-2, H1-7, H1-8</p> <p>Risk Perception ($\beta = 0.3417$, 95% CI [0.160, 0.5061], $p < .001$), Perceived Consumer Effectiveness ($\beta = -0.210$, 95% CI [-0.5389, -0.0108], $p = 0.041$), Attitude Towards Sustainable Efforts ($\beta = 0.2665$, 95% CI [0.1324, 0.7465], $p = 0.005$), and Social Norms ($\beta = 0.2743$, 95% CI [0.0863, 0.684], $p = 0.012$) influenced sustainable consumer behavior.</p>
RQ2: How did the sustainable consumer behavior of consumers change during the pandemic?	Urban consumers have increased the purchase quantity and sizes they buy. They have also changed where they purchase – some purchase in stores near them, whereas some purchase online.	Non-urban consumers had an increase in buying quantity and incorporated more disinfecting products in their consumption. Consumers are now more cautious and research thoroughly on a product before buying. They have also switched from trade to online purchasing.

Table: Author's own

Recommendations

The authors propose the following recommendations to various stakeholders:

- 1) Marketers - Based on the results of the study, products should be marketed differently in the urban and non-urban areas, as they have been shown to be influenced by different factors. The only similar significant variable for both was attitude towards sustainability and well-being efforts. As for the variable price, urban and non-urban were both unaffected by it, indicating that a product's value proposition outweighs the cost.
 - (a) Urban - (1) Attitude towards sustainable efforts: maximize infographics and videos highlighting horrible diseases and linking COVID-19 to reinforce that continuous negligence can cause worse outbreaks; (2) Risk perception: the infographic (described above) should make consumers instinctively want to protect their families and start a positive environmental action; (3) Epistemic: the infographic should also touch on aspects of COVID-19 relating to how different sustainable household care products can help prevent contracting the virus; (4) Intrinsic attributes: the effectiveness of a product should always be connected with other claims about benefits such as allergy-free, skin-friendly, etc.; (5) Perceived consumer effectiveness: creating promotional stunts where a single purchase would be equivalent to one humanitarian or environmental action; (6) Social norms: maximize social media and word-of-mouth for publicity; (7) Accessibility, tap grocery stores to reach wider market scope.
 - (b) Non-Urban - (1) Attitude towards sustainable effort: highlight real environmental issues to motivate consumers to take action since non-urban areas aim to preserve their natural preserves; (2) Risk Perception: create call-outs highlighting how effective the product is in killing the coronavirus; (3) Perceived consumer effectiveness: create a value proposition showing how their effortless act of sustainable purchase can positively affect people, planet, and economy; (4) Social Norms: create an online trend with the brand's hashtags and posts from actual consumers to serve as testimonials; (5) Intrinsic Attribute: create how-to guides to inform consumers how to maximize the full potential of the products they purchase; (6) Epistemic: create blog posts educating customers about the

most effective sustainable cleaning methods in the wake of the pandemic. (7) Accessibility: create a subscription program for quick delivery of products subject to a minimum purchase value. Marketers should also tap resellers and distributors to personally market products taking advantage of their wide reach.

- 2) Government: In this study, the local government units in the respective regions, who are the policy-makers can play a considerable role in the development of sustainable consumption of household care products. As emotional value was found to be most significant, they can handle different awareness campaigns on the most pressing environmental issues in their area to encourage consumers to take corrective action. (1) Attitude towards sustainability and well-being efforts: create engagement activities through the social pages of the LGUs, featuring a local sustainable home care business to raise environmental awareness. (2) Price: provide financial incentives to companies that sell sustainable products to facilitate competitive pricing. This can also motivate entrepreneurs to build their own social enterprises. (3) Accessibility: barangays can encourage sustainable businesses to set up a weekend market in the busiest and convenient place in the city.
 - (a) Urban - The LGUs can facilitate seminars where sustainable home care businesses or experts can share their knowledge on the effectiveness and advantages of the products.
 - (b) Non-Urban - The LGUs can create a community wherein citizens can share their testimonials on the sustainable products that keep them safe as social norms are significant.
- 3) Academic Institutions - This sector plays a vital role in the formation of the students' value systems, and providing them with sufficient knowledge and information regarding the importance and benefits of using sustainable products. Since emotional variables are the most significant, academic institutions can instill and develop sustainable discipline, such as cleaning as they go or banning the use of plastic utensils on school grounds. Another recommendation is to partner with a sustainable business clean-up. These will help students become more sustainability conscious.

- 4) Aspiring Social Entrepreneurs - It could be important for this sector to build their brand on the value proposition of their sustainable household care products. Given the lack of literature regarding the effectiveness of their products, aspiring social entrepreneurs can conduct more studies investigating the effectiveness of these products and how to lower prices to further improve their value proposition.
 - (a) Urban - Considering that only attitude towards sustainability and well-being efforts was shown to be significant, aspiring social entrepreneurs should create a specific social mission with long-term goals and a plan for achieving it. This can help consumers identify with the company's mission
 - (b) Non-Urban - In view of the fact that all emotional variables were significant, aspiring social entrepreneurs can conduct philanthropic activities with the proceeds of the sales donated to the partner environmental or social foundations. Aspiring social entrepreneurs can collaborate with specific organizations on special occasions, such as Earth Day, to attract different individuals depending on the causes they advocate.

Future Research

Although this research was carefully prepared, there are several limitations that could be addressed by future researchers. Some limitations of this study are the sample size, cultural and social backgrounds of the respondents, and the COVID-19 pandemic. Future researchers could rigorously profile their participants to meet certain demographic requirements to show more significance with fewer external variabilities involved. They may also consider conducting the survey after COVID-19 and compare the findings to corroborate if the current intended behaviour was only to counter the threat posed by the pandemic.

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