Sustainable Packaging Design Elements: The Analysis of Skincare Packaging on Consumer Purchase Decisions of Millennials

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ABSTRACT

As the cosmetic industry becomes saturated, businesses are trying to attain innovative ways to get customers to purchase skincare products. This study aims to discover the linkage of sustainable packaging design elements of skincare products to consumer purchase decisions. The study consisted of 385 respondents residing within Metro Manila and used random sampling and correlational quantitative design, and a survey questionnaire as the instrument. Before the survey dissemination, the instrument was tested for validity and reliability. The pilot involved 30 respondents, and the alpha value returned a value of 0.852. Regression analysis was used to determine the statistical significance of the variables. The findings suggest that sustainable packaging plays an important role in influencing consumer purchase intention, influencing the consumer purchasing decision. Thus, researchers will be gathering insights from the data to develop innovative and sustainable packaging.

1. Introduction

Our skin reflects our ethnicity, way of life, age, and overall health. The color, tone, and evenness of our skin, as well as pigmentation and skin surface characteristics, are all indicators of our skin’s health. The cosmetic and pharmaceutical industries provide a large arsenal of skincare products and treatments to clean, soothe, restore, reinforce, protect, and treat our skin, allowing us to keep it in good shape. Skincare products are widely available in everyday life and serve a significant role in the lives of consumers, particularly the millennials. The skincare industry has also become a competitive market. As the industry becomes saturated, businesses are trying to attain innovative ways to get customers to purchase their products. And what better way to achieve that is by utilizing aesthetic packaging design to catch the customers’ attention. Consumers base their purchase decisions on extrinsic product attributes and appearance (Gunaratne et al., 2019). And one of the significant forms of marketing communication is product packaging. A product’s packaging is directly related to the perceived quality of a product, and it affects whether the product is easily noticeable on the shelf. Consumers of skincare products in Metro Manila primarily come from the millennial segment, and they are particularly concerned about how the product is packaged. Generally, this segment is concerned about sustainable ideas, and it is worth looking into their behaviour as they have been at the forefront of the skincare consumers. This research will contribute to understanding how skincare product packaging can be improved and recommend how skincare companies can change their packaging strategy to benefit both the business and consumers, including the environment.

2. Methodology

A correlational quantitative design was used in this study. It was conducted online with millennials residing in Metro Manila as subjects. Random sampling was used in the study to determine the required number of respondents (n=385). It was conducted online using google forms. Facebook, Twitter, and Instagram distribute the survey questionnaire, as millennial consumers are deemed, tech-savvy consumers. Before the survey dissemination, the instrument was tested for its validity and reliability. The pilot involved 30 respondents, and the alpha value returned a value of 0.852. The survey respondents were delimited to consumers who frequently buy skincare products belonging to millennials residing inside Metro Manila. Millennials are the chosen respondents for this study, considering that they have enough means to purchase their own skincare products as most of them earn monthly money. The instrument was divided into four sections. The first section is the demographic screening to prevent...
irrelevant data that may affect the study; The second section is where the statements under each variable and sub variable are stated to be scored under a Likert scale. Regression analysis was used to determine the statistical significance of the variables. The third section posed the question of the respondents’ packaging preference. The last section is an open text question on what they think can be included as a consideration for skincare packaging that can make them gain the intention to purchase, increase brand image, and further lead them to decide to buy.

The research model applied for this study is shown in Figure 1.

First impressions and physical looks influence consumers’ product decisions; individuals are naturally drawn to products that have appealing appearances. The visual aspect of packaging is a type of language that should attract the consumer's attention to the product, decoding the message, generating interest, triggering a purchase decision, and leaving a long-lasting positive connotation. When consumers see a product’s package design, they generate an opinion about the packaging design and the product and the brand. Packaging serves as a significant marketing tool for consumers, requiring the same focus, attention, and strategies as other kinds of marketing to obtain the most advantage from integrating all tools. Purchase intentions vary depending on the benefit you are looking for, whether hedonic or utilitarian. It can elicit strong emotional responses. Both hedonic and utilitarian values impact consumer product decisions, assisting in forming attitudes about a skincare product.

In this study, skincare packaging refers to the physical attribute of the actual product. Intention refers to the ability to decide to buy a skincare product. Brand image refers to the perception of brand equity in a customer's mind. Purchase decision refers to the thought process that leads a consumer to select and buy a specific product or brand. Following the order of variables, this study looks into consumers’ perspectives towards skincare product packaging as a primary motivator to build their purchase decision.

The presence of skincare products in the market has increased over time, and the market has been saturated with varied products – both local and international goods. Some other products find it hard to make it through the competition even if the quality of the goods is there because millennials have a strong preference for brands that use sustainable packaging. Knowing the consumer behaviour of this segment has been crucial to some products, and brands do not seem to be aware that it has a direct impact on millennials’ purchase decisions. This study then seeks to assess this segment behaviour, including their perception of brand image, purchase intention and purchase decision in Metro Manila. Specifically, it sought to answer the following questions:

1. Is there a significant difference between Skincare packaging and Purchase intention?
2. Is there a significant difference between Skincare packaging and Brand image?
3. Is there a significant difference between Skincare packaging and Purchase decision?
4. Is there a significant difference between Purchase intention and Purchase decision?
5. Is there a significant difference between Brand image and Purchase decision?
3. Results and Discussion
The following tables (1 and 2) show the findings of this study. Table 1 shows that the respondents in this study were only from the millennial segment that is buying their skincare products and is from Metro Manila. The respondents that do not fall under these categories were excluded from the study.

**Table 1:** Demographic Profile of Respondents (n=385)

| Category             | Frequency | Percentage |
|----------------------|-----------|------------|
| Age                  | 25-40 years old | 385       | 100%       |
| Residence            | NCR       | 385        | 100%       |
| Skin Care Purchase   | Sole Decisor | 385       | 100%       |

**Table 2:** Regression results among the 4 variables in the impact of skincare packaging to purchase decisions in Millenials

| Source                      | Variables                         | R     | R²     | R² adj | p           | Decision                          |
|-----------------------------|-----------------------------------|-------|--------|--------|-------------|-----------------------------------|
| Group Regression            | Skincare Packaging                | 0.477 | 0.228  | 0.215  | 0.00001     | Reject the null, accept the alternative |
| Group Regression            | Purchase Intention                |       |        |        |             |                                   |
| Group Regression            | Brand Image                       | 0.481 | 0.232  | 0.22   | 0.00001     | Reject the null, accept the alternative |
| Group Regression            | Skincare Packaging                | 0.451 | 0.204  | 0.192  | 0.00001     | Reject the null, accept the alternative |
| Group Regression            | Purchase Decision                 | 0.492 | 0.242  | 0.231  | 0.00001     | Reject the null, accept the alternative |
| Group Regression            | Purchase Decision                 | 0.628 | 0.394  | 385    | 0.00001     | Reject the null, accept the alternative |
| Group Regression            | Brand Image                       |       |        |        |             |                                   |

Regression analysis was calculated by examining the variables - Skincare packaging, brand image, purchase intention, and purchase decision. It proved that it had a significant effect among the sample group respondents, as illustrated in Table 2, having a p-value of 0.0001. The respondents’ group proved that skincare packaging had a significant effect on building their purchase intention and brand image until they decided to purchase skincare products.

**Table 3:** Packaging preferences

|                | Frequency | Percentage |
|----------------|-----------|------------|
| Recyclable materials | 274       | 77%        |
| Glass           | 52        | 15%        |
| Plastic         | 32        | 9%         |
| Total           | 358       | 100%       |

Table 3 illustrates the packaging preferences of the respondents. 77% of them prefer packaging made from recyclable materials, 15% prefer glass packaging, and 9% prefer plastic packaging.
Table 4: Respondent suggestions on skincare packaging considerations that can lead them to buy products

|                                      | Frequency | Percentage |
|--------------------------------------|-----------|------------|
| Sustainable Packaging, environment-friendly | 168       | 64%        |
| Informative packaging                | 72        | 28%        |
| Secure packaging - tight and protective | 21        | 8%         |
| Total                                | 261       | 100%       |

Table 4 summarizes the open text field to capture the respondents’ suggestions on what skincare packaging should be like. Out of the 385 respondents, 261 responded to the question. The tabulation shows that 64% of the millennial respondents want sustainable, environmentally friendly packaging. 28% want to have informative packaging that presents opportunities for skincare manufacturers to become more elaborate on their products’ ingredients. Lastly, 8% of the respondents want secure, tight and protective packaging to protect their skincare products.

4. Conclusion & Implications
The main objectives of this research are to 1. Determine whether skincare packaging directly impacts the purchase decisions of millennials and 2. Recommend a solution that skincare manufacturers can use to further capture the millennial market segment. To achieve the following objectives, the study’s conceptual framework identified variables - Skincare packaging, purchase intention, brand image, and purchase decision.

This study found out that many millennials residing in Metro Manila are purchasing skincare products, however, and are looking into the product packaging, which aids them with what product to buy. This paper concludes that the journey of a millennial in purchasing a specific skincare product starts by looking at the product packaging - examining whether the packaging is environmentally friendly, stimulates their purchase intention and increases the brand image of the product. The consumer is then convinced to buy the product as an end result.

This study also provided that the consumer trend on packaging preferences has transitioned from plastics to sustainable, recyclable packaging. Consumers no longer want plastic-heavy packaging, as it is deemed harmful to the environment and poses the risk that plastic might have a chemical reaction with the skincare content. The customers’ recall with the environmentally friendly packaging is more significant in building their intent to buy the product and its brand image. Once established, it will lead them to buy the product. It is also of equal importance and noting that this segment is also looking after proper labelling of the products and the skincare content, so it has to be visibly present in the packaging.

Based on this study’s conclusions and significant findings, the researchers recommend recyclable kraft packaging with plantable seeds. Not only is it sustainable, but it is also environmentally friendly. This type of packaging is similar to the traditional packaging, except that it does not have the plastic laminated element, making it hard to decompose. It also has the possibility of incorporating seeds making the packaging plantable. The potential of the rice husk is being introduced in the market as a cost-effective alternative that can also save the environment (FoodTalks, 2020). For bottle packages, this study recommends a rice husk container that has a plant-based wax (bio wax), usually made of taro, that can hold the liquid skincare.

A suggested prototype from these materials can be seen below. The texture looks the same, but it can hold the skincare product just as good as the box-plastic-laminated packaging can. The packaging will be labelled as made out of recycled materials to capture the millennial segment further.
The study results can help skincare manufacturers and companies innovate their packaging components that would also benefit the environment while further penetrating the millennial market and using this as their unique selling proposition. Since consumer preferences are more into the sustainable side, we anticipate a significant market that will accept this type of product packaging.

As consumer tastes and preferences change, businesses need to adapt to sustain and increase their market share. In terms of skincare packaging, the millennials residing in Metro Manila, who are big consumers of skincare products, have slightly transitioned from plastic packaging to more sustainable options, so it is necessary to adjust the packaging strategy of skincare firms to capture this market segment continuously. While this study has been conducted with tedious efforts, the findings should be interpreted with an option, more so depending on the type of industry where it can have a potential impact. The study has only been conducted in Metro Manila, which might be different in other cities in the Philippines in terms of demographics. Furthermore, the millennials might have a different perspective than the other generations. Future researchers could further explore the applicability of this study using the constructs mentioned in the paper, with a longer extended period of collecting data and increasing the number of respondents. Different statistical results using advanced methods can also be further applied to improve the study.

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Conflicts of Interest: The authors declare no conflict of interest.

References
[1] Aidnik, S. (2016). The Effect of Cosmetic Packaging on Consumer Perceptions. Cal Poly. https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1098&context=grcsp
[2] AlixPartners. (2018). AlixPartners Global Health and Wellness Study. https://www.alixpartners.com/2018-health-and-wellness-survey/
[3] Angraini, D., & Harwani, Y. (2020). The Effect Of Product Quality, Price Perception, And Promotion Of Purchasing Decisions In Sari Roti In West Jakarta. Advances In Economics, Business And Management Research. Vol 120. 296-301, 6.
[4] Arens, W. F. (1996). Contemporary Advertising (10th ed.). TataMcGraw Hill.
[5] Ashdidin, N. H. N., Abidin, N., & Borhan, H. B. (2016). Perceived Quality and Emotional Value that Influence Consumer's Purchase Intention towards American and Local Products. ScienceDirect. https://doi.org/10.1016/S2212-5671(16)00078-2
[6] Balderjahn, I., Peyer, M., Seegebarth, B., Wiedmann, K. P., & Weber, A. (2018, June 7). The many faces of sustainability-conscious consumers: A category-independent typology. ScienceDirect. https://doi.org/10.1016/j.jbusres.2018.05.022
[7] Batagoda, M. (2018, November 27). Understanding colour psychology through culture, symbolism, and emotion. Medium. https://uxplanet.org/understanding-color-psychology-through-culture-symbolism-andemotion-215102347276
[8] Bresciani, S., & del Monte, P. (2017, May 15). New brand logo design: customers’ preference for brand name and icon. SpringerLink. https://doi.org/10.1057/s41262-017-0046-4
[39] Lumen Learning. (n.d.). The Consumer Decision Process | Boundless Marketing. Retrieved October 1, 2021, from https://courses.lumenlearning.com/boundless-marketing/chapter/the-consumer-decision-process/

[40] Ma, S. (2017). Fast or free shipping options in online & Omni-channel retail? The mediating role of uncertainty on satisfaction & purchase intentions. International Journal of Logistics Management, 28(4), 1099–1122. https://doi.org/10.1108/IJLM-05-2016-0130

[41] Mahmoud, T. O. (2017, December 20). Impact of green marketing mix on purchase intention. Science Gate. https://doi.org/10.21833/ijaas.2018.02.020

[42] Metro Manila (Region, Philippines) - Population Statistics, Charts, Map and Location. (2021). City population. https://www.citypopulation.de/en/philippines/admin/13_metro_manila/

[43] Mohammed, A., Bahgat, N., Medina, G., & Romo, G. (2018). The effect of cosmetics packaging design on consumers' purchase decisions. Indian Journal of Marketing. https://doi.org/10.17010/ijom/2018/v48/i12/139556

[44] Olawepo, G. T., & Ibojo, B. O. (2016). The Relationship Between Packaging and Consumers Purchase Intention (A Case Study of Nestlé Nigeria Product). Cscanada. http://doi.org/10.3968/%25x

[45] Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. Journal of Marketing Research, 17(4), 460. https://doi.org/10.2307/3150499

[46] Oxford Reference. (n.d.). Consumer buying behaviour. Retrieved October 1, 2021, from https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095634202

[47] Philippines - Labeling/Marking Requirements. (2021, September 11). International Trade Administration | TradeGov. https://www.trade.gov/country-commercial-guides/philippines-labelingmarking-requirements

[48] Philippines Skin Care Products Market Size & Share | Research Report 2027. (2021). Allied Market Research. https://www.alliedmarketresearch.com/philippines-skin-care-products-market-A06728

[49] Prakash, A., & Sharma, A. (2016). Dimensions of point of purchase factors in impulsive buying of women's skincare cosmetics in India. Journal of Business and Retail Management Research. https://jbrmr.com/cdn/article_file/i3/23_c-213.pdf

[50] Principles of Marketing. (2015). University of Minnesota Libraries Publishing. https://open.lib.umn.edu/principlesmarketing/

[51] Purnhagen, K., van Herpen, E., & van Kleef, K. (2016). The Antecedents and Consequences of Satisfaction Decisions. Journal of Management. https://doi.org/10.1007/978-3-319-29562-6_11

[52] Racat, M., Capelli, S., & Lichy, J. (2021). New insights into “technologies of touch”: Information processing in product evaluation and purchase intention. ScienceDirect. https://doi.org/10.1016/j.techfore.2021.120900

[53] Ridder, M. (2020). Share of Millennials looking for natural skin care products in the U.S. 2017. Statista. https://www.statista.com/statistics/811406/share-of-millennials-purchasing-natural-skin-care-products/

[54] Rodrick, S. S., Islam, H., & Zadid, A. I. (2020). The Impact of Packaging and Labeling Elements on the Rural Consumers’ Purchase Decision for Skincare Products in Bangladesh. Asian Institute of Research. https://www.doaj.org/article/id=1992.03.04.309

[55] Roohi, S., & Forouzandeh, A. (2019). Regarding colour psychology principles in adventure games to enhance the sense of immersion. ScienceDirect. https://doi.org/10.1016/j.envcom.2019.100298

[56] Sanny, L., Arina, A. N., Maulidya, R. T., & Pertwii, R. P. (2020). Purchase intention on Indonesian males' skin care by social media marketing affects the brand image and brand trust. Growing Science. https://doi.org/10.5267/j.msl.2020.3.023

[57] Schneider, J., Coleman, R., & Francies, C. (2016). Making Informed Purchase Decisions: Understanding Unit Costs and Ratios to Get a "Good Buy." OER Commons. https://www.oercommons.org/authoring/18578-making-informed-purchase-decisions-understanding-u-view

[58] Skin Care in the Philippines. (2021). Euromonitor. https://www.euromonitor.com/skin-care-in-the-philippines/report

[59] Suhaily, L. (2017). Effect of product quality, perceived price and brand image on purchase decision mediated by customer trust (study on Japanese brand electronic product) | Suhaily | Jurnal Manajemen. Ecoolin. http://doi.org/10.24912/jjm.v2i12.230

[60] Swasty, W., Putri, M. K., Koseomadina, M. I. P., & Gunawan, A. N. S. (2021). The Effect of Packaging Color Scheme on Perceptions, Product Preference, Product Trial, and Purchase Intention. Journal of Management and Entrepreneurship. https://doi.org/10.9744/jmk.23.1.27-39

[61] Takaya, R. (2019). The effect of celebrity endorsement on brand image and trust brand and its impact to purchase intention | Case Study: Oppo Smartphone. Business and Entrepreneurial Review. http://doi.org/10.25105/ber.v17i1.5228

[62] Trimbee, J. (2021). Colour Psychology in Marketing and Beyond - Factly Health. Factly. https://factly.com/mind-in-practice/color-psychology-in-marketing-and-beyond/

[63] Turan, C. P. (2021, July 26). What're inside matters: The impact of ingredient branding on consumers' purchasing behaviours in services. ScienceDirect. https://doi.org/10.1016/j.jretconser.2021.102690

[64] U.S. Census Bureau. (2021, December 18). Age Range by Generation. Beresford Research. https://www.beresfordresearch.com/age-range-by-generation/

[65] Wahyuni, S., & Ginting, M. (2017). The impact of product quality, price and distribution on purchasing decisions on the Astra motor products in Jakarta. Arthatama, 7(1), 18–26

[66] Wang, L., & Lee, J. W. (2021). The impact of K-beauty social media influencers, sponsorship, and product exposure on consumer acceptance of new products. SpringerLink. https://doi.org/10.1186/s40691-020-00239-0