

# Legal Protection for Consumers of Cosmetic Products Through Consumer Education

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## Abstract

In today's world, beauty and self-care have become essential aspects of daily life, making cosmetic products an integral part of modern society. Beyond enhancing appearance and self-confidence, cosmetics have become a medium for personal expression. However, consumer purchasing decisions are often influenced by social media, market trends, and sustainability values, while awareness of consumer rights and product safety remains relatively limited. One important aspect of cosmetic safety is the Period After Opening/PAO indicator, which specifies the period during which a cosmetic product remains safe to use after it has been opened. This community service activity aimed to improve public understanding of the importance of PAO information and promote greater awareness of consumer rights and safe cosmetic use. The program was implemented using an empirical legal approach supported by qualitative methods, including educational activities, surveys, and interviews to identify participants' perceptions and levels of understanding regarding PAO information. The results revealed significant disparities in PAO literacy between individuals with higher educational backgrounds and those with lower levels of formal education, indicating unequal access to essential information related to cosmetic safety. The activity demonstrated that educational interventions can enhance public awareness of PAO indicators and encourage more informed and responsible consumer behavior. These findings emphasize the importance of strengthening public education initiatives and regulatory oversight to ensure consumer protection and promote the safe use of cosmetic products. This community service contributes to the achievement of the Sustainable Development Goals/SDGs, particularly SDG 3 (Good Health and Well-being) through the promotion of safer cosmetic practices, SDG 4 (Quality Education) by improving public literacy on cosmetic safety and consumer rights, and SDG 12 (Responsible Consumption and Production) by encouraging informed purchasing decisions and responsible consumption of cosmetic products.

**KEYWORDS** *Cosmetic Products, Period After Opening, Consumer Education, Consumer Safety, Sustainable Development Goals.*

## Introduction

In the modern era where beauty and self-care have become a significant aspect of lifestyle, cosmetic products have become an integral part of many people's daily routines, from facial creams to lipstick, from perfume to powder, and other beauty products, all of which serve an important role in boosting self-confidence and expressing oneself<sup>1</sup>. Consumer's self image and individual identity often influence their perception of beauty products. Buying beauty products is not only about desired outcomes but also about creating or reinforcing desired identities and lifestyles. Consumer behavior in purchasing cosmetic products is influenced by various complex factors, including personal preferences, fashion trends, social media influence, and considerations of ethics and sustainability<sup>2</sup>. Consumers should consider not only the effectiveness of products but also other factors such as safety, sustainability, halal certification, and environmental impact.

As stipulated in Article 5 of Law Number 8 of 1999 on Consumer Protection, consumers are obliged to (a) read or follow the instructions for the use or utilization of goods and/or services, for safety and security purposes; (b) act in good faith in conducting transactions for the purchase of goods and/or services; (c) pay according to the agreed exchange rate; (d) participate in the efforts to settle consumer protection disputes in a fair manner.<sup>3</sup> Additionally, consumers have rights, namely (a) the right to comfort, safety, and security in consuming goods and/or services; (b) the right to choose goods and/or services and receive them according to the

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<sup>1</sup> Geoffrey Jones, *Beauty Imagined: A History of the Global Beauty Industry* (Oxford University Press, 2010).

<sup>2</sup> Sarah E. Hill et al., "Boosting Beauty in an Economic Decline: Mating, Spending, and the Lipstick Effect," *Journal of Personality and Social Psychology* 103, no. 2 (2012), <https://doi.org/10.1037/a0028657>.

<sup>3</sup> Law of the Republic of Indonesia Number 8 Year 1999 concerning Consumer Protection, Article 5.

agreed exchange rate, conditions, and promised guarantees; (c) the right to accurate, clear, and honest information regarding the conditions and guarantees of goods and/or services; (d) the right to be heard in expressing opinions and complaints about the goods and/or services used.<sup>4</sup> In practice, consumer rights are often sidelined, hence there is a need for dedicated service to the community to ensure these rights are upheld. Therefore, a better understanding of beauty products is crucial to enhance consumer awareness and safety.

Understanding safe and halal chemical substances in beauty products, especially skincare, is crucial to ensure consumer health and safety. In an era where information is abundant and products are diverse, consumers need adequate knowledge to make informed and smart decisions in choosing beauty products. The glitter of cosmetic products, hides an important aspect that's often overlooked by consumers: Period After Opening hereinafter referred to as "PAO" or the expiry period after a product is opened. PAO is the time period after opening a cosmetic product during which it is safe to use, before it becomes unsafe or ineffective. Usually, this information is given in the form of a symbol of an open jar or bottle with a number inside, indicating how many months you can use the product after opening. The role of PAO in cosmetic products is extremely important, especially in the preservation of skin health. Cosmetic that have passed their PAO may contain bacteria and other microorganisms that can potentially cause skin irritation, allergies, or infections. Moreover, using expired cosmetic products can lead to a decline in their quality and effectiveness, meaning they may no longer deliver desired results or even cause undesirable reactions on the skin. Unfortunately, awareness of PAO is still lacking among many consumers. Many are unaware that cosmetic products also have a limited period of use after opening, similar to food products.

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<sup>4</sup> Law of the Republic of Indonesia Number 8 Year 1999 concerning Consumer Protection, Article 4.

This lack of awareness can lead consumers to use products that have exceeded their PAO without realizing the associated health risks<sup>5</sup>.

The comparison between educated and uneducated consumers in terms of understanding PAO also reveals a significant gap. Educated consumers tend to be more aware of the importance of information such as PAO and have the ability to comprehend and apply this information in their daily lives<sup>6</sup>. Conversely, less educated consumers may pay less attention to or understand PAO information, making them more vulnerable to using expired cosmetic products or products with unclear information regarding post-opening periods. The difference in understanding levels between these two groups highlights the challenges in raising consumer awareness about PAO in cosmetic products. Further efforts are needed to ensure that all consumers, regardless of their educational background, have sufficient knowledge about PAO and the importance of respecting cosmetic product expiration dates<sup>7</sup>.

Therefore, research on the significance of consumer knowledge about PAO in cosmetic products and the comparison between educated and uneducated consumers is highly relevant. Through this research, we can gain deeper insights into the factors influencing consumer understanding of PAO and evaluate the effectiveness of various efforts to enhance consumer awareness about PAO in cosmetic products<sup>8</sup>. With increased

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<sup>5</sup> Hill et al., "Boosting Beauty in an Economic Decline: Mating, Spending, and the Lipstick Effect."

<sup>6</sup> Chao Min Chiu, Meng Hsiang Hsu, and Eric T.G. Wang, "Understanding Knowledge Sharing in Virtual Communities: An Integration of Social Capital and Social Cognitive Theories," *Decision Support Systems* 42, no. 3 (2006), <https://doi.org/10.1016/j.dss.2006.04.001>.

<sup>7</sup> Rolph E. Anderson and Srini S. Srinivasan, "E-Satisfaction and E-Loyalty: A Contingency Framework," *Psychology and Marketing* 20, no. 2 (2003), <https://doi.org/10.1002/mar.10063>.

<sup>8</sup> Victoria Browning, Kevin Kam Fung So, and Beverley Sparks, "The Influence of Online Reviews on Consumers' Attributions of Service Quality and Control for

consumer awareness of the importance of PAO in cosmetic products, it is expected that consumers can make smarter and more responsible decisions in using cosmetic products. This can also help protect the health and well-being of their skin, as well as enhance their trust in the cosmetic products they use. In this context, efforts or education to enhance consumer awareness of the importance of PAO in cosmetic products are crucial. Information campaigns through social media, brochures, and workshops can serve as effective initial steps to disseminate knowledge about PAO to the general public<sup>9</sup>.

In the Consumer Protection Law, consumer protection refers to efforts aimed at providing legal certainty guarantees to consumers in every purchase transaction of goods and/or services. This means there are efforts to clearly regulate the rights and obligations of consumers and business entities to create balance and fairness in every economic transaction<sup>10</sup>. This protection includes consumer rights such as obtaining clear and accurate information about the goods or services they purchase, receiving goods or services that are safe for health and safety, and having a fair dispute resolution mechanism in case of disputes between consumers and businesses<sup>11</sup>. Meanwhile, the definition of consumers in the Consumer Protection Law includes any individual or legal entity that uses goods or services for their personal or family interests, or even for the interests of

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Service Standards in Hotels,” *Journal of Travel and Tourism Marketing*, 2013, <https://doi.org/10.1080/10548408.2013.750971>.

<sup>9</sup> Duhita Driyah Suprapti et al., “LEGAL PROTECTION EFFORTS FOR MSME ENTREPRENEURS BASED ON LAW NO. 11 OF 2020 ON JOB CREATION LAW,” *Indonesia Law Review* 15, no. 1 (2025), <https://doi.org/10.15742/ilrev.v15n1.2>.

<sup>10</sup> Ashabul Kahfi, “ASPEK HUKUM PERLINDUNGAN KONSUMEN MUSLIM DI INDONESIA,” *Jurisprudentie: Jurusan Ilmu Hukum Fakultas Syariah Dan Hukum* 5, no. 1 (2018), <https://doi.org/10.24252/jurisprudentie.v5i2.5399>.

<sup>11</sup> Wahyu Simon Tampubolon, “Upaya Perlindungan Hukum Bagi Konsumen Ditinjau Dari Undang Undang Perlindungan Konsumen,” *Jurnal Ilmiah Advokasi* 4, no. 1 (2016).

others or other living beings, as long as not for trading purposes. This emphasizes that consumers are parties who use goods or services not for commercial or business purposes, but to meet personal or social needs. Consumer protection in this context applies to ensure that their rights are respected and protected in every consumption transaction conducted.

Period After Opening (PAO) is crucial information that should be included on every cosmetic product packaging. PAO refers to the period of time during which the product is considered safe to use after first opening. This information is typically indicated by a symbol of an open jar with a number inside, representing the number of months or years since the product was first opened. The presence of PAO is essential as it helps consumers determine the shelf life of cosmetic products before their quality and safety decline. On each cosmetic product, PAO information provides clear guidance on how long the product can be safely used<sup>12</sup>. This is significant because using products past their PAO can increase the risk of skin irritation, allergic reactions, or infections. Expired cosmetic products also tend to lose their quality and effectiveness, thus failing to deliver optimal results for users.

Easily understanding PAO information on product labels will help, consumers to make better choices about the use of cosmetic products. Manufacturers have a responsibility to provide accurate and legible PAO information to help safeguard consumer health and safety. It also shows the manufacturers' dedication to making sure that their products are not only effective but safe for use as directed. Also consumer education needs to be improved on the importance of PAO. Consumer awareness of the importance of sticking to the time limits of using cosmetic products after opening could be enhanced through educational campaigns in social media,

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<sup>12</sup> Patel Tejal et al., "Cosmetics and Health: Usage, Perceptions and Awareness," *Bangladesh Journal of Medical Science* 12, no. 4 (2013), <https://doi.org/10.3329/bjms.v12i4.13330>.

brochures and workshops. Consumers who are more aware of PAO are more careful in choosing and using cosmetic products, which in turn reduces the risk of using unsafe products.

Authorities should also consider stricter regulations about PAO information. With clear regulations, manufacturers are expected to be more careful in providing PAO information on their products, thus giving better protection to consumers<sup>13</sup>. Routine evaluations of manufacturers' compliance with these regulations are also necessary to ensure that the information provided is always accurate and in line with prevailing safety standards. Overall, PAO plays a crucial role in ensuring that cosmetic products are used safely and effectively. With clear information and adequate education, it is hoped that consumers can make more informed and responsible decisions regarding the use of cosmetic products in their daily lives.

Understanding the Period After Opening (PAO) information provided on cosmetic product labels enables consumers to make safer and more informed decisions regarding product use. Manufacturers therefore have a responsibility to present PAO information accurately, clearly, and legibly as part of their commitment to protecting consumer health and ensuring that cosmetic products remain safe and effective throughout their recommended period of use. At the same time, public awareness of the importance of PAO should be strengthened through continuous educational initiatives, including social media campaigns, informational materials, and community-based outreach programs. Increased consumer literacy regarding PAO encourages more responsible purchasing and usage behavior while reducing the risks associated with expired or unsafe cosmetic products. In addition, regulatory authorities should establish and enforce more comprehensive standards governing the presentation of PAO information and regularly evaluate manufacturers' compliance to ensure adherence to consumer safety requirements. Collectively, these measures

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<sup>13</sup> Zalina Zakaria, *Cosmetic Safety Regulations: A Comparative Study of Europe, the USA and Malaysia* (The University of Manchester (United Kingdom), 2013).

contribute not only to strengthening consumer protection but also to advancing the Sustainable Development Goals hereinafter referred to as “SDGs”, particularly SDG 3 (Good Health and Well-being) by promoting the safe use of cosmetic products, SDG 4 (Quality Education) through enhancing public awareness and consumer literacy, and SDG 12 (Responsible Consumption and Production) by encouraging informed, responsible, and sustainable consumption practices within the cosmetics industry.

## Methods

This community service activity employs an empirical legal approach through mentoring and education for consumer groups that are partners. This was done as a way to get to know the legal provisions that applied and to see how they were applied in everyday practice. The activity’s goal is to enhance consumer understanding of PAO information on cosmetic products. The activity is based on primary and secondary data to ensure educational materials provided meet the needs of partners and are relevant for strengthening consumer protection.

Primary data were collected via in-depth interviews and direct observation of consumer habits when reading cosmetic labels and using products after the PAO period. To measure the level of understanding, the sources of information they use and their behavior in the use of the products, partners were interviewed. Observations also helped the team understand how consumers interact with labels, including their reactions to PAO information in the field. Secondary data were collected from books, scientific journals, articles, and relevant regulatory documents. This literature served as the basis for development of educational materials and as a reference when explaining legal aspects to partners.

We validated our community service materials using a triangulation method, which integrates insights from interviews, field observations, and

literature<sup>14</sup>. Our data analysis followed a four stage process. First, we categorized the information into key themes that surfaced during the project. Second, we divided this data into more manageable segments to accurately assess our partners' specific needs. Third, we synthesized these segments to uncover behavioral trends and gauge consumer comprehension of PAO information. Finally, we interpreted these patterns to design the best possible education and mentoring strategies for our partners.

Overall, combining qualitative methods with an empirical legal approach allowed us to truly understand consumer attitudes toward PAO. We utilized these findings to craft practical recommendations aimed at enhancing consumer protection through ongoing, community tailored education.

## Results and Discussion

### I. Consumer Knowledge about PAO

From in-depth interviews, it was found that the majority of consumers have varying levels of understanding regarding the PAO on cosmetic products. Consumers with higher educational backgrounds tend to have a better understanding of PAO. They perceive PAO information as a crucial guide in determining the safety and quality of the cosmetic products they use daily. For instance, a respondent with a higher educational background explained that they regularly check the PAO on their products to ensure they are still safe to use and have not exceeded the recommended time limit. Conversely, less educated consumers often misunderstand the significance of PAO information. They may not realize that using products after the PAO period can increase the risk of skin irritation or even infection.

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<sup>14</sup> Anjali Patil and Michael S. Ferritto, "Polymers for Personal Care and Cosmetics: Overview," in *ACS Symposium Series*, vol. 1148, 2013, <https://doi.org/10.1021/bk-2013-1148.ch001>.

Therefore, further education is essential to increase consumer awareness of PAO in cosmetic products<sup>15</sup>.

## **II. Consumer Information Sources**

According to interviews, educated consumers tend to obtain information about PAO from various reliable sources such as scientific literature, beauty consultants, and well-documented product reviews. They actively seek out the latest information about the cosmetic products they use to ensure their safety and quality. In contrast, less educated consumers rely more on information from sellers or product advertisements. They may have less exposure to sources promoting awareness of the importance of PAO. In this regard, broader educational campaigns through social media, brochures, or seminars may be necessary to reach these consumer groups.

## **III. Usage of Expired Products**

Research findings show that many consumers, particularly those with less formal education, often continue using cosmetics well past their PAO. They simply might not realize the hidden health risk. In contrast, highly educated consumers are much more likely to follow PAO guidelines and discard expired items. This clear divide highlights exactly why we need continuous, widespread educational campaigns to help people avoid unsafe products.

## **IV. Analysis of PAO Understanding**

The general lack of PAO awareness points to a broader issue, consumers just aren't being taught what this means. Part of the problem is regulatory, there is a lack of strict rules forcing manufacturers to make PAO labels prominent. Consequently, many people don't even know that

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<sup>15</sup> Jiali; Zhou Meijuan Zhang, "X.Factors Influencing Consumer Purchasing Behavior of Natural Cosmetics," *Department of Business Studies, Uppsala University*, 2019.

makeup and skincare have a shelf life after opening, leaving them vulnerable to issues like skin irritation or infections<sup>16</sup>.

## V. Impact of Education on Consumer Awareness

When we educate consumers about PAO, their awareness naturally skyrockets. They start making smarter, more responsible choices. An educated shopper actively looks for the PAO symbol before buying or using a product, which directly cuts down on the health risks associated with expired cosmetics<sup>17</sup>.

## VI. Knowledge Gap Between Educated and Less Educated Consumers

We also noticed a glaring gap in how different groups access information. Consumers with higher education can easily tap into scientific articles, mass media, or school taught knowledge to grasp how PAO works. Meanwhile, those with less formal education usually have to rely on salespeople or advertisements, which rarely tell the whole story about product expiration. To bridge this gap, we need to design educational programs that are truly inclusive and easy for everyone to access, regardless of their background.

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<sup>16</sup> Michael J. Dorsch, Kjell Y. Törnblom, and Ali Kazemi, "A Review of Resource Theories and Their Implications for Understanding Consumer Behavior," *Journal of the Association for Consumer Research* 2, no. 1 (2017), <https://doi.org/10.1086/688860>.

<sup>17</sup> "Green Cosmetics - Changing Young Consumer Preference and Reforming Cosmetic Industry," *International Journal of Recent Technology and Engineering* 8, no. 4 (2019), <https://doi.org/10.35940/ijrte.d6927.118419>.

## Conclusion

This community service project demonstrates that public understanding of the Period After Opening /PAO remains relatively low, particularly among individuals with limited access to formal education, indicating a significant gap in cosmetic safety literacy and consumer awareness. Many consumers are still unaware that cosmetic products have a limited period of safe use after opening, increasing the potential risk of adverse health effects resulting from improper product use. These findings highlight the need to strengthen both consumer education and regulatory protection to ensure the safe and responsible use of cosmetic products. Therefore, it is recommended that the government and relevant regulatory authorities establish clearer and more comprehensive regulations requiring manufacturers to provide standardized, accurate, and easily understandable PAO information on cosmetic labels, supported by regular monitoring and enforcement. Cosmetic manufacturers should also actively improve labeling practices and participate in consumer education initiatives, while educational institutions, consumer protection organizations, and community groups should collaborate in delivering continuous awareness programs through social media, seminars, workshops, and other community outreach activities. Such collaborative efforts are expected to improve consumer literacy, encourage informed and responsible purchasing and usage decisions, strengthen consumer protection, and minimize health risks associated with expired cosmetic products. Furthermore, future community service programs and empirical studies should evaluate the effectiveness of educational interventions in enhancing public awareness and promoting long-term behavioral change. Collectively, these efforts contribute to the achievement of the Sustainable Development Goals/SDGs, particularly SDG 3 (Good Health and Well-being) by promoting safer cosmetic use, SDG 4 (Quality Education) through improving consumer literacy, and SDG 12 (Responsible Consumption and Production) by fostering informed, safe, and sustainable consumption of cosmetic products.

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The authors declare that no generative artificial intelligence (AI) tools were used to generate the scientific content, data analysis, interpretations, or conclusions presented in this manuscript. If AI-assisted tools were used, they were limited to language editing, grammar checking, or improving readability under the authors' full supervision. The authors take full responsibility for the originality, accuracy, and integrity of the manuscript.