

**FORMULATION OF HERBAL SOAP BASED ON CONSUMER
PREFERENCE: A STUDY AMONG UNDERGRADUATES IN
EASTERN UNIVERSITY, SRI LANKA**



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ABSTRACT

The growth of herbal-based cosmetics, especially soaps that contain plant-derived ingredients, has been aided by the rising desire for natural and environmentally friendly personal care products. This study aims to develop herbal soap formulation that aligns with consumer preferences and evaluating its physiochemical properties and assessing its acceptability among undergraduates in Eastern University, Sri Lanka. This study was conducted among 100 undergraduate students from EUSL. Using non-probability sampling method, the students were represented all faculties. A standardized questionnaire was given and got results from undergraduates to gauge consumer preferences for natural ingredients, essential oil, and color. The collected data for this study were analyzed using Excel and Statistical Package for Social Sciences (SPSS) version 27.0. The descriptive analysis shows out of 100 respondents, 81% of undergraduates are female category and 19% of undergraduates are male category. Ninety-two percentage of respondents known about herbal soap and 55% of respondents are applying on both face and body. Majority (52%) of respondents are preferred Aloe vera, 29% of respondents prefer rosemary oil, and 32% of respondents prefer green color for the herbal soap formulation. Forty-seven percentage of respondents' problem is high price when purchasing herbal soap. The Aloe vera soap was formulated based on the study that more undergraduates prefer Aloe vera soap. This soap was achieved to its favorable physicochemical properties and high consumer acceptability. Standard quality parameters like pH (9), foaming ability (17cm), foam stability (12cm), and moisture content (4.8%) were met by the prepared aloe vera soaps, indicating their suitability for usage in personal care products. This study suggested that producer, the purity, safety, and demonstrated skin benefits should be given top priority when choosing herbal extracts, essential oils, and natural additions to improve the soap's effectiveness and appeal to consumers and consider consumer preferences when formulating herbal soaps. Aligning product attributes with consumer expectations might be facilitated by conducting frequent surveys or sensory evaluations.

Keywords: Ayurvedic importance, Cold saponification, Consumer preference, Herbal soap, Physiochemical properties.

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