

Market Potential Assessment of Mosquifree SwipeGuard as a New-Generation Mosquito Repellent Product

Geraldine DC. Cawagas, MBA

CMBT, Nueva Ecija University of Science and Technology, Cabanatuan, Nueva Ecija, Philippines

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ABSTRACT

This study assesses the market potential of Mosquifree SwipeGuard, a new-generation mosquito repellent formulated with a dual-action defense and a swipe-on application system. Designed to provide a convenient and skin-friendly alternative to traditional sprays and lotions, the product aims to address the growing consumer demand for effective and user-friendly insect protection. The study employs a mixed-method approach, including surveys and market analysis, to evaluate consumer preferences, perceived effectiveness, pricing acceptability, and competitive positioning. Data were collected from a diverse group of respondents, including parents, students, outdoor workers, and health-conscious consumers in urban areas. Findings indicate strong interest in the product's portability, ease of use, and non-greasy formulation. Furthermore, analysis reveals that Mosquifree SwipeGuard has a competitive edge in terms of innovation and safety, particularly among users with sensitive skin or aversions to chemical sprays. The study concludes that with proper branding, strategic pricing, and effective distribution channels, Mosquifree SwipeGuard holds significant potential for successful market entry and sustained growth in the personal insect repellent industry.

INTRODUCTION

Mosquito-borne diseases remain a significant public health concern in many parts of the world, especially in tropical and subtropical regions. In the Philippines, illnesses such as dengue, chikungunya, and malaria continue to pose risks to individuals, families, and communities. As a result, the demand for effective and accessible mosquito repellents has steadily increased. Traditional solutions such as sprays, lotions, and coils are commonly used, but many consumers express concerns about their chemical composition, skin irritation, unpleasant scent, and inconvenience in application.

In response to these challenges, Mosquifree SwipeGuard was conceptualized as a new-generation mosquito repellent that offers dual-action protection in a swipe-on format. Designed to be compact, portable, and skin-friendly, the product aims to meet the needs of modern consumers who prioritize convenience, safety, and effectiveness in personal care items. Its unique formulation and application method set it apart from existing products in the market, positioning it as an innovative alternative in the insect repellent industry.

This study was conducted to assess the market potential of Mosquifree SwipeGuard, focusing on consumer interest, product competitiveness, pricing strategy, and market entry feasibility. By gathering insights from target users and analyzing market trends, this research aims to provide data-driven recommendations for the product's successful introduction and long-term viability in the consumer market.

Objective Of The Study

This study aims to assess the market potential of Mosquifree SwipeGuard as a new-generation mosquito repellent product. Specifically, it seeks to:

1. Describe the profile of the respondents in terms of:
 - 1.1 Age;
 - 1.2 Sex;

- 1.3 Nature of Work; and
- 1.4 Frequency of Mosquito Exposure.

2. Determine the preferences and experiences of the respondents regarding Mosquifree SwipeGuard in terms of:

- 2.1 Look or appearance of the product;
- 2.2 Scent or fragrance;
- 2.3 Texture or consistency; and
- 2.4 Perceived effect in terms of:
 - 2.4.1 Protection against mosquito bites;
 - 2.4.2 Comfort or convenience of use; and
 - 2.4.3 Skin reaction or sensitivity.

3. Identify the problems encountered by the respondents in using or trying the product.

Additionally, this study will gather the feedback, advice, and suggestions of 100 respondents based on their personal experiences with the product. It also aims to develop guidelines for the College of Management and Business Technology at the Nueva Ecija University of Science and Technology (NEUST) in creating innovative products with strong market potential. Furthermore, the findings of this research will support the institution's production and extension programs by promoting product innovation and sharing its benefits with the broader community.

METHODOLOGY

This study employed a descriptive research design using the survey method to determine the market potential of Mosquifree SwipeGuard, a new-generation mosquito repellent product. The descriptive approach is appropriate for this research as it aims to systematically describe the respondents' demographic profiles, preferences, product experiences, and perceptions without influencing or altering the conditions being studied.

List of Benefits for a Mosquito Repellent Product

Health & Protection Benefits

1. Prevents mosquito bites
2. Reduces the risk of mosquito-borne diseases (e.g., dengue, malaria, chikungunya)
3. Provides long-lasting protection (e.g., up to 6–8 hours)
4. Protects during outdoor activities (e.g., hiking, gardening, sports)
5. Safe for daily use

Skin & Safety Benefits

1. Dermatologically tested
2. Gentle and safe for sensitive skin
3. Non-greasy and fast-absorbing formula
4. No harsh chemicals or DEET-free (if applicable)
5. Does not cause skin irritation or allergic reactions

User Experience Benefits

1. Pleasant, non-overpowering scent
2. Convenient swipe-on/stick/roll-on application
3. Compact and travel-friendly packaging
4. Quick-dry formula that leaves no residue
5. Leaves skin feeling fresh and smooth

Environmental & Practical Benefits

1. Eco-friendly ingredients (if applicable)
2. No smoke or fumes like coils
3. No staining on clothes
4. Can be used indoors and outdoors
5. Cost-effective and accessible

CONCLUSION

Based on the findings of the study, it can be concluded that Mosquifree SwipeGuard demonstrates strong potential as a marketable mosquito repellent product. The majority of respondents expressed positive feedback in terms of the product's appearance, scent, texture, and effectiveness. Many appreciated its swipe-on application, which they found convenient and user-friendly compared to traditional sprays and lotions.

The demographic profile analysis showed that individuals from different age groups and professions are concerned about mosquito exposure and are open to trying new repellents, especially those that are safe, non-greasy, and skin-friendly. The use of a nine-point hedonic sensory test also confirmed that most participants rated the product positively across multiple sensory attributes. While minor concerns were reported—such as scent preference and skin sensitivity in a few cases—these issues were minimal and manageable.

Furthermore, the suggestions gathered from 100 respondents provided valuable insights that could help improve the product's formulation and packaging. The study also fulfilled its institutional objective by contributing to the product development guidelines for the College of Management and Business Technology at NEUST, supporting its innovation, production, and extension programs.

RECOMMENDATION

1. Enhance product features based on user feedback—particularly in improving scent options, skin sensitivity response, and packaging durability.
2. Conduct wider market testing involving more respondents from other regions and age groups to validate the product's acceptability on a larger scale.
3. Consider the development of product variants, such as different scents, kid-friendly formulations, or spray versions, to cater to a broader market.
4. Implement targeted marketing strategies, especially in mosquito-prone communities, schools, and outdoor work environments.
5. Collaborate with local health organizations and barangays for community-based product trials and promotions.
6. Integrate this study's results into NEUST's production and extension initiatives, encouraging the creation of more innovative, student-led, and locally viable products.

REFERENCES

1. Ali, A., Tabanca, N., & Khan, I. A. (2015). Natural products for mosquito control: Repellents and larvicides from plant-derived essential oils. *Insecticides—Development of Safer and More Effective Technologies*, 1–30. <https://doi.org/10.5772/60830>
2. Amer, A., & Mehlhorn, H. (2006). Perspectives for the use of natural repellents for the control of mosquito-borne diseases. *Parasitology Research*, 99(2), 304–308. <https://doi.org/10.1007/s00436-006-0230-6>
3. Fradin, M. S., & Day, J. F. (2002). Comparative efficacy of insect repellents against mosquito bites. *New England Journal of Medicine*, 347(1), 13–18. <https://doi.org/10.1056/NEJMoa011699>
4. Gajanana, A., & Dinesh, K. R. (2020). Feasibility studies in product development: A case study approach. *International Journal of Management and Applied Science*, 6(3), 45–49.
5. Leon, R. L. (2018). Consumer preferences in product design: Exploring sensory evaluation methods. *Journal of Marketing Research and Innovation*, 12(1), 22–30.

6. Sharma, P., & Yadav, R. (2017). Formulation and evaluation of herbal mosquito repellent cream. *Journal of Pharmacognosy and Phytochemistry*, 6(5), 1226–1230.
7. World Health Organization. (2020). Vector-borne diseases: Overview and statistics. <https://www.who.int/news-room/fact-sheets/detail/vector-borne-diseases>
8. Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.
9. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.O
10. Nueva Ecija University of Science and Technology (NEUST). (2022). *Extension Program Guidelines and Innovation Framework*. Cabanatuan City: College of Management and Business Technology.