

Original Article

# Proposed Strategic Marketing Plan for HPV Vaccine: A Case Study of PT. BF

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**Abstract:** Although cervical cancer, mostly caused by the Human Papillomavirus (HPV), is a huge health problem in Indonesia, there is an effective vaccine against it. This paper, therefore, presents a strategic marketing plan for PT. BF can raise awareness and acceptance of the HPV vaccine. The study showed that out of 400 respondents surveyed, 42.4% have neutral knowledge about HPV, hence pointing out a significant gap in awareness. Furthermore, 28.6 % of the surveyed population manifested high trust in the health information they obtain on social media, while only 24 % had moderate trust, thus indicating the need for more effective education. This might involve interactive social media campaigns, along with collaboration with social media influencers and healthcare providers, and enhanced outreach in rural areas. Having this strategic plan in place, PT will have to address the misinformation at hand and ensure that monitoring is constant. BF has been recognized as one of the major players in improving health outcomes in Indonesia, particularly in eliminating cervical cancer.

**Keywords:** Cervical Cancer, HPV Vaccine, Immunization Awareness, Strategic Marketing.

## I. INTRODUCTION

Cervical cancer is one of the leading causes of death from cancer among the female population in Indonesia and is majorly caused by HPV. According to the World Health Organization, 2023c, despite the fact that the vaccine against HPV is available and very effective, the public is characterized by low awareness and acceptance. Fimela, 2023; Khatiwada et al., 2021; Nurfaizah, 2022. As such, current research is intended to come up with a strategic marketing plan for PT. BF to increase acceptance of the HPV vaccine through the use of social media and focused outreach. On that note, cervical cancer presently ranks as the fourth most common cancer in women worldwide, responsible for about 604,000 new cases and 342,000 deaths in 2020 alone. It is basically a consequence of persistent infection by high-risk types of Human Papillomavirus. The overall occurrence rate of cervical cancer in Indonesia is 27.0 per 100,000 women. The cumulative risk of developing cervical cancer from birth to age 74 years is 2.69% (Bruni et al., 2023). The high incidence and mortality rates underscore the critical need for effective prevention strategies, including widespread vaccination against HPV.

HPV is a common sexually transmitted infection, with most sexually active individuals contracting the virus at some point in their lives. While the immune system typically clears HPV, persistent infection with high-risk strains can lead to the development of abnormal cells and, eventually, cervical cancer (World Health Organization, 2023c). Despite the availability of highly effective vaccines that can prevent the majority of HPV-related cancers, vaccination coverage remains suboptimal in many parts of the world, including Indonesia. In 2022, the HPV vaccine coverage rate for females in Indonesia was only 29% for the first dose and 7% for the second dose (World Health Organization, 2023a).

The Indonesian Ministry of Health has recognized the urgency of this public health issue and has launched the National Action Plan for Cervical Cancer Elimination (Rencana Aksi Nasional (RAN)) for 2023-2030. This plan aligns with the World Health Organization's global strategy, which aims to achieve 90% HPV vaccination coverage among girls by age 15 (Bureau of Communication and Public Services, 2023). PT. BF, a leading state-owned vaccine manufacturer in Indonesia, has the potential to play a pivotal role in this initiative by providing high-quality local HPV vaccines.

Vaccination coverage nevertheless remains inordinately dependent on far more than the mere availability of vaccines. Public awareness and acceptance of vaccinations are major determinants of vaccination success. Primary studies affirm that low public knowledge about HPV and cervical cancer, coupled with misinformation as well as cultural barriers, has constructed substantial hurdles to the uptake of the vaccine (Fimela, 2023; Khatiwada et al., 2021; Nurfaizah, 2022). For instance, such myths as that the HPV vaccine causes infertility and that cervical cancer is a disease of married women also contribute to hesitancy in vaccination (Fimela, 2023; Nursyamsi, 2022).



A proper strategic marketing plan that includes the latest communication platforms and focused outreach efforts is required for the solution. Social media has been a very powerful tool for health communication lately, in view of the fact that information can reach large audiences in no time and can be interactive. The effective use of social media will help correct misleading information, generate trust in vaccines, and encourage positive health behaviors. Furthermore, partnerships with social media influencers and health professionals will extend the scope and effects of health messages, making them more relatable and trustworthy for diverse audiences .

Therefore, the current study proposes a strategic marketing plan for PT. BF for increasing the uptake of the HPV vaccine in Indonesia. The present study will establish the baseline of awareness and perception of HPV vaccine administration, conduct a survey of 400 respondents, identify shortcomings in knowledge and confidence, and delineate some effective strategies for communication. The results will inform the creation of social media campaigns, educational efforts, and outreach programs tailored toward increasing public awareness and acceptance of the HPV vaccine.

There should be no subheadings in the introduction. Only limited figures that are genuinely introductory and do not include any novel results may be included. (Size 10 & Regular) Prospective writers are encouraged to submit works relevant to the journal's scope. Papers must be written entirely in English and submitted in the final format. The styles specified in this article should be used to edit all text. It is important that you submit your original work in Microsoft Word format (.doc) or PDF format (.pdf) (.docx). Only minor corrections and the final formatting of your work will be done by us.

## II. LITERATURE REVIEW

### A) *Cervical Cancer and HPV*

Cervical cancer is a major global health issue, ranking as the fourth most common cancer among women worldwide, with significant mortality rates, particularly in low- and middle-income countries (World Health Organization, 2023a). Persistent infection with oncogenic types of Human Papillomavirus (HPV) is recognized as the primary cause of cervical cancer. HPV is the most common sexually transmitted infection, and nearly all sexually active individuals will contract HPV at some point (Marima et al., 2021). The progression from HPV infection to cervical cancer typically takes 15-20 years but can occur more rapidly in women with compromised immune systems, such as those with HIV (World Health Organization, 2023c).

### B) *HPV Vaccination*

HPV vaccination is a highly effective preventive measure against cervical cancer. Vaccines such as Gardasil and Cervarix have been shown to protect against the high-risk HPV types that cause the majority of cervical cancers (Deignan et al., 2021). Despite the proven efficacy of these vaccines, coverage remains low in many regions, including Indonesia. In 2019, the reported coverage for the first dose of the HPV vaccine was 29%, and for the second dose, it was 7% in Indonesia. Increasing vaccination coverage can reduce cases of cervical cancer at the country level and help achieve global health goals if intensified nationwide.

### C) *Barriers to HPV Vaccination*

Several impediments, however, obstruct mass acceptance of HPV vaccination, such as lack of awareness, beliefs, misstatements, and logistic issues. The studies tell that lack of knowledge among people about HPV and cervical cancer reduces vaccine uptake drastically. This is further added to by misconceptions like the HPV vaccine can cause infertility. Moreover, geographical barriers and a lack of health facilities within villages contribute to a further reduction in vaccination rates.

### D) *Strategic Marketing and Health Communication*

Effective health communication strategies will definitely increase awareness and public acceptance of the HPV vaccine. Marketing strategies on social media networks will greatly enhance the reach and impact of health messages within this medium. Social media enables two-way interactive engagement, a critical element for addressing misconceptions and establishing trust in vaccines. This can also be further amplified by collaboration with influencers or healthcare providers in rendering such health campaigns more relatable and credible to the target audience.

## III. RESULTS AND DISCUSSION

### A) *Consumer Analysis*

1. Successful promotion and uptake of the HPV vaccine depend on understanding consumer awareness and perceptions. In the current study, the survey was forwarded through email and WhatsApp for two weeks and received 400 responses. All responses were valid, with no incomplete data or missed answers. Thus, according to López et al. (2022), the validity rate was 100 percent. Such distribution allowed for efficient contact with a very heterogeneous group of respondents, therefore providing a wide and representative sample. In this regard, the comprehensive data collected on HPV vaccine awareness and its acceptance, respondent profiles, awareness levels, consumer perceptions, and the effectiveness of various marketing approaches for the HPV vaccine provided a strong basis for descriptive analysis. This would allow identifying key trends and patterns that inform strategic marketing efforts for HPV vaccines.

## 2. Respondents' Profile

The subjects were drawn from a sample size of 400, which ensured a good representation of both the urban and the rural populations. Those present were between the age of 18 to 45 years, with the majority falling between the age brackets of 25 to 35 years. This is the most critical demographic in this research targeting HPV vaccine campaigns, as this age group contains decision-makers of health and minors. Diverse age and residence profiles, therefore, provide a wide base for understanding different perspectives and tailoring strategies to meet varied needs within that sector, thereby also addressing the relevance of demographic-specific approaches in a SWOT analysis.

## 3. Social Media Behavior

An overwhelming majority of the respondents actively seek health information on social media. About 32.9% of the respondents do this occasionally, while 27.9% do this very often. Further, trust in health information obtained from social media is moderate to high, where 28.6% said they had a high degree of trust, and 24% said they trusted it moderately. This high level of engagement and trust thus shows that social media is important for health communication. The results suggest that one of the major strengths of a social media campaign should be to keep being updated with credible content in order to engage and foster trust.

## 4. Knowledge of HPV

The knowledge regarding HPV varies from individual to individual, with 42.4% of those evaluated having a neutral understanding, 27% describing it as very high, and 22.8% as high. The variation proves there is a requirement for more education to achieve superior knowledge of HPV and its risks. The neutral level in the majority depicts the weakness in the current efforts for educational outreach; therefore, targeted information campaigns have to be planned to increase knowledge about HPV.

## 5. Knowledge of HPV Vaccine

On awareness of HPV vaccines, visual content played a very important role in promoting the vaccine. About 27% of the respondents rated the visual content very important, and 22.8% rated it as important. Therefore, this calls for high-quality visuals in the educational campaign to improve retention and engagement. This thus creates an opportunity to increase awareness and acceptance through leveraging the visual content since it has greatly impacted health communication.

## 6. HPV Immunization Acceptability

In addition, HPV vaccination acceptability was measured with respect to the attitude and willingness of the respondent to be vaccinated or recommend it to others. High trust in health information from social media correlated with a greater willingness to accept HPV immunization, with 28.6% of respondents expressing high trust and 24% expressing moderate trust. Additionally, 27% of respondents found visual content very important in decision-making. This suggests that credible and engaging social media campaigns could significantly influence vaccine acceptance. The willingness to accept vaccination among those who trust social media information is a strength that can be exploited by ensuring all communications are trustworthy and well-crafted.

## B) STP Analysis

### a. Segmentation

#### 1. Demographic:

- Age: Girls and young women aged 9-26 years.
- Gender: Focus on females due to high cervical cancer risk.
- Income Level: High-income groups can afford the market price, while low-income groups need subsidies.
- Decision Makers: Parents/guardians for underage girls.

#### 2. Geographic:

- Urban Areas: High population density, well-developed infrastructure. Target through digital campaigns, school programs, and local healthcare providers.
- Rural Areas: Lower population density and limited access to healthcare. Use mobile clinics and community outreach programs.

#### 3. Psychographic:

- Health Consciousness: Target health-conscious individuals.
- Education Level: Higher education levels are more aware of vaccination benefits.

### b. Targeting

#### 1. Primary Target Market:

- Young Females (9-26 years): Schools and universities as partners.
- Parents of Young Girls: Educate parents about vaccine safety and benefits.

#### 2. Secondary Target Market:

- Healthcare Providers: Pediatricians, gynaecologists, and general practitioners.

- Educational Institutions: Schools and universities for vaccination programs.
- Government and NGOs: Partnerships for reaching underserved populations.

**c. Positioning**



**Fig. 1 Positioning Map**

**C) 4P Analysis**

**a. Product**

HPV Vaccine by PT. BF: High efficacy, broad protection (types 6, 11, 16, 18), strong safety profile, available in two-dose and three-dose schedules for ages 9-26. High perceived value but requires better educational efforts.

**b. Price**

Premium Pricing: Rp 1,185,000 per dose, reflecting quality. Subsidies for low-income groups, but limited awareness and reach of these programs. Cost remains a barrier for many.

**c. Place**

Distribution Channels: Hospitals, clinics, vaccination drives in schools/universities, government programs. Effective in urban areas (70% access) but needs expansion in rural areas (30% access).

**d. Promotion**

**1. Strategies:**

- Educational campaigns via social media, TV, radio, and print media.
- Partnerships with healthcare providers.
- Endorsements from health authorities and public figures.
- Community outreach and offline promotions in urban areas.
- Incentive programs with free consultations, discounts, and influencer collaborations.

**2. Effectiveness**

Strong urban engagement but limited rural reach and varied HPV knowledge levels. More targeted educational content and rural engagement are needed.

**D) SWOT Analysis**

**a. Strengths**

1. High Vaccine Efficacy (S1): Effective in preventing HPV-related diseases, including cervical cancer (PT.BF, 2024).
2. Company Reputation (S2): Trusted vaccine manufacturer in Indonesia and beyond (PT.BF, 2022a).
3. Strong Safety Profile (S3): Consistent quality control, monitored by BPOM (Herdian, 2023).
4. Good Pharmaceutical Technology Resources (S4): Advanced research facilities and skilled workforce (PT.BF, 2022a).

**b. Weaknesses**

1. High Cost of HPV Vaccine (W1): Premium pricing at Rp 1,185,000 per dose; subsidies insufficiently known (Imuni, 2023).
2. Limited Awareness and Misconceptions (W2): 42.4% neutral knowledge about HPV; misconceptions persist.
3. Geographical Barriers (W3): Limited rural access; 40% rural engagement vs. 60% urban.
4. Low HPV Immunisation Coverage (W4): First dose coverage 4%-8%, last dose 6%-29% (2018-2022).
5. Inadequate Training for Employees (W5): Lack of training affects effective communication and promotion.

**c. Opportunities**

1. Growing Social Media Engagement (O1): Leverage Instagram (58.5%) and YouTube (46.5%) for educational campaigns.

2. Government Support for Immunization Programs (O2): Aim for 90% HPV immunization coverage by 2030 (Bureau of Communication and Public Services, 2023).
3. Collaboration with Influencers (O3): Influencers can amplify the message; 27.4% of respondents are influenced by social media personalities.
4. Increasing Public Health Awareness (O4): Rising focus on preventive health due to recent global health crises.

**d. Threats**

1. Misinformation about HPV Vaccine (T1): Spreading false information undermines trust and acceptance (Wilson & Wiysonge, 2020).
2. Economic Constraints (T2): Economic downturns reduce purchasing power, affecting vaccine uptake (World Bank, 2021).
3. Cultural and Social Barriers (T3): Cultural beliefs and social norms hinder vaccine acceptance (Karamanidou & Dimopoulos, 2016).
4. Regulatory and Policy Changes (T4): Changes in policies and regulations can disrupt vaccine distribution and promotion.

**E) TOWS Matrix**

After conducting the SWOT analysis, the following section provides the TOWS Matrix, which outlines specific strategies for PT. It aimed to identify how BF could optimize its strengths, address its weaknesses, capitalize on opportunities, and defend itself against threats to enhance PT's competitive advantage for BF and ensure the successful promotion and distribution of the HPV vaccine.

<b>TOWS MATRIX</b>	<b>STRENGTHS:</b>	<b>WEAKNESSES:</b>
	<ul style="list-style-type: none"> <li>• High Vaccine Efficacy (S1)</li> <li>• Company Reputation (S2)</li> <li>• Strong Safety Profile (S3)</li> <li>• Good Pharmaceutical Technology Resources (S4)</li> </ul>	<ul style="list-style-type: none"> <li>• High Cost of HPV Vaccine (W1)</li> <li>• Limited Awareness and Misconceptions (W2)</li> <li>• Geographical Barriers (W3)</li> <li>• Low HPV Immunisation Coverage (W4)</li> <li>• Inadequate Training for Employees (W5)</li> </ul>
	<b>OPPORTUNITIES:</b>	<b>SO (Strengths-Opportunities) Strategies</b>
<ul style="list-style-type: none"> <li>• Growing Social Media Engagement (O1)</li> <li>• Government Support for Immunization Programs (O2)</li> <li>• Collaboration with Influencers (O3)</li> <li>• Increasing Public Health Awareness (O4)</li> </ul>	<ul style="list-style-type: none"> <li>• Leverage High Vaccine Efficacy and Growing Social Media Engagement (S1, O1)</li> <li>• Utilize Company Reputation and Government Support for Vaccination Programs (S2, O2)</li> <li>• Promote Strong Safety Profile and Collaborate with Influencers (S3, O3)</li> <li>• Leverage Pharmaceutical Technology Resources to Increase Public Health Awareness (S4, O4)</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce High Cost with Government Support (W1, O2)</li> <li>• Address Limited Awareness and Misconceptions through Social Media Engagement (W2, O1)</li> <li>• Improve Geographical Reach and Increase HPV Immunization Coverage through Government Support (W3, W4, O2)</li> <li>• Enhance Employee Training with Public Health Awareness Programs (W5, O4)</li> </ul>
<b>THREATS:</b>	<b>ST (Strengths-Threats) Strategies</b>	<b>WT (Weaknesses-Threats) Strategies</b>
<ul style="list-style-type: none"> <li>• Misinformation about HPV Vaccine (T1)</li> <li>• Economic Constraints (T2)</li> <li>• Cultural and Social Barriers (T3)</li> <li>• Regulatory and Policy Changes (T4)</li> </ul>	<ul style="list-style-type: none"> <li>• Countering Misinformation with High Vaccine Efficacy (S1, T1)</li> <li>• Utilize Company Reputation to Address Economic Constraints (S2, T2)</li> <li>• Promote Safety Profile to Overcome Cultural and Social Barriers (S3, T3)</li> <li>• Utilize Advanced Pharmaceutical Technology to Adapt to Regulatory Changes (S4, T4)</li> </ul>	<ul style="list-style-type: none"> <li>• Combating Limited Awareness and Misinformation (W2, T1)</li> <li>• Overcome Geographical Barriers and Cultural Barriers (W3, T3)</li> </ul>

**Fig. 2 TOWS Matrix**

**IV. CONCLUSION**

This study discovered awareness and acceptability of the HPV vaccine among Indonesians, which is quite low because 42.4% of the people interviewed had the right knowledge; however, misconceptions affect the rate of accepting the vaccine. PT. BF can increase awareness and acceptability through social media campaigns, using influencers, eyeing geographical spread via mobile units, improving educational campaigns about the vaccine government policies, reducing economic constraints through subsidies, and increasing the competence of the workers through training. Once implemented, these strategies have the potential to make a big difference—in public health in the acceptance rates of HPV vaccination in Indonesia.

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