Non-Smoke Tobacco Consumption in India: A Cost-Benefit Analysis

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This study evaluates the economic and social impacts of non-smoke tobacco consumption in India and compares them with the tax revenue generated by the government from this industry. Non-smoke tobacco products, such as chewing tobacco and pan masala, are associated with various health and environmental problems, such as oral cancer and littering. The study uses the concept of externalities to analyse the costs and benefits of non-smoke tobacco consumption for the society and the government. Based on available data and assumptions, the study estimates the expenditure on oral cancer treatment and cleanliness, and the revenue from direct and indirect taxes on non-smoke tobacco products. The study finds that the government collects more revenue than it spends on mitigating the negative externalities of non-smoke tobacco consumption, but the social costs are still significant. The study suggests that the government should implement more effective tobacco taxation and control policies to reduce the consumption and harm of non-smoke tobacco products.

Keywords: non-smoke tobacco, externality, cost-benefit analysis

INTRODUCTION

Tobacco is one of the leading causes of preventable death and disease in the world, killing more than 8 million people annually, and costing the global economy more than US$ 1.4 trillion in health care expenditures and lost productivity (World Health Organization, 2020). According to a government report multiplying the cost per unit of early and advanced cancer as per the study's results, India spent

approximately Rs. 2,386 crores in 2020 on oral cancer treatment, paid for by insurance schemes, government and private sector spending, out of pocket payments and charitable donations.[1]

There are two types of tobacco products being consumed, one is smoke tobacco, and another is non-smoke tobacco. In a Tobacco Institute of India study, Smoke Tobacco products' consumption is 10% but contribution to revenue is 80%. This implies that consumption of Non-smoke Tobacco is much higher in India. Cancer is just one aspect of usage of non-smoke tobacco consumption there are other less explored areas of concern like cleanliness, environmental issues etc. These expenses put huge burden on government and society. Usually, poor people consume these non-smoke tobacco products and for most of them are not able to bear the cost of treatment. Thus, this question arises why the government is not banning the production of Non-Smoke Tobacco based products.

Though tobacco taxation and control policies are widely recognised as effective measures to reduce tobacco consumption and its negative consequences and generate revenue for governments (Jha & Peto, 2014). However, the implementation and impact of these policies vary across countries, depending on the political, economic, social, and environmental factors that influence the demand and supply of tobacco products. In India, the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act was enacted in 2003. Producers and distributors find out loop holes in the system and make it a profitable business. For example, with the help of surrogate advertisement these products are being exhibited as lucrative products to be consumed. Outcome of such activities are critical illness, dirty roads and premises and huge social cost to mitigate such issues.

Professor Christina Romer explains externalities as an effect related to the production or consumption of a good that falls on people who are not the producers or consumers. Externalities can be of two types negative and positive. Negative externality can be referred to as those outside the market being negatively affected. Negative externalities can result from either the consumption or the production of a good (or both)[2]. In this research study we tried to analyse the effect of non-smoke tobacco on public finance and if tobacco consumption is harmful then why the government is not banning production of the same.

LITERATURE REVIEW

This literature review aims to compare and contrast the tobacco taxation and control policies and to identify the challenges and opportunities for improving these policies in the context of the 21st century. The taxation and control of tobacco products are critical in addressing public health challenges and economic considerations. This literature review synthesises research findings from various perspectives, examining the fiscal conditions of states, taxation policies, government interventions in India, and global responses to the tobacco industry's influence.

Yach and Bettcher (2000) present a global outlook on the influence of the tobacco industry and the evolving responses to counter its impact. Understanding global dynamics is crucial for crafting effective policies that transcend national borders.

Chaudhry's (2002) contribution adds historical context to the discussion by examining tobacco control efforts in India over the past fifty years. This historical perspective aids in understanding the evolution of policies and their impact. Study also calculated expenses that occurred due to cancer and coronary diseases linked with tobacco uses.

Bahl et al. (2005) provide a comprehensive analysis of India's fiscal conditions, emphasizing the need for reforms in taxation policies. This insight is complemented by Miluwi's (2014) exploration of new dimensions in India's taxation policy, highlighting contemporary challenges in the 21st century. Government needs funds to the welfare activities specially in socialist economies.

Drawing parallels with externalities in the alcohol industry, Powrie et al. (2014) explore the challenges associated with dealing with social externalities. Illness due to alcohol is increasing and response to this form industry to cope up with these externalities is very less. This broader perspective provides insights into potential strategies for addressing tobacco-related issues.

In year 2016, a report of World Health Organization (WHO) says that India looses 1% of its GDP due to diseases and early death caused by tobacco usage. Till this time GST was not implemented and taxes used to be collected form excise duties. Report also says that smoking attributable costs amounted to 74% and the SLT attributable costs were 26%.

Murwendah and Malau (2018) contribute a study evaluating the policy dilemma surrounding the effective value-added tax rate on tobacco products. This analysis adds nuance to the ongoing debate on tax structures. This study also states that's increasing VAT could not be effective in reducing consumption of tobacco products.

Ahmed (2019) delves into the challenges and opportunities associated with tobacco taxes in Bangladesh, providing valuable insights into the broader South Asian context. This regional perspective enhances our understanding of cross-border implications and shared challenges. Study supports higher taxes to reduce the consumption of tobacco and increase the revenue of the government.

Mukherjee and Mishra (2019) offer a critical review of government interventions on tobacco control in India, shedding light on the effectiveness and shortcomings of existing policies.

Hendlin and Bialous (2020) present a comprehensive review of the environmental externalities associated with tobacco manufacturing, highlighting the industry's need for sustainable and eco-friendly practices.

Seshadri, Kaulgud, and Jha (2021) provide a detailed case study on tobacco taxation in India, emphasizing the complexity and importance of this policy tool. The research underscores the challenges faced in implementing effective taxation strategies. This study also supports those excessive taxes not only reduce consumption but also reduce government expenditure. The study also emphasizes conflict between health and economics while controlling the production of tobacco products.

Meilissa et al. (2022) estimate the economic costs of smoking-attributable diseases in Indonesia, providing a regional perspective that complements the South Asian focus.

This literature review underscores the multifaceted challenges and opportunities associated with tobacco taxation and control measures. Insights from India and around the globe contribute to understanding policy effectiveness, economic implications, and the broader impact on public health and the environment. However, we could not identify sufficient quantitative work in calculating externality, especially in the area of non-smoke tobacco consumption.

OBJECTIVE OF STUDY

To investigate, despite the high social cost of consumption of Non-Smoke Tobacco, the production and consumption are not ceased.

UNRAVELING THE NEGATIVE EXTERNALITIES:

Pan masala (Non-Smoke Tobacco), a popular mouth freshener and stimulant widely consumed in South Asia, has become an entrenched part of many cultures. However, beneath its alluring flavours and seemingly harmless reputation lies Pandora's box of negative externalities that extend far beyond the individual consumer.

Pan masala's allure lies in its blend of tobacco, betel nut, and slaked lime, which delivers a stimulating and addictive experience. However, this blend harbors a multitude of health hazards that often remain veiled from consumers' awareness. Tobacco, a primary ingredient, is a well-established carcinogen, increasing the risk of lung, oral, and oesophageal cancers. Betel nut, another key component, contains substances linked to oral leukoplakia and sub-mucous fibrosis, conditions that can progress to oral cancer. Slaked lime, added for its gritty texture, can irritate the mouth and throat, further exacerbating the health risks.

The consumption of pan masala leaves an indelible mark on the environment. Pan masala sachets, carelessly discarded, litter public spaces, adding to the growing plastic waste crisis. The spit-out residue of pan masala, often laden with toxic substances, clogs drains and pollutes waterways, disrupting ecosystems and endangering aquatic life. Betel nut cultivation, a crucial step in pan masala production, also affects the

environment. Betel nut trees are water-intensive, depleting precious water resources in regions already facing water scarcity.

Pan masala consumption is often associated with social stigma, particularly in urban areas. Individuals who indulge in this habit may face discrimination and ostracism, hindering their social integration and perpetuating a cycle of marginalization. The habit of spitting pan masala, considered a nuisance by many, can strain social interactions and limit opportunities for engagement. This stigma can lead to feelings of isolation and exclusion, further compounding the negative impacts of pan masala consumption.

The negative externalities of pan masala extend beyond the individual and societal spheres, reaching into the realm of economics. Lost productivity due to pan masala-related illnesses, coupled with the soaring costs of medical treatment, places a significant strain on healthcare systems and economies as a whole. Cleaning pan masala waste, a constant battle in many urban areas, diverts resources and manpower away from more pressing issues. Additionally, enforcing anti-pan masala regulations, while essential for public health, incurs costs that could be better utilized for other development priorities.

ANALYSIS

According to the data from the Income Tax Department[3] and GST portal, the total direct tax (including corporate tax and income tax) ₹10,50,686 crore and total indirect tax[4] ₹10,19,168 crore was collected in the financial year 2019-20. The share of taxes collected from tobacco and allied products and pan masala in the gross tax revenue for 2019-20 was around 2.39%[5]. This implies that the tax revenue from these products was around ₹49,469.51 crore in 2019-20.

METHODOLOGY

This descriptive research is based on externalities due to consumption of Non-Smoke Tobacco. A cost benefit analysis method is used, comparing the costs and benefits of a decision or a project. It helps to evaluate whether the benefits outweigh the costs and by how much.

To observe the externality, we found that to treat oral cancer (majorly caused by non-smoke tobacco) lot of money is being spent by society. This money puts economic burden on those who are not consuming such tobacco products. Apart from this we also found that a huge amount is being spent by some government agencies on cleanliness due to the consumption of such products thus, we considered that cost as the **social cost of consumption**.

To analyze **the social benefit**, we found public revenue being generated from production and consumption of Non-Smoke Tobacco. As no clear data was available, we made assumptions based on available public information. First, we found total public revenue from direct and indirect sources and then estimated revenue collected from tobacco production and consumption. Finally, revenue being collected from non-smoke tobacco products was collected.

As the study to figure out expenditure to treat oral cancer was based on year 2020 thus, we conducted our analysis for the year 2020 only to understand the scenario.

Step 1: Calculation of expenditure

The amount spent by the Government on oral cancer was ₹2,386 crore, while the cleanliness of the indian railway spent ₹1200 Crore. Thus, ₹3,586 Crore is the total cost incurred by the government of India on illness and cleanliness due to the consumption of pan masala in the year 2020.

TABLE 1
CALCULATION OF PUBLIC EXPENDITURE

Expense type	Amount (Cr.)
Oral Cancer expenses	₹2,386.00
Cleaning expenses	₹1,200.00
TE (Total Expenditure)	₹3,586.00

Step 2: Calculation of revenue

Government revenue of ₹20,69,854 crore is the gross tax revenue collected by the government of India in the year 2020. Out of which ₹ 10,50,686 crore was direct tax and ₹ 10,19,168 crore was indirect tax. Total revenue from tobacco and pan masala was estimated as ₹49,469.51 crore. Tobacco institute of India says in its report that Non-Smoke Tobacco contributes 20% of the tax revenue collected by the government[6]. Thus, we can imply that government collected revenue from Non-Smoke Tobacco was ₹ ₹9,893.90 Crore.

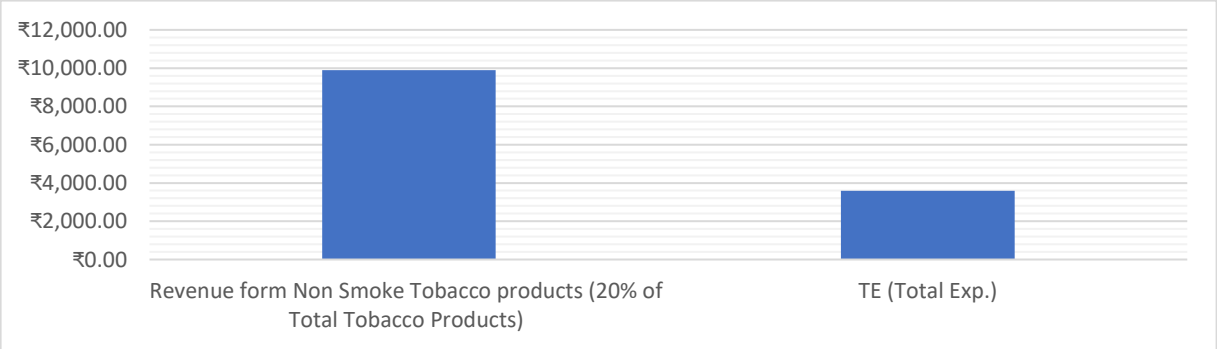
TABLE 2
CALCULATION OF PUBLIC REVENUE

Revenues	Amount (Cr.)
Direct tax	₹10,50,686.00
GST	₹10,19,168.00
GR (Gross Tax Revenue)	₹20,69,854.00
Total Revenue (Tobacco and pan masala) (2.39% of GR)	₹49,469.51
Revenue from Non-Smoke Tobacco products (20% of Total Tobacco products)	**₹9893.90**

Step 3: Cost Benefit Analysis

The externality can be analyzed with the help of Social Marginal Benefits and Private Marginal Benefits. An externality is a cost or benefit caused by one party but financially incurred or received by another. Externalities can be negative or positive, stemming from either production or consumption of a good or service. The 14 production and consumption of non-smoke tobacco generate negative externalities for society, as the public bears the costs of taxes and health expenditures related to tobacco use. Conversely, these activities also yield positive externalities for the government, which benefits financially from this sector. Specifically, the government collected ₹9,893.90 crore in revenue while spending ₹3,586 crore as shown in figure 1.

FIGURE 1
TOTAL COMPARISON BETWEEN REVENUE EARNED BY GOVERNMENT FROM NON-SMOKE TOBACCO PRODUCTS AND THE TOTAL GOVERNMENT SPENDING



CONCLUSION

The negative externalities of Non-Smoke Tobacco consumption are a stark reminder of the far-reaching consequences of individual choices. Addressing these externalities requires a collective effort from individuals, communities, and governments to promote responsible consumption habits and safeguard public health, the environment, and the economy. By acknowledging the hidden costs of Non-Smoke Tobacco consumption, we can take a proactive stance towards a healthier, more sustainable future.

Despite, less publicly available information we could estimate government is collecting marginally more revenue than its spending on to mitigate the externalities. Externalities of Non-Smoke Tobacco consumption is a complex and multifaceted issue, requiring a multi-pronged approach to address. Government has enacted legislations and runs continuous public awareness campaigns even then production and consumption are keep increasing.

Addressing the underlying social stigma associated with pan masala consumption requires a concerted effort from communities, leaders, and social organizations. Authorities need to make the production of Non-Smoke Tobacco less profitable business. The government puts taxes on such harmful products to reduce consumption but not with the intention of generating revenues. But is is being observed that despite increasing taxes, people are paying for such products and being lured by surrogate advertisements exhibited by the producers of Tobacco allied products.

ENDNOTES

1. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1728720#:~:text=Multiplying%20the%20cost%20per%20unit,or%20a%20combination%20of%20these.
2. https://www.econ.berkeley.edu/sites/default/files/course-homepage/2020-02-20/lecture notes/Lecture%2010%202-20%20Outline%20and%20Slides_1.pdf?ssp=1&setlang=en-IN&safesearch=moderate
3. https://cag.gov.in/webroot/uploads/download_audit_report/2021/Report%20No.%208%20of%202021_Direct%20Taxes%202019-20_English 061c19892b7b100.53030446.pdf?ssp=1&setlang=en&cc=IN&safesearch=moderate
4. https://gstcouncil.gov.in/sites/default/files/GST-Revenue-april2019_to_Jan2020.pdf
5. https://m.economictimes.com/news/economy/policy/uttar-pradesh-karnataka-and-maharashtra-paid-maximum-tax-for-tobacco-items/articleshow/102105514.cms?ssp=1&darkschemeovr=1&setlang=en&cc=IN&safesearch=moderate#google_vignette
6. https://www.tobaccoleaf.org/wp-content/uploads/2021/11/Country_Report_India_TII.pdf?ssp=1&darkschemeovr=1&setlang=en&cc=IN&safesearch= moderate

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