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The Effects Of Cigarette Excise Tax On Smoking Habits And Factors Affecting Spending Decisions Among Residents Of Barangay Lakandula, Mabalacat City

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Abstract: This study investigates how cigarette excise taxes affect smoking habits and the spending decisions of smokers in Barangay Lakandula, Mabalacat City, Pampanga. It aims to understand how psychological, social, environmental, and economic factors influence how smokers spend money and whether the tax helps change their smoking behavior. The research also identifies the main reasons like stress, peer influence, or financial issues that make it hard for people to reduce or quit smoking. The study is based on the Behavioral Economics Theory and the Theory of Planned Behavior. These were used to better understand why smokers make certain spending decisions and how these theories apply in a local setting. Using face to face survey, the researchers gathered data from smokers of different ages, jobs, smoking history, and daily cigarette use. Results show that excise taxes do affect smoking behavior, especially by making smokers reduce spending, switch to cheaper brands, or become more aware of health risks. Social factors had the biggest influence, while psychological, environmental, and health concerns had less impact. Younger smokers who are more sensitive to price changes were more affected by the tax. In the end, the study suggests that the government should not only rely on taxes but also use social campaigns and stop-smoking programs to help reduce smoking in communities. These findings can help improve future tobacco control strategies that are suited to the needs of local people

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Keywords—Cigarette Taxation, Smoking Behavior, Spending Decisions, Behavioral Economics, Public Health

1. INTRODUCTION

Cigarette consumption continues to present a major public health concern globally, contributing to millions of preventable deaths each year. According to the World Health Organization (WHO), tobacco use remains one of the leading causes of mortality and morbidity worldwide. Despite extensive health campaigns and legislation, smoking prevalence remains high, particularly in low- and middle-income countries. One of the most effective tools governments employ to combat this issue is the implementation of fiscal policies, particularly excise taxes on tobacco products. The formatter will need to create these components, incorporating the applicable criteria that follow.

Excise taxes on tobacco are levied both to discourage consumption and to generate public revenue for health and social programs. Evidence from multiple international studies indicates that increasing tobacco prices through excise taxes reduces smoking rates, especially among the youth and low-income populations. A 10% increase in tobacco prices typically leads to a reduction in consumption by around 4% in higher-income countries and approximately 5% in lower-income countries. However, the extent of these effects varies across different socio-economic groups and localities.

In the Philippines, where smoking rates remain among the highest in Southeast Asia, the government enacted the Sin Tax Reform Law of 2012 to impose higher excise taxes on tobacco products. The law not only aimed to reduce smoking prevalence but also to fund the country's Universal Health Care (UHC) program. Though the tax led to noticeable increases in cigarette prices, disparities in smoking behaviors and spending decisions among different demographics and regions persist.

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This study investigates the effects of cigarette excise taxes on smoking habits and factors influencing spending decisions among residents of Barangay Lakandula, Mabalacat City, Pampanga. It seeks to determine how various factors—such as psychological, social, environmental, and health considerations—affect smokers' spending decisions in response to rising tobacco prices. By adopting both the Behavioral Economics Theory and the Theory of Planned Behavior (TPB), the study aims to better understand the underlying behavioral mechanisms influencing smoking decisions and economic behavior in this local context.

While national studies offer broad insights into the effects of tobacco excise taxes, localized research is essential to capture community-specific dynamics and responses. This research aims to fill that gap by focusing on a particular urban area in Mabalacat City, analyzing how excise tax policies interact with personal and environmental factors to shape smoking behavior and spending decisions. The findings of this study are expected to contribute valuable insights for policymakers, public health advocates, and future researchers in crafting more effective, localized tobacco control strategies.

Review of Related Literature

Globally, governments have implemented excise taxes on tobacco products as a key fiscal measure to curb smoking prevalence and raise public revenue. According to the World Health Organization (2023), increasing tobacco taxes is one of the most effective ways to reduce cigarette consumption, particularly among youth and low-income groups. A 10% rise in tobacco prices has been shown to reduce consumption by approximately 4% in high-income countries and 5% in lower-income nations.

In the Philippines, the government enacted the Sin Tax Reform Law of 2012, which increased excise taxes on tobacco and alcohol to discourage use and fund the Universal Health Care (UHC) program. As noted by Ines (2021), this reform resulted in substantial price hikes, contributing to decreased consumption rates. However, the effectiveness of tax measures often varies across different socio-economic sectors

Research has shown that smoking behavior is influenced by a complex interaction of demographic, social, psychological, environmental, and health-related factors. SEATCA (2022) reported that working-age adults, especially those aged 25–45, are the highest tobacco consumers in Southeast Asia, often driven by work stress and peer pressure. Similarly, Greenhalgh et al. (2023) emphasized the role of peer groups and accessibility of tobacco products in the workplace as enablers of smoking.

Regarding smoking history, Xu et al. (2019) found that individuals with shorter smoking durations exhibited greater sensitivity to cigarette price increases. Moderate smokers—those consuming around 5–10 cigarettes daily—were found by WHO (2020) to be more responsive to excise taxes, particularly if financially constrained.

Peer influence and social acceptance remain significant determinants of smoking behavior, especially in urban communities. Leventhal et al. (2019) highlighted the strong impact of family and peer norms on smoking susceptibility. Locally, Gonzales and Romero (2021**)** identified barkada culture and social gatherings as primary contributors to smoking in Philippine urban communities.

Psychological factors such as stress and emotional distress also contribute to persistent smoking habits. Kim and Kim (2020) observed that individuals experiencing anxiety are more likely to smoke and less responsive to price increases. Similarly, Reyes and Cordero (2020) reported that in Bulacan, smokers often prioritized cigarette purchases as a coping mechanism.

Environmental factors—including cigarette availability, advertisement exposure, and public smoking norms—play a significant role in tobacco consumption patterns. Lee and Lin (2018) asserted that the presence of accessible tobacco outlets and permissive public smoking areas encourages smoking behavior. Huang et al. (2020) found that smoke-free policies and visible anti-smoking signage helped reduce consumption and shift spending toward healthier alternatives.

On the health side, public awareness campaigns and health warnings have proven effective in influencing smoking habits. Gravely et al. (2019) demonstrated that graphic health warnings prompted smokers to reconsider their habits. Cho et al. (2020) further noted that rising health concerns have motivated smokers to reduce consumption or quit.

Financial factors are also central to understanding spending decisions on cigarettes. Shang et al. (2019) confirmed that increased cigarette prices directly led to reduced consumption, with some consumers opting for cheaper brands or reducing daily consumption. Ngo et al. (2020) and Chaloupka and Powell (2022) emphasized that excise taxes are most effective when accompanied by complementary public health interventions.

Locally, Gallardo and Solis (2019) observed that in Pampanga, smokers responded to tax hikes by cutting down, switching to single-stick purchases, or shifting to lower-priced brands. These behaviors illustrate how consumers adapt to tax-induced price increases.

While existing national and international studies extensively document the effects of excise taxes, there is limited research focusing on community-level responses within specific local contexts in the Philippines. As Edwards and Carter (2024) noted, localized studies provide valuable insights into region-specific economic and social dynamics affecting tobacco control efforts.

This study addresses this gap by exploring how excise taxes, combined with personal and social factors, influence smoking habits and spending decisions among residents of Barangay Lakandula, Mabalacat City.

Theoretical and Conceptual Framework

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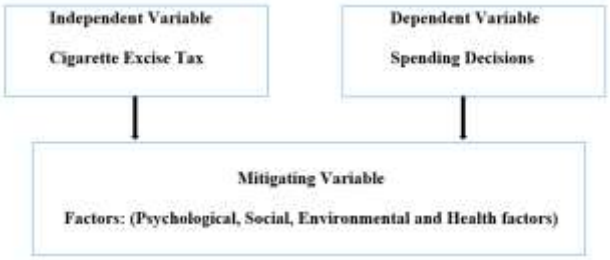

Figure 1 illustrates the conceptual framework of this study based on the Independent Variable (IV)-Dependent Variable (DV) model to illustrate the relationship between cigarette excise taxes (IV) and smokers' spending decisions (DV) within the local context of Mabalacat City. It investigates how psychological, environmental, health, and social influences mediate this relationship, ultimately affecting smoking behavior. The framework aims to reveal the multifaceted interactions that determine how cigarette excise taxes influence smoking habits and spending decisions among residents.

Moreover, the theoretical foundation of this study was supported by Behavioral Economics Theory and the Theory of Planned Behavior (TPB).

The **Behavioral Economics Theory** explains how cognitive biases—such as present bias and loss aversion—affect decision-making, especially under financial constraints. According to Thaler and Sunstein (2008), individuals often prioritize immediate gratification, such as stress relief or social inclusion from smoking, over the long-term benefits of quitting, such as improved health or financial savings. This phenomenon helps explain why some individuals continue to smoke despite higher cigarette costs due to increased excise taxes.

In parallel, the Theory of Planned Behavior (TPB**)** provides a framework for understanding how individuals' behavioral intentions are shaped by attitudes, perceived social norms, and perceived behavioral control. Ajzen (1991) emphasized that a smoker's intent to quit is influenced by personal beliefs about smoking, the social acceptability of the habit, and confidence in their ability to quit. For example, in communities where smoking is normalized, social pressures may undermine the effectiveness of taxation policies unless complemented by social support or intervention programs (Brown & White, 2020).

The integration of these two theories supports a comprehensive framework in which external financial pressure (via excise taxation) interacts with internal psychological and social influences. Behavioral Economics clarifies why individuals may continue smoking despite increased prices, while TPB accounts for the role of social and personal motivations in quitting.

This study seeks to assess the influence of these interacting factors on smokers' spending behavior in Mabalacat City. It will evaluate the extent to which excise taxes drive behavioral change and identify psychological, social, and economic barriers that hinder smoking reduction or cessation. Insights from this study will inform policy recommendations aimed at strengthening tobacco control efforts.

Statement of the Problem

This research investigates how various factors influence spending decisions on cigarettes and, in turn, how these decisions are affected by excise taxes among smokers in Mabalacat City.

1. What is the demographic profile of the respondents in terms of:
    - Age
    - Employment status
    - Number of years in smoking
    - Daily number of cigarette consumption
2. What factors (Psychological, social, environmental and health factors) influence respondents' spending decisions on cigarettes?
3. Is there a significant relationship between these factors and the respondents' spending decisions?
4. How does the cigarette excise tax impact spending decisions among smokers in Mabalacat City?

HYPOTHESIS OF THE STUDY

The following are the hypotheses of the study:
Null Hypothesis

H_0: There is no significant relationship between cigarette excise tax and the spending decisions of smokers in Mabalacat City, regardless of psychological, environmental, health, and social factors.

Alternative Hypothesis

H_1: There is a significant relationship between cigarette excise tax and the spending decisions of smokers in Mabalacat City, influenced by psychological, social, and environmental factors.

SIGNIFICANCE OF STUDY

The findings of this study were beneficial for:

Smokers in Mabalacat City*:* One of the initial users of the study is the community of Mabalacat City. The study will help smokers understand how cigarette excise taxes and related factors affect their spending choices, potentially guiding them toward healthier habits.

The Bureau of Internal Revenue and other Relevant Government Agencies*:* Findings can support agencies like the Bureau of Internal Revenue in evaluating and refining tax policies, especially when considering complementary programs like public education and cessation support.

Local Businesses*:* Retailers may benefit from insights into consumer behavior, particularly regarding changes in cigarette purchasing habits, allowing them to adjust inventory and sales strategies.

Future Researchers: This study serves as a reference point for academic inquiry into tobacco control and excise taxation at the community level.

SCOPE AND DELIMITATION

This study focused on the factors affecting the spending decisions of smokers in Mabalacat City. Specifically, it explored how excise tax hikes influenced spending patterns, including smoking frequency, brand preferences, and overall cigarette consumption. Data were collected through face-to-face surveys with adult smokers during a specific period following recent excise tax adjustments. The research focused solely on cigarette products, excluding other excise-taxed items such as alcohol, sugary beverages, and alternative nicotine products like e-cigarettes and vapes.

The geographical scope was limited to Mabalacat City to provide a localized analysis, which aligned with findings by Ines (2021) that emphasized the value of region-specific data in assessing the effectiveness of tobacco control measures. By narrowing the focus to a specific community, the study offered a nuanced understanding of how local economic and social conditions influenced the effectiveness of excise taxes. This enabled policymakers to tailor interventions more effectively based on localized insights.

The study was confined to adult smokers aged 18–68 years old and above. By focusing on this age range, the study captured the demographic with the highest smoking prevalence, providing valuable insights into spending decisions and the impact of excise taxes within this group.

The research period aligns with recent adjustments in excise tax rates to assess current impacts. While the study considers various behavioral and environmental factors, external variables such as income fluctuations, national campaigns, or healthcare initiatives are not included.

2. Methods

Research Design

In this study, the researchers employed a descriptive-correlational research design to examine the relationship between cigarette excise tax, mitigating factors (psychological, social, environmental, and health), and spending decisions among Mabalacat City residents. This research design was quantitative in nature, involving the systematic collection and analysis of numerical data to identify patterns, relationships, and effects (Wilson, 2019). According to Bhandari (2023), a correlational study explores the relationship between two or more variables without manipulating them, focusing on identifying associations rather than establishing causality. In this research, the descriptive design provided an overview of the smoking behaviors, spending patterns, and demographic profiles of the respondents. Meanwhile, the correlational aspect investigated whether excise tax hikes significantly influenced spending decisions, such as cigarette consumption frequency and brand preference.

RESEARCH LOCALE

The strategic location of Barangay Lakandula, Mabalacat City, Pampanga coupled with its growing and diverse population, makes it an ideal locale for analyzing how cigarette excise taxes influence spending decisions and smoking habits. The area's integration of residential communities with commercial and industrial establishments provides a comprehensive environment to observe the effects of taxation policies on various demographic segments.

RESPONDENTS

This study focused on adult smokers in Mabalacat City, Pampanga who were directly affected by cigarette excise taxes. The respondents included individuals from various socio-economic backgrounds, such as low- and middle-income earners, regular smokers, and occasional smokers. To gather the appropriate participants, the researchers utilized a purposive-convenience sampling technique.

Purposive sampling is a non-probability technique where participants are selected based on specific characteristics relevant to the study's objectives (Campbell et al., 2020). In this case, the criteria included being a current smoker and residing in Mabalacat City. Convenience sampling, as defined by the National Center for Social Research (NCSC, 2022), involves selecting individuals based on their accessibility, availability, and willingness to participate. This dual approach ensured that the sample comprised respondents who could provide meaningful insights into how excise taxes impacted their spending decisions and smoking habits.

Considering the practical challenges associated with convenience sampling, this study successfully collected data from 100 respondents. This sample size was consistent with Cohen's (1992) guidelines for quantitative research, ensuring sufficient power to detect statistically significant relationships between excise tax changes and smoking behaviors. Larger sample sizes provide more reliable estimates, especially in correlation and regression analyses, which were integral to this study.

INSTRUMENT

To investigate the relationship between cigarette excise tax, mitigating factors, and spending decisions of the respondents, the researchers utilized an adapted-modified research questionnaire. The items in the questionnaire were adapted and revised from different established studies.

The questionnaire was divided into five sections: the first section focused on the demographic profile of smokers; the second section explored awareness and perceptions of cigarette excise tax; the third section examined the factors (psychological, social, environmental, health) influencing smokers' spending decisions and smoking habits; the fourth section assessed how these factors impacted spending

decisions; and the fifth section determined how excise tax affected the smoking habits of the respondents. A four-point Likert scale was used:

To ensure reliability and validity, the questionnaire underwent pre-testing and further assessment with the help psychometricians and licensed customs broker prior to final administration.

DATA COLLECTION

Data collection was conducted primarily through face-to-face surveys targeting adult smokers in Barangay Lakandula, Mabalacat City, Pampanga. This method allowed for direct interaction, ensuring clarity in responses and higher response rates. The survey process emphasized voluntary participation and clearly explained the purpose of the study to respondents, securing informed consent. Only current smokers residing in Mabalacat City were eligible to participate.

DATA PROCESSING AND STATISTICAL TREATMENT

The data collected from the respondents were processed, scored, and tabulated to address the research questions and hypotheses of this study. Microsoft Excel was used for organizing and analyzing data, with statistical methods including frequency, percentage distribution, weighted means, and correlation analysis.

1. Frequency and Percentage Distribution

Frequency and percentage distribution will be used to summarize the respondents' smoking habits and spending patterns. According to Turney (2022), frequency distribution shows how often different outcomes occur, while percentage distribution expresses these frequencies as a percentage of the total sample. These methods are commonly used in survey data analysis to present the relative frequency of responses (Dean, 2022). This approach will help describe the respondents' demographic profiles, smoking frequency, and changes in spending decisions due to excise tax adjustments

2.Mean and Standard Deviation

For the four-point Likert scale used in the survey, the mean and standard deviation will be calculated to analyze the respondents' attitudes toward cigarette excise taxes and their smoking behaviors. The exclusion of a neutral option ensures a clearer indication of agreement or disagreement, as suggested by Anjaria (2022).

3. Correlation Analysis

To assess the strength and direction of the relationship between spending decision and smoking habits, as well as between cigarette excise taxes and smoking behaviors, Pearson's correlation coefficient will be calculated. This method measures the degree of association between two continuous variables. This analysis will use correlation coefficients such as Pearson's correlation, which quantifies the linear relationship between these variables. The analysis will explore whether higher spending on cigarettes correlates with smoking habits and whether higher cigarette excise taxes are associated with reduced smoking behavior among Mabalacat City residents.

4. Linear Regression

To determine the predictive effect of factors influencing spending decisions on smoking habits, and to analyze the impact of cigarette excise taxes on spending decisions. A simple linear regression will be applied. This technique allows analysis of the relationship between an independent variable (Cigarette Excise Tax) and a dependent variable (Spending Decision). As Wang & Chiu (2020) explain, regression analysis helps predict the extent of change in one variable based on changes in another.

This analysis will help determine the extent to which excise taxes predict changes in smoking habits and spending behavior.

Results

Table 1. Demographic Profile

PROFILE	FREQUENCY	PERCENTAGE	RANK
AGE			
18-27	17	17%	3
28-37	46	46%	1
38-47	22	22%	2
48-57	13	13%	4
58-67	1	1%	5.5
68 years above	1	1%	5.5
EMPLOYMENT STATUS			
Student	9	9%	3
Employed	56	56%	1
Unemployed	32	32%	2
Self-employed	3	3%	4
NUMBER OF YEARS SMOKING			
Less than 1 year	0	0	6
1-5 years	54	54%	1
6-10 years	17	17%	3
11-15 years	18	18%	2
16-20 years	5	5%	5
More than 20 years	6	6%	4
DAILY NUMBER OF CIGARETTE CONSUMPTION			
Less than 5 cigarettes	31	31%	2
6-10 cigarettes	60	60%	1
11- 15 cigarettes	6	6%	3
More than 15 cigarettes	3	3%	4
Total	**100**	**100.0**	

Based on the data presented in Table 1, most of the respondents from Lakandula in Mabalacat City are within the age range of 28 to 37 years old (46%), followed by those aged 38 to 47 (22%), indicating that most smokers are in their prime working years. In terms of employment status, more than half (56%) are employed, while a significant portion are unemployed (32%), which may influence their sensitivity to price changes such as excise taxes. These demographic trends

are consistent with findings by Southeast Asia Tobacco Control Alliance (SEATCA, 2022), which reported that working-age adults (especially those aged 25–45) are among the highest tobacco consumers in Southeast Asia, often due to stress from employment and social pressures. Similarly, Gonzales et al. (2020) found that individuals in their prime working years are more exposed to both the accessibility of cigarettes and peer influences in the workplaces. Regarding the duration of smoking habits, a large proportion (54%) have been smoking for 1 to 5 years, suggesting relatively recent adoption of the habit. This could indicate a potential responsiveness to tobacco control measures. Additionally, 60% of respondents smoke between 6 to 10 cigarettes daily, showing moderate daily consumption levels, while only a small fraction (3%) consumes more than 15 cigarettes daily. This pattern reflects what Nguyen et al. (2021) observed, where individuals who have smoked for less than five years were found to be more responsive to tobacco control interventions, including taxation and health warnings. According to the World Health Organization (2020), moderate smokers—those consuming 5 to 10 cigarettes daily—are more likely to reduce or quit smoking when faced with increased cigarette prices.

Table 2.1. SOCIAL FACTORS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. My friends or peers influence my decisions to buy cigarettes	3.46	.759	Strongly Agree
2. I tend to smoke more when I am in environments where smoking is common.	3.29	.774	Strongly Agree
3. I feel more encouraged to smoke when I am in social events.	3.29	.808	Strongly Agree
4. I feel pressured by others to maintain my smoking habits.	3.33	.719	Strongly Agree
GRAND MEAN	**3.34**	**.625**	**Strongly Agree**

Table 2.1 presents the interpretation of the social factors influencing smoking habits and spending decisions among Lakandula residents. The data reveal that all four items under the social factor category received high mean scores, ranging from 3.29 to 3.46, with a grand mean of 3.34 and a standard deviation of 0.625. This indicates that respondents strongly agree that social influences play a significant role in their smoking behavior and financial decisions related to cigarette consumption. The consistency of high mean values suggests a consensus among the participants that social factors are a strong influence in their smoking habits despite the implementation of cigarette excise tax. This finding is consistent with Leventhal et al. (2019), who emphasized that peer and familial influences increase smoking susceptibility, especially among working-age adults. In the Philippine context, Gonzales and Romero (2021) also found that barkada culture and social gatherings contribute significantly to the initiation and continuation of smoking. Moreover, WHO (2019) noted that societal norms and peer behavior remain among the strongest predictors of tobacco use in low- and middle-income countries, even in the presence of fiscal deterrents like excise taxes.

Table 2.2. PSYCHOLOGICAL FACTORS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. Smoking helps me manage stress.	3.11	.829	Agree
2. I feel a strong desire to purchase cigarettes when experiencing negative emotions.	3.07	.789	Agree
3. Seeing other people smoking makes me more likely to buy cigarettes.	2.99	.886	Agree
4. My mood directly affects my frequency of buying cigarettes	3.12	.765	Agree
GRAND MEAN	**3.07**	**.674**	**Agree**

Table 2.2 shows the interpretation of psychological factors affecting smoking habits and spending decisions among Mabalacat City residents. The mean scores for the four items range from 2.99 to 3.12, with a grand mean of 3.07 and a standard deviation of 0.674, all falling under the descriptive interpretation of Agree. This suggests that respondents acknowledge the influence of psychological factors on their smoking behavior and how they allocate money for cigarettes. Although not as strongly emphasized as social factors, the results indicate that psychological influences still play a significant role in their decisions, highlighting the emotional and mental dimensions of smoking despite the presence of excise taxes. This is supported by Kim and Kim (2020), who reported that stress and anxiety are common triggers for smoking, making individuals more likely to maintain the habit despite price increases. Additionally, Reyes and Cordero (2020) observed in their study in Bulacan that emotional distress, such as sadness or frustration, often leads smokers to prioritize cigarettes over other expenses. Rosen et al. (2018) further noted that psychological coping mechanisms frequently outweigh economic deterrents like taxation, making it harder for emotionally dependent smokers to reduce consumption.

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Table 2.3. ENVIRONMENTAL FACTORS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. The availability of cigarettes at nearby stores influences my decision to buy them.	3.18	.863	Agree
2. Exposure to cigarette advertisements influences my decision to purchase cigarettes.	3.12	.798	Agree
3. Living in an environment where many people smoke affects my decision to buy cigarettes.	3.23	.843	Agree
4. The ease of access to smoking areas encourages me to buy cigarettes.	3.09	.836	Agree
GRAND MEAN	**3.16**	**.7275319**	**Agree**

Table 2.3 presents the interpretation of environmental factors influencing smoking habits and spending decisions among Mabalacat City residents. The mean scores for all four items range from 3.09 to 3.23, with a grand mean of 3.16 and a standard deviation of 0.7275, all interpreted as *Agree*. This indicates that respondents recognize the role of environmental elements in shaping their smoking behavior and spending choices. Although not rated as strongly as social factors, the consistent agreement suggests that the environment still has a notable impact on their decisions, potentially moderating or reinforcing the effects of the cigarette excise tax. This aligns with findings by Lee and Lin (2018), who emphasized that environmental cues—such as the visibility of smoking in public spaces and accessibility to tobacco products—can significantly influence individual smoking behavior, particularly in urban areas. Similarly, a study by Huang et al. (2020) found that the presence of anti-smoking signage and smoke-free environments contributed to reduced smoking frequency and helped redirect spending toward non-tobacco-related goods. Furthermore, García-Rodríguez et al. (2021) noted that environmental regulations and public policies play a crucial role in either enabling or deterring smoking habits, indicating that environmental factors act not only as direct influences but also as amplifiers of policy effectiveness, such as cigarette taxes.

Table 2.4. HEALTH FACTORS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. I consider my health condition when deciding how much to spend on cigarettes.	3.23	.812	Agree
2. I have experienced health issues (e.g., coughing, shortness of breath) that I believe are related to smoking.	3.15	.773	Agree
3. Concerns about my health make me think about reducing or quitting smoking.	3.06	.876	Agree
4. Despite knowing the health risks, I still choose to spend money on cigarettes over other expenses.	3.14	.807	Agree
GRAND MEAN	**3.15**	**.773**	**Agree**

Table 2.4 shows the interpretation of health factors affecting smoking habits and spending decisions among Mabalacat City residents. The mean scores for the four items range from 3.06 to 3.23, with a grand mean of 3.15 and a standard deviation of 0.773, all falling under the *Agree* category. This indicates that respondents are aware of the health implications of smoking and acknowledge that these concerns influence their behavior and financial choices regarding cigarette consumption. While the agreement is not as strong as with social factors, it still reflects a considerable level of health consciousness among smokers, suggesting that health risks are considered when deciding whether to continue Smoking despite the added cost brought about by excise taxes. This is consistent with the findings of Gravely et al. (2019), who observed that health warnings and public health campaigns significantly impact smokers' attitudes, often prompting reconsideration of their smoking habits. Similarly, research by Nyman et al. (2021) demonstrated that heightened awareness of smoking-related diseases, such as lung cancer and heart disease, can lead to reduced consumption or cessation, particularly when paired with economic deterrents like taxes. Moreover, a study by Cho et al. (2020) highlighted that personal health concerns are increasingly becoming a critical factor in motivating smokers to reduce their intake or shift spending toward healthier alternatives.

Table 2.5. IMPACT ON SPENDING DECISIONS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. If cigarette prices increase, I am likely to reduce other expenses instead of reducing cigarette purchases.	3.18	.858	Agree
2. I often must adjust my spending on other items to buy cigarettes.	3.05	.857	Agree
3. I have cut back on smoking due to the increased cost from taxes.	2.92	.973	Agree
4. Higher cigarette prices make me reconsider my smoking habits.	3.16	.789	Agree
GRAND MEAN	**3.07**	**.675**	**Agree**

Table 2.5 presents the interpretation of the impact of spending decisions on cigarette consumption among Mabalacat City residents. The individual item mean ranges from 2.92 to 3.18, with a grand mean of 3.07 and a standard deviation of 0.675, all interpreted as *Agree*. This suggests that respondents recognize the influence of financial considerations on their smoking-related spending decisions. While the responses do not indicate a strong agreement, they show a general acknowledgment that economic factors play a role in shaping consumption behavior, highlighting how the excise tax may be encouraging smokers to reconsider or adjust their cigarette purchases in relation to their overall financial situation. These findings align with research by Shang et al. (2019), which found that increased cigarette prices due to taxation lead to significant changes in consumer behavior, including brand switching, reduced consumption, or quitting altogether, especially among low- and middle-income individuals. In a similar vein, the study by Martínez-Sánchez et al. (2020) emphasized that financial strain is a key motivator for smokers to reduce or eliminate cigarette spending, particularly when income is allocated toward essential needs. Moreover, Kostova et al. (2018) noted that excise taxes can serve as an effective tool in curbing tobacco use when consumers begin to weigh the cost of cigarettes against other necessary expenses, thereby reinforcing more economically driven decision-making.

Table 2.6. IMPACT ON SMOKING HABITS

ITEM	MEAN	STANDARD DEVIATION	DESCRIPTIVE INTERPRETATION
1. I have reduced the number of cigarettes I smoke daily due to the increase in price	3.08	.866	Agree
2. I now allocate less of my budget for cigarettes due to increased prices.	3.24	.760	Agree
3. I have switched to a cheaper cigarette brand due to increased prices.	3.30	.763	Strongly Agree
4. The higher cost of cigarettes has motivated me to reduce smoking for health reasons.	3.26	.737	Strongly Agree
GRAND MEAN	**3.22**	**.758**	**Agree**

Table 2.6 provides an interpretation of the impact of cigarette excise tax on smoking habits among Mabalacat City residents. The mean scores range from 3.08 to 3.30, with two items interpreted as *Strongly Agree* and two as *Agree*, resulting in a grand mean of 3.22 and a standard deviation of 0.758. This indicates that respondents generally agree that the excise tax has influenced their smoking habits, with some showing strong agreement, suggesting a notable effect. The results imply that while not all smokers have drastically changed their behavior, a significant number have become more conscious of their smoking due to increased costs, possibly leading to reduced consumption or more thoughtful spending. This reflects the excise tax's moderate effectiveness as a deterrent in shaping smoking behavior. These findings align with research by Shang et al. (2019), who concluded that cigarette taxation is among the most effective strategies for reducing tobacco use, particularly when price increases are substantial enough to deter purchase. Similarly, Ngo et al. (2020) found that excise taxes directly affect consumption patterns by encouraging smokers to reduce usage or quit altogether, especially among price-sensitive populations. Additionally, Chaloupka and Powell (2022) emphasized that sustained increases in cigarette excise taxes are associated with long-term declines in smoking prevalence, demonstrating that economic measures can effectively complement public health initiatives.

Table 3.1. Relationship on the significant relationship between psychological factors on the spending decision on cigarettes

Variables	p-values	Computed f-values	Decision on H_0	Interpretation
Psychological Factors	0.06	2.56	Failed to Reject	Not Significant
Spending Decision on Cigarette	0.38	1.03	Failed to Reject	Not Significant

Table 3.1 presents the analysis of the relationship between psychological factors and spending decisions on

cigarettes among Mabalacat City residents. The p-values for both psychological factors (0.06) and spending decisions (0.38) exceed the standard significance level of 0.05, and the computed f-values (2.56 and 1.03, respectively) support the decision to fail to reject the null hypothesis. This indicates that there is no significant relationship between psychological factors and the respondents' spending decisions on cigarettes. In other words, while respondents may acknowledge the presence of psychological influences such as stress or emotional triggers, these do not statistically determine or significantly impact how they choose to spend money on cigarettes. This finding aligns with the results of Farris et al. (2019), who found that while psychological factors like anxiety and depression can be linked to smoking behavior, their direct influence on financial decisions related to smoking may be limited or overshadowed by other determinants such as income or policy. Likewise, a study by Shadel et al. (2020) emphasized that although emotional triggers contribute to cravings and consumption patterns, spending behavior is often more influenced by external cues like pricing and accessibility rather than internal psychological states. Furthermore, Chaiton et al. (2021) suggested that psychological distress might influence initiation and frequency of smoking, but it does not consistently translate to spending patterns, particularly in populations where economic factors weigh more heavily in consumer decisions.

Table 3.2. Relationship on the significant relationship between environmental factors on the spending decision on cigarettes

Variables	p-values	Computed f-values	Decision on H_0	Interpretation
Environmental Factors	0.99	0.02	Failed to Reject	Not Significant
Spending Decision on Cigarette	0.98	0.03	Failed to Reject	Not Significant

Table 3.2 presents the analysis of the relationship between environmental factors and spending decisions on cigarettes among Mabalacat City residents. The results show very high p-values—0.99 for environmental factors and 0.98 for spending decisions—both well above the 0.05 significance threshold. Additionally, the computed f-values are extremely low (0.02 and 0.03), leading to the decision to fail to reject the null hypothesis. This indicates that there is no significant relationship between environmental factors—such as accessibility of cigarettes, presence of smoking areas, and advertisements—and how individuals make spending decisions related to smoking. Despite respondents agreeing that environmental factors have some influence, statistically, these do not significantly impact their financial choices regarding cigarette consumption. This finding is supported by the study of Cornelius et al. (2018), which suggests that while environmental elements may shape perceptions and behaviors surrounding smoking, they do not consistently translate into measurable changes in spending behavior, particularly in the presence of strong economic or personal motivations. Similarly, research by Laverty et al. (2020) found that environmental influences like tobacco marketing and public smoking zones were more associated with social normalization rather than actual expenditure. In line with this, Doku et al. (2021) emphasized that although environmental factors can promote smoking initiation or maintenance, their direct role in influencing financial decision-making is often limited when compared to more tangible factors like price sensitivity and income level.

Table 3.3. Relationship on the significant relationship between health factors on the spending decision on cigarettes

Variables	p-values	Computed f-values	Decision on H_0	Interpretation
Health Factors	.20	1.64	Failed to Reject	Not Significant
Spending Decision on Cigarette	0.22	1.55	Failed to Reject	Not Significant

Table 3.3 presents the analysis of the relationship between health factors and spending decisions on cigarettes among Mabalacat City residents. The p-values for health factors (0.20) and spending decisions (0.22) are both above the 0.05 significance level, and the computed f-values (1.64 and 1.55, respectively) further support the decision to fail to reject the null hypothesis. This means that there is no statistically significant relationship between health-related concerns and how individuals decide to spend on cigarettes. Although respondents may agree that health is an important consideration, the results indicate that these health concerns do not significantly influence their actual spending behavior on cigarettes. This aligns with the findings of Partos et al. (2019), who noted that while health awareness is prevalent among smokers, it often lacks the urgency or immediacy needed to translate into concrete financial decisions. Similarly, in a study by Yong et al. (2020), many smokers acknowledged the health risks of smoking but continued to purchase cigarettes due to addiction, habit, or stress relief, suggesting a disconnect between health knowledge and spending action. Furthermore, Park et al. (2021) emphasized that health considerations alone are often not enough to motivate behavioral change unless they are paired with strong external triggers such as medical diagnoses, price increases, or restrictive policies.

Table 3.4. Relationship on the significant relationship between social influence on the spending decision on cigarettes

Variables	p-values	Computed f-values	Decision on H_0	Interpretation
Social Factors	0.0001	6	Reject H_0	Significant relationship
Spending Decision on Cigarette	0.0001	3	Reject H_0	Significant relationship

Table 3.4 presents the analysis of the relationship between social influence and spending decisions on cigarettes among

Mabalacat City residents. The p-values for both social influence (0.0001) and spending decisions (0.0001) are well below the 0.05 significance level, and the computed f-values (6 and 3, respectively) support the decision to reject the null hypothesis. This indicates that there is a significant relationship between social influence and spending decisions on cigarettes. In other words, the presence of social factors—such as peer pressure, family influence, and societal norms—plays a substantial role in determining how individuals allocate money for cigarette consumption. This highlights the strong impact of social influences on smoking behavior and financial choices, even in the context of cigarette excise taxes. This finding is supported by the study of Lim et al. (2019), which found that peer groups and familial smoking behaviors are among the strongest predictors of both smoking initiation and continued expenditure on cigarettes. Additionally, research by Wang et al. (2020) emphasized that social acceptance and modeling behaviors significantly shape individuals' willingness to spend on cigarettes, even when faced with economic deterrents. Similarly, Sreeramareddy and Ramakrishnareddy (2021) observed that cultural and social environments often reinforce smoking as a shared activity, making it more resistant to policy interventions unless social norms are directly addressed alongside taxation measures

DISCUSSION: SUMMARY OF FINDINGS

Summary of the Findings

This study was conducted to examine the impact of cigarette excise taxes and other influencing factors--psychological, social, environmental, and health-related on the spending decisions and smoking behaviors of residents in Barangay Lakandula, Mabalacat City. Using a descriptive-correlational design, data were collected from 100 adult smokers.

1. The majority of respondents were aged 28–37 years, employed, had smoked for 1–5 years, and consumed 6–10 cigarettes daily. These characteristics suggest a group with moderate smoking habits and economic engagement, making them potentially more responsive to taxation policies.
2. The most influential factors affecting cigarette spending decisions were social, psychological, environmental, and health-related in nature. Among these, social factors—such as peer pressure, social gatherings, and community norms—had the strongest influence on both smoking and spending behavior. Psychological influences (e.g., stress, emotions), environmental cues (e.g., cigarette availability, advertising), and health awareness also contributed to decision-making but to a lesser extent.
3. Respondents acknowledged that cigarette excise taxes affected their purchasing behavior. Many reported shifting to less expensive brands or reducing cigarette consumption. These outcomes reflect a moderate behavioral response to taxation.
4. Statistical analysis revealed no significant relationships between psychological, environmental, or health-related factors and spending decisions. However, social influences showed a significant correlation, underscoring the powerful role of social dynamics in shaping smokers' financial decisions regarding cigarettes.

Conclusion

Based on the data gathered and analyzed, the researchers conclude that cigarette excise taxes have a moderate effect on smoking behavior among residents of Mabalacat City. The tax policy prompts some smokers to reduce consumption, switch brands, or reflect on their health risks. However, the effect is not uniformly observed across all respondents. Among the factors examined, social influences—such as peer pressure, community norms, and social environments—were found to have the strongest impact on spending decisions, underscoring their role in shaping consumer behavior more than psychological, environmental, or health-related concerns.

While respondents acknowledged the presence of psychological stress, environmental cues, and health awareness, statistical analysis revealed that these variables did not significantly influence actual spending behavior. This suggests that, although smokers are aware of these issues, they are not sufficient on their own to drive meaningful changes in consumption patterns.

The results suggest that social factors play a central role in influencing smoking-related spending decisions, as they showed a statistically significant relationship with how respondents allocate money for cigarettes. In contrast, psychological, environmental, and health-related factors, while recognized by respondents, did not show a significant impact on spending behavior based on the correlation analysis. This indicates that smokers may be more responsive to social pressures and norms than to internal emotions, environmental cues, or health concerns when deciding whether to continue or adjust their smoking habits in response to excise tax increases.

Recommendations

1. In light of the study's findings, it is recommended that smokers become more conscious of the financial and health-related impacts of cigarette consumption, particularly in response to increasing excise taxes. Adopting practical and gradual strategies—such as reducing the number of cigarettes smoked per day, delaying the initial cigarette, and allocating a portion of their cigarette budget toward savings—may help lessen financial strain and serve as steppingstones toward eventually quitting smoking. To further support this goal, barangay-level seminars,

community health talks, and awareness campaigns should be organized to educate residents on the risks of smoking, the effects of excise taxes, and the benefits of smoking reduction and cessation. Engaging in peer discussions or support groups with others who are also trying to reduce or quit smoking may provide motivation, shared accountability, and emotional support. With consistent and mindful efforts, smokers may begin to experience both long-term economic relief and improved health outcomes.

2. The Bureau of Internal Revenue (BIR) and other related government agencies must ensure the strict enforcement of cigarette excise tax laws and actively contribute to efforts that aim to reduce cigarette consumption. This includes supporting public health campaigns, monitoring illegal cigarette trade, and using tax revenues to fund programs that help individuals quit smoking. Furthermore, while taxes do help reduce smoking, their effect is weakened when illegal cigarettes are sold at lower prices. Because of this, the government should work harder to stop the smuggling and selling of fake or untaxed cigarettes. The money collected from cigarette taxes should also be used wisely, such as funding health services and programs that help people quit smoking. This way, the taxes not only discourage smoking but also give back to the community.
3. Local retailers and distributors must comply strictly with pricing and tax regulations set by the government to avoid legal consequences and support broader public health objectives. By adhering to the mandated excise tax laws, businesses contribute to the government's efforts to reduce smoking prevalence and fund essential healthcare services. It is also crucial that these businesses refrain from engaging in the illicit trade of cigarette products, such as selling smuggled, counterfeit, or untaxed tobacco items. Such practices not only undermine the effectiveness of tobacco control policies but also pose serious risks to consumer health and safety. Moreover, the proliferation of illicit tobacco trade hampers revenue collection and weakens the government’s ability to implement social and health programs. Therefore, it is imperative for local businesses to uphold ethical practices and actively support national health and economic development goals.

Future researchers are encouraged to continue this study by exploring more areas in the Philippines. This will help determine if the effects of cigarette taxes are similar in other places or if there are unique differences. Future studies can also include younger or older age groups to see how different people respond to cigarette price increases. Aside from surveys, future researchers can conduct interviews or group discussions to better understand the personal reasons why people continue to smoke even when taxes make cigarettes more expensive

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