



The Influence of Peer Social Environment and Type of Vape as a Medium of Self-Image among Late Adolescents (A Study in Bandar Lampung)

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Abstract

This study examines the influence of peer environment and types of vape devices on the self-image of late adolescents who use vape in Bandar Lampung City. A quantitative survey method was employed involving 50 respondents selected through purposive sampling. Data were analysed using multiple linear regression. The t-test findings indicate that the peer environment variable (X1) yields a significance value of 0.054 (> 0.05), suggesting no statistically significant effect on self-image (Y), whereas the type of vape device (X2) yields a significance value of 0.016 (< 0.05), indicating a statistically significant effect. Simultaneously, the F-test reveals that both variables jointly demonstrate a significant influence on self-image, with a significance value of 0.001 (< 0.05). The correlation coefficient (R) of 0.515 indicates a moderate association, whilst the coefficient of determination (R Square) of 0.265 suggests that 26.5% of the variation in self-image is explained by these variables, with the remaining 73.5% attributed to factors beyond the scope of this study. The peer environment primarily plays a role in adolescents' initial decision to engage in vaping, whereas the type of vape device exerts a more substantial influence on shaping self-image as a form of self-expression within social contexts. Situating these findings within a Global South perspective further reveals that weak regulatory frameworks, social media marketing, and peer network dynamics collectively amplify the symbolic role of vape type in adolescent identity construction, reflecting structural patterns shared across rapidly urbanising societies beyond the Indonesian context.

Keywords: peer environment; vape devices; self-image; late adolescence; social behaviour; Global South

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INTRODUCTION

The rapid advancement of technology has driven continuous innovation across various sectors, including tobacco-related products. One notable development is the emergence of electronic cigarettes, commonly known as vape, which were initially introduced as an alternative to conventional smoking (Saffari and Daher 2014). Vape devices operate by heating a liquid solution containing nicotine, flavourings, and other chemicals to produce an aerosol that is inhaled by the user. Unlike conventional cigarettes, vape devices do not produce tar or combustion byproducts, which has contributed to their widespread perception as a safer alternative to traditional smoking. Alongside technological development, patterns of human behaviour are also shaped by social influence. According to Herbert Kelman's Social Influence theory, individual behaviour is influenced through three main processes: compliance, identification, and internalisation, where individuals may adopt certain behaviours either due to external pressure, a desire to fit into a social group, or personal acceptance of values (Kelman 1958). In this context, the use of vape among adolescents can be understood not only as an individual choice but also as part of a broader social process in which peer dynamics play a central role.

Over time, vape usage has increased significantly, partly due to its promotion as a less harmful option and the wide variety of device types available, such as mod, pod, and disposable systems. Each type offers distinct characteristics in terms of functionality, design, and practicality, which not only influence user preference but also contribute to the social meaning attached to these products. Mod devices are often associated with experienced users and higher social prestige due to their customizable features and higher price points, whilst disposable vapes are more accessible and widely used among younger, first-time users. These distinctions are not merely functional they carry symbolic value that shapes how users are perceived within their social groups.

Globally, the prevalence of vape usage continues to rise, with Indonesia emerging as one of the largest markets. According to Statista Consumer Insights (2023), approximately 25% of respondents in Indonesia reported having used vape at least once in their lifetime, a figure that exceeds those of several developed countries such as the United States, the United Kingdom, and Canada. Furthermore, vape consumption is predominantly concentrated among younger individuals, particularly those aged 18–29 years, accounting for around 44% of users

(Statista Consumer Insights 2023). This trend highlights the increasing relevance of vape usage among late adolescents, especially in rapidly developing urban environments.

In urban contexts such as Bandar Lampung, vape usage has become increasingly visible in everyday social interactions. It is commonly found in public social spaces such as cafés, gathering spots, and entertainment venues, where young people engage in collective activities. The city's dynamic social environment, combined with the growing influence of peer networks and lifestyle trends, has made vaping not merely a functional activity but also a medium of social expression and personal branding, particularly through social media platforms. According to Gendall and Hoek (2021), one of the key factors driving the widespread acceptance of vape products among young consumers is the availability of devices with appealing flavours and aromas. Equally significant is the role of peer influence, which has been identified as a critical determinant in shaping vaping habits among late adolescents. As noted by Dubé et al. (2023), socialising with peers who vape frequently leads to the exchange of vape devices among friends, gradually integrating vaping into the fabric of everyday social routines. Crane et al. (2023) further found that adolescents associate vaping with notions of coolness, stress relief, and social belonging, reinforcing the idea that vaping is as much a social practice as it is a personal habit.

Previous studies have explored vape usage from various perspectives, highlighting both behavioural and social dimensions. Biles et al. (2025) found that vape consumption among adolescents and young adults is not solely driven by functional factors such as taste or trend, but is also shaped by social pressure, self-presentation, and the desire to construct identity within peer groups. Similarly, Alamri (2023) demonstrated that vape usage among university students is often associated with lifestyle expression, identity exploration, and social adaptation, suggesting that vape functions as more than a consumption product it serves as a medium for expressing self-image. Lucherini et al. (2019) further demonstrated that young adults actively negotiate their identities in relation to vaping, using it as a tool to signal maturity, control, and social belonging within their peer environments. Furthermore, Putri et al. (2023) found that vape usage is influenced by modern lifestyle trends, social environment, and ease of access, highlighting the role of peer interaction as a key determinant of behaviour. Meanwhile, Satria and Fasya (2021) conceptualise vape as a symbol of modern lifestyle, social identity, and prestige, suggesting that the choice of vape devices is closely linked to perceived status and technological sophistication. Supporting this, Susihar et al. (2020) found that peer

influence is a dominant factor in encouraging adolescents to use vape, whilst other factors such as flavour preferences play a relatively minor role. Struik et al. (2023) additionally identified that peer influence, curiosity, and social norms are among the most significant factors influencing vaping decisions among youth, highlighting the complex interplay between individual agency and social environment.

Although these studies provide valuable insights, they tend to focus on either behavioural determinants or symbolic meanings separately. Research that quantitatively examines the combined influence of peer environment and the type of vape on self-image remains limited, particularly among late adolescents in urban contexts in Indonesia. In addition, differences in vape types such as mod, pod, and disposable devices are often associated with varying levels of perceived value, prestige, and social meaning, yet their specific role in shaping self-image remains underexplored. This study therefore addresses the question of how peer environment influences vape use decisions and how different types of vape contribute to the construction of self-image among late adolescents in Bandar Lampung, who are in a critical phase of identity formation and are highly influenced by both social interaction and lifestyle trends. Therefore, this study aims to examine the influence of peer environment and type of vape on the self-image of late adolescents in Bandar Lampung by employing a quantitative approach.

RESEARCH METHODS

This study employs a quantitative approach with a causal associative design to examine the influence of peer environment and type of vape on the self-image of late adolescents in Bandar Lampung. This approach is used to analyse the causal relationships between independent variables and the dependent variable, as well as to test the proposed hypotheses through statistical methods.

The population of this study consists of late adolescents who use vape in Bandar Lampung. As the exact number of vape users cannot be determined due to the absence of official data, the population is considered infinite. A total of 50 respondents were selected using a non-probability sampling technique, specifically purposive sampling, with criteria including individuals aged approximately 17–25 years who actively use vape. This technique allows the researcher to select respondents who meet specific characteristics relevant to the research objectives.

Data were collected through a structured questionnaire distributed online using Google Forms, enabling efficient and anonymous responses. The questionnaire utilised a Likert scale ranging from 1 to 5 to measure respondents’ level of agreement with each statement. The instrument was designed to measure three variables: peer environment (X1), type of vape (X2), and self-image (Y).

Prior to analysis, the instrument was tested for validity and reliability to ensure accurate and consistent measurement. The data were then analysed using Statistical Package for the Social Sciences (SPSS). The analysis techniques included multiple linear regression, t-test (partial test), F-test (simultaneous test), and coefficient of determination (R^2) to evaluate the relationships between variables and test the research hypotheses.

Table 1. Operational Definition

Variable	Definition	Indicator	Likert Scale
Peer Environment (X1)	How often do respondents interact with peers who use vape in daily life?	Interaction with vape-using peers	1-5
	How close is the relationship between respondents and peers who introduced them to vape?	Closeness of peer relationship	1-5
	To what extent do peers influence respondents' decision to use vape?	Peer influence on vape use	1-5
	How often do respondents use vape together with peers in social activities?	Frequency of vaping activities with peers	1-5
Type of Vape (X2)	Are respondents attracted to using a particular type or model of vape that is popular among peers?	Interest in vape types	1-5
	Does the appearance or design of a vape influence respondents' interest in using it?	Perception of vape appearance	1-5
	Does the use of a particular type of vape influence peers' views or	Social assessment of vape types	1-5

	assessments in social environments?		
	Do respondents tend to use vape when around peers?	Vape use in peer environment	1-5
Self-Image (Y)	Do respondents feel confident when using vape in front of their peers?	Self-confidence in vape use	1-5
	How do respondents assess their self-image after using vape in a peer environment?	Self-image assessment in peer environment	1-5
	How do respondents view their appearance in front of peers as a vape user?	Self-presentation as a vape user	1-5
	How do respondents perceive their identity as a vape user in a social environment?	Self-identity perception as a vape user	1-5

Source: Primary data, 2026

Operationally, the peer environment variable (X1) refers to the intensity and quality of social interaction between respondents and their peers, including frequency of interaction, closeness of relationships, shared activities, and the extent to which peers influence behaviour, particularly in relation to vape usage. The type of vape variable (X2) refers to respondents' preferences and perceptions regarding different vape devices, including attractiveness of design, popularity within peer groups, social evaluation associated with specific vape types, and patterns of use in social contexts. Meanwhile, self-image (Y) is defined as the respondent's perception and evaluation of themselves within a social environment, including confidence in social interaction, self-assessment within peer groups, and how individuals present themselves in front of others.

Data analysis was conducted using multiple linear regression to examine both partial and simultaneous effects of the independent variables on the dependent variable. The t-test was used to analyse the partial influence of each independent variable, while the F-test was used to determine the simultaneous effect of peer environment and type of vape on self-image. In addition, the coefficient of determination (R Square) was used to assess the proportion of

variance in self-image explained by the independent variables, and the correlation coefficient (R) was used to measure the strength of the relationship between variables.

RESULTS AND DISCUSSION

Research Context and Respondent Characteristics

This study was conducted in Bandar Lampung City, the provincial capital of Lampung Province, Indonesia. Bandar Lampung is administratively divided into 20 districts and 126 urban villages, making it one of the most densely structured urban centres in Sumatra. As a rapidly growing city, Bandar Lampung serves as a hub of economic, educational, and social activity, attracting a large population of young people including students and early working adults.

According to data from the Badan Pusat Statistik (BPS) of Bandar Lampung City (2024), the total population of Bandar Lampung is recorded at approximately 1,077,664 inhabitants, comprising around 544,000 males and 533,664 females. This relatively balanced demographic composition reflects the city's role as a centre of urban migration and settlement, with a significant proportion of its population falling within the late adolescent and young adult age range.

In this urban context, vaping culture among late adolescents has become increasingly visible in everyday social spaces such as cafés, gathering spots, and entertainment venues. The city's dynamic social environment, combined with the growing influence of peer networks and lifestyle trends, makes Bandar Lampung a relevant and representative setting for examining the social dimensions of vape use among late adolescents.

Table 2. Cross-tabulation of Respondents by Gender and Age Group

Jenis Kelamin * Usia Crosstabulation						
			Usia			
			17–19 tahun	20–22 tahun	23–25 tahun	Total
Jenis Kelamin	Laki-Laki	Count	5	24	5	34
		% within Jenis Kelamin	14.7%	70.6%	14.7%	100.0%
	Perempuan	Count	8	8	0	16
		% within Jenis Kelamin	50.0%	50.0%	0.0%	100.0%
Total		Count	13	32	5	50
		% within Jenis Kelamin	26.0%	64.0%	10.0%	100.0%

Laki-laki = man; Perempuan = woman

Source: Primary data, 2026

Based on the crosstabulation presented in Table 2, the distribution of respondents reveals several notable patterns in terms of gender and age composition. The majority of respondents are male, accounting for 34 out of 50 respondents (68%), while female respondents comprise 16 individuals (32%). Within the male category, the dominant age group is 20–22 years, representing 24 respondents or 70.6% of all male participants, followed equally by the 17–19 and 23–25 age groups, each accounting for 5 respondents (14.7%). This pattern suggests that male vape users in Bandar Lampung are predominantly concentrated in the early adult phase of late adolescence.

Among female respondents, the distribution is markedly different. Female respondents are equally distributed between the 17–19 and 20–22 age groups, with 8 respondents each (50.0%), and notably, no female respondents were recorded in the 23–25 age bracket. This finding may suggest that vape use among females tends to decline or disappear at older ages within the late adolescent stage, whereas male usage appears to persist across all three age groups. Overall, the 20–22 age group dominates the total respondent distribution at 64.0% (32 respondents), followed by the 17–19 group at 26.0% (13 respondents), and the 23–25 group at 10.0% (5 respondents). These demographic characteristics indicate that vape use in the urban context of Bandar Lampung is most prevalent among young males in their early twenties, a finding that aligns with broader national trends showing the dominance of the 18–29 age cohort among vape users in Indonesia (Statista Consumer Insights 2022).

Validity and Reliability Test

Prior to the main analysis, a validity test was conducted to ensure that all measurement items accurately measure the intended constructs. An item is considered valid if its r-count value exceeds the r-table value of 0.279 ($n=50$, $\alpha=0.05$).

Table 3. Validity and Test Result

Variable	Items	r-count Range	r-table	Status
Peer Enviroment (X1)	10	0.408-0.824	0.279	Valid
Type of Vape (X2)	10	0.367-0.718	0.279	Valid
Self-Image (Y)	10	0.477-0.902	0.279	Valid

Source: Primary data, 2026

Based on the results of the validity test presented in Table X, all questionnaire items for each variable peer environment (X1), type of vape (X2), and self-image (Y) have r-count values

greater than the r-table value of 0.279. For the peer environment variable (X1), the r-count values range from 0.408 to 0.824. For the type of vape variable (X2), the values range from 0.367 to 0.718. Meanwhile, the self-image variable (Y) shows r-count values ranging from 0.477 to 0.902

These findings indicate that all measurement items used in this study are valid and suitable for further statistical analysis. Additionally, the relatively high correlation values, particularly in the self-image variable, suggest that the indicators used have a strong ability to represent

Table 4. Reliability Test Results

Variable	Cronbach's Alpha	Treshold	Result
Peer Enviroment (X1)	0.818	0.60	Reliable
Type of Vape (X2)	0.848	0.60	Reliable
Self-Image (Y)	0.931	0.60	Reliable

Source: Primary data, 2026

The results show that all variables have Cronbach's Alpha values exceeding the acceptable threshold of 0.60, indicating that the measurement items are consistently aligned in capturing their respective constructs. The peer environment variable (X1) obtained a value of 0.818, which reflects a strong level of internal consistency, suggesting that the indicators used are sufficiently cohesive in representing aspects of social interaction and peer influence. Similarly, the type of vape variable (X2), with a value of 0.848, demonstrates a high degree of consistency among items related to preferences and characteristics of vape usage, indicating that respondents interpreted these items in a stable and uniform manner.

The self-image variable (Y) shows the highest reliability value at 0.931, which falls into the category of very high internal consistency. This suggests that the items used to measure self-image are highly correlated with one another and effectively capture a unified construct of how adolescents perceive themselves within their social environment. A value above 0.90 also indicates that the instrument minimises random measurement error, resulting in more stable and dependable data. Overall, the high reliability values across all variables confirm that the instrument used in this study is consistent and suitable for further statistical analysis, including regression and hypothesis testing.

Hypothesis Testing and Regression Analysis

Multiple linear regression analysis was conducted to examine the effect of peer environment (X1) and type of vape (X2) on self-image (Y) among late adolescents. Based on the regression results, the equation obtained is $Y = -1.579 + 0.358X1 + 0.437X2$. The constant value of -1.579 represents the baseline level of self-image when both independent variables are assumed to be zero. Although this value is not substantively meaningful in practice, it provides a reference point within the regression model.

The regression coefficient for peer environment (X1) is 0.358, indicating a positive relationship between peer interaction and self-image. This suggests that increased engagement with peers tends to be associated with higher self-image among adolescents. However, the significance value of 0.054 exceeds the 0.05 threshold, indicating that this effect is not statistically significant. In contrast, the type of vape variable (X2) shows a coefficient of 0.437 with a significance value of 0.016, demonstrating a positive and statistically significant effect on self-image.

Furthermore, the standardized coefficient (Beta) for type of vape ($\beta = 0.343$) is higher than that of peer environment ($\beta = 0.270$), indicating that type of vape has a stronger influence on self-image. These findings suggest that while social interaction contributes to self-image, symbolic and material aspects such as vape type play a more dominant role in shaping adolescents' self-perception. This result highlights the importance of consumption-based identity in contemporary youth social dynamics.

The t-test was conducted to examine the partial effect of each independent variable, namely peer environment (X1) and type of vape (X2), on self-image (Y). The decision rule is based on the significance value (Sig.), where a value below 0.05 indicates a statistically significant effect, while a value above 0.05 indicates a non-significant relationship.

Based on the regression results, the peer environment variable (X1) has a t-value of 1.973 with a significance value of 0.054, which is slightly above the 0.05 threshold. This indicates that the effect of peer environment on self-image is not statistically significant, and therefore H1 is rejected. Although the coefficient shows a positive direction, suggesting that peer interaction tends to increase self-image, this relationship is not strong enough to be generalised across the population. This finding may indicate that peer influence operates primarily at the initial stage of behaviour adoption—such as encouraging adolescents to try

vaping rather than in shaping deeper aspects of self-perception. In other words, while peers may play a role in introducing behaviours, they do not necessarily determine how individuals construct their self-image in a sustained manner.

In contrast, the type of vape variable (X2) shows a t-value of 2.503 with a significance value of 0.016, which is below the 0.05 threshold. This indicates that the effect of type of vape on self-image is statistically significant, and therefore H2 is accepted. This suggests that the type of vape used by adolescents carries symbolic and expressive value, contributing more directly to how individuals perceive themselves within their social environment. Compared to peer environment, the type of vape appears to function not only as a consumption choice but also as a medium of self-expression and identity construction.

The F-test was conducted to examine the simultaneous effect of peer environment (X1) and type of vape (X2) on self-image (Y). This test aims to determine whether the independent variables, when considered together, have a statistically significant influence on the dependent variable. The decision-making criterion is based on the significance value (Sig.), where a value less than 0.05 indicates that the regression model is statistically significant.

Based on the results of the analysis, the F-test shows a significance value of less than 0.001, which is far below the threshold of 0.05. This indicates that the regression model is highly statistically significant, meaning that the probability of the observed relationship occurring by chance is extremely small. Therefore, it can be concluded that the independent variables peer environment and type of vape simultaneously have a significant effect on self-image. Based on this result, H3 is accepted.

This finding suggests that although peer environment does not have a significant effect when examined individually, its role becomes meaningful when combined with the type of vape variable. This indicates that the formation of self-image among late adolescents is influenced by a combination of social interaction and consumption-related factors. In this context, peer environment may function as a social context that introduces and reinforces behaviour, while the type of vape acts as a symbolic medium through which individuals express identity and gain social recognition. Thus, the interaction between these variables provides a more comprehensive explanation of how self-image is constructed within adolescent social environments.

The coefficient of determination (R^2) was used to measure the extent to which the independent variables peer environment (X1) and type of vape (X2) are able to explain the variation in the dependent variable, self-image (Y). Based on the results of the analysis, the model shows a correlation coefficient (R) of 0.515, indicating a moderate relationship between the independent variables and self-image.

Furthermore, the value of the coefficient of determination (R Square) is 0.265, which means that 26.5% of the variation in self-image can be explained by the combined influence of peer environment and type of vape. The remaining 73.5% is influenced by other factors not included in this study.

These results suggest that while the model has a meaningful explanatory capacity, there are still many other variables outside the scope of this research that contribute to the formation of self-image among late adolescents. Factors such as personality traits, social media influence, family environment, and broader cultural dynamics may also play significant roles in shaping self-image. Therefore, the findings highlight the importance of considering both social interaction and consumption-related factors, while also acknowledging the complexity of self-image as a multidimensional construct.

The Influence of Peer Environment on Late Adolescents' Vape Use Decisions and Its Association with Self-Image

The results of the partial test (t-test) indicate that the peer environment variable (X1) has a significance value of 0.054, which is slightly above the 0.05 threshold. This finding suggests that the peer environment does not have a statistically significant direct effect on self-image (Y) among adolescent vape users in Bandar Lampung. Nevertheless, the positive regression coefficient indicates that peer relationships still have a directional association with self-image, although the strength of this relationship is relatively weak. This implies that peer environment is not a primary determinant in shaping adolescents' self-image, but rather functions as a supporting factor within broader social processes.

In relation to the research objective, the peer environment plays a more noticeable role in the early stage of adolescents' decision to use vape. In everyday social contexts, adolescents are often first introduced to vape through interactions with peers, particularly in informal settings such as social gatherings, hangouts, or casual group activities. Within these environments, individuals may observe, become familiar with, or even try vape use. However,

this exposure does not necessarily indicate that adolescents are directly pressured or forced by their peers to engage in such behaviour. Instead, the decision to use vape tends to emerge from personal curiosity, a desire to explore new experiences, and individual considerations rather than direct coercion.

Although there is no explicit pressure, subtle forms of social influence may still be present within peer interactions. Adolescents may experience concerns about how they are perceived socially, such as being labelled as “uncool”, “less masculine”, or socially excluded. These forms of implicit social pressure create a certain atmosphere within peer groups, where particular behaviours may be viewed more positively than others. However, the findings of this study indicate that such pressures are not strong enough to significantly shape self-image in a measurable way. This explains why the statistical results do not show a significant direct effect of peer environment on self-image.

Furthermore, at the stage of late adolescence, individuals tend to demonstrate greater independence in decision-making compared to younger age groups. This phase is characterised by more mature cognitive development and a reduced dependence on group approval. In the context of Bandar Lampung, where adolescents are exposed to diverse social environments, individuals are not limited to a single peer group, allowing them greater flexibility in forming social interactions. As a result, peer influence becomes less dominant in determining both behaviour and self-perception, as adolescents are more capable of making decisions based on personal judgement.

Despite its limited direct influence, the peer environment remains important as an initial social context. Adolescents who are part of social circles where vape use is present tend to be more open to such behaviour compared to those without similar exposure. This suggests that peer environment functions as an entry point in introducing vape-related practices, which may later be connected to how adolescents present themselves socially. In this sense, peer relationships do not directly construct self-image, but they contribute to the social experiences that may influence its development over time.

When interpreted through Herbert Kelman’s Social Influence theory, these findings indicate that adolescents are not primarily influenced at the level of compliance, as there is no strong external pressure forcing them to adopt vape use. Instead, peer environment operates more as a context of exposure and interaction rather than a determining force. Adolescents may become familiar with certain behaviours through their social surroundings, yet the decision to

adopt and integrate those behaviours remains largely personal. Therefore, it can be concluded that peer environment does not have a significant direct effect on self-image, but still plays a role in the early decision-making process of vape use, thereby supporting the first research objective of this study.

The Influence of Vape Type on Late Adolescents' Self-Image in Social Settings

The results of the partial test (t-test) indicate that the type of vape variable (X2) has a statistically significant effect on self-image (Y) among adolescent vape users in Bandar Lampung, with a significance value of 0.016, which is below the 0.05 threshold. This finding suggests that the type of vape plays an important role in shaping adolescents' self-image. In addition, the positive regression coefficient indicates that the more aligned the type of vape is with adolescents' preferences, the stronger its influence on how they perceive themselves within their social environment.

This influence can be understood by considering that vape devices are not merely functional tools, but also carry distinct visual and symbolic characteristics. Different types of vape, such as pod, mod, and disposable, present varying forms, sizes, and impressions. Pod systems are generally smaller, more practical, and easy to use, often associated with a simple and casual image. In contrast, mod devices are typically larger and customisable, which may be linked to perceptions of experience, style, or deeper involvement in vape culture. Meanwhile, disposable vapes are often seen as convenient and trend-oriented, commonly used by individuals who seek practicality or wish to participate in current trends without long-term commitment. These differences allow each type of vape to convey a particular image within social interactions.

In adolescent social life, particularly in informal settings such as social gatherings or peer interactions, the objects individuals use often become part of how they present themselves. The use of a particular type of vape can contribute to feelings of confidence, especially when it aligns with group norms or personal style. This explains why vape type can influence self-image, as it becomes part of a visible identity that is interpreted and evaluated by others in everyday social contexts.

Moreover, factors such as price and product uniqueness further strengthen the relationship between vape type and self-image. More expensive vape devices are often associated with higher quality or exclusivity, which may enhance the user's sense of

confidence. Similarly, limited-edition products tend to carry additional symbolic value, as they are not widely owned. In this context, adolescents may perceive themselves as more distinctive or socially valued when using certain types of vape, reinforcing the connection between consumption and self-perception.

At the stage of late adolescence, individuals are still in the process of identity formation, making them more sensitive to elements that support self-presentation and social acceptance. The choice of vape type can therefore function as a medium for aligning with social environments while also expressing individuality. In the context of Bandar Lampung, where adolescent lifestyles are diverse and dynamic, vape usage becomes part of broader social practices through which identity is constructed and communicated.

When interpreted through Herbert Kelman’s Social Influence theory, this finding reflects the level of identification, where individuals adopt certain behaviours to feel connected with their social environment. Adolescents choose specific types of vape not due to direct pressure, but because these choices help them feel appropriate, confident, and socially accepted. Therefore, it can be concluded that the type of vape has a significant influence on adolescents’ self-image within social spaces, supporting the second research objective of this study.

The Combined Influence of Peer Environment and Vape Type on the Self-Image of Late Adolescents

The results of the simultaneous test (F-test) indicate that the variables of peer environment (X1) and type of vape (X2) collectively have a significant effect on self-image (Y) among adolescent vape users in Bandar Lampung, as reflected by a significance value of 0.001, which is below the 0.05 threshold. This finding suggests that when both variables are considered together, they are able to explain variations in adolescents’ self-image. Although the peer environment variable does not show a significant effect when tested individually, its combination with the type of vape variable produces a meaningful influence.

This condition can be understood by recognising that, in adolescent social life, peer relationships and lifestyle choices are closely interconnected rather than operating independently. The peer environment serves as a space for interaction and initial exposure to vape usage, while the type of vape functions as a medium through which adolescents express themselves. In other words, peer environment acts as the social context, whereas vape type

becomes the form of self-expression. When combined, these elements contribute to shaping how adolescents perceive and present themselves within their social surroundings.

Furthermore, during late adolescence, self-image formation is influenced by multiple factors simultaneously, both internal and external. Adolescents are not shaped by a single variable, but rather by a combination of social experiences and personal interpretations. In the context of Bandar Lampung, where social environments are diverse and lifestyle trends continue to develop, adolescents tend to be more flexible in constructing their self-image based on what they observe and experience in everyday life.

When interpreted through Herbert Kelman's Social Influence theory, this finding reflects the process of identification, where individuals adjust their behaviour in order to feel connected with their social environment. In this case, adolescents are influenced not only by the presence of peers but also by how they wish to be perceived within their social groups. Therefore, it can be concluded that peer environment and type of vape simultaneously have a significant influence on the self-image of late adolescents, supporting the third research objective of this study.

Vaping, Self-Image, and the Global South: Situating the Bandar Lampung Findings in a Broader Comparative Perspective

The findings of this study that the type of vape device exerts a statistically significant influence on self-image among late adolescents, whilst peer environment functions primarily as a contextual entry point rather than a direct determinant gain additional analytical depth when situated within the broader Global South perspective. Bandar Lampung, as a rapidly urbanising provincial capital with a large and socially active youth population, represents a context that is structurally comparable to many other cities across Southeast Asia, South Asia, Africa, and Latin America, where the convergence of weak regulatory frameworks, aggressive industry marketing, and expanding peer networks has produced conditions in which vaping is rapidly becoming embedded in adolescent social culture.

Within the Southeast Asian region, the systematic review by Ling et al. (2023) documented that e-cigarette use among adolescents ranged from 3.3% to 11.8% across the region, with peer influence, ease of access, and lifestyle appeal consistently identified as the most prominent associated factors. In Indonesia specifically, Ko Ko et al. (2024), in a scoping review of vaping among Asian adolescent populations, recorded ever-use rates as high as

32.2% among Indonesian youth, with curiosity and peer exposure cited as the primary initiation pathways. These regional figures affirm that the role of peer environment as an entry point to vaping rather than as a sustained determinant of self-image observed in this study is not idiosyncratic to Bandar Lampung but reflects a broader regional pattern in which social networks introduce behaviours that are subsequently internalised through individual identity processes. Bigwanto et al. (2025), drawing on a national cross-sectional survey of 1,600 Indonesian youth across Jakarta, Yogyakarta, and East Kalimantan, further found that the number of friends who vape was among the strongest predictors of current e-cigarette use, with social media exposure on platforms such as Instagram and TikTok compounding peer influence by constructing aspirational associations between specific vape devices and desirable social identities. This digital amplification of peer dynamics is directly relevant to the finding that the type of vape carries greater explanatory weight for self-image than peer environment alone: when particular devices are systematically portrayed as markers of style, modernity, and social desirability through targeted marketing content, the object itself accumulates symbolic value that shapes self-perception independently of immediate peer interaction.

This symbolic dimension of vaping is further substantiated by Donaldson et al. (2021), whose analysis of over 82,000 Californian adolescents found that youth who incorporated vaping into their self-concept demonstrated more positive attitudes toward the practice, perceived it as more socially normative, and used specific device types more consistently a finding that maps directly onto the significant effect of vape type on self-image documented in this study. Similarly, Crane et al. (2023) found that social coolness, peer belonging, and identity expression were the primary psychosocial drivers of vaping among youth, with the specific device used functioning as a visible marker of social positioning. Valente et al. (2023), examining social network influences among a diverse adolescent cohort, further confirmed that peer exposure to vaping operates primarily through network observation rather than direct pressure consistent with the directional but statistically non-significant effect of peer environment in this study's t-test results, and supporting the interpretation that peer influence operates at the level of behavioural introduction rather than sustained self-image construction.

Beyond Southeast Asia, comparable dynamics have been documented in other Global South contexts. Van Zyl-Smit et al. (2024), in a mixed-methods study of over 25,000 high school students across 52 schools in South Africa, found that 16.83% reported current vape use, with device aesthetics and flavour appeal serving as primary drivers of uptake a pattern

consistent with the finding in this study that the visual and symbolic characteristics of vape types influence how adolescents perceive and present themselves socially. Murukutla et al. (2022), analysing e-cigarette marketing on social media across Indonesia, India, and Mexico, found that Indonesia accounted for 72% of all identified marketing posts, with content overwhelmingly emphasising device aesthetics and aspirational lifestyle imagery. This promotional environment actively constructs the social meanings that adolescents in Bandar Lampung and comparable urban contexts draw upon when using vape type as a medium of self-expression — reinforcing the argument that the significant effect of vape type on self-image documented in this study is not reducible to individual preference but is shaped by a broader structural landscape of industry-driven symbolic construction.

This structural landscape is further defined by the regulatory environment. Van der Eijk et al. (2022) document that Indonesia remains the only ASEAN member state without ratification of the WHO Framework Convention on Tobacco Control, producing one of the most permissive e-cigarette regulatory environments in the region. Widiyanti et al. (2023), mapping vape retail density in Denpasar, Bali an urban context structurally comparable to Bandar Lampung found 122 vape stores distributed at 1.56 stores per km², with a substantial proportion selling to youth under 18 years. Wibowo et al. (2025) further found that urban residency and social acceptance of vaping were key determinants of use among Indonesian youth across 17 provinces, whilst Wirajaya et al. (2024) confirmed that lifestyle orientation and ease of access remain dominant drivers of adolescent vaping in Indonesia. From a global perspective, Izquierdo Condoy and Ortiz-Prado (2024) argue that the absence of uniform regulatory frameworks in low- and middle-income countries creates fertile conditions for rapid youth uptake, compounded by industry marketing that deliberately targets vulnerable populations. Meanwhile, Haryanto et al. (2024) caution that although Indonesia's Health Law No. 17 of 2023 and Government Regulation No. 28 of 2024 represent meaningful steps toward regulatory reform, effective protection of youth will require robust enforcement and sustained public education areas in which Indonesia, in common with many Global South contexts, continues to face structural challenges. When interpreted through Herbert Kelman's Social Influence theory, as applied throughout this study, these Global South comparative findings illuminate the identification process at a macro-structural level: adolescents in Bandar Lampung, as in South Africa, Indonesia's major cities, and comparable urban contexts across the Global South, adopt specific vape types not primarily due to direct peer coercion but because these consumption choices enable them to align with socially desirable identities

constructed through peer culture, social media, and the broader symbolic economy of vaping. The contribution of this study lies in providing quantitative evidence from an understudied Indonesian urban setting one that is representative of the rapidly urbanising, regulatory-ambiguous, and youth-dense contexts that characterise much of the Global South thereby extending a body of literature that has remained predominantly qualitative and Global North-centric. Future research should continue to examine how evolving regulatory environments, social media dynamics, and shifting peer norms interact to reshape the symbolic meanings of vaping and their consequences for adolescent self-image formation across Global South contexts

CONCLUSION

This study highlights that the formation of self-image among late adolescents in Bandar Lampung is influenced by a dynamic interaction between social environment and consumption-related practices. The findings indicate that peer environment, while present in adolescents' daily interactions, does not function as a dominant factor in directly shaping self-image. Instead, it serves primarily as a contextual space where behaviours such as vape use are introduced and normalised. Adolescents are exposed to these behaviours through social interactions; however, their self-image is not solely determined by peer influence. This reflects a level of independence in late adolescence, where individuals are capable of making personal decisions and interpretations beyond immediate social pressures.

In contrast, the type of vape plays a more significant role in shaping self-image, as it carries symbolic meanings that extend beyond its functional use. Different vape types represent varying styles, preferences, and perceived social values, which adolescents may use to construct and express their identity. This indicates that consumption choices function as a medium of self-presentation, allowing individuals to align themselves with certain images or social expectations. When combined, peer environment and vape type provide a more comprehensive explanation of self-image formation, where social context introduces behaviour and consumption gives it meaning. This interplay demonstrates that adolescent identity is not formed by a single factor, but through the integration of social experiences and symbolic interpretation of everyday practices.

Situating these findings within a Global South perspective further reveals that the dynamics observed in Bandar Lampung are not locally isolated but reflect broader structural

patterns shared across rapidly urbanising societies in Southeast Asia, South Asia, Africa, and Latin America. Comparative evidence from Indonesia, South Africa, and the wider ASEAN region demonstrates that weak regulatory frameworks, aggressive social media marketing of vape products, and dense peer networks collectively amplify the symbolic weight of vape type as a medium of identity construction among late adolescents. Indonesia's position as one of the most permissive e-cigarette regulatory environments in the region has allowed vaping to become deeply embedded in youth social culture, enabling consumption choices to carry social meanings that shape self-image in ways that extend well beyond individual preference. These structural conditions shared by many Global South contexts underscore the importance of understanding adolescent identity formation not merely as a psychological or interpersonal process, but as one that is conditioned by the broader policy, market, and social environments within which young people live.

Based on these findings, future research is recommended to explore additional variables that may contribute to self-image formation, such as social media exposure, family influence, regulatory environment, and individual psychological factors, in order to develop a more holistic understanding of adolescent identity across Global South contexts. Expanding the sample size and including more diverse social and national backgrounds may also enhance the generalisability of the results. Practically, this study suggests the importance of increasing awareness regarding how everyday consumption practices, particularly among adolescents, can influence self-perception and social identity. Understanding this dynamic may contribute to more informed approaches in education, public health policy, and social development programs both in Indonesia and across the Global South that aim to support adolescents in forming a more grounded and reflective sense of self.

REFERENCES

- Arief, Andi M. 2023. "UU Kesehatan Tetapkan Vape Zat Adiktif, Sama Seperti Rokok Biasa." *Katadata*, July 12. Retrieved July 23, 2026. (<https://katadata.co.id/berita/nasional/64ae5793143e3/uu-kesehatan-tetapkan-vape-zat-adiktif-sama-seperti-rokok-biasa>).
- Badan Pusat Statistik Kota Bandar Lampung. 2024. "Jumlah Penduduk Berdasarkan Jenis Kelamin." Retrieved May 6, 2026 (<https://bandarlampungkota.bps.go.id/id/statistics-table/2/MzIjMg==/jumlah-penduduk-berdasarkan-jenis-kelamin.html>).

- Bigwanto, Mouhamad, Melinda Péntzes, Nurul Kodriati, Emma Rachmawati, Nida Amalia, and Róbert Urbán. 2025. “E-Cigarette Use and Susceptibility among Indonesian Youth: The Role of Social Environment, Social Media, and Individual Factors.” *BMC Public Health* 25:2756. <https://doi.org/10.1186/s12889-025-24013-3>
- Biles, Jessica, Rachel Kornhaber, Pauletta Irwin, Andreia Schineanu, Myra Kavisha Sookraj-Baran, and Michelle Cleary. 2025. “Perspectives, Motivations, and Experiences of Adolescents and Young Adults Using Nicotine Vapes: A Qualitative Review.” *Health Promotion International* 40(2):daaf007. <https://doi.org/10.1093/heapro/daaf007>
- Crane, Lori A., Nancy L. Asdigian, and Monica D. Fitzgerald. 2023. “Looking Cool, Doing Tricks, Managing Stress, and Nicotine Addiction: Youth Perspectives on Nicotine Vaping and Implications for Prevention.” *American Journal of Health Promotion* 37(7):964–974. <https://doi.org/10.1177/08901171231189560>
- Donaldson, Candice D., Cassandra L. Fecho, Tiffany Ta, Tam D. Vuong, Xueying Zhang, Rebecca J. Williams, April G. Roeseler, and Shu-Hong Zhu. 2021. “Vaping Identity in Adolescent E-Cigarette Users: A Comparison of Norms, Attitudes, and Behaviors.” *Drug and Alcohol Dependence* 223:108712. <https://doi.org/10.1016/j.drugalcdep.2021.108712>
- Dubé, Catherine E., Lori Pbert, Catherine S. Nagawa, Dante P. Simone, Jessica G. Wijesundara, and Rajani S. Sadasivam. 2023. “Adolescents Who Vape Nicotine and Their Experiences Vaping: A Qualitative Study.” *Substance Abuse: Research and Treatment* 17:11782218231183934. <https://doi.org/10.1177/11782218231183934>
- Gendall, Philip, and Janet Hoek. 2021. “Role of Flavours in Vaping Uptake and Cessation among New Zealand Smokers and Non-Smokers: A Cross-Sectional Study.” *Tobacco Control* 30(1):108–110. <https://doi.org/10.1136/tobaccocontrol-2019-055469>
- Haryanto, Ardi, Mala Mulia, Maulana Ikhsan, and Erwin Gunawan. 2025. “The Urgency of Regulation and Public Education on the Health Risks of E-Cigarettes in Indonesia.” *Journal of Public Health* 47(3):e487–e488. <https://doi.org/10.1093/pubmed/fdae263>
- Hutapea, Doli Satria Maulana, and Teuku Kemal Fasya. 2021. “Rokok Elektrik (Vape) sebagai Gaya Hidup Perokok Masa Kini di Kota Lhokseumawe.” *Jurnal Ilmu Sosial dan Ilmu Politik Malikussaleh (JSPM)* 2(1):92–108. <https://doi.org/10.29103/jspm.v2i1.3696>
- Izquierdo-Condoy, Juan S., and Esteban Ortiz-Prado. 2024. “Urgent Action Needed: Addressing the Regulatory Gap in E-Cigarette Trade and Usage.” *Journal of Public Health Policy* 45:582–587. <https://doi.org/10.1057/s41271-024-00505-1>
- Kelman, Herbert C. 1958. “Compliance, Identification, and Internalization: Three Processes of Attitude Change.” *Journal of Conflict Resolution* 2(1):51–60. <https://doi.org/10.1177/002200275800200106>

- Ko, Ko, Joanna Ting Wai Chu, and Christopher Bullen. 2024. "A Scoping Review of Vaping among the Asian Adolescent Population." *Asia-Pacific Journal of Public Health* 36(8):664–675. <https://doi.org/10.1177/10105395241275226>
- Ling, Miaw Yn Jane, Ahmad Farid Nazmi Abdul Halim, Dzulfritree Ahmad, Norfazilah Ahmad, Nazarudin Safian, and Azmawati Mohammed Nawawi. 2023. "Prevalence and Associated Factors of E-Cigarette Use among Adolescents in Southeast Asia: A Systematic Review." *International Journal of Environmental Research and Public Health* 20(5):3883. <https://doi.org/10.3390/ijerph20053883>
- Lucherini, Mark, Catriona Rooke, and Amanda Amos. 2019. "'They're Thinking, Well It's Not as Bad, I Probably Won't Get Addicted to That. But It's Still Got the Nicotine in It, So...': Maturity, Control, and Socializing: Negotiating Identities in Relation to Smoking and Vaping—A Qualitative Study of Young Adults in Scotland." *Nicotine & Tobacco Research* 21(1):81–87. <https://doi.org/10.1093/ntr/ntx245>
- Murukutla, Nandita, Melina S. Magsumbol, Hana Raskin, Sharan Kuganesan, Silvia Dini, Carlos Martinez-Mejia, Ancha Rachfiansyah, and Benjamin Gonzalez Rubio Aguilar. 2022. "A Content Analysis of E-Cigarette Marketing on Social Media: Findings from the Tobacco Enforcement and Reporting Movement (TERM) in India, Indonesia and Mexico." *Frontiers in Public Health* 10:1012727. <https://doi.org/10.3389/fpubh.2022.1012727>
- Oktavia, Destiana, Ahmad Zarkasi, Luthfi Salim, and Vany Fitria. 2026. "The Role of the Turun Tangan Lampung Community in Empowering Vulnerable Communities through Social Action". *Journal of Southern Sociological Studies* 2 (1):45-61. <https://doi.org/10.26740/jsss.v2i1.50838>
- Oktavia, Sari, Lina Banowati, Monika Walda Anindita, Dahniar Th Musa, and Annisa Rizqa Alamri. 2023. "Motif Penggunaan Rokok Elektrik (Vape): Studi Kasus Mahasiswa Antropologi Sosial FISIP UNTAN." *Sosietas: Jurnal Pendidikan Sosiologi* 13(1):13–24. <https://doi.org/10.17509/sosietas.v13i1.58906>
- Putri, Monifa, and Fitriyani Bahriyah. 2023. "Faktor-Faktor yang Mempengaruhi Penggunaan Rokok Elektrik (Vape) pada Mahasiswa Institut Teknologi dan Bisnis Indragiri." *Zona Kebidanan: Program Studi Kebidanan Universitas Batam* 13(3). <https://doi.org/10.37776/zkeb.v13i3.1202>
- Ridwan, Puja Pratama. 2023. "Membongkar Karakteristik Vapers Indonesia dan Alasannya." *GoodStats*, January 16. Retrieved July 23, 2026 (<https://goodstats.id/article/membongkar-karakteristik-vapers-indonesia-dan-alasannya-iy0q7>).

- Saffari, Arian, Nancy Daher, Ario Ruprecht, Cinzia de Marco, Paolo Pozzi, Roberto Boffi, Samera H. Hamad, Martin M. Shafer, James J. Schauer, Dane Westerdahl, and Constantinos Sioutas. 2014. “Particulate Metals and Organic Compounds from Electronic and Tobacco-Containing Cigarettes: Comparison of Emission Rates and Secondhand Exposure.” *Environmental Science: Processes & Impacts* 16(10):2259–2267. <https://doi.org/10.1039/C4EM00415A>
- Sitinjak, Labora, and Susihar. 2020. “Faktor-Faktor yang Mempengaruhi Remaja Mengkonsumsi Rokok Elektrik.” *Jurnal Akademi Keperawatan Husada Karya Jaya* 6(1):23–28. <https://doi.org/10.59374/jakhkj.v6i1.127>
- Struik, Laura, Kyla Christianson, Shaheer Khan, Youjin Yang, Saige-Taylor Werstuik, Sarah Dow-Fleisner, and Shelly Ben-David. 2023. “Factors That Influence Decision-Making among Youth Who Vape and Youth Who Don’t Vape.” *Addictive Behaviors Reports* 18:100509. <https://doi.org/10.1016/j.abrep.2023.100509>
- Valente, Thomas W., Sarah E. Piombo, Katie M. Edwards, Emily A. Waterman, and Victoria L. Banyard. 2023. “Social Network Influences on Adolescent E-Cigarette Use.” *Substance Use & Misuse* 58(6):780–786. <https://doi.org/10.1080/10826084.2023.2188429>
- van der Eijk, Yvette, Grace Tan Ping Ping, Suan Ee Ong, Grace Tan Li Xin, David Li, Dijin Zhang, Loo Min Shuen, and Chia Kee Seng. 2022. “E-Cigarette Markets and Policy Responses in Southeast Asia: A Scoping Review.” *International Journal of Health Policy and Management* 11(9):1616–1624. <https://doi.org/10.34172/ijhpm.2021.25>
- van Zyl-Smit, Richard N., Samantha Filby, Gurveen Soin, Jacqueline Hoare, Asya van den Bosch, and Sebastian Kurten. 2024. “Electronic Cigarette Usage amongst High School Students in South Africa: A Mixed Methods Approach.” *eClinicalMedicine* 78:102970. <https://doi.org/10.1016/j.eclinm.2024.102970>
- Wibowo, Razan, Tobias Weinmann, Dennis Nowak, and Yayi Suryo Prabandari. 2025. “Exploring E-Cigarette Use among Indonesian Youth: Prevalence, Determinants and Policy Implications.” *Journal of Community Health* 50(4):585–595. <https://doi.org/10.1007/s10900-025-01442-0>
- Widiantari, Ni Komang, Ni Made Dian Kurniasari, I Gusti Made Gde Surya Chandra Trapika, and Putu Ayu Swandewi Astuti. 2024. “Vape Store Density and Proximity to Schools in Denpasar, Bali, Indonesia.” *Tobacco Control* 33(e2):e262–e265. <https://doi.org/10.1136/tc-2023-058037>
- Wirajaya, Karma, Putu Ika Farmani, and Putu Ayu Laksmi. 2024. “Determinants of Electric Cigarette (Vape) Use by Adolescents in Indonesia.” *Jurnal Kesehatan Komunitas (Journal of Community Health)* 10(2):237–245. <https://doi.org/10.25311/keskom.vol10.iss2.1798>