

Research Article

The Effect of Product Bundling Strategy, Countdown Timer Urgency, and Social Proof on Interactive Responses to Live Streaming as Alpha Gen Moderation Variables on Scora Products in Bandar Lampung

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Abstract: This study aims to analyze the effect of product bundling strategies, countdown timer urgency, and social proof on the interactive responses of Generation Alpha consumers toward Scora skincare products in Bandar Lampung, with live streaming as a moderating variable. Interactive responses in this study include comments, questions, likes, and purchase actions during live streaming sessions. This research employs a quantitative approach, with data collected through questionnaires. The sample consists of 300 Generation Alpha respondents in Bandar Lampung who have watched Scora's live streaming promotions. Data analysis techniques include multiple linear regression analysis and Moderated Regression Analysis (MRA). The results indicate that product bundling strategies, countdown timer urgency, and social proof have a positive and significant effect on interactive responses, both partially and simultaneously. However, the moderation test results reveal that live streaming does not moderate the relationship between product bundling strategies, countdown timer urgency, and social proof on interactive responses. These findings suggest that although live streaming serves as a primary promotional medium, it does not necessarily strengthen the influence of marketing strategies on Generation Alpha's interactive responses. This study is expected to provide practical insights for local skincare brands in developing more effective digital marketing strategies through live streaming commerce.

Keywords: Countdown Timer Urgency; Interactive Response; Live Streaming; Product Bundling Strategy; Social Proof

Received: March 15, 2026

Revised: March 26, 2026

Accepted: April 20, 2026

Published: April 29, 2026

Curr. Ver.: April 29, 2026



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1. Introduction

The development of digital technology over the past decade has driven significant transformations in various aspects of life, particularly in communication patterns, social interactions, and consumer behavior. Advances in information technology, marked by increased internet access, mobile device usage, and the dominance of social media platforms, have created an increasingly integrated and interactive digital ecosystem (Siregar, 2023). In this context, marketing activities are no longer one-way but have evolved into two-way communication, enabling active engagement between businesses and consumers. This change has also driven the emergence of various innovative digital marketing strategies that are more adaptive, responsive, and user-experience-driven. In addition, digital marketing has proven to play an important role in increasing sales because it is able to reach consumers more widely and build preference and loyalty towards the brand (Arianzah et al., 2023). In line with these developments, digital marketing has become an approach that utilizes digital technology to reach consumers more broadly and understand their needs and behaviors. This approach enables companies to develop more targeted and effective marketing strategies, thereby

enhancing consumer relationships and supporting the achievement of marketing goals (Rohmah et al., 2025).

This research focuses on the behavior of Generation Alpha consumers in responding to digital marketing activities, specifically skincare products promoted through live streaming. Generation Alpha is the group born between 2010 and 2024 and is known as a generation that has been intensively exposed to digital technology from early life. This generation is characterized by a high adaptability to technology, a preference for visual and interactive content, and a tendency to actively engage with digital platforms (Hairunisya & Martutiningrum, 2025). Locally, the 12–15 age group in Bandar Lampung City shows significant potential as a target market due to their high level of digital engagement and the growing demand for lifestyle products, including skincare. This condition cannot be separated from the role of lifestyle which shapes consumption preferences, where activities, interests and individual spending patterns also determine the tendency in choosing the products they consume (Listyaningsih et al., 2024). Lifestyle refers to the way a person lives their daily life, including the activities, preferences, values and habits they choose, which greatly influences their decisions in responding to product promotions (Cahyati et al., 2025).

In line with these developments, live streaming commerce has emerged as an innovation in digital marketing strategies that integrates promotional, communication, and interaction functions in a single platform. Live streaming enables the direct, interactive, and real-time delivery of product information, creating a more authentic experience for audiences (Mada, 2024). In practice, live streaming serves not only as a medium for conveying information but also as a means to build emotional connections between brands and consumers. Therefore, the success of live streaming is largely determined by the extent to which audiences actively engage throughout the process.

In this context, interactive response is a key indicator in measuring the effectiveness of live streaming-based marketing strategies. Interactive response reflects the form of audience engagement, which can take the form of comments, questions, likes, and even purchases made during the live session (Hermawan & Kristiyono, 2023). A high interactive response indicates that the implemented marketing strategy is able to attract attention, build interest, and encourage active audience participation. Conversely, a low interactive response may indicate that the strategy employed is not optimal in creating engagement.

To enhance interactive responses in live streaming, various marketing strategies have been developed and implemented. One commonly used strategy is product bundling, which combines several products into one package at a more competitive price to increase consumer perceived value (Mokoagow et al., 2024). This strategy aims not only to increase sales volume but also Furthermore, the urgency strategy of using a countdown timer creates time pressure in the decision-making process. By providing a specific time limit for an offer, the audience is encouraged to act immediately to avoid missing out on the available opportunity (Adhianto, 2025). This approach has proven effective in increasing a sense of urgency, which ultimately leads to increased engagement and interaction during live streaming. This is in line with the concept of digital communication which emphasizes that delivering messages that are appropriate, interesting, and able to trigger a quick response from the audience is an important factor in forming interactions and the effectiveness of marketing communications in a digital environment (Laksana et al., 2024).

Another equally important strategy is social proof, which utilizes social evidence to influence consumer perceptions and decisions. Social proof can take the form of positive reviews, purchase volume, product ratings, and interactions with other users displayed in real time (Nikmah & Zaidah, 2022). The presence of social proof can increase trust in a product and encourage audience participation in interactions and purchases.

Although these strategies have been widely used, the method used in previous research to examine the influence of marketing strategies on consumer behavior has generally employed a quantitative approach with multiple linear regression analysis. This method allows for the simultaneous testing of the influence of several independent variables on the dependent variable, providing a comprehensive picture of the relationship. Furthermore, several studies have used moderated regression analysis to test the role of moderating variables in strengthening or weakening relationships between variables.

Each method has its advantages and limitations. Multiple linear regression analysis offers the advantage of ease of use and relatively simple interpretation of results, but is less capable of explaining complex and interactive relationships. On the other hand, moderated regression analysis can provide a deeper understanding of interactions between variables, but requires greater precision in interpreting the results.

Furthermore, previous research has shown inconsistent results regarding the influence of product bundling strategies, countdown timer urgency, and social proof on interactive responses. Some studies found a significant positive effect, while others showed different results, especially when moderating variables such as live streaming were taken into account. This inconsistency indicates that there are still research gaps that require further exploration so to create greater appeal and capture audience attention during the live session.

Furthermore, most previous research has focused on millennials and Generation Z, while studies on Generation Alpha are relatively limited. However, Generation Alpha has unique and distinct characteristics, necessitating a more specific approach to understanding their behavior in the context of digital marketing. This is one of the important reasons for conducting this research.

Based on this, the research problem focuses on the influence of product bundling strategies, countdown timer urgency, and social proof on interactive responses, and the role of live streaming as a moderating variable in this relationship. This issue is crucial to examine in order to understand the effectiveness of marketing strategies in an increasingly dynamic digital context. To address this issue, this study uses a quantitative approach using multiple linear regression analysis and moderated regression analysis. This approach was chosen because it provides objective results and can empirically test the relationship between variables.

This research offers an approach that positions live streaming not only as a promotional medium but also as a variable whose role is tested in strengthening or weakening the relationship between marketing strategies and interactive responses. Thus, this research is expected to provide a more comprehensive perspective in understanding the dynamics of digital marketing.

The contributions of this research include several key aspects, namely: (1) providing an understanding of the influence of product bundling strategies on interactive responses, (2) examining the influence of countdown timer urgency on interactive responses, (3) analyzing the influence of social proof on interactive responses, (4) testing the simultaneous influence of these three variables, and (5) evaluating the role of live streaming as a moderating variable in this relationship.

2. Literature Review

Grand Theory

Social influence theory explains that individual behavior is influenced by social interactions, both directly and through digital media. In the digital context, this influence is formed through opinions, social norms, and the activities of other users, which can influence individual decisions to adopt technology or make purchases (Sopian et al., 2024). Furthermore, consumers tend to seek confirmation from others before making decisions, making social influence a significant factor in consumption behavior. In live streaming, social influence emerges in real-time through interactions such as comments, viewership, and purchasing activity, ultimately shaping consumers' interactive responses.

Product Bundling Strategy

A product bundling strategy is a marketing technique that combines two or more products into one package at a specific price, generally more economical than purchasing them separately (Sari et al., 2023). This strategy aims to increase the attractiveness of the offering and provide added value to consumers, thereby driving increased sales (Yudistira, 2025). Indicators of a product bundling strategy include: (1) Accuracy; (2) Price; (3) Attractiveness; (4) Product Combination.

Countdown timer urgency

A countdown timer is a marketing element that displays an offer's expiration date as a countdown to create a sense of urgency and encourage consumers to act quickly (Adhianto, 2025). In live streaming, the countdown timer creates psychological pressure because it is displayed in real time, increasing the urge to make a decision immediately. This urgency effect is reinforced by the characteristics of Generation Alpha, who are accustomed to fast-paced, time-based content, making them more responsive to limited situations (Loisa, 2021). Countdown timer urgency indicators include: (1) Perception of limited time; (2) Urge to act quickly; (3) Feeling of urgency; (4) Focus on the offer.

2.4 Social Proof

Social proof is a concept that explains that individuals tend to imitate the behavior of others in certain situations, especially when experiencing uncertainty. In the context of digital marketing, social proof plays a role in building consumer trust through other user activities such as reviews, ratings, and purchase volume (Panjaitan & Sarkum, 2024). In live streaming, social proof is displayed in real time, exerting stronger social pressure than other marketing media (Bukti & Streaming, 2025). Indicators of social proof include: (1) Number of reviews; (2) Rating level; (3) Like level; (4) Number of buyers.

2.4 Interactive Response

Interactive responses are a form of active consumer involvement in digital marketing, demonstrated through interactions such as comments, questions, and purchasing actions (Frاندika, 2024). These responses reflect consumers' cognitive, emotional, and behavioral engagement with content. Indicators of interactive responses include: (1) Providing comments; (2) Asking questions; (3) Following host instructions; (4) Making purchases.

2.5 Live Streaming

Live streaming is a digital medium that enables live video broadcasting and real-time two-way interaction between sellers and audiences. This medium is an effective marketing tool because it can increase consumer engagement and experience. Live streaming indicators include: (1) Features; (2) Product condition; (3) Effectiveness; (4) Content relevance.

3. Research Methodology

This study used a quantitative approach to examine the influence of product bundling strategies, countdown timer urgency, and social proof on interactive responses, as well as the role of live streaming as a moderating variable. This approach was chosen because it can objectively explain the relationships between variables through statistical analysis.

The population in this study was Generation Alpha, who have experience using digital media, specifically those who have been exposed to live streaming activities for skincare products. The research sample was determined using a purposive sampling technique, with the criteria being individuals who actively use social media and have watched live streaming. The sample size for this study was 300 respondents, who were deemed to have met the analysis criteria for quantitative research.

Data collection was carried out using a questionnaire designed based on indicators for each variable: product bundling strategy, countdown timer urgency, social proof, interactive responses, and live streaming. Measurements were made using a Likert scale to determine the level of agreement with each statement.

Prior to analysis, the research instrument was tested through validity and reliability tests. Validity tests aimed to ensure that each statement item accurately measured the variables being studied, while reliability tests were used to measure the instrument's consistency. An instrument is deemed valid and reliable if it meets the established testing criteria.

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. The analysis techniques used included multiple linear regression analysis to test the effect of independent variables on the dependent variable, and moderated regression analysis (MRA) to examine the role of live streaming.

4. Results and Discussion

Data Description

This study used the Statistical Package for the Social Sciences (SPSS) version 23 software to process primary data obtained from an online questionnaire distributed via Google Forms. Respondents in this study were Generation Alpha consumers familiar with and using Scora products in Bandar Lampung. A total of 300 questionnaires were distributed, and all were successfully completed, collected, and analyzed. The return rate was 100%, indicating that all data was deemed suitable for further analysis. This indicates that the data collection process went very well with no unusable data.

Respondent characteristics showed that the majority were female (207 respondents, or 69%), while 93 were male (31%). By age, respondents were dominated by 15-year-olds (109 respondents, or 36.2%), followed by 13-year-olds (74 respondents, or 24.6%), 12-year-olds (64 respondents, or 21.3%), and 14-year-olds (54 respondents, or 17.9%). This composition

indicates that respondents were predominantly young adolescents who actively use digital media. These results are relevant to the context of this research, which focuses on Generation Alpha's behavior in live streaming activities, and therefore, the data obtained is considered representative of the characteristics of the population studied.

Validity Test and Reliability Test

Validity Test

According to Sugiyono (2019), validity testing is used to measure the validity of a questionnaire. A questionnaire is considered valid if the statements in it are able to reveal what it is intended to measure. According to Sugiyono (2019), validity testing can be conducted using the product-moment correlation technique to calculate the correlation between each statement and the total score. To determine whether a statement item in a prepared questionnaire is valid or not, compare the calculated r and Sig (2-tailed) values for each question item at a significance level ($\alpha = 5\%$). The calculated r must be greater than the table r . The method for determining the table r value is as follows:

$$df = (n - 2)$$

Where:

df = degrees of freedom

n = Number of samples

So, $df = (300 - 2) = 298$ respondents, and if the total sample is 298, the table r value is 0.113. If the calculated r value is greater than the table r or the Sig (2-tailed) is less than the 5% significance level, then the question item in the questionnaire is valid.

Table 1. Validity Test

Variable	Statment	r-Count	r-Table	P (Sig).	Information
Product bundling strategy (X1)	P1	0.505	0.113	0.000	VALID
	P2	0.574	0.113	0.000	VALID
	P3	0.412	0.113	0.000	VALID
	P4	0.591	0.113	0.000	VALID
	P5	0.445	0.113	0.000	VALID
	P6	0.560	0.113	0.000	VALID
	P7	0.539	0.113	0.000	VALID
	P8	0.566	0.113	0.000	VALID
Countdown timer urgency (X2)	P1	0.477	0.113	0.000	VALID
	P2	0.604	0.113	0.000	VALID
	P3	0.574	0.113	0.000	VALID
	P4	0.567	0.113	0.000	VALID
	P5	0.540	0.113	0.000	VALID
	P6	0.532	0.113	0.000	VALID
	P7	0.607	0.113	0.000	VALID
	P8	0.528	0.113	0.000	VALID
Social proof (X3)	P1	0.592	0.113	0.000	VALID
	P2	0.627	0.113	0.000	VALID
	P3	0.583	0.113	0.000	VALID
	P4	0.620	0.113	0.000	VALID
	P5	0.547	0.113	0.000	VALID
	P6	0.530	0.113	0.000	VALID
	P7	0.614	0.113	0.000	VALID
	P8	0.490	0.113	0.000	VALID
Interactive response (Y)	P1	0.615	0.113	0.000	VALID
	P2	0.659	0.113	0.000	VALID
	P3	0.494	0.113	0.000	VALID
	P4	0.577	0.113	0.000	VALID
	P5	0.598	0.113	0.000	VALID

	P6	0.557	0.113	0.000	VALID
	P7	0.475	0.113	0.000	VALID
	P8	0.409	0.113	0.000	VALID
Live streaming (M)	P1	0.488	0.113	0.000	VALID
	P2	0.575	0.113	0.000	VALID
	P3	0.464	0.113	0.000	VALID
	P4	0.475	0.113	0.000	VALID
	P5	0.567	0.113	0.000	VALID
	P6	0.509	0.113	0.000	VALID
	P7	0.540	0.113	0.000	VALID

Source : (data processed in 2026).

Judging from the Table 1, the two-tailed significance value (Sig. 2-tailed) of each statement item in the questionnaire shows a result of 0.000, which is smaller than the 5% significance level (0.05). In addition, the calculated *r* value for each statement item is greater than the table *r* value. Thus, all items in the questionnaire are declared valid.

Reliability Test

According to Ghozali (2018), reliability is a measuring tool for questionnaires, which are indicators of a variable or construct. A questionnaire is said to be reliable if a person's answers to the questions are consistent or stable over time. The reliability test in this study uses the Cronbach Alpha formula to determine the level of reliability of the research variable instrument. If the Cronbach Alpha value is <0.50, reliability is low; if the Cronbach Alpha value ranges from 0.50 - 0.70, reliability is moderate; and if the value is 0.70 - 0.90, reliability is high.

Table 2. Reliability Test.

Variable	Cronbach's alpha	Information
Product bundling strategy (X1)	0.621	Reliabel
Countdown timer urgency (X2)	0.677	Reliabel
Social proof (X3)	0.712	Reliabel
Interactive responses (Y)	0.669	Reliabel
Live streaming (M)	0.609	Reliabel

Source : (data processed in 2026).

Based on the data analysis in Table 2, it can be explained that all independent variables, namely product bundling strategy, countdown timer urgency, social proof, the dependent variable, namely interactive response, and the moderating variable, live streaming, have a Cronbach Alpha value range of 0.50–0.70. Therefore, it can be concluded that each indicator variable used in this study is declared reliable.

Classical Assumption Test

Normality Test

This test determines whether the residual values are normally distributed. A good regression model is one with normally distributed residual values. This can be detected by observing the distribution of data along the diagonal of a Normal P-P Plot of standardized regression as a basis for decision-making. If the data are spread around the line and follow the diagonal, then the regression model is normal and suitable for predicting the independent variables, and vice versa (Ghozali, 2018).

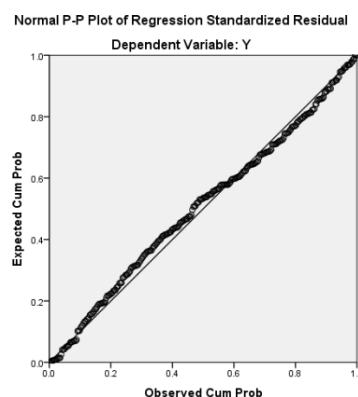


Figure 1. Normal p-plot graph.

Source : data processed, 2026.

A normality test was conducted to determine whether the data obtained from respondents was normally distributed. The test used was the Kolmogorov-Smirnov test. If the ρ (significance) value of this test is greater than 0.05, then the data can be considered normally distributed.

Table 3. Normality Test.

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Predicted Value
N		300
Normal Parameters	Mean	Normal Parameters ^{a,b}
	Std. Deviation	2.41242253
Most Extreme Differences	Absolute	.044
	Positive	.038
	Negative	-.044
Test Statistic		.044
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source : (data processed, 2026).

Based on the table above, it is known that the Asymp. Sig (2-tailed) value is 0.200. This shows that $0.200 > 0.05$, so it can be concluded that the data is normally distributed.

Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is inequality in residual variance between observations in a regression model (Duli, 2019). A good regression model is one that does not experience heteroscedasticity or is homoscedastic. The test is performed by observing the pattern on the scatterplot graph. If the points are randomly distributed and do not form a specific pattern and are spread around the Y-axis, then heteroscedasticity is not present. Conversely, if there is a clear and regular pattern, it indicates the presence of heteroscedasticity.

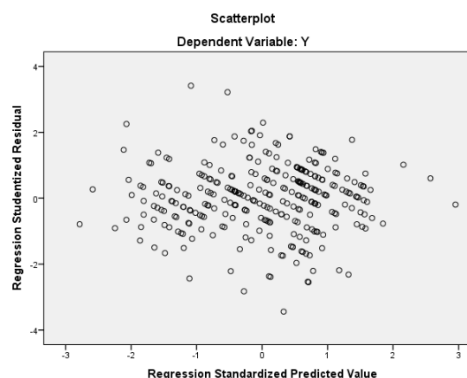


Figure 2. Heteroscedasticity test.

(Source : data processed, 2026).

Multicollinierity Test

The multicollinearity test aims to determine the correlation between independent variables in a regression model (Duli, 2019). A good model does not contain multicollinearity because it can disrupt the relationship between variables. The test is conducted using Tolerance and Variance Inflation Factor (VIF) values. A model is declared free of multicollinearity if the Tolerance value is >0.1 and the VIF is <10 .

Table 4. Multicollinierity Test.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.150	2.026		-.567	.571		
Product bundling strategy (X1)	.300	.054	.276	5.574	.000	.704	1.420
Countdown timer urgency (X2)	.275	.054	.255	5.108	.000	.691	1.447
Social Proof (X3)	.221	.053	.208	4.193	.000	.701	1.427
Live Streaming (M)	.225	.060	.187	3.731	.000	.689	1.451

Sources : (data processed, 2026).

Based on the table above, the following can be explained:

- The significance value of the tolerance value for the product bundling strategy variable (X1) is $0.704 > 0.1$, with a VIF of $1.420 < 10$.
- The significance value of the tolerance value for the countdown timer urgency variable (X2) is $0.691 > 0.1$, with a VIF of $1.447 < 10$.
- The significance value of the tolerance value for the social proof variable (X3) is $0.701 > 0.1$, with a VIF of $1.427 < 10$.
- The significance value of the tolerance value for the live streaming variable (M) is $0.689 > 0.1$, with a VIF of $1.451 < 10$.

The description above shows that the Variance Inflation Factor (VIF) is <10 , thus it can be concluded that the variables do not experience multicollinearity.

Regression Analysis

Multiple linier analysis

Multiple linear regression analysis was used to test the effect of product bundling strategies, countdown timer urgency, and social proof on interactive responses, with live streaming as a moderating variable. This analysis aimed to determine the extent of each variable's influence, both partially and simultaneously, on interactive responses and to examine the role of moderating variables in this relationship. The following are the results of processing multiple regression analysis data in this study :

Tabel 5. Dirrect effect regression equation.

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.529	1.935		.790	.430
Product bundling strategy (X1)	.368	.052	.338	7.096	.000
Countdown timer urgency (X2)	.307	.054	.286	5.663	.000
Social Proof (X3)	.264	.053	.248	5.006	.000

a. Dependent Variable : Interactive responses (Y)

Sources : (data processed, 2026).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

$$Y = 1.529 + 0.368 + 0.307 + 0.264 + \varepsilon$$

The results of multiple linear regression analysis show that the constant value is 1.529, which means that the three variables of product bundling strategy (X1), countdown timer urgency (X2), and social proof (X3) are zero, then the interactive response (Y) has a value of 1.529. The regression coefficient of product bundling strategy of 0.368 indicates that each increase in product bundling strategy will increase the interactive response by 0.368. The

regression coefficient of countdown timer urgency of 0.307 indicates that each increase in countdown timer urgency will increase the interactive response by 0.307. Meanwhile, the social proof regression coefficient of 0.264 indicates that each increase in social proof will increase the interactive response by 0.264. Thus, the three variables show a positive influence on the interactive response.

Tabel 6. Moderated effect regression equation.

Model	Coefficients			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	-2.855	19.601		-.146	.884
Product bundling strategy (X1)	.1.006	.522	.926	1.928	.055
Countdown timer urgency (X2)	.147	.614	.137	.240	.810
Social proof (X3)	-.2.91	.622	-.274	-.468	.640
Live streaming (M)	.282	.613	.235	.461	.645
X1M	-.0.22	.016	-1.067	-1.361	.175
X2M	.004	.019	.174	.191	.848
X3M	.016	.019	.783	.824	.411

a. Dependent variable : Interactive responses (Y)

Sources : (data processed, 2026).

Based on the table, a multiple linear regression analysis equation (Moderated Effect) is created as follows :

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 M + \beta_5 (X_1 \cdot M) + \beta_6 (X_2 \cdot M) + \beta_7 (X_3 \cdot M) + \varepsilon$$

$$Y = -2.885 + 1.006 + 0.147 + -291 + 0.282 + -0.022 + 0.004 + 0.016$$

Description:

The constant $\alpha = -2.885$ indicates the magnitude of the influence of all independent variables (X1, X2, and X3) on the dependent variable Y, which is moderated by the moderating variable M.

- The significance value of the interaction variable between product bundling strategy and live streaming is $0.175 > 0.05$, thus concluding that live streaming is unable to moderate the effect of the product bundling strategy on the interactive response variable.
- The significance value of the interaction variable between countdown timer urgency and live streaming is $0.848 > 0.05$, thus concluding that live streaming is unable to moderate the effect of the countdown timer urgency on the interactive response variable.
- The significance value of the interaction variable between social proof and live streaming is $0.411 > 0.05$, thus concluding that live streaming is unable to moderate the effect of social proof on the interactive response variable.

Partial Test (T-test)

The t-test is used to examine the effect of each independent variable on the dependent variable. Decisions are made based on the significance value, where a value <0.05 indicates an effect, while a value >0.05 indicates no effect. Furthermore, the calculated r value must be greater than the table r value for the results to be considered significant. To determine the table r value, follow these steps :

$$df = (n - 2)$$

Note:

df = degrees of freedom

n = Number of samples

So, $df = (300 - 2) = 298$ respondents, and if the total sample is 298, the r value of the table is 0.113.

Tabel 7. Partial Test Results.

Model	Coefficients			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	1.529	1.935		.790	.430
Product bundling strategy (X1)	.368	.052	.338	7.096	.000
Countdown timer urgency (X2)	.307	.054	.286	5.663	.000
Social Proof (X3)	.264	.053	.248	5.006	.000

a. Dependent Variable : Interactive responses (Y)

Sources : (data processed, 2026).

Based on the table above, the following analysis can be performed:

- The Product Bundling Strategy variable (X1) has a calculated t-value > t-table value of $7.096 > 0.113$ with a significance level of $0.000 < 0.05$. Therefore, it can be concluded that the significance value is accepted, indicating a significant effect between the product bundling strategy variable (X1) and the interactive response (Y).
- The Countdown Timer Urgency variable (X2) has a calculated t-value > t-table value of $5.663 > 0.113$ with a significance level of $0.000 < 0.05$. Therefore, it can be concluded that the significance value is accepted, indicating a significant effect between the countdown timer urgency variable (X2) and the interactive response (Y).
- The Social Proof variable (X3) has a calculated t value > t table, namely $5.006 > 0.113$ with a significance level of $0.000 < 0.05$. Thus, the significance value is accepted, which indicates that there is a significant influence between the social proof variable (X3) on the interactive response (Y).

Simultaneous Test (F Test)

According to Sujarweni (2016), the F test is a test of the significance of the equation used to determine how much influence the independent variables (X) have together on the dependent variable (Y). Decision making is also carried out based on a significance value < 0.05 , meaning the independent variable has an effect on the dependent variable, and if the significance value is > 0.05 , the independent variable has no effect on the dependent variable.

Tabel 8. Simultaneous Test Results.

Model	Sum of Squares	Annova		F	Sig.
		Df	Mean Square		
1 Regression	1590.622	3	530.207	86.127	.000
Residual	1822.215	296	6.156		
Total	3412.837	299			

a. Dependent Variable : Respon interaktif (Y)

b. Predictors : (Constant), X3, X1, X2

Sources : (data processed, 2026).

The results of the simultaneous test in the table show a significance value of $0.000 < 0.05$ so it can be concluded that the product bundling strategy variables (X1), countdown timer urgency (X2), social proof (X3) have a joint influence on the interactive response (Y) on the alpha gene in Bandar Lampung.

Moderated Regression Analysis

Moderated regression analysis is used to determine whether a moderating variable can strengthen or weaken the relationship between an independent variable and a dependent variable. A moderating variable is a variable that influences the direction or strength of the relationship between the independent and dependent variables. In other words, the presence of a moderating variable can cause the relationship between variables to become stronger, weaker, or even insignificant under certain conditions.

Tabel 9. Moderation Regression Results.

Model	Coefficients			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	-2.855	19.601		-.146	.884
Product bundling strategy (X1)	.1.006	.522	.926	1.928	.055
Countdown timer urgency (X2)	.147	.614	.137	.240	.810
Social Proof (X3)	-.2.91	.622	-.274	-.468	.640
Live Streaming (M)	.282	.613	.235	.461	.645
X1M	-.0.22	.016	-1.067	-1.361	.175
X2M	.004	.019	.174	.191	.848
X3M	.016	.019	.783	.824	.411

a. Dependent variable : Interactive responses (Y)

Sources : (data processed, 2026).

Description:

The constant $\alpha = -2.885$ indicates the magnitude of the influence of all independent variables (X1, X2, and X3) on the dependent variable Y, which is moderated by the moderating variable M.

- The significance value of the interaction variable between product bundling strategy and live streaming is $0.175 > 0.05$, thus concluding that live streaming is unable to moderate the effect of the product bundling strategy on the interactive response variable.
- The significance value of the interaction variable between countdown timer urgency and live streaming is $0.848 > 0.05$, thus concluding that live streaming is unable to moderate the effect of the countdown timer urgency on the interactive response variable.
- The significance value of the interaction variable between social proof and live streaming is $0.411 > 0.05$, thus concluding that live streaming is unable to moderate the effect of social proof on the interactive response variable.

Coefficient of Determination Test (Adjusted R-square)

The coefficient of determination (Adjusted R-Square) test was conducted to measure the model's ability to explain variations in the dependent variable. The coefficient of determination value ranges from 0 (0%) to 1 (100%). A small Adjusted R-Square value indicates that the independent variables' ability to explain variations in the dependent variable is very limited. After conducting the coefficient of determination test using SPSS 23.0, the following results were obtained :

Tabel 10. Coefficient of Determination Test Results (Adjusted R-square).

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error the Estimate
1	.683	.466	.461	2.481

a. Predictors : (Constant), X3, X1, X2

b. Dependent Variable : Interactive response (Y)

Sources : (data processed, 2026).

The analysis results show that the correlation coefficient (R) value is 0.683. This value indicates a strong relationship between the product bundling strategy variables, countdown timer urgency, and social proof on interactive responses. Furthermore, the R Square value of 0.461 indicates that 46.1% of the variation in interactive responses can be explained by the product bundling strategy variables, countdown timer urgency, and social proof in the regression model. Meanwhile, the remaining 53.9% is influenced by other variables outside this research model.

Tabel 11. Coefficient of Determination Results (Adjusted R-square) Moderated Effect.

Model summary				
Model	R	R Square	Adjusted R Square	Std. Error the Estimate
1	.703	.494	.482	2.432

a. Predictors : (Constant), X1,X2,X3,M. X1M,X2M,X3M

b. Dependent Variable : Interactive response (Y)

Sources : (data processed, 2026).

The results of the determination coefficient test in the moderated regression model show that the correlation coefficient (R) value is 0.703. This value indicates a strong relationship between the independent variables, moderating variables, and interaction variables on interactive responses. The R Square value of 0.482 indicates that 48.2% of the variation in interactive responses can be explained by the product bundling strategy variable, the urgency of the countdown timer, social proof, the live streaming moderating variable, and the interaction between variables in the regression model. Meanwhile, the remaining 51.8% is influenced by other variables outside this research model.

Discussion

The influence of product bundling strategy on interactive response

Based on the results of the partial test (t-test), it shows that the product bundling strategy has a significant effect on consumer interactive responses, as evidenced by the calculated *r* value being greater than the table *r* and the significance value being smaller than alpha, so the hypothesis is accepted. This indicates that the implementation of product bundling can increase consumer engagement in the context of digital marketing. This finding is in line with the research of (Ndoluanak et al., 2023) which states that well-designed bundling can increase consumer perceptions of value and satisfaction, as well as the research of (Evanita et al., 2023) which found that the bundling strategy can significantly encourage consumer interactivity. However, these results are not entirely consistent with the research of (Irfanto, 2025) which shows that bundling is not always effective if it does not match consumer needs or does not provide clear added value. Thus, the product bundling strategy can be concluded as an effective strategy in increasing interactive responses, especially if it is designed appropriately, relevantly, and able to provide added value for consumers.

The effect of countdown timer urgency on interactive responses

Based on the results of the partial test (t-test), it shows that the urgency of the countdown timer has a significant effect on the interactive response of consumers, which is indicated by the perception of limited time, the urge to act quickly, and increased consumer focus on the ongoing offer, so that the hypothesis is accepted. The presence of a countdown timer has been proven to be able to attract attention and encourage consumers to interact more actively during the promotional process. This finding is supported by research by (Amelia et al., 2025) which states that time-based urgency strategies can increase consumer engagement, although not entirely in line with (Devlin et al., 2007) which shows that the effectiveness of urgency can decrease if consumers are already accustomed to the strategy or do not feel real urgency. Overall, the urgency of the countdown timer can be concluded as an effective promotional strategy in increasing interactive responses, especially among Generation Alpha consumers, because it is able to create a sense of urgency and encourage quick action.

The influence of social proof on interactive responses

Based on the results of the partial test (t-test), it shows that the social proof variable has a significant effect on consumer interactive responses, as indicated by the tendency of respondents to interact more actively when seeing social proof indicators such as reviews, ratings, number of likes, and number of buyers, so the hypothesis is accepted. The existence of social proof can attract attention and encourage consumers to provide active responses in various forms of interaction. This finding is in line with the research of (Pardosi & Simanjuntak, 2024) which states that social proof has an effect on consumer interactive behavior, although it is not entirely consistent with (Najmi, 2022) who found that in certain contexts social proof has no significant effect because consumers rely more on personal preferences. Overall, social proof can be concluded as an effective factor in increasing

interactive responses, especially among Generation Alpha consumers, because it is able to build trust and encourage consumer involvement in promotional activities.

The influence of product bundling strategies, countdown timer urgency, and social proof on interactive responses

Based on the results of the simultaneous test (F-test), the variables product bundling strategy (X1), countdown timer urgency (X2), and social proof (X3) simultaneously significantly influence the interactive response (Y). This is indicated by a significance value smaller than 0.01, which indicates that the three variables together influence the level of consumer response and engagement. Therefore, the hypothesis that product bundling strategy, countdown timer urgency, and social proof simultaneously influence consumer interactive response is accepted.

This study's results align with several previous studies that suggest that a combination of digital marketing strategies can increase consumer engagement and response. Research by (Mutiarafani & Izazi, 2024) demonstrated that implementing product bundling and time urgency strategies simultaneously can increase consumer attention and interaction during digital promotions. Furthermore, research by (Qurana et al., 2026) also found that social proof displayed in online marketing activities strengthens consumer engagement when combined with other promotional strategies. These findings support the findings of this study that integrating multiple marketing strategies simultaneously is more effective than implementing them separately. However, the results of this study do not entirely align with several previous studies, which stated that the simultaneous influence of digital marketing strategies is not always significant on consumer responses (Nawari, 2017). Consumers in certain contexts are more influenced by a single dominant factor, such as personal preference or functional product needs. Therefore, combined strategies such as product bundling, urgency countdown timers, and social proof do not significantly influence interactive responses. This difference in results is likely influenced by respondent characteristics, product type, and the promotional media used in the study.

Based on the results of the simultaneous test (F-test), it can be concluded that product bundling, urgency countdown timers, and social proof strategies collectively have a significant effect on consumer interactive responses. These three variables simultaneously influence the level of consumer engagement during the promotional process. Therefore, the hypothesis that product bundling, urgency countdown timers, and social proof simultaneously influence consumer interactive responses is accepted.

The influence of live streaming as a moderating variable in product bundling strategies

The results of the moderation test indicate that live streaming does not significantly moderate the relationship between product bundling strategies and consumer interactive responses, so the effect of bundling remains the same in both high and low live streaming conditions. This indicates that the effectiveness of bundling is more influenced by product value and suitability than promotional media. This finding is in line with (Schamp et al., 2024), but not in line with (Taeratanachai, 2025). Thus, live streaming does not act as a moderating variable and the hypothesis is rejected.

The influence of live streaming as a moderating variable of countdown timer urgency

The results of the moderation test indicate that live streaming does not significantly moderate the relationship between countdown timer urgency and consumer interactive responses, so that the influence of urgency remains the same at high and low levels of live streaming. This is because consumers do not always follow live streaming in full and tend to only capture core information, so that the urgency of the countdown timer remains directly working without being affected by the intensity of live streaming, especially in the characteristics of Generation Alpha (Suvana & Malagi, 2025). However, this result is inconsistent with (Aprianingsih & Fachira, 2026) who stated that live streaming can strengthen consumer engagement. Thus, live streaming does not act as a moderating variable and the hypothesis is rejected.

The influence of live streaming as a moderating variable of social proof

The results of the moderation test indicate that live streaming does not significantly moderate the relationship between social proof and consumer interactive responses, so the effect of social proof remains the same at both high and low levels of live streaming. This indicates that social proof functions as a strong social signal in directly influencing consumer responses without requiring the additional role of live streaming, as supported by (Herlina,

2023). Therefore, live streaming does not act as a moderating variable, and the hypothesis is rejected.

5. Conclusion

Based on the results of data analysis and hypothesis testing conducted on 300 Gen Alpha respondents who had purchased or watched live streaming of Scora products in Bandar Lampung, the following conclusions can be drawn: Product bundling strategy significantly influences the interactive response of Gen Alpha consumers to Scora products in Bandar Lampung. The urgency of the countdown timer significantly influences the interactive response of Gen Alpha consumers to Scora products in Bandar Lampung. Social proof significantly influences the interactive response of Gen Alpha consumers to Scora products in Bandar Lampung. Product bundling strategy, the urgency of the countdown timer, and social proof simultaneously significantly influence the interactive response of Gen Alpha consumers to Scora products in Bandar Lampung. Live streaming does not significantly moderate the relationship between product bundling strategy and the interactive response of Gen Alpha consumers. Live streaming does not significantly moderate the relationship between the urgency of the countdown timer and the interactive response of Gen Alpha consumers. Live streaming does not have a significant effect in moderating the relationship between social proof and the interactive responses of Gen Alpha consumers.

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