



The Effect of Advertisements and Consumer Reviews on Buying Interest in Wardah Cosmetic Products in Medan City with Social Media Involvement as a Moderation Variable

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Abstract Using social media engagement as a moderating variable, this research seeks to assess the impact of advertising and user reviews on purchasing interest in cosmetic items in Medan City. The data was gathered from 130 participants who filled out a survey using a Likert scale. To assess the link between variables, Partial Least Squares Structural Equation Modeling (PLS-SEM) is utilized for analysis. Both advertisements and customer reviews significantly impact consumers' propensity to make a purchase, while the former has a stronger impact. However, social media engagement has not been proven to moderate the relationship between advertising and consumer reviews and buying interest. This model successfully explains 98.1% of the variance of buying interest, which shows the high power of the model in predicting consumer buying interest. Based on these results, marketing strategies that focus on advertising and consumer reviews need to be optimized to increase consumer buying interest.

Keywords: Advertising, Consumer Reviews, Buying Interest.

1. INTRODUCTION

The development of *digital* technology has brought significant changes in the marketing industry, especially in the way companies promote their products. One of the biggest impacts of digitalization is the birth of social media as an effective platform to convey marketing messages and collect feedback from consumers. According to Kotler and Keller (2020), social media not only serves as a communication tool but also as a platform for interaction between consumers and brands.

Wardah and other cosmetics companies rely heavily on digital advertising to raise customer awareness of their brands and influence their purchase choices. One industry where aesthetics and customer feedback play a significant role is cosmetics. Customers' opinions expressed in reviews posted on review sites or social media sites have a significant impact on consumers' propensity to make a purchase in this setting. Consumers are more likely to trust a business after reading positive evaluations, but the inverse is also true (Fan & Yao, 2020).

Furthermore, when consumers actively connect with companies on digital channels, it is referred to as social media engagement. People who spend a lot of time on social media are more likely to see advertisements and listen to reviews (Alalwan, 2022). In particular, among Medan City cosmetics consumers, there has been a lack of research into the impact of social

media moderation on the strength of the link between advertisements and customer reviews on purchasing interest.

2. LITERATURE REVIEW

Advertisement

Advertising is one of the most effective communication tools in product marketing. Good advertising is able to build brand awareness, influence consumer perception, and ultimately encourage buying interest (Kotler & Keller, 2020). In the context of *digital marketing*, advertising is often more interactive and personalized so that it is able to target consumers more effectively (Zhang *et al.*, 2021). A study by Nasrullah and Rijal (2022) shows that digital advertising can increase purchase intent if conveyed with the right strategy.

According to Kim, J., & Hyun, Y. J. (2020) The dimensions of Advertising are:

1. Ad Appeal
2. Ease of Remembering
3. Clarity of Information Conveyed
4. Visual Quality and Aesthetics
5. Trust or Credibility of Ad Content
6. Influence on Perception or Attitude towards Brand/Product

Consumer Reviews

Consumer reviews or better known as (e-WOM) play an important role in shaping consumer perception of a product. Consumer reviews provide a direct picture of the quality of the product, so it can influence purchasing decisions (Chen *et al.*, 2022). According to Fan and Yao (2020), positive reviews tend to increase purchase intent, while negative reviews can reduce buying interest.

According to Filieri, R., & McLeay, F. (2021) The Review Dimensions are:

1. Review Reading Frequency
2. Understanding Product Quality
3. Trust in Reviews
4. Accuracy of Review Information
5. Influence on Purchase Decisions
6. Confidence to Buy Based on Positive Reviews
7. Product Avoidance Based on Negative Reviews

Social Media Engagement

When people connect with a company on social media by doing things like liking,

commenting, or sharing material, we say that they are socially engaged. According to Kaplan and Haenlein (2021), companies and customers may develop a stronger emotional connection via social media interaction. According to research by Dwivedi et al. (2021), people's perceptions of advertisements and reviews may be influenced by their level of social media activity.

According to Gong, W., & Li, X. (2020) The dimensions of Social Media Engagement are:

1. Frequency of Seeing Ads on Social Media
2. Follow Official Social Media Accounts
3. Frequency of Viewing Product Reviews on Social Media
4. Product Information Search via Social Media
5. Sharing Reviews or Personal Experiences
6. Product Engagement Through Social Media Engagement
7. Product Comparison with Other BrandsBuying Interest

Buying interest is defined as the consumer's desire to buy a product after they are exposed to various information, including advertisements and consumer reviews (Schiffman & Wisenblit, 2020). In the cosmetics industry, purchasing decisions are often influenced by a combination of the visual appeal of a product and feedback from other users (Liu & Brock, 2020).

According to Kim, H., & Choi, B. (2020) The dimensions of Buying Interest are:

1. Desire to Buy Products
2. Considerations for Buying in the Future
3. Interest in New Products
4. The Effect of Ads on Buying Decisions
5. The Effect of Positive Reviews on Buying Interest
6. Confidence to Buy

3. RESEARCH METHODOLOGY

Population and Sample

Users of social media who purchase cosmetics in Medan City make up the study's demographic. Researchers employed an incidental sampling strategy, which entails randomly selecting samples from people they've met and determined to fit the study requirements (in this case, those who had seen cosmetic product ads and read reviews online). We visited Center Point, Sun Plaza, and Carrefour—three of Medan City's most prominent shopping centers—to

take our samples. Hair et al. provided the criteria that were utilized to establish the sample size. (Nunnally, 2010) suggests collecting data from at least five to ten times as many indicators as there are indicators. Counting the questions on the survey is one approach to get the right number of people to sample. For every question posed, five people should react (Hair, Ortinau, and Harrison 2021). The total number of items in this study questionnaire was 26. The total number of participants in this research is 130, with 26 assertions and 5 responses each making up the sample. According on these findings, 130 participants will be included in the study's sample.

Data Collection Techniques

Primary data was collected through questionnaires distributed online through the *Google Forms platform*. This questionnaire is designed to measure respondents' perceptions related to advertising, consumer reviews, social media engagement, and buying interest in cosmetic products. The instrument used in this study is a questionnaire consisting of statements related to advertising, consumer reviews, social media engagement, and buying interest. Each statement is measured using a Likert scale of 1-5.

Data Analysis Techniques

We used SmartPLS 4 to do the Partial Least Squares Structural Equation Modeling (PLS-SEM) on the collected data. Despite using a limited sample size, PLS-SEM produces reliable estimates, and it can handle complicated models including moderation variables. Two phases of testing are conducted using this model: the outer model, which focuses on validity and reliability, and the inner model, which tests hypotheses and examines the impact between variables.

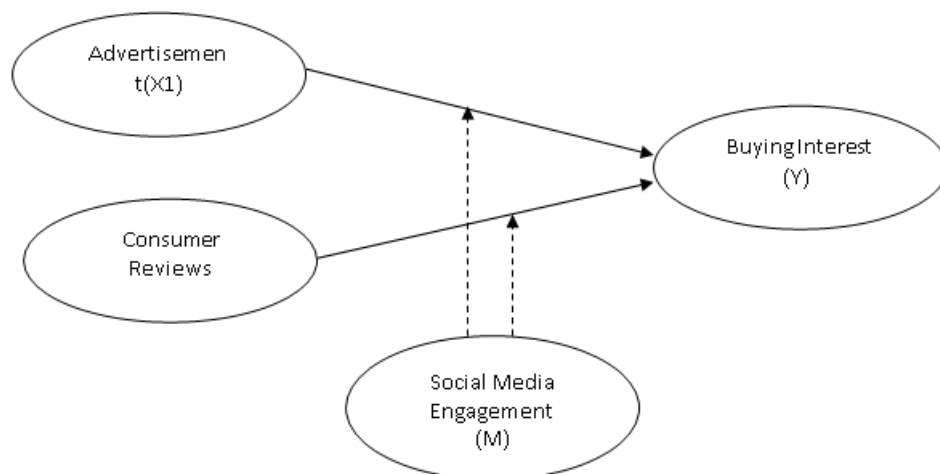


Figure 1. Conceptual Framework

H1:The desire in purchasing Wardah cosmetic items in Medan City is influenced by advertising.

H2: Wardah cosmetics in Medan City are influenced by customer feedback.

H3a. Social media involvement moderates the influence of advertising on the buying interest of Wardah cosmetic products in Medan City.

H3b. Social media involvement moderates the influence of consumer reviews on the buying interest of Wardah cosmetic products in Medan City.

4. RESULTS AND DISCUSSION

Convergent Validity

	Outer loadings
IKLN1 <- ADVERTISEMENT	0.988
IKLN2 <- ADVERTISEMENT	0.988
IKLN3 <- ADVERTISEMENT	0.989
IKLN4 <- ADVERTISEMENT	0.975
IKLN5 <- ADVERTISEMENT	0.988
IKLN6 <- ADVERTISEMENT	0.989
KTSMD1 <- SOCIAL MEDIA ENGAGEMENT	0.638
KTSMD2 <- SOCIAL MEDIA ENGAGEMENT	0.938
KTSMD3 <- SOCIAL MEDIA ENGAGEMENT	0.919
KTSMD4 <- SOCIAL MEDIA ENGAGEMENT	0.874
KTSMD5 <- SOCIAL MEDIA ENGAGEMENT	0.690
KTSMD6 <- SOCIAL MEDIA ENGAGEMENT	0.927
KTSMD7 <- SOCIAL MEDIA ENGAGEMENT	0.927
MNTBLI1 <-MINAT BELI	0.838
MNTBLI2 <-MINAT BELI	0.840
MNTBLI3 <-MINAT BELI	0.852
MNTBLI4 <-MINAT BELI	0.779
MNTBLI5 <-MINAT BELI	0.835
MNTBLI6 <-MINAT BELI	0.846
ULKS1 <- CONSUMER REVIEWS	0.688
ULKS2 <- CONSUMER REVIEWS	0.911
ULKS3 <- CONSUMER REVIEWS	0.908
ULKS4 <- CONSUMER REVIEWS	0.907
ULKS5 <- CONSUMER REVIEWS	0.741
ULKS6 <- CONSUMER REVIEWS	0.723
ULKS7 <- CONSUMER REVIEWS	0.910
SOCIAL MEDIA ENGAGEMENT x CONSUMER REVIEWS -> SOCIAL MEDIA ENGAGEMENT x CONSUMER REVIEWS	1.000
SOCIAL MEDIA ENGAGEMENT x ADS -> SOCIAL MEDIA ENGAGEMENT x ADS	1.000

Source: Data processed (2024)

Based on the table above, the validity of convergence is checked by looking at the outer loading values of each indicator on each variable. An outer loading value of more than 0.7 is considered to indicate good validity.

1. Advertisement: All items (IKLN1 - IKLN6) have an outer loading value above 0.975, which indicates excellent convergence validity.
2. Social Media Engagement: Most items (KTSMD2, KTSMD3, KTSMD4, KTSMD6, and KTSMD7) had an outer loading value above 0.8, indicating strong convergent validity, except for KTSMD1 and KTSMD5 which had lower values (0.638 and 0.690), but were still acceptable.
3. Buy Interest: All items had a fairly good outer loading value, with a low of 0.779 in

MNTBLI4, but remained above the 0.7 threshold.

4. Consumer Reviews: Items such as ULKS2, ULKS3, ULKS4, and ULKS7 have high outer loading values above 0.9, indicating very strong convergent validity. ULKS1, ULKS5, and ULKS6 have lower values (0.688, 0.741, and 0.723, respectively), but are still acceptable.

Validity of Discrimination

	ADVERTISEMENT	SOCIAL MEDIA ENGAGEMENT	BUYING INTEREST	CONSUMER REVIEWS
ADVERTISEMENT	0.986			
SOCIAL MEDIA ENGAGEMENT	0.943	0.853		
BUYING INTEREST	0.833	0.961	0.832	
CONSUMER REVIEWS	0.898	0.977	0.973	0.832

Source: Data processed (2024)

Based on the table above, the validity of the discrimination is tested by looking at the diagonal values of the matrix. Higher values on the diagonal indicate good discriminatory validity, meaning that the constructed under test is quite different from other constructs.

1. The ad has a value of 0.986 on the diagonal, indicating good discriminatory validity.
2. Social Media Engagement, Buy Interest, and Consumer Reviews also have good discriminatory validity values, with all values diagonally above 0.832.

Validity and Reliability Test

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ADVERTISEMENT	0.994	0.995	0.995	0.973
SOCIAL MEDIA ENGAGEMENT	0.933	0.934	0.948	0.727
BUYING INTEREST	0.911	0.911	0.931	0.692
CONSUMER REVIEWS	0.923	0.927	0.940	0.693

Source: Data processed (2024)

According to the data in the table, we used Cronbach's Alpha, Composite Reliability (rho_a, rho_c), and Average Variance Extracted (AVE) to find out how reliable the construct was. If the reliability value is more than 0.7 and the AVE value is greater than 0.5, then the construct is valid and dependable.

1. Advertisement: Cronbach's Alpha = 0.994, Composite Reliability = 0.995, AVE = 0.973

(excellent).

2. Social Media Engagement: Cronbach's Alpha = 0.933, Composite Reliability =0.948, AVE = 0.727 (valid and reliable).
3. Minat Beli: Cronbach's Alpha = 0,911, Composite Reliability = 0,931, AVE =0,692 (cukup baik).
4. Consumer Reviews: Cronbach's Alpha = 0.923, Composite Reliability = 0.940,AVE = 0.693 (pretty good).

R Square

	R-square	R-square adjusted
BUYING INTEREST	0.981	0.980

Source: Data processed (2024)

The R-squared value indicates the extent to which the independent factors account for the variation in the dependent variables, as seen in the table above. Advertising, consumer reviews, and social media engagement are the independent variables that account for 98.1% of the variation in purchasing interest, as seen in the table above with an R-squared value of 0.981.

F Square

	BUYING INTEREST
ADVERTISEMENT	1.413
SOCIAL MEDIA ENGAGEMENT	1.128
CONSUMER REVIEWS	0.385
SOCIAL MEDIA ENGAGEMENT x ADVERTISING	0.002
SOCIAL MEDIA ENGAGEMENT x CONSUMER REVIEWS	0.000

Source: Data processed (2024)

F-Square calculates the relative importance of each independent variable in explaining the dependent variable using the data in the table above. An F-squared value of 1,413 for the Ad variable suggests it has a significant impact on purchase interest, as seen in the table above. A substantial impact is also shown by the 1,128 social media engagements. Consumer Reviews: 0.385, showing a moderate influence on buying interest. Interaction (moderation) variables such as Social Media Engagement x Ads and Social Media Engagement x Consumer Reviews had very small values (0.002 and 0.000, respectively), suggesting that moderation had no significant effect.

Uji Hipotesis

	P values
ADVERTISEMENT -> BUYING INTEREST	0.000
SOCIAL MEDIA ENGAGEMENT -> BUYING INTEREST	0.000
CONSUMER REVIEWS -> BUYING INTEREST	0.037
SOCIAL MEDIA ENGAGEMENT x ADVERTISING -> BUYING INTEREST	0.865
SOCIAL MEDIA ENGAGEMENT x CONSUMER REVIEWS -> BUYING INTEREST	0.972

Source: Data processed (2024)

The table above demonstrates that the association between variables is statistically significant, as shown by the P-values. A statistically significant link is shown by a P-value that is less than 0.05. The data in the table above suggests that:

1. Ad -> Buying Interest: P-value = 0.000 (very significant).
2. Social Media Engagement -> Buying Interest: P-value = 0.000 (very significant).
3. Consumer Reviews -> Buying Interest: P-value = 0.037 (significant).
4. Moderation of Social Media Engagement x Ads -> Buying Interest: P-value = 0.865 (insignificant).
5. Moderation of Social Media Engagement x Consumer Reviews -> Buying Interest: P-value = 0.972 (insignificant).

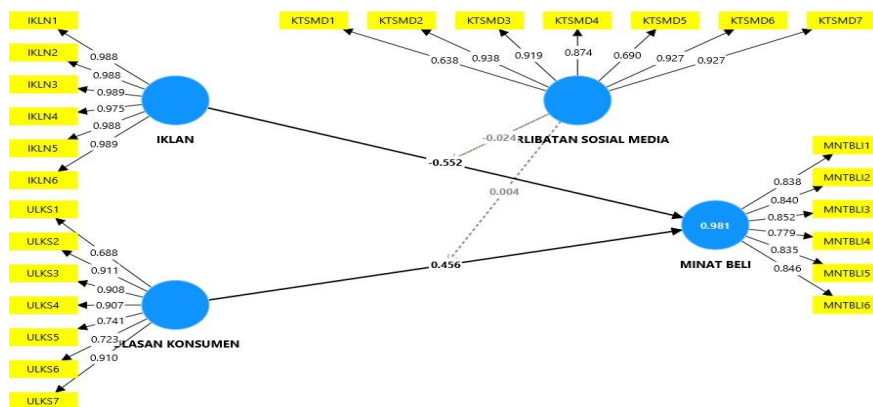


Figure 2. Path Diagram PLS-SEM

Source: Data processed (2024)

Here we will go over the findings of the variable-relationship analysis using the structural model graph as a basis:

1. Ads against Interest in Buying

The influence of advertising on buying interest has a relationship value of 0.552 with a negative direction. This means that the higher the exposure to advertising, the slightly less buying interest there is. This could indicate ad saturation or that marketing strategies through advertising are not fully effective in increasing buying interest. Each ad indicator (IKLN1 to IKLN6) has a very high outer loading value, which is above 0.97, which indicates that each indicator is very strong in representing the ad variable.

2. Consumer Reviews on Buying Interest

Consumer evaluations have a favorable impact on purchasing interest, although their effect is less pronounced than that of advertising, according to the connection value of 0.456. This indicates that although customer evaluations might boost interest in making a purchase, their impact is not as great as that of advertising. There are some variations in the outer loading value for customer reviews (ULKS1 to ULKS7), with ULKS2 having the lowest value (0.688), indicating that it contributes less to the consumer review variable than other indicators.

3. Moderation of Social Media Engagement

The very tiny interaction values, -0.024 and 0.004, demonstrate the impact of social media participation as a moderating variable on the association between advertising and purchasing interest as well as customer reviews and buying interest. This indicates that social media use has no discernible moderating effect on this association. To put it another way, using social media does neither increase or decrease the impact of advertisements or customer reviews on purchase intent. KTMSD2 (0.638) is the lowest social media engagement indicator, whereas KTMSD1 through KTMSD7 all have varied outer loading values. This implies that not every aspect of social media use makes the best contribution to this concept.

4. Buying Interest

Buying interest as a dependent variable has an R-square of 0.981, which means that this model is able to explain 98.1% of the variability of buying interest based on advertising variables, consumer reviews, and social media engagement. This shows that the model is very powerful in explaining buying interest. Each of the purchasing interest indicators (MNTBLI1 through MNTBLI6) has an outer loading value greater than 0.77, indicating that they all accurately reflect the buying interest construct.

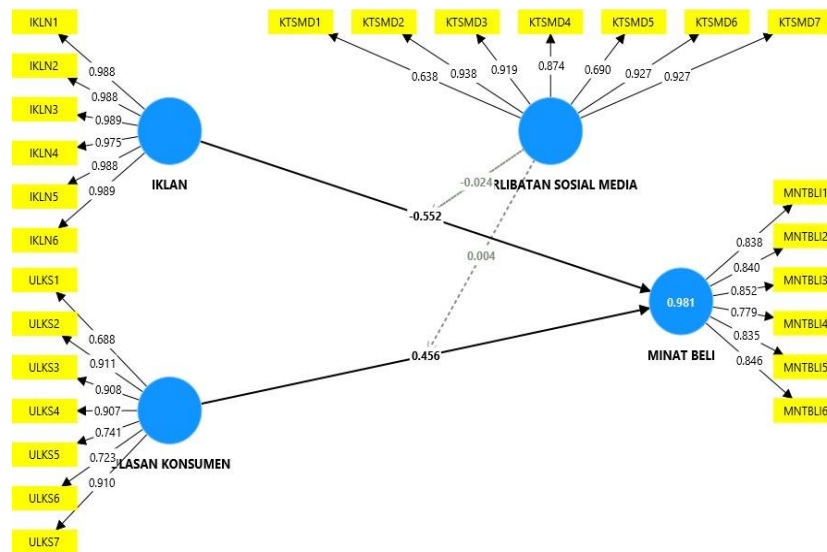
Discussion

Ads, social media engagement, and customer reviews all significantly affect buying interest, according to the analysis's findings. The convergent validity of these notions is shown by the high value of outer loadings on each indicator. The results of the discriminatory validity

test also demonstrated that every variable in the model differed significantly from the others, indicating that the research complied with the criteria for discriminatory validity.

Additionally, the R-square graph demonstrates that a combination of independent variables (advertising, consumer reviews, and social media engagement) can account for 98.1% of the variance of buying interest, suggesting that this model is highly effective at elucidating the variables that affect buying interest. Advertising has the greatest impact on purchasing interest, followed by social media interaction, while customer reviews had the least impact compared to other factors, according to the F-square graph.

The moderation graph's findings, however, indicate that social media engagement has no discernible effect on the relationship between advertisements and customer reviews and buying interest. This suggests that the impact of advertising and customer reviews on purchase interest is neither enhanced or diminished by social media interaction. This indicates that advertising-based direct marketing campaigns are more successful in influencing consumer interest in purchases without the moderating influence of social media interaction.



5. CONCLUSIONS AND RECOMMENDATIONS

The study shows that advertising and consumer reviews have a significant influence on buying interest, with advertising having a greater influence than consumer reviews. However, social media engagement as a moderation variable did not have a significant impact in strengthening or weakening the relationship between advertising and consumer reviews on buying interest. The resulting model has high predictive power, with the variables used able to explain 98.1% of the variability of buying interest, so marketing strategies focused on advertising and consumer reviews remain a key factor in influencing consumer purchase

decisions.

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