

Short Video Content Effectiveness and Influence on Young Adults' Purchase Intentions

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Abstract

The Effectiveness of a Short video and its Influence on Young adults' intention to purchase is not an illusionary phenomenon. Various research has been carried out on short video content effectiveness and correlation to purchase intention but failed to focus on only young adults and factors of attention, engagement metric, and visual appeal. This research paper was focused on the limit of young adults who have ages ranging from 18 years to 26 years. These age group individuals are always seen as catalysts for adopting new technologies and harnessing the wants and desires of bringing new horizons in consumer behavior. This research paper was intended to capture the uncommon elements yet perceived as highly effective in deciding the purchase intentions of these young adults. The research was carried out with a survey through a structured questionnaire distributed amongst motivated young adults and it spanned across various demographic and economic situations. Three hundred and eighty-eight respondents had a positive attitude to respond to this research intention and participated in unbiased responses. The statistical analysis of the data collected discovered that there are strong correlation between factors such as age, time spent on short video formats, attention-grabbing nature, visual appeal, and engagement metric, attributing to the purchase intentions of the users. The research paper highlights various research carried out by eminent researchers in this field but their horizons were limited to factors not considering psychometric elements such as attention-grabbing nature with a combination of visual appeal and engagement metric.

Keywords: Short Video Format, Influence, Purchase Intention, attention-grabbing, visual appeal, engagement metric

[1] Introduction

The revolution of technology from Web 2.0 to Web 3.0 has seen the advent of artificial intelligence and machine learning algorithms getting embedded into social media platforms. Potreal Victor (2022) has highlighted that the short-form video that emerged a few years back has potentially raised and captured the worldwide market with the latest technologies getting embedded into web platforms.

The short videos are easily acceptable and interpreted which are quick and viewers can scroll through the content easily. There are various platforms available for short-form videos including Stories and Reels of Instagram, TikTok, and YouTube shorts. Additionally, there is a Snapchat spotlight with stories.

Various studies showed that social media's financial benefits in addition to the hedonic benefits on purchase intention are strong enough. There are social media functional benefits of social media as well such as psychological in addition to macroeconomics and cohesive relationship to the purchase intentions of the customers.

[2] Review of Literature

Researcher Zhang Tongxi (2020) defined a short video that runs for less than ten minutes. Three researchers, Xiaodan Zhang, Zhanbo Zhao, Kui Wang (2023) published a research paper which was aimed to scrutinize the moment-to-moment (MTM) effects. The effects were observed for the in-consumption dynamic. The comments on consumer responses concerning engagement were captured. The mechanisms involved were studied alongside the advertisement's interactive role within the short-form video which demonstrated a strong correlation. Similar research was conducted by three researchers, Zeyang Yang, Mark D. Griffiths, Zhihao Yan, and Wenting Xu (2021) found that few parameters are critical for liking of short-form videos by the users such as content key, needs for social interaction, individual interests. In another research, researchers Yani Xiao, Lan Wang and Ping Wang (2019) turn their attention to refined content which is also rich and attracting the fast-paced life of the mobile users, the followers always glued to the vertical screen. Yani et.al. found through the study that the maturity of artificial intelligence technologies are enhancing more entertainment and interesting for the followers. In contrast to all the research findings, Zhang Tongxi (2020) while defining what a short video is, coined that there are few factors that influence the intention to purchase such as perceived usefulness, influencer involvement, and entertainment capabilities. Most of the research on short video and influences on purchase intention has shown psychological and societal factors involved. Similar findings is done by researchers Wang et al. (2022), where it is found that purchase intention has a strong relationship with the perceived value of engagement with live streaming, and in turn, it is moderated by recommendation done intelligently. Stressing the importance that there are strong repurchase intentions by consumers, triggered by loyalty and high level of customer satisfaction as found out by researchers Lin et. al. (2023). The researchers also stressed that

the mediating factors are customer experiences and the value the consumers are getting through short videos. The brand entity is a major factor that entails a good purchase intention as suggested by researchers Q. Yang et al. (2019). Researchers Zhai et al. (2022) sought to understand the phenomenon that video emotions moderate purchase intentions and through the study, they found a positive correlation between credibility, influencer's abilities, and short video content. The researchers Araujo et al. (2022) have conducted research on Tiktok advertisements through short video formats; and pointed out that consumer behavior is positively influenced by TikTok video-based advertisements with informative dimensions, emotional aspects of video content, and level of entertainment.

[3] Literature Gaps

The literature review provided insights into the factors from Short Video on social media and its influences on purchase intentions. However, the following factors were not considered by the researchers which are more psychometric and societal to conceive the understanding of the degree of influence.

- *Attention-grabbing nature* – the activity processing in human beings due to some stimulus is one of the key factors for attention-grabbing nature in short video formats.
- *Visual Appeal* – the instinct to capture what we see and the brain takes the stimulus as an impression to the human memory.
- *Engagement Metric* – the likes, dislikes, and comments refer to the degree of influence and engagement with the short video format as part of advertisements.

[4] Research Methodology

Exploratory research was conducted with structured interviews conducted through a random sampling method. A sample size of 400 respondents was selected and questionnaires were distributed. Out of 425 respondents, only 388 returned the response and were considered for the study. Various demographic-based respondents were considered for the study to get a diverse landscape of results.

[5] Analysis and Hypothesis Testing

[5.1] Data Analysis

[a] Demographic Distribution

The following table indicates the demographic distribution of the sample (n=380) data collected from respondents of young adults.

Age	18-20 years	21-23 years	24-26 years	Total
Respondents	140	120	128	388

Educational Qualification	SSC	HSC	Graduation	Masters
Respondents	16	46	167	159
Family Income (INR)	Less than 100,000	100,000 – 500,000	500,000 – 1,000,000	More than 1,000,000
Respondents	68	93	107	120

Table 1 : Distribution of Respondents by Age, Educational Qualification, Family income

The above table indicates the distribution based on the various demographic factors such that the age group (18-20 years) has highest respondents i.e. 140 respondents (36%) which is followed by age group (24-26 years) with 128 respondents (33%). The Mean is 21,88 and Std. Deviation is 2,71. The educational qualification factor indicates that most of the respondents i.e. 167 are graduates, while 159 are masters followed by respondent size of 46 and 16 completed HSC and SSC as primary education. The family inflows are seen through the distribution of income where 120 respondents earn more than Rs 1,000,000, followed by 107 respondents who fall in the income range of Rs. 500,000 – Rs. 1,000,000. In addition to the demographic distribution the table below provides the distribution of respondents who spent time in minutes per day on short video format.

[b] Response Distribution on other attributes

Time spent on SVF (in minutes) per day	0-30 min	31-60 min	61-90 min	Total
Respondents	207	120	61	388

Table 2: Distribution of Respondents by time spent on short video format (SVF)

The table above provides distribution of respondents who has spent time per day on short video formats through various social media medium. It is observed that 207 respondents out of 388 respondents (53%) spend time on short video format between 0-30 minutes, while 120 respondents (31%) spend time between 31-60 minutes, however 61 respondents (16%) spend time within the range between 61-90 minutes.

The following tables provides the research statements which were used to collect responses on perceptions of the respondents:

(a) Attention Grabbing Nature

<i>Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.</i>						
Statements	1	2	3	4	5	Total

Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.

Statements	1	2	3	4	5	Total
[AG1] The short videos are medium to quickly capture viewers' attention.	21	62	101	121	83	388
[AG2] The short videos keeps me engaged.	10	74	110	80	114	388
[AG3] The Short videos has impactful influence on my engagement with the content.	18	62	115	101	92	388

Table 3(a): Distribution of Respondents based on attention grabbing nature

The table 3(a) represents the responses of the 388 participants aligning to the three research statements which assess the perception of attention-grabbing nature through short video format on social media. For the first statement [AG1] the score of 4 is given by 121 respondents with more than 0.3 probability density for this score indicating high contribution to attribution of respondents to viewer attention. The second statement [AG2] has 114 respondents giving highest score of 5 with 0.4 probability density for this score indicating very high contribution to engagement. The third research statement [AG3] indicates 115 respondents scoring 3 having with 0.25 probability density for this score, indicating moderate influence on assignment with the content on the short video contents in the social media. The findings indicate that respondents have moderate and high affinity to viewer attention, engagement with short video formats and assignment with video contents.

(b) Visual Appeal

Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.

Statements	1	2	3	4	5	Total
[VA1] The attributes such as creative visuals, and audio elements contribute to my appeal.	3	80	101	119	85	388
[VA2] The product preferences given in the short videos is memorable and impactful.	9	66	77	114	122	388
[VA3] The Storytelling delivered through the short videos is creative enough to put	18	62	115	101	92	388

<i>Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.</i>						
Statements	1	2	3	4	5	Total
an impression in my mind.						

Table 3(b): Distribution of Respondents based on Visual Appeal

The table 3(b) represents the responses of the 388 participants aligning to the three research statements which assess the perception of visual appeal through a short video format on social media. For the first statement [VA1] the score of 4 is given by 119 respondents with little more than 0.3 probability density for this score indicating a high contribution to liking for creativity, visual effects, and audio. The second statement [VA2] has 122 respondents giving the highest score of 4 with 0.31 probability density for this score indicating a high contribution to liking for storytelling elements of visual appeal. The third research statement [VA3] indicates 115 respondents scoring 3 having with 0.25 probability density for this score, indicating moderate influence on product preference shown through the short video contents in the social media. These findings imply that respondents have moderate and high affinity to creativity, visuals and audio elements, storytelling aspects of content, and product preference through the content of social media short video formats.

(c) Engagement Metric

<i>Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.</i>						
Statements	1	2	3	4	5	Total
[EM1] The likes, comments, shares, and views given by me and others make the short-form video presented impactful.	19	20	115	111	123	388
[EM2] I like the short videos based on their popularity.	17	21	67	150	133	388
[EM3] I trust and consider short video and products presented reliable.	21	18	79	129	141	388

Table 3(c): Distribution of Respondents based on Engagement Metric

The table 3(c) represents the responses of the 388 participants aligning to the three research statements which assess the perception of engagement metrics with a short video format on social media. For the first statement [EM1] the score of 5 is given by 123 respondents with 0.32 probability density for this score indicating high attribution to short video likes, comments, shares, and views. The second statement [EM2] has 150 respondents giving the

highest score of 4 with 0.34 probability density for this score indicating high contribution to liking for popularity elements of engagement metrics. The third research statement [EM3] indicates 141 respondents scoring 5 having with 0.33 probability density for this score, indicating a high influence on trust of the short video contents in the social media. These findings imply that respondents have a high affirmation of likes, comments, shares, and views of the short video format in addition to popularity and trust.

(d) Purchase Intention

(e) Note: Likert Scale used – indicating 1 - strongly disagree and 5 - strongly agree.

Statements	1	2	3	4	5	Total
[PI1] I like to purchase based on recommendations made in short videos.	19	20	115	110	124	388
[PI2] I am inclined to short videos which triggers my overall liking on the products and information shared to me.	17	21	67	150	133	388
[PI3] Short Video advertisements are useful for me while searching for a product I want to buy.	21	18	79	128	142	388

Table 3(d): Distribution of Respondents based on Purchase Intention

The table 3(d) represents the responses of the 388 participants aligning to the three research statements which assess the perception of purchase intention with short video format on social media. For the first statement [PI1] the score of 5 is given by 124 respondents with 0.32 probability density for this score indicating high attribution to purchases done based on short video content. The second statement [PI2] has 150 respondents giving highest score of 4 with 0.34 probability density for this score indicating high contribution to inclination to short video format. The third research statement [PI3] indicates 142 respondents scoring 5 having with 0.33 probability density for this score, indicating high influence on usefulness of advertisement through the short video contents in the social media. These findings imply that respondents have high affirmation to purchases based on recommendations, inclination to short video format and usefulness of advertisement.

[5.2] Hypothesis Testing

Hypothesis 1:

Null Hypothesis (H_0) : There is no or a negative correlation between Age and Time spent on social media short video format (in minutes) per day which indicates that time spent on short videos do not depend upon age.

Alternate Hypothesis (H_0) : There is a positive correlation between Age and Time spent on social media short video format (in minutes) per day which indicates that time spent on short videos depends upon age.

The table below shows the r and p values as part of the correlation.

	r	p
Age and Time spent on SVF** (in minutes) per day	0.11	0.014

** indicates Short Video Format

Table 4(a): correlation between age and time spent on short videos

- A Pearson correlation was performed to determine if there was a positive correlation between the variables Age and Time spent on SVF (in minutes) per day. There was a low, positive correlation between the variables Age and Time spent on SVF (in minutes) per day with $r = 0.11$. Thus, there was a low, positive association between Age and Time spent on SVF (in minutes) per day in this sample.
- The result of the Pearson correlation showed that there was a significant positive correlation between Age and Time spent on SVF (in minutes) per day, $r(386) = 0.11$, $p = 0.014$.

A linear regression analysis was performed to examine the influence of the variable Age on the variable Time spent on SVF (in minutes) per day.

R	R ²	Adjusted R ²	Standard error of the estimate
0.11	0.01	0.01	26.61

Table 4(b): Linear Regression Analysis Results

- R (correlation coefficient) which is the correlation between the observed values of the dependent variable *Time spent on SVF (in minutes) per day* and the predictions made by the model using the independent variable *Age*. This R-value of 0,11 indicates a low positive correlation between the observed values and the prediction made by this model.

- The table shows that only 1.26% of the variance in time spent on SVF can be explained by age in the regression model with a value of 0.01.
- The adjusted R-squared value is a more precise measure of the goodness of fit in a regression model when there are multiple independent variables. It considers the number of variables in the model and the number of observations. In the analysis discussed above, it indicates that after adjusting for the number of predictors, only about 1% of the variance in the dependent variable is explained. Additionally, a standard error of 26.61 shows that, on average, the forecasted values differ from the actual values by 26.61 units.

The ANOVA table below depicts the factors and the values from regression analysis to understand if the regression model fits the data.

Model	df	F	p
Regression	1	4.91	0.027

Table 4(c): ANOVA Results

- The F-statistic to test the overall significance of the model has a value of 4.91 while the p-value is 0.027, which is less than 0.05 but greater than 0.01, the results are statistically significant. This suggests that the null hypothesis can be rejected, indicating that Age as the independent variable (predictor) in the regression model affects the dependent variable *Time spent on SVF (in minutes) per day*

In summary, the ANOVA results indicate that the regression model is statistically significant, suggesting a good fit compared to a model without any predictors. The p-value for the coefficient of Age is 0.027. Thus, the p-value is smaller than the significance level of 0.05 and the null hypothesis is rejected.

Hypothesis 2:

Null Hypothesis (H_0) : There is no or a negative influence of factors Attention Grabbing Nature, Visual Appeal and Engagement Metric on Purchase Intention.

Alternate Hypothesis (H_a) : There is a positive influence of factors Attention Grabbing Nature, Visual Appeal and Engagement Metric on Purchase Intention.

A multiple linear regression analysis was performed to examine the influence of the variables *Attention Grabbing Nature, Visual Appeal, and Engagement Metric* on the variable *Purchase Intention*.

R	R ²	Adjusted R ²	Standard error of the estimate
0.89	0.79	0.78	0.49

Table 5(a): Linear Regression Analysis Results

- The R-value of 0.89 indicates a very high positive correlation between the observed values and the prediction made by the regression model between the independent variables and the dependent variable.
- The R² value is 0.79 which means that the independent variables in the model explain 78.59% of the variance in the dependent variable Purchase Intention.
- The value of adjusted R-squared is about 78,42% of the variance in the dependent variable.
- A standard error of 0.49 indicates that the predicted values are, on average, 0.49 units away from the actual values.

In summary, the model shows a very high positive relationship between the observed values and the prediction, explains 78.59% of the variance in the dependent variable, but the predictions are on average 0.49 units away from the actual values, which may or may not be significant depending on the context of the data.

The ANOVA table below depicts the factors and the values from regression analysis to understand if the regression model fits the data.

Model	df	F	p
Regression	3	469.78	<0.001

Table 5(b): ANOVA Results

- An ANOVA was used to test whether this value was significantly different from zero. Using the present sample, it was found that the effect was significantly different from zero, F=469.78, p = <0.001, R2 = 0.79.
- With a p-value of <.001, which is less than 0.001, the results are highly statistically significant. This suggests you can reject the null hypothesis with a high degree of confidence. It's very unlikely that the observed results are due to chance, indicating that the independent variables (predictors) in the model have a statistically significant effect on the dependent variable Purchase Intention.
- ANOVA results indicate that the regression model is statistically significant, suggesting a good fit compared to a model without any predictors.

The table below shows the results for each independent variable in the regression model, including the constant (intercept). The unstandardized coefficient B indicates the expected change in the dependent variable *Purchase Intention* for each one-unit increase in the respective independent variable.

Model	Unstandardized Coefficients	Standardized Coefficients	Standard error	t	p	95% confidence interval for B	
	B	Beta				lower bound	upper bound
(Constant)	0,22		0,09	2,45	,015	0,04	0,4
Attention Grabbing Nature	0,51	0,56	0,11	4,74	<.001	0,3	0,72
Visual Appeal	0,8	0,81	0,11	7,25	<.001	0,58	1,01
Engagement Metric	-0,43	-0,47	0,15	-2,86	,004	-0,72	-0,13

Table 5(c): Coefficient

- When *Attention Grabbing Nature*, *Visual Appeal* and *Engagement Metric* are zero, the dependent variable *Purchase Intention* is expected to be around 0.22. The p-value is ,0.015, indicating that the intercept is statistically significantly different from zero. More precisely the null hypothesis that the coefficient of (*Constant*) is zero in the population is rejected.
- Attention Grabbing Nature - If the value of the variable *Attention Grabbing Nature* changes by one unit, the value of the variable *Purchase Intention* changes by 0.51 units has a p-value <0.001, indicating that this coefficient is statistically significantly different from zero, which means that we have evidence that Attention Grabbing Nature impacts the dependent variable. More precisely the null hypothesis that the coefficient of *Attention Grabbing Nature* is zero in the population is rejected.
- Visual Appeal - If the value of the variable *Visual Appeal* changes by one unit, the value of *Purchase Intention* changes by 0.8 units. The p-value is <0.001, indicating that this coefficient is statistically significantly different from zero, which means that there is a piece of evidence that Visual Appeal impacts the dependent variable. More precisely the null hypothesis that the coefficient of *Visual Appeal* is zero in the population is rejected.
- Engagement Metric - If the value of the variable *Engagement Metric* changes by one unit, the value of *Purchase Intention* changes by -0,43 units. The p-value is 0.004, indicating that this coefficient is statistically significantly different from zero, which means there is

evidence that Engagement Metric impacts the dependent variable. More precisely the null hypothesis that the coefficient of *Engagement Metric* is zero in the population is rejected.

[6] Findings from the Study

The findings can be summarised from the exploratory study through the following points:

- Pearson correlation was performed to determine if there was a positive correlation between the variables Age and Time spent on SVF (in minutes) per day i.e. factor Age has a strong correlation with the time spent on short video formats on social media medium which describes that with age difference there is a substantial corresponding usage and view of the short videos. This suggests that respondents with young age view short format videos more than older respondents.
- ANOVA results indicate that the regression model tested between age and Time spent on SVF (in minutes) per day is statistically significant, suggesting a good fit compared to a model without any predictors. Similarly. The ANOVA results for the regression model
- The regression analysis results demonstrate that there is a strong correlation between and positive influence of factors, such as Attention-Grabbing Nature, Visual Appeal, and Engagement Metric on Purchase Intention. This indicates that all three factors have a strong affluent on intention to purchase a product and/or service demonstrated through the short videos on social media.

[7] Conclusion

Social Media uses short video formats which have been waving high in the world of social media. There is various research done to understand the implications of social media short videos and purchase intentions. Various researchers have highlighted attribution through different factors, however, the attention-grabbing, visual appeal, and engagement metrics were not studied together along with age and time spent on short videos by viewers. The research was conducted to understand the impacts of these factors on purchase intentions and it was found that there is strong evidence and correlation between all the factors mentioned. This makes it a strong case that purchase intention also has a high correlation to attention-grabbing, visual appeal, and engagement metrics.

[8] Future Scope of Study

For future studies, researchers can combine other factors along the in-scope factors taken into consideration for this study and test the correlation and regression analysis. The age, time

spent and any other factor can be tested for mediating and moderating effects on these factors.

[10] References

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