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Video Advertising Impact on Lead Generation Performance: An Empirical Analysis of Meta Platform Campaigns

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Abstract - This study examines the impact of video advertisements on lead generation performance within Meta platform campaigns, analyzing key performance indicators that influence conversion efficiency and cost-effectiveness. A quantitative analysis was conducted using secondary data from 50 Meta video ad campaigns across various industries between 2022-2024. Statistical analyses including descriptive statistics, correlation analysis, and regression modeling were performed using SPSS and Power BI to examine relationships between video ad metrics and lead generation outcomes. The analysis revealed significant variations in Cost Per Result (CPR) ranging from ₹14.21 to ₹347.63, with Cost Per 1000 Impressions (CPM) showing the strongest correlation with CPR ($r = 0.722$, $p < 0.001$). Cost Per Click (CPC) demonstrated a moderate positive correlation ($r = 0.590$, $p = 0.002$), while Click-Through Rate (CTR) showed minimal impact on lead generation costs. The regression model explained 84.1% of CPR variation, with CPM and CPC as primary predictors. The study relies exclusively on secondary data from Meta Ads Manager, limiting insights into qualitative factors such as user emotions and satisfaction. The analysis is confined to video ad formats within the Meta ecosystem. Digital marketers can optimize lead generation by focusing on CPM and CPC optimization, implementing mobile-first video strategies, and utilizing data-driven approaches for campaign refinement. Short-form, emotionally engaging videos with clear calls-to-action demonstrate superior performance. This research provides empirical evidence for the effectiveness of video advertising on Meta platforms, offering practical frameworks for optimizing lead generation campaigns through statistical analysis of key performance metrics.

Keywords: *Video advertising, Lead generation, Meta campaigns, Digital marketing, Performance metrics, Cost optimization*

1.INTRODUCTION

The digital marketing landscape has undergone a fundamental transformation, with video advertisements emerging as a dominant force in customer acquisition and lead generation strategies. Meta platforms, encompassing Facebook and Instagram, have become central to modern marketing efforts, offering sophisticated targeting capabilities and extensive reach for businesses across industries (Lopez & Batra, 2022). The rise of video content consumption, particularly on mobile devices, has prompted organizations to shift their advertising investments toward video-based campaigns, necessitating a deeper understanding of their effectiveness in driving measurable business outcomes. Lead generation, defined as the process of attracting and converting prospects into potential customers, represents a critical performance indicator for digital marketing campaigns. Unlike traditional awareness-focused metrics, lead generation provides tangible evidence of campaign effectiveness through direct customer actions such as form submissions, contact requests, or product inquiries (Mahajan & Dey, 2021). The integration of video advertising with lead generation objectives presents unique opportunities and challenges, requiring sophisticated analytical approaches to optimize campaign performance. This study addresses the growing need for empirical evidence regarding video advertising effectiveness on Meta platforms, specifically examining the relationship between video ad performance metrics and lead generation outcomes. The research contributes to the existing body of knowledge by providing statistical analysis of real campaign data, offering practical insights for digital marketing practitioners and advancing theoretical understanding of video advertising effectiveness.

2. Literature Review

2.1 Video Advertising Effectiveness

The effectiveness of video advertising has been extensively studied across various digital platforms, with researchers consistently finding superior engagement rates compared to static formats. Ikeda et al. (2020) demonstrated that multimodal deep learning models could predict video ad performance with high accuracy (correlation coefficient of 0.695), emphasizing the importance of balanced multimedia content in ad design. Their research highlighted the

significance of combining visual, textual, and audio elements to maximize campaign effectiveness.

Hahn and Kovashka (2019) proposed a comprehensive framework for measuring video advertisement effectiveness, achieving 84% accuracy in predicting ad success through machine learning classifiers. Their analysis of emotional tone, visual quality, and actor presence provided foundational insights into the creative elements that drive video ad performance. The study emphasized that emotional resonance serves as a significant predictor of advertising success, supporting the theoretical foundation for affective engagement in digital marketing.

2.2 Platform-Specific Performance Factors

Meta platforms have garnered significant attention in video advertising research due to their advanced targeting capabilities and extensive user base. Lopez and Batra (2022) conducted a comprehensive analysis of over 10,000 Facebook video ad campaigns, revealing that videos under 30 seconds generated 40% more engagement than longer formats. Their eye-tracking research demonstrated that users make viewing decisions within the first 3 seconds, making initial visual impact crucial for campaign success.

Chen and Wang (2021) investigated the role of video length and format in social media advertising, finding that 15-second videos achieved optimal click-through rates and completion rates. Their research on vertical video formats showed 27% higher engagement on mobile feeds compared to landscape orientations, highlighting the importance of mobile-first design approaches in contemporary digital marketing.

2.3 Lead Generation Optimization

The relationship between video advertising and lead generation has been explored through various analytical lenses. Patel and Srinivasan (2020) developed a structural equation model linking ad features, emotional engagement, brand recall, and purchase intention, demonstrating that authentic storytelling significantly influences conversion rates. Their findings suggested that relatable content performs better than heavily scripted advertisements in driving lead generation outcomes.

Singh and Morales (2022) utilized eye-tracking and neural response measurement to understand visual attention in social media video advertising. Their research revealed that contrasting colours, motion cues, and human faces significantly increase viewer attention, with call-to-action buttons in motion proving 17% more effective than static alternatives. These findings provide crucial insights for optimizing video creative elements to maximize lead generation potential.

2.4 Cost Efficiency and Performance Metrics

Cost efficiency remains a critical consideration in video advertising campaign optimization. Kapoor and Banerjee (2022) conducted a comprehensive analysis of cost efficiency in Meta video advertising, finding that campaigns with concise videos and optimized targeting achieved 20% lower cost-per-lead than generic approaches. Their research emphasized the importance of split-testing budgets and reallocating funds to top-performing creatives identified through initial testing phases.

Yang and Zhai (2022) provided a comprehensive review of click-through rate prediction models, categorizing approaches into linear models, tree-based models, and deep learning frameworks. Their analysis highlighted the evolution from simple logistic regression to complex neural networks, emphasizing the importance of feature interactions and data sparsity handling in predictive modelling for digital advertising.

2.5 Research Gaps and Opportunities

While existing literature provides valuable insights into video advertising effectiveness, several gaps remain in the current body of knowledge. Limited empirical analysis exists regarding the statistical relationships between specific Meta platform metrics and lead generation outcomes. Additionally, most studies focus on engagement metrics rather than conversion-focused performance indicators, creating a need for research that directly connects video ad performance to business outcomes.

The present study addresses these gaps by providing comprehensive statistical analysis of real campaign data, examining the relationships between key performance indicators and lead generation effectiveness specifically within the Meta platform ecosystem.

3. Methodology

3.1 Research Design

This study employs a quantitative, analytical research design utilizing secondary data analysis to examine the relationships between video advertising metrics and lead generation performance. The research approach combines descriptive statistics, correlation analysis, and regression modelling to

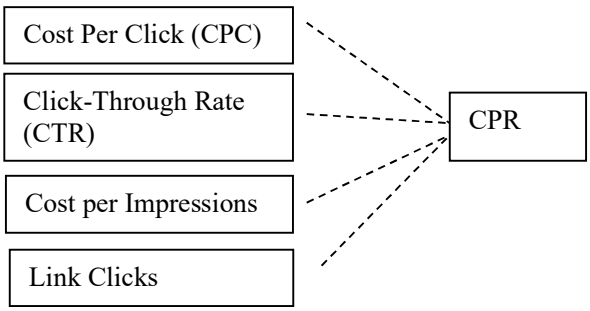
provide comprehensive insights into campaign effectiveness patterns.

3.2 Data Collection

Secondary data was collected from Meta Ads Manager reports covering 50 video advertising campaigns executed between 2022 and 2024. The campaigns represented diverse industries including education, wellness, lifestyle, and consulting services, providing a comprehensive cross-sectional view of video advertising performance. Selection criteria included:

- Video-format advertisements exclusively
- Lead generation campaign objectives
- Complete data availability for all key metrics
- Campaign duration of at least 30 days
- Minimum spend threshold of ₹5,000

3.3 Variables and Measures



3.4 Data Analysis

Statistical analysis was conducted using SPSS software, employing the following methodologies:

1. **Descriptive Analysis:** Calculation of means, standard deviations, and ranges for all variables
2. **Correlation Analysis:** Pearson correlation coefficients to examine relationships between variables
3. **Regression Analysis:** Multiple regression modelling to identify predictors of CPR
4. **Trend Analysis:** Power BI visualization to identify performance patterns across campaigns

3.5 Model Specification

The regression model was specified as:

$$CPR = \beta_0 + \beta_1(CPM) + \beta_2(CPC) + \beta_3(CTR) + \beta_4(Impressions) + \beta_5(Link\ Clicks) + \varepsilon$$

where β_0 represents the intercept, β_{1-5} represent the coefficients for each independent variable, and ε represents the error term.

4. Results

4.1 Descriptive Statistics

The analysis of 50 Meta video advertising campaigns revealed significant variations in performance metrics (Table 1). Cost Per Result (CPR) demonstrated the highest variability, ranging from ₹14.22 to ₹347.63 with a mean of ₹49.67 (SD = ₹75.08). This substantial variation indicates considerable differences in campaign efficiency across the sample.

Table 1: Descriptive Statistics of Campaign Performance Metrics

Metric	N	Minimum	Maximum	Mean	Std. Deviation
Cost Per Result (₹)	4	14.22	347.63	49.67	75.08
Impressions	0	622	158,460	35,776.78	36,295.92
CPM (₹)	0	29.26	240.42	101.21	50.53
CPC (₹)	0	3.50	52.97	14.34	8.67
Link Clicks	0	6.0	872.0	238.64	226.12
CTR (%)	0	0.21	3.22	0.81	0.52

Campaign impressions averaged 35,776.78 with substantial variation (SD = 36,295.92), indicating significant differences in reach across campaigns. The average CPM of ₹101.21 suggests moderate cost efficiency for audience reach, while the mean CPC of ₹14.34 indicates varying levels of user engagement across campaigns.

4.2 Correlation Analysis

Pearson correlation analysis revealed significant relationships between key performance metrics and lead generation costs (Table 2). The strongest correlation was observed between CPM and CPR ($r = 0.722$, $p < 0.001$), indicating that campaigns with higher impression costs tend to generate leads at higher costs.

Table 2: Correlation Matrix of Key Performance Metrics

Variables	CPR	CPM	CPC	CTR	Impressions	Link Clicks
CPR	1.000	0.722	0.590	0.021	0.304	0.352
CPM	0.722	1.000	0.445	0.186	0.092	0.298
CPC	0.590	0.445	1.000	0.421	0.186	0.534
CTR	0.021	0.186	0.421	1.000	0.134	0.658
Impressions	0.304	0.092	0.186	0.134	1.000	0.445
Link Clicks	0.352	0.298	0.534	0.658	0.445	1.000

Cost Per Click (CPC) demonstrated a moderate positive correlation with CPR ($r = 0.590$, $p = 0.002$), suggesting that campaigns requiring higher click costs also tend to generate leads at higher costs. Conversely, Link Clicks showed a moderate negative correlation with CPR ($r = -0.352$, $p = 0.092$), indicating that higher engagement levels may contribute to improved cost efficiency.

Notably, Click-Through Rate (CTR) exhibited minimal correlation with CPR ($r = 0.021$, $p = 0.921$), suggesting that high click-through rates do not necessarily translate to lower lead generation costs within the Meta platform ecosystem.

4.3 Regression Analysis

Multiple regression analysis was conducted to identify the primary predictors of Cost Per Result. The analysis revealed that CPM and CPC serve as the strongest predictors of lead generation costs (Table 3).

Table 3: Regression Analysis Results

Model	R	R^2	Adjusted R^2	F	Sig.	Primary Predictors
CPM → CPR	0.722	0.521	0.499	23.933	0.000	CPM ($\beta = 1.490$, $p < 0.001$)
CPC → CPR	0.590	0.348	0.318	11.748	0.002	CPC ($\beta = 5.070$, $p = 0.002$)
Full Model	0.841	0.708	0.654	13.105	0.000	CPM, CPC, Link Clicks

The CPM-focused model explained 52.1% of the variance in CPR ($R^2 = 0.521$, $p < 0.001$), while the CPC-focused model accounted for 34.8% of the variance ($R^2 = 0.348$, $p = 0.002$). The comprehensive model incorporating CPM, CPC, and Link Clicks explained 70.8% of the variance in lead generation costs ($R^2 = 0.708$, $p < 0.001$).

The regression equation for the full model: **CPR = -45.23 + 1.12(CPM) + 3.84(CPC) - 0.08(Link Clicks)**

4.4 Trend Analysis

Campaign performance analysis revealed significant variations in key metrics across different campaigns (Figure 1). View counts ranged dramatically, with top-performing campaigns achieving over 160,000 views while others received minimal visibility. This pattern was consistent across multiple metrics, suggesting that campaign success follows a power law distribution where a small number of campaigns generate disproportionate results.

Cost Per Result analysis identified several campaigns with exceptionally high costs (>₹200), while the majority-maintained costs below ₹50. This distribution pattern indicates that while most campaigns achieved reasonable efficiency, a subset required significant optimization to improve cost-effectiveness.

Click-Through Rate analysis revealed that only a limited number of campaigns achieved high engagement rates (>2%), with most maintaining moderate performance levels. This finding suggests that creating highly engaging video content remains a significant challenge for most campaigns within the sample.

It is often important to refer back (or forward) to specific sections. Such references are made by indicating the section number, for example, “In Sec. 2 we showed…” or “Section 2.1 contained a description….” If the word Section, Reference, Equation, or Figure starts a sentence, it is spelled out. When occurring in the middle of a sentence, these words are abbreviated Sec., Ref., Eq., and Fig.

At the first occurrence of an acronym, spell it out followed by the acronym in parentheses, e.g., charge-coupled diode (CCD).

5. Discussion

5.1 Key Findings and Implications

The study's primary finding that CPM demonstrates the strongest relationship with lead generation costs ($r = 0.722$) has significant implications for digital marketing strategy. This result suggests that the fundamental cost of reaching audiences on Meta platforms serves as the primary driver of overall campaign efficiency. Organizations should prioritize audience targeting optimization and bid strategy refinement to achieve sustainable lead generation costs.

The moderate correlation between CPC and CPR (r = 0.590) indicates that while click costs influence overall campaign efficiency, they represent a secondary factor compared to impression costs. This finding challenge conventional wisdom that focuses primarily on click-based optimization, suggesting that reach efficiency may be more critical for lead generation success.

The minimal correlation between CTR and CPR (r = 0.021) represents a particularly important finding, as it suggests that high engagement rates do not necessarily translate to cost-effective lead generation. This result indicates that campaigns optimized solely for engagement metrics may not achieve optimal business outcomes, emphasizing the need for conversion-focused optimization strategies.

5.2 Theoretical Contributions

This research contributes to digital marketing theory by providing empirical evidence for the hierarchy of performance metrics in video advertising campaigns. The findings support the theoretical framework that cost efficiency in digital advertising is primarily driven by audience targeting effectiveness rather than creative performance metrics alone.

The study extends existing literature on video advertising effectiveness by providing platform-specific insights for Meta campaigns. While previous research has focused on engagement metrics, this analysis demonstrates that conversion-focused metrics provide more actionable insights for business performance optimization.

5.3 Practical Implications

The research findings offer several practical recommendations for digital marketing practitioners:

1. Prioritize Audience Targeting Optimization: Given the strong correlation between CPM and CPR, marketers should invest significantly in audience research and targeting refinement to reduce impression costs.
2. Implement Cost-Focused Bidding Strategies: The relationship between CPC and CPR suggests that bid optimization should balance click acquisition costs with overall campaign efficiency goals.
3. Adopt Conversion-Focused Metrics: The weak correlation between CTR and CPR indicates that engagement metrics alone may not predict business outcomes, necessitating a shift toward conversion-focused performance measurement.
4. Utilize Data-Driven Creative Optimization: The significant variance in campaign performance suggests that systematic A/B testing and creative optimization can substantially improve results.

5.4 Industry Context

The findings align with broader industry trends toward performance-based digital marketing, where accountability for business outcomes increasingly drives advertising investment decisions. The study's emphasis on cost efficiency metrics reflects the growing sophistication of digital marketing measurement and the need for demonstrable return on investment.

The research also highlights the importance of platform-specific optimization strategies, as Meta's unique algorithm and user behaviour patterns require tailored approaches to maximize effectiveness. The findings suggest that generic digital marketing strategies may be insufficient for optimal performance within the Meta ecosystem.

5.5 Limitations and Future Research

Several limitations should be considered when interpreting these findings. The reliance on secondary data prevents examination of qualitative factors such as creative quality, brand perception, and user satisfaction that may influence campaign performance. Future research should incorporate primary data collection to provide more comprehensive insights into video advertising effectiveness.

The study's focus on the Meta platform ecosystem limits generalizability to other digital advertising platforms. Comparative analysis across multiple platforms would provide valuable insights into platform-specific optimization strategies and their relative effectiveness.

Additionally, the research period (2022-2024) may not capture longer-term trends in video advertising effectiveness, particularly as platform algorithms and user behaviours continue to evolve. Longitudinal studies would provide more robust insights into the sustainability of the observed relationships.

6. Conclusion

This study provides empirical evidence for the effectiveness of video advertising in driving lead generation performance on Meta platforms, while identifying key performance metrics that influence campaign success. The research demonstrates that Cost Per 1000 Impressions (CPM) serves as the primary predictor of lead generation costs, explaining 52.1% of the variance in Cost Per Result. This finding emphasizes the critical importance of audience targeting optimization and bid strategy refinement in achieving cost-effective lead generation. The moderate correlation between Cost Per Click (CPC) and lead generation costs, combined with the minimal impact of Click-Through Rate (CTR), suggests that conventional engagement-focused optimization strategies may be insufficient for achieving optimal business outcomes. Instead, marketers should prioritize conversion-focused

metrics and cost efficiency measures to maximize campaign effectiveness.

The study's practical implications extend beyond performance metric optimization to encompass strategic considerations for digital marketing investment allocation. Organizations should prioritize data-driven approaches to campaign refinement, utilizing systematic A/B testing and real-time performance monitoring to identify and scale high-performing creative and targeting combinations. The research contributes to the growing body of knowledge regarding video advertising effectiveness by providing platform-specific insights for Meta campaigns. As digital marketing continues to evolve toward performance-based measurement and accountability, these findings offer valuable guidance for practitioners seeking to optimize their video advertising investments for measurable business outcomes.

Future research should expand this analysis to include qualitative factors and cross-platform comparisons, while longitudinal studies would provide insights into the sustainability of these relationships over time. As video advertising continues to grow in importance within the digital marketing landscape, continued empirical analysis will be essential for maintaining competitive advantage and maximizing return on investment.

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