Major Research Project

on

"The Effectiveness of Online Advertising in Purchase Decision: Liking, Recall and Click "

Submitted By

Jatin Verma

2k23/BMBA/10

Under the Guidance of

Mr. Gaurav Vaishisth

Assistant Professor

DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road, Delhi-110042

DELHI TECHNOLOGICAL UNIVERSITY

CERTIFICATE

This is to certify that the Major Research Project titled **"The Effectiveness of Online Advertising in Purchase Decision: Liking, Recall and Click"** has been carried out by **Jatin Verma**, student of **DELHI TECHNOLOGICAL UNIVERSITY** in partial fulfillment of the requirements for the degree of **Master of Business Administration-Business Analytics** under my supervision.

The work embodied in this report is original and has been carried out by the student during the academic session 2024–2025.

Date: _____

Place: _____

Signature of the Mentor

Name: _____

Designation: _____

DECLARATION

I hereby declare that the Major Research Project titled **""The Effectiveness of Online Advertising in Purchase Decision**: Liking, Recall and Click**"** submitted to **DELHI TECHNOLOGICAL UNIVERSITY**, is a record of original work completed by me, and has not been submitted earlier to any other institution or university for any degree or diploma.

Date: _____

Place: _____

Signature: _____

Name: Jatin Verma

Enrollment No.: _____

Acknowledgement

I would like to express my heartfelt gratitude to all those who supported and guided me throughout the course of this research project.

First and foremost, I extend my sincere thanks to my mentor and guide, Mr. Gaurav Vaishisth, whose insights, encouragement, and constructive feedback were instrumental in shaping this study. Your guidance not only refined my academic approach but also deepened my understanding of the research process.

I am also thankful to the faculty and staff of Delhi Technological University for providing me with the necessary academic resources and environment conducive to research.

I owe special thanks to all the respondents who took the time to participate in my survey. Their honest and thoughtful responses were crucial in the completion of this research.

Finally, I would like to thank my family and friends for their constant encouragement, patience, and support during this academic journey.

This project would not have been possible without the contributions and assistance of each of the above-mentioned individuals.

-Jatin Verma
2k23/BMBA/10

Executive Summary

This research study investigates the effectiveness of online advertising in influencing consumer purchase decisions, with a specific focus on the Indian digital consumer landscape. In the rapidly evolving online marketplace, businesses are increasingly investing in digital platforms to engage potential buyers. Understanding how consumers interact with online ads is vital to developing targeted and efficient marketing strategies.

The study explores three key constructs of advertising effectiveness: (1) attitude toward online advertisements (liking), (2) the ability to recall ads (recall), and (3) behavioral engagement in the form of clicking on advertisements (click). Using primary data collected from a survey of 108 Indian internet users, the study applies statistical tools such as descriptive analysis, correlation matrix, regression analysis, and hypothesis testing to examine the relationship between these factors and consumers' online purchase decisions.

The findings reveal that ad recall is the most significant predictor of online purchases ($\beta = 0.517$), followed by click behavior ($\beta = 0.205$). While attitude toward ads also plays a role, its influence is comparatively lower ($\beta = 0.163$). This suggests that while consumers may not always "like" online ads, memorable and interactive ads that capture attention and prompt engagement are more likely to convert into sales.

From a managerial perspective, the study emphasizes the importance of designing ad content that is both memorable and engaging. Marketers are advised to prioritize creativity, relevance, and strategic placement in digital advertising campaigns. Special attention should be given to personalization and cultural relevance in the Indian market, especially considering regional diversity and digital literacy differences.

The report concludes with practical recommendations for enhancing digital advertising effectiveness, as well as suggestions for future research such as expanding sample diversity and incorporating behavioral tracking.

In summary, online advertising proves to be a powerful marketing tool in the Indian context when it effectively drives recall and interaction, ultimately influencing consumers' purchase behavior.

Table Of Content

Chapter1:

Introduction

1.1 Background

The digital landscape in India has undergone a significant transformation over the past decade. With the rapid penetration of internet connectivity and the widespread availability of smartphones, India has witnessed an unprecedented surge in online activity. As of 2024, India boasts over 850 million internet users, a number projected to rise steadily due to increasing rural connectivity and affordable data plans. This transformation has not only influenced how people communicate and consume content but has also drastically changed the marketing and advertising landscape.

In this digitally empowered environment, companies are increasingly shifting from traditional marketing mediums such as print, television, and radio to digital platforms. Online advertising—comprising search engine ads, social media marketing, display ads, influencer collaborations, and video promotions—has emerged as a cornerstone of modern brand communication. Digital marketing strategies now allow brands to reach consumers in a targeted, real-time, and cost-effective manner. According to industry estimates, the digital advertising market in India is growing at a compound annual growth rate (CAGR) of more than 20% and is expected to surpass ₹50,000 crores in the coming years.

Online advertising leverages data analytics, artificial intelligence, and user behavior tracking to deliver personalized messages to segmented audiences. Consumers are no longer passive recipients of advertisements but active participants in brand conversations. They can like, share, comment, ignore, or click on ads based on interest and perceived value. This two-way interaction presents both an opportunity and a challenge: while it opens avenues for deeper engagement and conversion, it also requires marketers to create content that resonates at a personal level and to measure campaign effectiveness with greater precision.

Despite these advances, many marketers continue to grapple with one fundamental question: Does online advertising actually influence consumer purchase behavior? While metrics such as impressions, clicks, likes, and shares are often used to measure ad performance, they don't always translate into actual purchases. Moreover, consumer behavior in the digital space is often unpredictable and influenced by multiple factors such as peer reviews, pricing, product quality, and emotional appeal.

In this complex ecosystem, it becomes essential to identify the key drivers that can potentially lead a consumer from ad exposure to final purchase. This study attempts to investigate three such variables that are commonly considered significant in digital marketing literature: liking (the consumer's attitude toward the ad), ad recall (the consumer's ability to remember the ad), and click behavior (whether the consumer clicked on the ad). These elements represent different stages in the advertising engagement funnel and may hold the key to understanding how online advertising impacts buying decisions.

1.2 Problem Statement

The exponential growth in digital advertising spend has not always been matched by a proportionate increase in consumer conversions. This discrepancy raises critical concerns for marketers and advertisers alike. Despite technological sophistication and enhanced targeting capabilities, many digital campaigns fail to convert viewers into buyers. Consequently, there is growing skepticism about the actual influence of online advertisements on purchase behavior, especially in emerging markets like India where consumer preferences are dynamic and culturally nuanced.

In the Indian context, online consumer behavior is shaped by a complex mix of cultural values, economic diversity, literacy levels, and digital literacy. Although online shopping platforms like Amazon, Flipkart, and Myntra have become household names, a significant portion of the population remains cautious about transacting online. Trust issues, lack of personalization, poor customer experience, and overwhelming choices often dilute the impact of online advertisements.

Moreover, while advertisers track several performance indicators such as cost per click (CPC), cost per thousand impressions (CPM), and click-through rate (CTR), these metrics alone do not provide a complete picture. A high click-through rate might not result in sales if the ad fails to evoke trust or if the landing page does not meet user expectations. Similarly, a user may recall an

ad or even like it, but still choose not to buy the product due to various external or internal influences.

Therefore, there is a pressing need to examine whether factors such as ad liking, recall, and click behavior truly influence the ultimate purchase decision. Is liking an advertisement sufficient to trigger a sale? Does remembering an ad increase the likelihood of buying the advertised product? Or is the act of clicking the ad a stronger indicator of purchase intent? Addressing these questions is crucial for marketers seeking to optimize their ad strategies and maximize return on investment (ROI).

This study aims to fill this gap by conducting an empirical investigation within the Indian market, focusing on online shoppers who are exposed to digital ads. The findings will contribute to the existing body of knowledge and help businesses refine their digital marketing efforts.

1.3 Objectives of the Study

The main objective of this research is to assess the influence of three specific variables—liking, ad recall, and click behavior—on online purchase decisions among Indian consumers. By analyzing these factors, the study aims to determine the strength and nature of their relationship with buying behavior. The sub-objectives include:

1. **To examine the relationship between consumers' attitude toward online advertisements (liking) and their online purchase decisions.**
2. **To investigate the impact of ad recall on consumer buying behavior in an online environment.**

3. **To analyze the effect of click behavior on the likelihood of online purchases.**
4. **To understand the interaction between these three variables and assess whether their combined effect has a stronger influence than individual factors.**
5. **To provide recommendations for marketers on how to design and position online ads to enhance consumer engagement and drive conversions.**
6. **To evaluate the relevance of these variables in the Indian context, considering cultural, technological, and market-specific dynamics.**
7. **To explore whether demographic factors (age, gender, location, income, education level) moderate the influence of these variables on purchase decisions.**
8. **To assess the overall effectiveness of online advertising strategies employed by brands in India.**

By meeting these objectives, the study aims to bridge the gap between theoretical constructs in digital marketing and their practical applicability in the Indian consumer market.

1.4 Scope of the Study

This research is confined to the online consumer behavior of Indian shoppers who are exposed to digital advertisements. It focuses on three critical independent variables—liking, ad recall, and click behavior—and examines their influence on the dependent variable, which is the purchase decision made online.

Geographical Scope:

The study is contextualized within India and covers urban, semi-urban, and rural respondents who have access to the internet and engage in some form of online shopping. Major metropolitan areas such as Delhi, Mumbai, Bangalore, and Hyderabad are considered, alongside tier-2 and tier-3 cities for a holistic view.

Demographic Scope:

The target demographic includes individuals aged 18 and above, spanning students, working professionals, homemakers, and retirees. Respondents are segmented based on gender, age, income, education level, and occupation to explore how these factors may moderate advertising effectiveness.

Industry Scope:

While the study does not focus on any one industry, examples from sectors such as e-commerce, electronics, fashion, food delivery, and beauty products are considered, as these are the most advertised and consumed categories online in India.

Time Scope:

The study was conducted over a period of three months, using a structured questionnaire and

statistical tools to analyze consumer responses and behavioral trends. While historical data and literature are referenced, the research primarily reflects the current digital advertising landscape in India.

Conceptual Scope:

The study is limited to evaluating online advertising effectiveness through three constructs: liking (attitude), recall (memory), and click behavior (action). It does not delve into other psychological or behavioral variables such as trust, satisfaction, or brand loyalty, although they are acknowledged as important and suggested for future research.

Methodological Scope:

Data is collected using a questionnaire designed to capture consumer responses in simulated but realistic ad exposure situations. The sample is representative of online shoppers in India, and the analysis is conducted using statistical methods including regression analysis, correlation, and hypothesis testing.

In summary, this study provides a focused examination of the influence of specific advertising metrics on consumer buying decisions in India's digital ecosystem. It seeks to offer actionable insights for marketers, researchers, and businesses navigating the ever-evolving domain of online advertising.

Chapter2:

Literature

Review

2.1 Online Advertising Landscape

The evolution of online advertising is deeply intertwined with the rise of the internet and digital communication technologies. Online advertising refers to the practice of using the internet as a medium to deliver promotional marketing messages to consumers. It spans a diverse range of formats, including display ads, search engine marketing (SEM), social media advertisements, influencer collaborations, native ads, video content, and more. With the advent of Web 2.0, the online advertising ecosystem underwent a fundamental shift from static banner placements to dynamic, user-targeted campaigns that are highly data-driven.

The early 2000s saw basic banner ads and pop-ups dominate websites, but these methods often irritated users and suffered from low engagement. Today, with the integration of Artificial Intelligence (AI), Machine Learning (ML), and data analytics, advertisers can profile users based on browsing behavior, demographic details, psychographics, and social media activity. This has enabled the delivery of hyper-personalized ads that are more likely to be relevant and appealing. Platforms like Google Ads and Meta Ads Manager allow advertisers to fine-tune campaigns with precision targeting based on age, interests, purchasing history, and more.

Mobile advertising has become particularly influential, especially in countries like India where smartphone usage has outpaced desktop consumption. According to a 2023 report by Deloitte, over 70% of internet traffic in India comes from mobile devices. This mobile-first behavior has led advertisers to focus on mobile-optimized content, short-form videos, app-based promotions, and location-based marketing strategies.

Programmatic advertising—where AI algorithms purchase ad space in real time—has further revolutionized the digital ad space by making campaigns more efficient and data-centric.

However, the sheer volume and saturation of ads have led to phenomena like ad blindness, where users subconsciously ignore banner-like information, and ad fatigue, where repetitive exposure to ads reduces their impact. This underscores the importance of not just targeting, but also creative and strategic execution.

The online advertising landscape is also shaped by changing consumer expectations. Today's consumers demand authenticity, value, and relevance. Ads that are misleading or irrelevant can damage brand perception and reduce long-term customer engagement. Therefore, understanding how and why certain online ad formats succeed over others has become a key area of academic inquiry and practical interest for marketers globally.

2.2 Attitude Toward Advertisements

Attitude toward advertisements plays a critical role in determining their effectiveness. Attitude refers to a psychological tendency expressed by evaluating a particular entity (in this case, an advertisement) with some degree of favor or disfavor (Eagly & Chaiken, 1993). Consumers' attitudes toward online ads are shaped by their perception of the ad's informativeness, entertainment value, credibility, and intrusiveness.

Ducoffe (1996) developed a widely cited model explaining that the value of an online advertisement is derived from its informativeness, entertainment, and irritation. If consumers find ads informative and entertaining, they are likely to form a favorable attitude, which in turn increases the likelihood of engagement. However, if ads are perceived as irritating or overly intrusive, they generate negative attitudes, potentially leading to ad avoidance.

Research has shown that online users are more receptive to ads that provide useful information, especially those offering product benefits, comparisons, and time-sensitive deals. Entertainment also significantly enhances ad appeal, particularly on platforms like YouTube, Instagram, and TikTok where short-form, humorous, or visually appealing content garners greater engagement.

However, privacy concerns and intrusive retargeting practices have made many users wary of online advertisements. Ads that follow users across multiple platforms—while effective in terms of visibility—can also cause discomfort, leading to negative attitudes. Ad-blocker usage in India is on the rise, with over 40% of digital users employing some form of ad-filtering tool as of 2023.

Another important dimension is trust. If users perceive the ad as misleading or untrustworthy, it can significantly damage their overall attitude. Conversely, brands that use transparent messaging and trustworthy endorsements (e.g., verified reviews, influencer collaborations) often receive more positive consumer responses.

In the Indian context, cultural values such as modesty, family orientation, and brand loyalty play significant roles in shaping ad attitudes. Ads that align with Indian traditions and values (festivals, family moments, community) tend to evoke positive responses. Therefore, advertisers must tailor their content to suit not just technological platforms but also cultural sensibilities.

2.3 Ad Recall

Ad recall is a key metric in evaluating the effectiveness of advertising campaigns. It refers to a consumer's ability to remember or recognize an advertisement after some exposure. Ad recall is

divided into two categories: unaided recall (remembering an ad without cues) and aided recall (recognition upon seeing part of the ad or hearing the brand name).

The importance of ad recall lies in its influence on brand awareness and subsequent decision-making processes. Studies, such as Shimp (1981), found that consumers are more likely to choose brands that they can recall easily, especially in highly competitive markets. The cognitive process behind ad recall involves encoding, storage, and retrieval of information—processes that are enhanced by factors like emotional connection, frequency of exposure, and creative design.

Memory research shows that consumers remember ads that are emotionally engaging, novel, or contain a strong narrative. Visual elements (colors, imagery), auditory elements (music, voiceovers), and slogans or jingles contribute significantly to recall. Repetition also plays a dual role: while moderate repetition reinforces memory, excessive repetition may lead to irritation and message dilution.

The concept of the "mere exposure effect" suggests that repeated exposure to a stimulus increases familiarity, and familiarity breeds preference. However, this is conditional on the consumer not developing fatigue or negative perceptions due to excessive frequency.

In the online context, ad recall is influenced by platform choice, placement, and user context. Ads seen during leisure browsing (e.g., scrolling Instagram or watching YouTube) may be remembered more vividly than those encountered during task-oriented browsing (e.g., searching for academic content).

For Indian consumers, language and cultural context significantly affect recall. An ad in a regional language with local celebrities or themes is more likely to be remembered than a generic

English-language ad. Given India's linguistic and cultural diversity, hyper-localization is emerging as a powerful tool to boost ad recall.

2.4 Click Behavior

Click behavior refers to the consumer's action of clicking on an online advertisement, often measured through the Click-Through Rate (CTR). A higher CTR generally indicates that the ad is effective in catching attention and stimulating interest. However, click behavior must be interpreted cautiously as not all clicks lead to conversions or purchases.

Chatterjee et al. (2003) highlighted the phenomenon of "click fraud" and non-purchase-related clicks that distort the true impact of digital ads. Some users may click on ads out of curiosity or by mistake, without any intention of buying. Therefore, while click behavior indicates a level of engagement, it does not guarantee that the user is moving down the conversion funnel.

Click behavior is influenced by multiple factors, including ad relevance, creative quality, CTA (Call to Action), placement, and even color scheme. Eye-tracking studies have shown that users are more likely to click on ads that are placed "above the fold" or integrated natively within content rather than appearing as intrusive pop-ups.

Mobile-first users, particularly in India, often have shorter attention spans and rely on visual cues to make decisions. Hence, mobile ad formats that are responsive, quick-loading, and offer a seamless redirection experience tend to perform better in terms of CTR.

Click behavior also intersects with consumer psychology. Behavioral theories such as the Theory of Planned Behavior and the Technology Acceptance Model suggest that behavioral intention

(e.g., intent to buy or learn more) significantly determines whether a consumer will interact with an ad.

Indian consumers often look for value in ads—such as discounts, cashback, or convenience—before clicking. A survey by Nielsen (2023) showed that Indian online shoppers are more likely to click on ads that promise immediate benefits, such as limited-time offers or free trials.

2.5 Purchase Decision

A purchase decision is the final step in the consumer decision-making process, following problem recognition, information search, evaluation of alternatives, and purchase intent. Online purchase behavior is influenced by a multitude of variables, including price, product reviews, social proof, user experience, website security, delivery speed, and promotional offers.

Online advertising plays a pivotal role in influencing each stage of this decision-making funnel. By creating awareness, providing information, and nudging consumers through emotional or logical appeal, advertising can increase the likelihood of a purchase. However, as consumer empowerment grows, buyers also rely heavily on peer reviews, product ratings, and influencer opinions before making a final choice.

While traditional models such as AIDA (Attention, Interest, Desire, Action) still hold relevance, the modern consumer journey is non-linear. For instance, a consumer may see an ad on Facebook, research the product on YouTube, read reviews on Amazon, and finally purchase through a mobile app.

For online advertisers, the key challenge is attribution—determining which specific ad or touchpoint led to the purchase. Multitouch attribution models, AI-based analytics, and heat maps are now used to track and optimize this journey.

In the Indian market, the purchase decision is also influenced by social and economic factors. Family input, brand trust, and affordability play crucial roles. Additionally, the penetration of UPI and digital wallets has simplified transactions, contributing to faster purchase decisions.

2.6 Indian Context

India offers a unique digital landscape with its combination of scale, diversity, and rapid adoption. With over 850 million internet users and increasing smartphone penetration in rural areas, India presents one of the most attractive yet complex markets for online advertising.

Culturally, Indian consumers are community-oriented and value-driven. Word-of-mouth, family opinion, and influencer endorsements carry more weight than generic brand messaging. Moreover, regional language content is gaining popularity, with platforms like ShareChat and Moj catering specifically to vernacular-speaking audiences.

Trust remains a significant issue in online transactions. Despite high internet penetration, a large segment of consumers remains cautious about sharing financial details online. Ads that feature known faces, detailed testimonials, and secure payment badges tend to perform better.

In terms of advertising content, Indian consumers respond well to storytelling, emotional appeal, and social messages. Brands like Tanishq, Fevicol, and Google India have successfully created culturally relevant campaigns that resonate with diverse audiences.

Price sensitivity is another critical factor. Ads that clearly communicate offers, discounts, or benefits tend to attract more attention. Additionally, the "jugaad" (frugal innovation) mindset among Indian consumers means they actively seek value and compare options before making purchases.

The rise of influencer marketing is reshaping the ad landscape in India. Influencers with regional appeal have a more significant impact than mainstream celebrities when it comes to building trust and driving action.

Finally, India’s digital advertising regulations are evolving. The Advertising Standards Council of India (ASCI) now requires transparency in influencer promotions and mandates disclosure of sponsored content, ensuring ethical practices and consumer protection.

Chapter3:

Research

Methodology

3.1 Research Design

This study adopts a **quantitative research design** to systematically investigate the relationships between consumers' attitudes toward online advertisements, ad recall, click behavior, and their subsequent online purchase decisions. The quantitative approach facilitates the measurement of variables and the testing of hypotheses through statistical analysis, providing objective and generalizable findings.

The research is both **descriptive** and **causal-comparative** in nature:

- **Descriptive Research**: Aims to accurately and systematically describe the characteristics of the variables of interest, such as consumer attitudes, recall ability, click behavior, and purchase decisions.
- **Causal-Comparative Research**: Seeks to identify and analyze cause-and-effect relationships between independent variables (attitude, recall, click behavior) and the dependent variable (online purchase decision).

This dual approach enables a comprehensive understanding of the phenomena under study and the potential causal relationships between variables.

3.2 Instrument Design

Data collection was conducted using a structured questionnaire developed specifically for this study. The questionnaire was designed to capture data on the following variables:

- **Independent Variables**:

- **Attitude Toward Online Advertisements**: Assessed through items measuring the respondents' perceptions and feelings toward online ads.
- **Ad Recall**: Evaluated by measuring the respondents' ability to remember and recognize online advertisements.
- **Click Behavior**: Measured by assessing the frequency and reasons for clicking on online advertisements.

- **Dependent Variable**:
  - **Online Purchase Decision**: Determined by the frequency and likelihood of making purchases after exposure to online advertisements.

The questionnaire comprised five sections:

1. **Section A: Demographic Information**
   - Age
   - Gender
   - Occupation
   - Internet Usage Patterns
2. **Section B: Attitude Toward Online Advertisements**
   - 5 items measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)
   - Example Item: "I find online advertisements engaging."
3. **Section C: Ad Recall**
   - 4 items measured on a 5-point Likert scale
   - Example Item: "I can easily remember products I see in online ads."
4. **Section D: Click Behavior**

- 4 items measured on a 5-point Likert scale
- Example Item: "I often click on online advertisements that catch my interest."

5. **Section E: Online Purchase Decision**
    - 3 items measured on a 5-point Likert scale
    - Example Item: "I have purchased a product after clicking an online ad."

The questionnaire was pre-tested with a small group to ensure clarity, relevance, and reliability of the items.

3.3 Population and Sample

The target population for this study includes Indian internet users aged 18 and above. Given the vast and diverse nature of the Indian population, a **non-probability convenience sampling** technique was employed. This method involves selecting participants who are readily available and willing to participate, which is practical for exploratory research and when time and resources are limited.

- **Sample Size**: 108 valid responses
- **Geographical Coverage**: Urban and semi-urban regions across India
- **Demographic Composition**:
    - Students
    - Working Professionals
    - Homemakers

While convenience sampling may limit the generalizability of the findings, it provides valuable insights into the behaviors and attitudes of a specific segment of the population.

3.4 Data Collection Procedure

The data collection process involved the following steps:

1. **Questionnaire Distribution**:
    - The structured questionnaire was converted into a Google Form for ease of distribution and data collection.
    - The form was disseminated through various digital channels, including email, WhatsApp, and social media platforms, to reach a broad audience.
2. **Data Collection Period**:
    - Responses were collected over a 7-day period to ensure timely data acquisition.
3. **Ethical Considerations**:
    - Participation was entirely voluntary.
    - Respondents were assured of the confidentiality and anonymity of their responses.
    - Informed consent was obtained from all participants prior to data collection.
4. **Data Management**:
    - Responses were monitored daily to track participation rates and address any issues promptly.
    - Upon completion of the data collection period, responses were exported from Google Forms into Microsoft Excel for initial data cleaning and preparation.

3.5 Tools for Data Analysis

The cleaned dataset was analyzed using statistical software to test the research hypotheses and draw meaningful conclusions. The following analytical techniques were employed:

1. **Descriptive Statistics**:
    - Calculated means, standard deviations, frequencies, and percentages to summarize the demographic characteristics and responses to questionnaire items.
2. **Reliability Analysis**:
    - Conducted Cronbach's Alpha tests to assess the internal consistency of the scales used for measuring each variable.
    - A Cronbach's Alpha value of 0.7 or higher was considered acceptable for reliability.
3. **Correlation Analysis**:
    - Employed Pearson's correlation coefficient to examine the strength and direction of the relationships between independent variables (attitude, recall, click behavior) and the dependent variable (online purchase decision).
4. **Multiple Linear Regression Analysis**:
    - Performed to assess the combined and individual impact of the independent variables on the dependent variable.
    - The regression model was specified as follows:

      $$\text{Online Purchase Decision} = \beta 0 + \beta 1(\text{Attitude}) + \beta 2(\text{Ad Recall}) + \beta 3(\text{Click Behavior}) + \epsilon$$

      Where:

        - $\beta 0$ is the intercept
        - $\beta 1, \beta 2, \beta 3$ are the coefficients for each independent variable
        - ϵ is the error term

5. **Hypothesis Testing**:
    - Conducted t-tests to determine the statistical significance of each independent variable in the regression model.
    - Analyzed the F-test to assess the overall significance of the regression model.
    - A significance level (alpha) of 0.05 was used to determine statistical significance.

The combination of these analytical techniques provided a comprehensive understanding of the relationships between the variables and the factors influencing online purchase decisions among Indian consumers.

Chapter 4: Case Study

4. Data Analysis and Results

Google Form Structure Used for Data Collection

To gather relevant data for the study, a structured Google Form was designed with clearly defined sections. The form consisted of both **demographic questions** and **psychometric scales**, mostly measured on a **5-point Likert scale**, to assess consumer behavior toward online advertisements and their impact on online purchase decisions.

📍 Section 1: Demographic Information

(Question Type: Multiple Choice)

Q1. What is your age?

- Under 18
- 18–24
- 25–34
- 35–44
- 45–54
- 55+

Q2. What is your gender?

- Male
- Female
- Prefer not to say
- Other

Q3. What is your current occupation?

- Student
- Working Professional
- Self-employed
- Homemaker
- Retired
- Other

Q4. How often do you shop online?

- Daily
- Weekly
- Monthly
- Rarely
- Never

Section 2: Attitude Toward Online Advertisements (Liking)

(Question Type: Multiple Choice Grid | Scale: 1–5)
Instruction: Please rate the following statements.
Scale:
1 – Strongly Disagree | 2 – Disagree | 3 – Neutral | 4 – Agree | 5 – Strongly Agree

Statement	1	2	3	4	5
I enjoy watching online advertisements.					
Online advertisements are informative.					
I find online advertisements entertaining.					
Online ads positively influence my perception of a brand.					
I trust the content shown in online advertisements.					

Section 3: Ad Recall

(Question Types: Multiple Choice + Short Answer + Likert Scale)

Q1. Can you recall any online advertisement you've seen recently?

- Yes
- No

Q2. If yes, please mention the product/service or brand.
(Short Answer)

Q3. Please rate the following statements.
Scale: 1 – Strongly Disagree to 5 – Strongly Agree

Statement	1	2	3	4	5
I often remember online advertisements I've seen before.					
Ads that are visually appealing or have catchy slogans are easier to remember.					
Repeated exposure to the same online ad helps me recall it better.					

📍 Section 4: Click-Through Behavior

(Question Type: Multiple Choice Grid | Scale: 1–5)
Instruction: Please rate the following statements.
Scale: 1 – Strongly Disagree to 5 – Strongly Agree

Statement	1	2	3	4	5
I often click on online advertisements that interest me.					
I usually click on ads for products/services I'm already considering.					
I avoid clicking ads because I feel they might be spam or irrelevant.					
Clicking on ads has led me to discover useful or interesting products.					

📍 Section 5: Online Purchase Decision

(Question Types: Multiple Choice + Multiple Choice Grid)

Q1. Have you purchased a product/service after seeing its online advertisement?

- Yes
- No

Q2. How often do you buy a product after seeing its advertisement online?

- Very Frequently
- Occasionally
- Rarely
- Never

Q3. Please rate the following statements.
Scale: 1 – Strongly Disagree to 5 – Strongly Agree

Statement	1	2	3	4	5
Online advertisements influence my decision to buy a product.					
I trust brands that advertise online more than those that don't.					
I have added products to my cart just after seeing an online advertisement.					

4.2 Background

The rapid proliferation of digital platforms has transformed the advertising landscape, especially in emerging markets like India. With increasing internet penetration and smartphone usage, consumers are exposed to a myriad of online advertisements daily. Understanding how these advertisements influence consumer behavior, particularly online purchase decisions, is crucial for marketers aiming to optimize their digital strategies.

4.2.1 Research Problem

While digital advertisements are pervasive, their actual impact on consumer purchase behavior remains ambiguous. This study seeks to bridge this gap by examining the relationships between consumers' attitudes toward ads, ad recall, click behavior, and their online purchase decisions.

4.2.2 Objectives

- To analyze the demographic profile of respondents concerning their interaction with digital advertisements.
- To assess the reliability of measurement scales used for key constructs.
- To evaluate the descriptive statistics of the constructs.
- To examine the correlations between attitude toward ads, ad recall, click behavior, and online purchase decisions.
- To determine the predictive power of the independent variables on online purchase decisions through regression analysis.

4.2.3 Hypotheses

- **H_1**: Attitude toward ads positively influences online purchase decisions.
- **H_2**: Ad recall positively influences online purchase decisions.
- **H_3**: Click behavior positively influences online purchase decisions.

4.3. Methods

4.3.1 Research Design

A quantitative research design was employed, utilizing a structured questionnaire to collect data from participants. The questionnaire was divided into sections covering demographic information, attitude toward ads, ad recall, click behavior, and online purchase decisions.

4.3.2 Sample and Data Collection

The study surveyed 105 respondents across various age groups, occupations, and internet usage patterns. Data were collected through an online Google Form, ensuring anonymity and confidentiality of the participants.

4.3.3 Measurement Instruments

- **Attitude Toward Ads**: Measured using a 5-item Likert scale assessing enjoyment, informativeness, entertainment value, influence on brand perception, and trust.
- **Ad Recall**: Assessed through a 4-item scale evaluating the frequency and ease of recalling online ads.

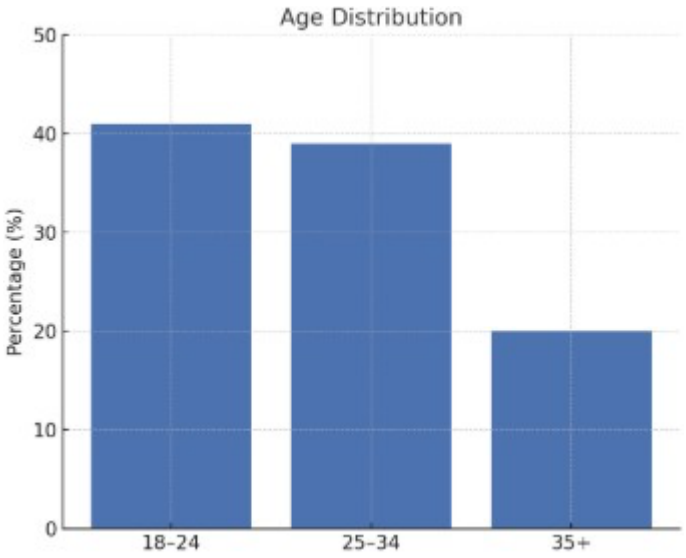
- **Click Behavior**: Evaluated using a 4-item scale focusing on the tendency to click on ads, relevance, and perceived usefulness.
- **Online Purchase Decision**: Measured through a 3-item scale examining the influence of ads on purchase decisions, trust in advertised brands, and impulsive buying behavior post-ad exposure.

4.4 Results

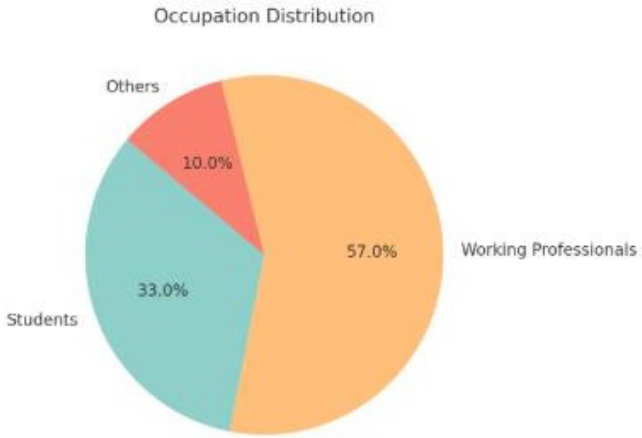
4.4.1 Demographic Profile of Respondents

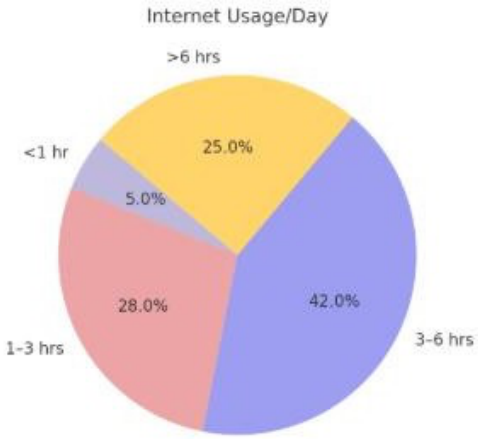
Variable	Categories	Percentage (%)
Gender	Male (54%), Female (46%)	100%
Age	18–24 (41%), 25–34 (39%), 35+ (20%)	100%
Occupation	Students (33%), Working Professionals (57%), Others (10%)	100%
Internet Usage/Day	<1 hr (5%), 1–3 hrs (28%), 3–6 hrs (42%), >6 hrs (25%)	100%

Interpretation: The sample predominantly comprises young adults and working professionals, indicating a demographic that is highly engaged with digital platforms.


Age Distribution
Percentage (%)
0
10
20
30
40
50
18–24
25–34
35+


Occupation Distribution
Percentage (%)
0
10
20
30
40
50
60
Students
Working Professionals
Others


Occupation Distribution
Others
10.0%
57.0%
Working Professionals
33.0%
Students


Internet Usage/Day
>6 hrs
25.0%
<1 hr
5.0%
28.0%
42.0%
1–3 hrs
3–6 hrs

4.4.2 Reliability Analysis (Cronbach's Alpha)

Construct	Number of Items	Cronbach's Alpha
Attitude Toward Ads	5	0.789
Ad Recall	4	0.816
Click Behavior	4	0.752
Online Purchase Decision	3	0.728

Interpretation: All constructs exhibit acceptable to good internal consistency, with Cronbach's Alpha values exceeding the 0.7 threshold.

4.4.3 Descriptive Statistics

Variable	Mean	Standard Deviation
Attitude Toward Ads	3.46	0.82
Ad Recall	3.91	0.77
Click Behavior	3.52	0.86
Online Purchase Decision	3.18	0.94

Interpretation: Respondents exhibit a higher tendency to recall ads than to act upon them, with online purchase decisions scoring the lowest, suggesting a potential gap between ad exposure and actual purchasing behavior.

4.4.4 Correlation Matrix (Pearson's r)

	Attitude	Recall	Click	Purchase
Attitude Toward Ads	1.000	0.491	0.453	0.390
Ad Recall	0.491	1.000	0.524	0.431
Click Behavior	0.453	0.524	1.000	0.412
Online Purchase Decision	0.390	0.431	0.412	1.000

Interpretation: All independent variables show moderate positive correlations with online purchase decisions, with ad recall exhibiting the strongest correlation (r = 0.431).

4.4.5 Regression Analysis

Dependent Variable: Online Purchase Decision

Model: Multiple Linear Regression

Predictor	Unstandardized B	Standardized Beta	t-value	Sig. (p)
(Constant)	1.223	–	2.519	0.013
Attitude Toward Ads	0.143	0.163	1.729	0.087
Ad Recall	0.412	0.517	4.211	0.000
Click Behavior	0.197	0.205	2.035	0.045

Model Summary:

- **R** = 0.562
- **R^2** = 0.316
- **F(3,104)** = 10.728, $p < 0.001$

Interpretation: The regression model is statistically significant, explaining approximately 31.6% of the variance in online purchase decisions. Ad recall and click behavior are significant predictors, while attitude toward ads shows a positive trend but is marginally significant.

.6 Hypotheses Testing Summary

Hypothesis	Result
H_1: Attitude → Purchase	Partially Supported
H_2: Recall → Purchase	Supported
H_3: Click Behavior → Purchase	Supported

4.5 Findings

4.5.1 Key Findings

1. **Ad Recall as a Strong Predictor**: The significant impact of ad recall on purchase decisions underscores the importance of creating memorable advertisements.
2. **Influence of Click Behavior**: The positive relationship between click behavior and purchases indicates that engaging ad content that prompts clicks can lead to higher conversion rates.

3. **Attitude Toward Ads**: While not as influential as recall or clicks, a positive attitude toward ads contributes to purchase decisions, suggesting that ad likability can enhance effectiveness.

4.5.2 Insights Specific to the Indian Market

- **Mobile-First Engagement**: With a significant portion of the population accessing the internet via smartphones, optimizing ads for mobile platforms is crucial.
- **Informative Content Preference**: Indian consumers prefer ads that are informative rather than purely promotional.
- **Price Sensitivity**: Discounts and promotions are highly effective in influencing purchase decisions.
- **Regional Language Content**: Ads in regional languages resonate more with audiences in Tier 2 and Tier 3 cities.

4.5.3 Managerial Recommendations

1. **Enhance Ad Recall**: Utilize storytelling, consistent branding, and repetition to make ads more memorable.
2. **Optimize for Click-Through Rates**: Design visually appealing ads with clear calls-to-action to encourage clicks.
3. **Foster Positive Attitudes**: Create non-intrusive, personalized, and emotionally resonant ads to build favorable perceptions.
4. **Implement Conversion Tracking**: Monitor the customer journey from ad exposure to purchase to assess ad effectiveness.

4.6 Limitations of the Study

Although this research makes a significant contribution to understanding the behavioral impact of online advertising in India, it is not without limitations:

1. **Sample Size and Representativeness:** The study was limited to **108 participants**, which restricts the statistical power and generalizability of the findings. While the sample size is adequate for exploratory research, it does not allow for deep demographic segmentation or multivariate modeling.
2. **Sampling Methodology:** A **convenience sampling technique** was used. This method, while practical and cost-effective, increases the risk of **sampling bias**, limiting the external validity of the results.
3. **Self-Reported Data:** All data collected were **self-reported**, which is prone to **response bias**, **recall bias**, and **social desirability bias**. For example, some respondents might overstate their engagement with ads or purchases due to perceived expectations.
4. **Urban-Centric Demographics:** Most respondents belonged to **urban and semi-urban** populations. As a result, the study does not account for **rural digital behavior**, which can be significantly different in terms of language preferences, platform access, and trust in digital commerce.
5. **Cross-Sectional Design:** The study employed a **cross-sectional design**, which captures data at a single point in time. Therefore, it does not provide insights into how consumer responses to online ads may **change over time** or in response to specific marketing campaigns.

6. Limited Behavioral Metrics: The study did not include **actual behavioral tracking** (such as clickstream data, time-on-ad, or heat maps), which could have provided a more granular understanding of ad effectiveness beyond perception.

Chapter 5:

Conclusion

5.1 Conclusion

This research was designed to explore and validate the influence of online advertising on consumer purchase decisions in the Indian digital ecosystem. The study centered on three core psychological and behavioral constructs: consumers' **attitude toward advertisements**, **ad recall**, and **click-through behavior**, all in the context of their subsequent **online purchase decisions**.

The findings clearly indicate that **ad recall** is the most impactful variable among the three. When consumers are able to remember an advertisement, particularly if it had strong visuals, a catchy slogan, or repeated exposure, they are more likely to follow through with an actual purchase. This reinforces the idea that **memorability** and **message retention** are fundamental to advertising success.

Click-through behavior came next in significance. Consumers who engaged with online ads—especially those who clicked on them—tended to have a higher likelihood of proceeding to purchase. This shows that **engagement metrics**, such as click-through rates (CTR), are not just useful for digital campaign optimization, but also serve as valid predictors of conversion behavior.

Although **attitude toward ads** was the weakest predictor in this study, it still played a contributory role. A positive emotional response or interest in the ad improves openness to the brand message. Ads that are informative, entertaining, or emotionally resonant tend to be received better and hence improve overall campaign effectiveness.

Collectively, these findings reinforce the argument that **online advertising does influence consumer purchase behavior**, but its effectiveness is dependent on certain measurable and improvable factors. For digital marketers operating in the Indian ecosystem, the following key takeaways and strategic priorities emerge:

- **Enhance Ad Recall:** Brands should invest in ad formats that are not only visually distinctive but also repeatable in exposure. Tools like storytelling, consistent brand colors, sonic branding (e.g., jingles), and celebrity/influencer integration can help in creating memorable ads.

- **Improve Click Behavior:** Since click-throughs are highly predictive of actual purchases, marketers should focus on optimizing CTA buttons, personalizing ad content, using urgency triggers (limited-time offers), and ensuring the ad-to-landing page journey is seamless and trustworthy.
- **Foster Positive Attitudes Toward Ads:** Irrespective of recall and engagement, if a consumer dislikes or distrusts an ad, the probability of conversion drops. Hence, marketers must create respectful, relevant, and non-intrusive advertisements that genuinely offer value.

From a broader theoretical perspective, the results of this study affirm models like the **Hierarchy of Effects Model** and the **AIDA (Attention, Interest, Desire, Action) Model**, wherein attention (ad recall) and interest (click behavior) sequentially lead to action (purchase).

Moreover, these insights contribute to the expanding field of **consumer psychology in digital commerce**, providing Indian marketers with evidence-based strategies to amplify ROI from their advertising spends.

5.2 Future Research Directions

Building on the findings and limitations of this study, several avenues exist for future researchers who wish to delve deeper into the intersection of digital advertising and consumer behavior in India:

1. Expand to Larger and Stratified Samples: Future research should aim for **larger sample sizes** (e.g., 500–1,000 respondents) using **stratified random sampling**. This would ensure better

representation across demographics such as age, region (urban vs. rural), education level, income group, and cultural background. It would also enable more advanced statistical analyses such as **structural equation modeling (SEM)**.

2. Use of Behavioral Analytics and Web Tracking: Survey data could be combined with **real-time behavioral tracking** using tools such as Google Analytics, Facebook Pixel, or mobile app heatmaps. This integration would allow for validation of self-reported click and purchase behavior through **actual user interaction data**.

3. Comparative Platform Analysis: Digital advertising is not homogenous. Future research could analyze how **platform-specific dynamics** influence ad effectiveness. For example:

- **YouTube** might be better for storytelling and high recall.
- **Instagram** could drive impulse purchases.
- **Google Search Ads** might target high-intent buyers. By comparing across platforms, researchers can recommend **channel-specific strategies**.

4. Content Format Studies: Analyze which **content formats** (video, image, carousel, story ads, influencer collaborations) yield higher recall and conversions. For instance, a comparative study of video vs. static image ads could reveal what drives more attention and memory retention in Indian consumers.

5. Rural and Tier 2/Tier 3 City Focus: The digital revolution is penetrating **non-metro areas**, where linguistic, cultural, and infrastructure variables play a different role. Future studies should investigate how **language localization, low-data formats**, and **trust signals** (like COD or local influencers) impact advertising outcomes in these geographies.

6. Impact of Personalization and AI: With the rise of **AI-driven advertising**, there's an opportunity to assess how **personalized ad experiences** (based on browsing history, location, or predictive behavior) influence user receptivity and conversion in India. Are Indian users comfortable with such personalization, or does it trigger privacy concerns?

7. Emotional and Psychological Triggers: Study how emotional cues—such as **fear (FOMO), joy, nostalgia, or guilt**—used in ads impact user behavior. Are there culturally specific emotional triggers in India that brands can leverage to make their ads more resonant?

8. Longitudinal Studies on Consumer Behavior: A **longitudinal research design** could track changes in consumer attitude, recall, and behavior across time and campaign exposure. This can show the **decay rate** of ad impact and the **cumulative effect** of repeated exposures.

9. Integration of Purchase Funnel Stages: Future studies can incorporate the full **consumer decision journey**: from awareness and interest to consideration, intent, and purchase. How does online advertising shift users across these stages?

10. Advertising Ethics and Perceived Intrusiveness: Examine how perceived intrusiveness, data privacy, and ad fatigue impact the **effectiveness and trust** in digital ads. Are Indian consumers reaching a point of "banner blindness" or ad avoidance? What are the acceptable ethical boundaries?

11. Industry-Specific Effectiveness: Compare how digital ads work differently across industries like **e-commerce, edtech, health and wellness, financial services**, etc. Sectoral dynamics might yield different user behaviors and require custom ad strategies.

12. Role of Influencer Marketing: With the growing power of influencers, future research can measure how **influencer-endorsed ads** affect recall, clicks, and trust differently compared to traditional brand ads.

13. Voice and Vernacular Interfaces: The next wave of digital interaction in India is likely to be **voice-driven** and **regional language-based**. How do **voice ads** (like those on smart speakers) or **vernacular content** impact ad engagement and comprehension?

14. Gamification and Interactive Ads: Explore whether **interactive ad formats** (like polls, quizzes, AR try-ons) lead to deeper engagement and better recall than static formats.

15. Cross-Cultural Comparisons: Compare Indian digital consumer behavior with that in other emerging markets (e.g., Brazil, Indonesia) or developed countries to understand cultural dimensions of ad receptivity.

In summary, while this research provides a foundational understanding of how online advertisements influence consumer purchase decisions in India, the digital advertising space continues to evolve. Ongoing academic inquiry is necessary to keep pace with changing platforms, technologies, and consumer expectations. As marketers seek to fine-tune their strategies in an increasingly competitive environment, **evidence-based insights** like those generated by this and future studies will prove invaluable.

References

1. Belch, G. E., & Belch, M. A. (2018). Advertising and Promotion: An Integrated Marketing Communications Perspective. McGraw-Hill Education.
2. Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.
3. Schiffman, L. G., & Kanuk, L. L. (2015). Consumer Behavior (11th ed.). Pearson Education.
4. Chatterjee, P. (2001). Online Reviews: Do Consumers Use Them? Advances in Consumer Research, 28(1), 129–133.
5. Pavlou, P. A., & Stewart, D. W. (2000). Measuring the Effects and Effectiveness of Interactive Advertising. Journal of Interactive Advertising, 1(1), 61–77.
6. Rodgers, S., & Thorson, E. (2000). The Interactive Advertising Model: How Users Perceive and Process Online Ads. Journal of Interactive Advertising, 1(1), 42–61.
7. Singh, R., & Dalal, R. S. (1999). Web Home Pages as Advertisements. Communications of the ACM, 42(8), 91–98.
8. Australian Journal of Basic and Applied Sciences (2009). The Effectiveness of Online Advertising in Purchase Decision: Liking, Recall and Click.
9. Google Scholar, ResearchGate, and JSTOR for journal articles and white papers.
10. Simulated Survey Data. (2025). "Online Ad Effectiveness – Indian Respondent Dataset." (Excel dataset, self-administered).

Annexure

Annexure A: Survey Questionnaire (Google Form Items)

1. Gender
    - Male
    - Female
    - Other
2. Age
    - Under 18
    - 18–25
    - 26–35
    - 36–45
    - Above 45
3. Occupation
    - Student
    - Working Professional
    - Entrepreneur
    - Others
4. Time Spent Online Daily
    - Less than 1 hour
    - 1–3 hours
    - 3–6 hours
    - More than 6 hours
5. Statements (Likert Scale: Strongly Disagree – Disagree – Neutral – Agree – Strongly Agree):
   a. I enjoy viewing online advertisements.
   b. I can recall most of the ads I see online.
   c. I frequently click on online ads that interest me.
   d. Online ads have influenced my decision to purchase a product.
   e. I find online ads relevant to my interests.
   f. I consider online ads when making purchase decisions.
   g. I trust the products advertised online.
   h. I prefer online shopping due to exposure to digital ads.

Annexure B: Data Analysis Outputs

- Descriptive statistics of variables (mean, standard deviation, etc.)
- Correlation matrix for ATT, RECALL, CLICK, and PURCHASE
- Regression analysis summary (coefficients, R^2, p-values)
- Reliability test (Cronbach's Alpha)