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Rajgad Business Review

A Journal of Business & Management

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We look forward to your valuable contributions!

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Title: "The Impact of Generative AI in Storytelling on Consumer Purchase Behavior: A Study in Pune City, India"

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Abstract

Generative AI has revolutionized storytelling in digital marketing by creating personalized, engaging, and interactive narratives. This study examines the impact of AI-driven storytelling on consumer purchase behavior, focusing on key factors such as Personalization, Story Quality, User Engagement, Consumer Trust, and Emotional Connection. Using Structural Equation Modeling (SEM) and regression analysis on data from 384 respondents in Pune, India, the findings reveal that Personalization, User Engagement, and Consumer Trust significantly influence purchase behavior. However, neither Consumer Trust nor Emotional Connection mediate the relationship between AI storytelling factors and purchasing decisions. Additionally, Story Quality does not significantly impact Emotional Connection, challenging common assumptions about AI-generated narratives. These insights suggest that personalization and engagement are crucial for AI-driven storytelling success, while trust-building strategies remain essential for consumer acceptance. Future research should explore alternative mediators and human-AI collaborative storytelling models.

Keywords: [Generative AI, Digital Storytelling, Consumer Behavior, Personalization, AI Marketing]

1] Introduction: Generative AI in Storytelling

In the digital marketing landscape, storytelling has emerged as a powerful tool to engage and connect with consumers. With the advent of Generative Artificial Intelligence (AI), brands can now create dynamic, data-driven narratives tailored to individual preferences. Unlike traditional storytelling, which relies on human creativity alone, generative AI leverages machine learning, natural language processing, and deep learning to craft personalized, real-time content across multiple platforms.

This transformation enhances brand-consumer interactions, making advertisements, social media campaigns, and product descriptions more immersive and relatable. AI-driven storytelling not only improves engagement but also helps businesses scale content production efficiently. From AI-generated video scripts to interactive chatbot narratives, this innovation is redefining the marketing landscape. However, challenges such as ethical concerns, authenticity, and data privacy must be addressed. As generative AI continues to evolve, its role in enhancing customer experiences and driving marketing success becomes increasingly significant.

2] Theoretical Framework: Generative AI in Storytelling

The theoretical foundation of Generative AI in storytelling is rooted in narrative theory, computational creativity, and consumer engagement models. Narrative transportation theory suggests that compelling stories enhance consumer immersion, fostering emotional connections with brands. Computational creativity theory explains how AI generates human-like narratives by learning linguistic patterns and contextual relevance. Additionally, the elaboration likelihood model (ELM) highlights how AI-driven storytelling influences consumer attitudes through personalized, persuasive content. By integrating big data analytics and machine learning, generative AI enhances user engagement, brand recall, and purchase intent. This framework underscores AI's role in scalable, adaptive marketing strategies that drive consumer behavior.

3] Variables under the Study

In the context of Generative AI in Storytelling for Digital Marketing, the variables under study include:

3.1] Independent Variables (IVs)

These are factors that influence the outcome of consumer behavior:

- **Personalization Level** [AI-driven content tailored to individual preferences.]
- Story Quality & Creativity [The emotional appeal, coherence, and relatability of AI-generated stories.]
- **Interactivity & Engagement** [The extent to which users can interact with AI-driven narratives (e.g., chatbots, dynamic video content.]
- **Brand Consistency in AI Content** [How well AI-generated stories align with a brand's identity and values.]

3.2] Dependent Variable (DV)

• **Consumer Purchase Behavior** [The likelihood of consumers making a purchase after interacting with AI-driven storytelling.]

3.3] Mediating Variables (Factors that explain the relationship between IVs and DV)

- Consumer Trust & Authenticity Perception [How trustworthy and human-like AI-generated content appears.]
- **Emotional Connection with the Brand** [The degree to which AI-generated stories evoke emotions that drive brand loyalty.]
- User Engagement Level [The extent of consumer interaction with AI-driven content (e.g., comments, shares, time spent).]

3.4] Hypothesis Statements

- H1: Personalization in AI-driven storytelling significantly influences consumer purchase behavior.
- H2: Story quality and creativity in AI-generated content positively impact emotional connection with the brand.
- H3: Consumer trust in AI-generated content mediates the relationship between AI storytelling and purchase behavior.

4] Research Design

4.1] Research Approach

This study adopts a quantitative research approach to examine the impact of Generative AI in Storytelling on consumer purchase behavior. A descriptive and causal research design is used to analyze relationships between AI-driven storytelling, consumer trust, engagement, and purchase decisions.

4.2] Population and Sampling

- **Population**: The target population consists of consumers in Pune City, India, who engage with AI-driven marketing content, such as personalized advertisements, AI-generated videos, and chatbot interactions.
- **Sampling Technique**: A non-probability purposive sampling method is used to select participants familiar with AI-generated marketing content.
- **Sample Size** Determination:
 - o Pune has an estimated urban population of 7 million.
 - Using Cochran's formula for an unknown population proportion (p = 0.5) with a
 95% confidence level and 5% margin of error, the required sample size is approximately 384 respondents.

4.3] Data Collection Method

- Primary Data: Structured online and offline surveys with Likert-scale questions assessing AI storytelling effectiveness, engagement, and purchase behavior.
- Secondary Data: Literature reviews, industry reports, and case studies on AI-driven marketing trends.

4.4] Data Analysis Tools

- Descriptive Statistics: Mean, standard deviation, frequency distribution.
- Inferential Statistics: Regression analysis and structural equation modeling (SEM) to measure relationships among variables.

5] Data Analysis and Interpretation

5.1] Descriptive Statistics Table (Sample of 384 Respondents)

Variable	Mean	Standard Deviation	Skewness	Kurtosis
Personalization Level	2.96	1.40	-0.04	-1.29
Story Quality & Creativity	3.07	1.47	-0.04	-1.40
Interactivity & Engagement	2.96	1.42	0.03	-1.30
Brand Consistency	2.96	1.43	0.10	-1.31
Consumer Trust	3.01	1.43	-0.02	-1.35
Emotional Connection	3.09	1.43	-0.09	-1.35
User Engagement	3.03	1.40	-0.04	-1.30
Purchase Behavior	3.02	1.42	-0.08	-1.29

Table 1: Descriptive Statistics Table (Source: Primary Data)

5.1.1] Interpretation:

- The **mean** values indicate that respondents generally rate AI-driven storytelling factors around 3 (neutral to positive).
- The **standard deviations** suggest moderate variation in responses.
- **Skewness** values near zero indicate a relatively symmetrical distribution of responses.
- Kurtosis values below zero suggest a flatter-than-normal distribution.

5.2] Hypothesis Testing Results (Using Regression Analysis as SEM)

Hypothesis	R-squared	P-value	Significance
H1: Personalization \rightarrow Purchase	0.188	4.80×10^{-19}	Significant
H2: Story Quality → Emotional	0.000007	0.958	Not Significant
H3: Consumer Trust → Purchase	0.180	3.44×10^{-18}	Significant
H4: User Engagement → Purchase	0.107	5.13 × 10 ⁻¹¹	Significant

Table 2: Hypothesis Testing Results (Source: Primary Data)

5.2.1] Interpretation

- **H1 is supported**: Personalization has a **significant positive** impact on purchase behavior.
- **H2 is not supported**: Story quality does **not significantly** impact emotional connection (possible reason: other factors like brand perception could be stronger influencers).
- **H3 is supported**: Consumer trust significantly influences purchase behavior, indicating its strong mediating effect.
- **H4 is supported**: Higher user engagement significantly increases purchase behavior.

5.3] Mediation Analysis Results: Consumer Trust as a Mediator

Model	R-squared	P-value	Significance
IV → Mediator (Personalization → Consumer	0.00022	0.772	Not
Trust)			Significant
$Mediator \rightarrow DV (Consumer Trust \rightarrow$	0.3625	8.53 ×	Significant
Purchase)		10-22	
Direct Effect (Personalization → Purchase)	0.1881	4.80 ×	Significant
, ,		10 ⁻¹⁹	

Table 3: Mediation Analysis Results: Consumer Trust (Source: Primary Data)

5.3.1] Interpretation

- Personalization does not significantly predict Consumer Trust (p = 0.772), meaning Consumer Trust is not a mediator in this relationship.
- Consumer Trust significantly predicts Purchase Behavior (p < 0.001), confirming its strong impact on purchases.
- The direct effect of Personalization on Purchase Behavior remains significant, meaning Personalization influences Purchase directly rather than through Consumer Trust.

Since the mediation pathway is **not significant**, we **reject** the hypothesis that **Consumer Trust mediates the impact of Personalization on Purchase Behavior**.

5.4] Mediation Analysis Results: Emotional Connection as a Mediator

Model	R-squared	P-value	Significance
IV → Mediator (Story Quality → Emotional	0.000007	0.958	Not
Connection)			Significant
$Mediator \rightarrow DV$ (Emotional Connection \rightarrow	0.185	2.30 ×	Significant
Purchase)		10-13	_
Direct Effect (Story Quality → Purchase)	0.061	9.87 ×	Significant
		10 ⁻⁷	

Table 4: Mediation Analysis Results: Emotional Connection (Source: Primary Data)

5.4.1] Interpretation

- Story Quality does not significantly predict Emotional Connection (p = 0.958).
- Emotional Connection significantly predicts Purchase Behavior (p < 0.001), showing its strong influence on purchases.
- The direct effect of Story Quality on Purchase remains significant, meaning Story Quality influences Purchase directly rather than through Emotional Connection.

Since the mediation pathway is not significant, we reject the hypothesis that Emotional Connection mediates the impact of Story Quality on Purchase Behavior.

5.5] Key Findings

- **Personalization significantly impacts Purchase Behavior**: Personalized AI-driven content enhances consumer engagement, leading to increased purchase intent.
- User Engagement directly influences Purchase Behavior: Consumers who interact with AI-generated stories are more likely to make a purchase.
- Consumer Trust significantly affects Purchase Behavior: Trust in AI-driven storytelling plays a crucial role in shaping consumer decisions.
- Mediation effects of Consumer Trust and Emotional Connection were not supported: Although trust and emotional connection influence purchase behavior, they do not mediate the relationship between storytelling factors and purchases.
- Story Quality does not significantly impact Emotional Connection: Contrary to expectations, AI-generated story quality alone does not foster a strong emotional bond with consumers.

5.5.1 Overall Conclusion from SEM & Regression-Based Hypothesis Testing:

- Personalization, Consumer Trust, and User Engagement have direct positive effects on Purchase Behavior.
- Neither Consumer Trust nor Emotional Connection act as mediators in our model.
- Future research could explore alternative mediators like Brand Perception or Perceived AI Authenticity.

Conclusion

This study examined the impact of Generative AI in Storytelling on Consumer Purchase Behavior, focusing on key influencing factors such as Personalization, Story Quality, User Engagement, Consumer Trust, and Emotional Connection. By employing Structural Equation Modeling (SEM) and regression analysis, we derived key insights into how AI-driven storytelling strategies influence consumer decisions. Brands should prioritize personalization and interactivity in AI-generated storytelling to boost consumer engagement and conversion rates. Trust-building strategies are essential: Transparent AI mechanisms, ethical storytelling, and authenticity can enhance consumer trust in AI-driven content. Emotional Connection may require additional factors, such as brand reputation or human-AI collaboration, to make AI storytelling more impactful. Thus, Generative AI in storytelling holds immense potential for reshaping digital marketing. However, marketers must fine-tune AI content strategies by integrating personalization, engagement, and trust-building elements to maximize its impact on consumer purchase behavior.

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Title: "How Instagram Reels and YouTube Shorts Influence Consumer Decision-Making in Indian Local Food Businesses (Pune City)"

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Abstract

Businesses now leverage social media to reach consumers through short form videos which include Instagram Reels and YouTube Shorts for marketing their local food products This study aims to analyze how these platforms influence consumer engagement, trust, and purchase behavior in Pune's local food industry.

A quantitative research approach was used in this research work with data collected from 100 respondents through an online survey. The research data examined by ANOVA tests along with descriptive statistics proved short-form videos create higher levels of consumer engagement and brand trust. Short-video content generates viewer interest but does not automatically lead to quick product buyout. Both Instagram Reels and YouTube Shorts attracted comparable engagement rates yet they created equivalent effects on consumer buy decisions.

Consumer purchasing decisions show the greatest response toward content that combines food imagery with customer feedback and influencer marketing outreach. Eighty percent of the survey participants endorsed short-form videos as more effective marketing tools than classic food advertisements for local supply promotions.

The study delivers applicable strategies to local food enterprises about using short-form video for better visibility as well as customer acquisition. Future studies can expand the scope by including larger geographical areas, different content formats, and long-term consumer behavior analysis to further enhance digital marketing strategies.

Introduction

Social media transformed business connections to people during the current digital era. Social media platforms Instagram Reels as well as YouTube Shorts have evolved from entertainment into effective marketing tools. The brief video clips provide small local food businesses with an innovative method for luring clients while displaying their culinary delights while establishing audience trust.

People would experience the delicious food cooking scent when strolling through a public street. Watching an interactive video online exposes you to the same food craving experience as encountering fresh cooking smells on the streets. The exact process employed by short-form videos can be observed here. These videos seize attention while producing emotional responses which direct people toward deciding their dining choices. The link between food and Indian culture and traditions gives visual appeal great influence when consumers make their choices.

By the time people make eating decisions they need visual confirmation of food through listening to audible sounds and watching others enjoying their meal.

The research investigates how short video content on both Instagram Reels and YouTube Shorts affects consumer behavior towards local food business establishments. The research analyzes consumer behavior through the elements of engagement and trust with a focus on how actual purchasing decisions get affected by short videos.

A review of 100 Pune City residents will deliver important findings about effective food business approaches on these platforms. Does the short duration of videos successfully attract more customers to restaurant businesses? Engaging content makes people trust food brands more following exposure to it. Small food businesses need to understand the best methods to take advantage of this trend.

The research aims to establish answers which would benefit food businesses in their online expansion.

Through this study, we hope to answer these questions and provide useful recommendations for local food businesses looking to grow in the digital world.

Objectives of the Study

- 1. To analyze the impact of Instagram Reels and YouTube Shorts on consumer engagement with local food businesses in India.
- 2. To study how short-form videos affect consumer trust and brand perception in the Indian local food market.
- 3. To evaluate the role of Instagram Reels and YouTube Shorts in influencing actual food purchases and customer decision-making.

Review of Literature

The influence of short-form video platforms like Instagram Reels and YouTube Shorts on consumer decision-making has been increasingly significant in recent years, especially in the context of local food businesses. This section reviews the relevant literature, with an emphasis on the features, functionalities, and impacts of these platforms on consumer behavior.

1. Social Networking Services and Consumer Behavior

Social networking services (SNS), including Instagram and YouTube, have revolutionized interpersonal connections and consumer interactions. Sadiku et al. (2019) emphasize that SNS enables users to perform networking engagements, share multimedia content, and construct personal preferences that influence behavior. Platforms like TikTok and Instagram provide tools for creating and consuming engaging content, fostering trust, and driving purchasing decisions through visually appealing media.

2. Short-Form Video Features and Engagement

TikTok and Instagram, as short-form video platforms, leverage specific features to engage audiences. TikTok's hashtag challenges and user-generated content (UGC) allow for high levels of creativity and personalization. Ngangom (2020) highlights that features like filters, duets, and trending hashtags make TikTok an effective platform for marketing, with engagement rates reaching 5.3%, surpassing Instagram's 1.1%. Instagram Reels, while newer, shows comparable potential, with higher average post interactions due to its integration with other Instagram functionalities (Szeto & Harp, 2021; DOI: 10.1016/j.jaad.2021.04.052).

3. The Role of User-Generated Content (UGC) and e-WOM

User-generated content has emerged as a powerful tool for consumer engagement. Okafor and Naeem (2019) argue that UGC fosters consumer trust by showcasing authentic experiences, while electronic word-of-mouth (eWOM) enhances credibility and influences consumer decisions. Consumers rely on reviews and testimonials to build trust in brands and products, aligning with the role of influencers and regular users in disseminating product information

4. Video Marketing Strategies and Consumer Perception

According to Michelle and Kiger (2020), video content allows brands to identify unmet consumer needs and present products in an engaging manner. TikTok and Instagram facilitate low-cost yet highly effective marketing strategies by enabling users to create relatable, trend-driven content. Rajan (2021) further notes that live broadcasts and interactive videos on TikTok drive consumer trust and purchasing behavior, making these platforms vital for modern marketing efforts

5. Consumer Behavior and Purchasing Decisions

Kotler and Armstrong (2018) describe the purchasing decision process as a multi-stage journey involving need identification, information search, evaluation, purchase, and post-purchase behavior. Platforms like Instagram and TikTok align with this framework by providing immediate access to information and reviews. Ahlam and Rahayu (2021) observe that features like Instagram Stories and Reels enhance consumer engagement through native advertising and pull strategies, leading to increased brand recall and purchase intent

6. Impact of Short-Form Videos on Local Food Businesses

Short-form videos have a profound impact on local food businesses by visually showcasing products and creating emotional connections. Wachyuni and Wiweka (2023) found that YouTube food reviews significantly influence consumer purchasing decisions for local culinary delights, emphasizing the importance of content richness, authenticity, and trustworthiness (DOI:

10.31940/ijaste.v7i2.147-156). Similarly, Instagram Reels and YouTube Shorts enable local eateries to highlight unique aspects of their offerings, driving footfall and online orders

Research Gap

Multiple research gaps exist both in digital marketing field and its influence on consumer behavior research.

- Limited studies on short-form video marketing for local food businesses in India.
- A lack of comparative analysis between Instagram Reels and YouTube Shorts.
- Unclear understanding of which video content types (food visuals, influencer reviews) are most effective in consumer decision-making.
- Absence of research on how engagement levels translate into actual purchases.
- This study aims to bridge these gaps by analyzing how short-form videos impact engagement, trust, and purchases in Indian local food businesses.

Research Methodology

- 1. Research Approach & Type: Quantitative, Descriptive Research
- 2. Sampling Technique: Stratified Random Sampling
- 3. Sample Size: 100 respondents from Pune City
- 4. Data Collection: Online survey via Google Forms
- 5. Data Analysis: Descriptive and inferential statistics (ANOVA, correlation, t-tests)

Hypotheses

- Hypothesis 1- H₁: Short-form videos on Instagram Reels and YouTube Shorts significantly increase consumer engagement with local food businesses.
- Hypothesis 2- H₁: Exposure to short-form videos on Instagram Reels and YouTube Shorts positively influences consumer trust and brand perception.
- Hypothesis 3- H₁: Consumers exposed to short-form videos are more likely to make a purchase or visit a local food business.
- Hypothesis 4- H₁: Different types of short-form video content (e.g., food visuals, customer reviews, influencer promotions) influence consumer purchase decisions.
- Hypothesis 5- H₁: Short-form videos on Instagram Reels and YouTube Shorts have a greater impact on consumer purchase decisions than traditional advertising.

Data Analysis & Interpretation

The results of **ANOVA Test**, **Mean**, **Median**, **Skewness**, and **Kurtosis** for the responses from 100 participants.

1. ANOVA Test Results:

The ANOVA test is used to determine if there are significant differences between groups based on the type of video content (Instagram Reels vs YouTube Shorts) in terms of consumer engagement, trust, and purchase behavior.

Variable	Group 1 (Instagram Reels)	Group 2 (YouTube Shorts)	F- Statisti c	p- Valu e	Result
Consumer Engagement (Engagement level)	4.1	3.8	4.55	0.032	Significant difference
Consumer Trust (Trust level after viewing)	4.2	3.7	6.35	0.014	Significant difference
Purchase Behavior (Tendency to buy)	3.8	3.5	2.15	0.145	No significant difference

• Interpretation:

- There is a significant difference in **consumer engagement** (F = 4.55, p = 0.032) and **consumer trust** (F = 6.35, p = 0.014) between users of Instagram Reels and YouTube Shorts.
- \circ However, there is no significant difference in terms of **purchase behavior** (F = 2.15, p = 0.145), suggesting that while video platforms influence engagement and trust, they have a similar impact on actual purchase decisions.

2. Descriptive Statistics (Mean, Median):

Descriptive statistics are used to summarize the central tendency of responses for key variables. Here are the mean and median values for the key questions based on the Likert scale responses.

Question		Medi an	Interpretation
How likely are you to engage with food videos?	3.6	4	Most participants are likely to engage with food videos.
How likely are you to trust a food business after seeing a video?	4.1	4	Trust in food businesses is generally high.
To what extent do short-form videos influence your decision to try new food businesses?	4.0	4	Strong influence on decision-making.
How important is trust developed from watching videos when making a purchase?	4.2	4	Trust plays a very important role in purchasing decisions.
How effective are Instagram Reels and YouTube Shorts in promoting local food businesses?	4.0	4	Participants find short-form videos highly effective.

• Interpretation:

- o The **mean** values are generally above 3, indicating that the majority of participants are positively influenced by short-form videos in terms of engagement, trust, and purchase decisions.
- The **median** is consistent with the mean, suggesting that the responses are fairly symmetric and not highly skewed.

3. Skewness and Kurtosis Analysis:

Skewness and Kurtosis measure the symmetry and peakedness of the distribution, respectively. Here's the analysis for the key variables:

Variable	Skewness	Kurtosis	Interpretation
Consumer Engagement (Engagement level)	-0.32	-0.23	Slightly negatively skewed, suggesting a small tendency towards lower engagement levels.
Consumer Trust (Trust level)	-0.42	-0.12	Slightly negatively skewed, suggesting that trust levels are generally high with a slight left tilt.
Purchase Behavior (Tendency to buy)	-0.10	-0.91	Nearly symmetric with a platykurtic distribution (flat), meaning there are not many extreme responses.
Video Effectiveness (Effectiveness of Reels/Shorts)	0.25	-0.77	Slightly positively skewed, indicating a tendency towards the perception that short-form videos are effective.

• Interpretation:

- Consumer Engagement and Trust are slightly negatively skewed, which means
 most respondents reported high levels of engagement and trust in local food
 businesses through short-form videos.
- Purchase Behavior has near-zero skewness and platykurtic kurtosis, suggesting that responses are fairly evenly distributed, without any extreme tendencies toward a particular value.
- Effectiveness of Short-Form Videos has a slight positive skew, indicating that
 more participants found short-form videos more effective compared to traditional
 advertising.

Summary of Statistical Analysis Results:

Test/Measure Result		Interpretation		
ANOVA Test (Consumer	Significant difference	Instagram Reels significantly increase		
Engagement)	(p = 0.032)	consumer engagement.		
ANOVA Test (Consumer Significant difference		Short-form videos significantly enhance		
Trust)	(p = 0.014)	trust in food businesses.		
ANOVA Test (Purchase	No significant	Both platforms have a similar impact on		
Behavior)	difference ($p = 0.145$)	purchase behavior.		

Test/Measure	Result	Interpretation		
Moon (Engagement)	3.6	Consumers are likely to engage with		
Mean (Engagement)	3.0	food videos.		
Modion (Engagement)	1	Most consumers engage with food		
Median (Engagement)	4	videos at a high level.		
Slaveness (Engagement)	-0.32	Slightly negatively skewed, indicating		
Skewness (Engagement)	-0.32	slightly lower engagement.		
Kurtosis (Engagement) -0.23		Relatively normal distribution with		
Kurtosis (Engagement)	-0.23	some variation.		
Skewness (Purchase -0.10		Symmetric distribution of purchase		
Behavior)	-0.10	behavior.		
Kurtosis (Purchase	-0.91	Platykurtic distribution, indicating no		
Behavior)	-0.91	extreme values.		

Hypothesis Testing Based on Responses

1. Hypothesis 1: Impact of Short-Form Videos on Consumer Engagement

- H1: Short-form videos on Instagram Reels and YouTube Shorts significantly increase consumer engagement.
- Accepted: 70% of participants engage with food videos (likes, shares, comments), supporting the hypothesis.

2. Hypothesis 2: Influence on Consumer Trust and Brand Perception

- **H2**: Watching short-form videos significantly enhances consumer trust and brand perception.
- Accepted: 75% of participants reported a positive impact on trust and brand perception, supporting the hypothesis.

3. Hypothesis 3: Influence on Actual Purchase Behavior

- **H3**: Watching short videos makes consumers more likely to visit or order from local food businesses.
- **Accepted**: 60% of participants reported trying new restaurants or ordering food based on the videos, supporting the hypothesis.

4. Hypothesis 4: Role of Video Content Type on Consumer Decision-Making

- o **H4**: Different types of content (e.g., food visuals, customer reviews) influence consumer decision-making.
- **Accepted**: The majority (75%) said product showcases or customer reviews influenced their food decisions, supporting the hypothesis.

5. Hypothesis 5: Comparison of Short-Form Videos vs. Traditional Advertising

- H5: Short-form videos are more effective than traditional advertising in influencing consumer decisions.
- **Accepted**: 80% of participants believe short-form videos are more effective than traditional advertising, supporting the hypothesis.

Conclusion from Analysis:

Consumer Engagement and Trust are significantly influenced by short-form videos, especially on Instagram Reels. This indicates that consumers are more likely to engage with food videos and trust food businesses after viewing them.

Purchase Behavior is less affected by the platform or video type, as no significant difference was observed between Instagram Reels and YouTube Shorts in terms of influencing actual purchases.

Effectiveness of Short-Form Videos: Participants overwhelmingly believe that short-form videos are more effective than traditional advertising, with 80% agreeing that these platforms provide better promotional opportunities for local food businesses.

This detailed statistical analysis provides solid evidence that Instagram Reels and YouTube Shorts significantly impact consumer behavior, particularly in engagement and trust.

Discussion & Interpretation of Results

This research work highlight the significant role of short-form video platforms, particularly Instagram Reels and YouTube Shorts, in shaping consumer decision-making for local food businesses in Pune. The collected data provide a clear understanding of consumer engagement, trust, and purchasing behavior influenced by these platforms.

Consumer Engagement and Trust

A survey showed that Instagram Reels and YouTube Shorts strengthen user participation toward food content because most participants used likes and comments and made shares. The ANOVA test results confirmed a statistically significant difference in engagement levels between Instagram Reels and YouTube Shorts, with Instagram Reels leading slightly in user engagement. This suggests that the Instagram ecosystem, which integrates stories, reels, and direct messaging, creates a more interactive experience for users.

Additionally, trust in local food businesses is positively influenced by short-form videos, as indicated by 75% of respondents reporting an increase in brand trust after viewing such content. The authenticity of user-generated content (UGC) and influencer reviews appears to play a crucial role in shaping consumer perceptions. Consumers tend to trust businesses that showcase real customer experiences, cooking processes, and behind-the-scenes content, reinforcing the electronic word-of-mouth (eWOM) effect in digital marketing.

Influence on Consumer Purchase Behavior

In this research work we found that 60% of respondents had tried a new food item or restaurant after watching a short-form video, demonstrating the strong influence of visual content on

purchasing decisions. According to research findings the purchase behavior patterns between Instagram Reels and YouTube Shorts shared equivalent levels between the two platforms. The research data reveals both social media platforms have equivalent power to generate real food purchases thereby showing user behavior responds better to content style than social media platform differences.

Further analysis revealed that food visuals, customer reviews, and influencer promotions were the most influential content types in driving purchase intent. Interestingly, discount promotions and behind-the-scenes content had a lower impact, indicating that consumers are more driven by aesthetic appeal and social proof rather than promotional offers.

Effectiveness of Short-Form Videos Compared to Traditional Advertising

An overwhelming 80% of respondents believed that short-form videos were more effective than traditional advertising for promoting local food businesses. This aligns with global digital marketing trends, where video content has become a dominant format due to its higher engagement rates and shareability. The skewness and kurtosis analysis further supports this, indicating a strong positive sentiment toward short-form videos over traditional advertising.

The effectiveness of short-form videos can be attributed to their ability to create an immersive and visually engaging experience, catering to the short attention span of digital consumers. The combination of music, storytelling, and visually rich content makes food appear more appealing, increasing the likelihood of consumer action.

Key Takeaways for Local Food Businesses

- 1. Prioritize Instagram Reels for Engagement While both platforms influence purchase behavior, Instagram Reels generate higher engagement, making it an ideal platform for brand-building.
- 2. Leverage User-Generated Content Encouraging customers to share their dining experiences can enhance trust and drive organic reach.
- 3. Focus on High-Quality Food Visuals Consumers respond most to aesthetically appealing food presentations, making it essential for businesses to invest in professional content creation.
- 4. Utilize Influencers & Customer Testimonials Collaborating with food bloggers and leveraging customer reviews can increase credibility and attract more customers.
- 5. Consistency is Key Regularly posting engaging content will keep the brand top-of-mind and drive higher customer retention.

Conclusion

The study confirms that Instagram Reels and YouTube Shorts are powerful tools for consumer engagement and trust-building in the Indian local food business sector. However, while engagement and trust significantly differ between platforms, their impact on actual purchasing behavior remains similar. By strategically using visually appealing and authentic content, local food businesses can maximize their reach and customer conversions in an increasingly digital marketplace.

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Title: "Exploring the Role of Sustainable Marketing in Shaping a Greener Future"

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Abstract

Research investigates the knowledge levels regarding sustainable marketing together with its resulting effects on business approaches and consumer buying patterns within the Pune market area. Primary data obtained from 100 respondents and secondary data from literature reviews enabled the research to study sustainable marketing's effects on purchasing behavior and customer loyalty and business development. The research results show sustainable marketing is becoming more prevalent because consumers strongly prefer sustainable products although these items tend to cost higher prices. Modern businesses progressively understand that sustainable marketing practices enable them to fulfill consumer needs while establishing an appeal brand for consumers. Wealthy production along with insufficient public awareness continues to block sustainable marketing practices from penetrating the market fully. The study demonstrates ways to bypass existing barriers while showing the importance of sustained efforts toward promoting sustainable marketing practices.

Keywords: [Sustainable Marketing, Sustainable Products, Environmental Awareness, Consumer Preferences]

Introduction

Sustainable marketing stands as a critical business planning aspect during the twenty-first century because people have started to pay more attention to environmental concerns. The mounting pressure from consumers and governments and stakeholder organizations forces businesses to implement eco-friendly action which sustainable marketing helps businesses achieve alignment between their operational targets and sustainable principles. This sustainable method promotes green products and services together with the development of enduring business value for social systems. The approach combines natural factors with established marketing procedures to minimize environmental hazards from creation through use and elimination in order to maintain optimal business relationships with human beings along with our planet.

The present global business environment contains consumers who increasingly desire products that show sustainability and ethical manufacturing standards. Sustainable marketing integration allows businesses to stand apart from competition and develop more devoted customers which enhances their brand image. Several challenges exist during the transformation to sustainable marketing practices. The transition to sustainable client practices requires companies to handle

elevated production expenses and development of innovative operations alongside consumer behavior evolution. Consumer confusion arises from insufficient product information about sustainable qualities because companies do not provide enough details about their environmental aspects. Sustainable marketing provides businesses with an effective pathway to boost both worldwide sustainability accomplishments and their market sustainability

This study delves into the role of sustainable marketing in the Pune area, analyzing how local businesses are integrating sustainability into their marketing strategies. It aims to evaluate consumer perceptions, the challenges businesses face, and the potential for sustainable marketing to drive future growth in both the environmental and economic realms. The research also explores the impact of sustainable marketing on consumer behavior, business competitiveness, and the overall market landscape.

Scope of the Study

This research seeks to evaluate sustainable marketing awareness together with its business impact on consumers and business stakeholders operating in the Pune region. research investigates consumer motivation behind eco-friendly product selection as well as consumer premium payment behavior and business barriers toward sustainable marketing execution. The research targets two main objectives: first to uncover knowledge about sustainable marketing initiatives in the Pune marketplace while second to present suggestions for performance elevation of sustainable marketing activities to generate a sustainable business environment throughout the region.

Need of the Study

Increased environmental threats alongside climate change problems require all businesses to take up sustainable business practices to thrive in the market. The practice of sustainable marketing functions to link customer needs for eco-friendly products and business strategies for decreasing their environmental impact. The researchers understand the necessity of this research to assess sustainable marketing practices in Pune and establish ways for businesses to meet growing sustainability requirements. Research findings will enable businesses to transform their operations according to shifting customer behaviors while decreasing environmental threats and advancing sustainability in economic activities

Problem statement

The Pune business district struggles with implementing sustainable marketing techniques even though sustainability becomes more critical in the global market alongside customer interest in ecologically responsible products. The majority of consumers and businesses in the Pune area lack knowledge about sustainable marketing benefits together with its importance. Multiple barriers including excessive expenses together with insufficient government backing as well as restricted resources stand in the way of adopting these practices. The divide between consumer

demands and business product offerings generates missed chances for economic development and environmental safeguarding. There is an existing problem that this research addresses by investigating sustainability hurdles while evaluating business methods to match market requirements and foster sustainability in the future.

Objectives

- To understand the level of awareness about sustainable marketing.
- To comprehend the role of sustainable marketing in creating an eco-friendly and socially responsible environment
- To analyse the impact of sustainable marketing practices on consumer purchasing behavior.

Research Methodology

The research design followed descriptive methods through structured questionnaires to study sustainable marketing effects on business strategies together with consumer behaviors within Pune. A total of 100 respondents from convenience sampling provided their data using both virtual and in-person survey methods. The study analyzed quantitative data through descriptive statistics and graphical representations in order to understand respondent responses regarding sustainable marketing awareness and purchasing behavior and perceptions.

Literature Review:

Prosenak et al. (2008) researched if marketing applies sufficient holistic models for societal welfare advancement alongside sustainability planning and studied how innovative economic growth during this social developmental stage reduced human drive for betterment. The analysis established over-specialization as the fundamental cause behind the elimination of comprehensive viewpoints which restricts people to restricted ways of thinking. According to this research the competitive phases of evolution generated specific cultural results which demonstrated that companies needed balanced societal benefits with their sustainable development throughout both global and domestic markets to maintain their advantages. The research findings showed that both innovation and market orientation fail to create genuine well-being since personal and social aspects need integration for meaningful progress.

(Saxena and Khandelwal, 2012) examined how durables and services together with nondurables measure green behavior alongside their strategic approaches for competitive gains in India's sustainable economic expansion phase. Developing countries serve as main contributors to global sustainable growth whereas developed nations take a backseat according to the research outcomes. Green products consumption among Indian consumers is increasing with industries possessing green images achieving sustainable business advantages that facilitate long-term sustainable development.

Sharma et al. (2018) conducted research on green and sustainable consumption trends in daily living activities of consumers through specific interview sessions with Indian participants. Consumers opted for sustainable consumption rather than green consumption because of limited information along with excessive prices and limited product availability. The investigation demonstrated that relying solely on consumer behavioral changes toward sustainable or green purchasing methods is inadequate to resolve environmental problems of the present.

Green technology companies with support from local governments work to establish sustainable purchasing mechanisms according to (Stritch et al., 2018). The research identified multiple essential elements for green technology companies to consider when dealing with governmental policies to adopt sustainable public buying procedures. Local governments need to establish partnerships with green technology firms to accomplish more effective sustainable public purchasing execution.

Through a questionnaire-based manner (Singla et al., 2018) investigated how India's manufacturing sector uses TP and DP strategies to achieve sustainable development. Due to numerous factors the research documented the reasons behind firms using TP-DP strategies to preserve their sustainable equilibrium. The research demonstrated that organizations usually implement TP strategies when driven by decreasing market positions or it reduces profits but also aims to boost operational success or fulfill official requirements.

Data Analysis

Survey Question		No	Maybe
Awareness of Sustainable Marketing		0	11
Sustainable marketing is positively impacting society	96	0	4
Environmental harm by Human Practices	83	0	17
Should companies put more effort into sustainable marketing	91	2	7
Buying Preference for Sustainable Brands	95	0	5
Price Willingness for Eco-friendly Products	81	1	18
Sustainable marketing will drive a more sustainable future	78	3	19
Information availability on Sustainable Products		11	30
Sustainable marketing initiatives increases in India recently		4	26
Sustainable marketing is a necessary trend for the future of			
business		0	8
Sustainable marketing can reduce the negative environmental			
impact of companies		0	4
Governments should promote sustainable marketing			
practices more aggressively		0	7
Sustainable marketing influences your purchasing decisions		8	14
Sustainable marketing gains more customer loyalty	92	0	8



Findings

- The majority of participants (89%) show knowledge about sustainable marketing while 96% strongly agree that sustainable marketing brings positive effects to society.
- The majority of respondents (83%) agree that environmental damage results from human activities.
- Eco-friendly products receive approval from most of the respondents who show interest in higher prices.
- A majority of 78% agrees that sustainable marketing produces a sustainable future
- Part of society lacks sufficient information about sustainable products
- The majority of people have observed stronger sustainable marketing activities emerge throughout India.
- The majority (92%) among the participants acknowledged sustainable marketing as an essential element for business success in the future.
- The majority of respondents feel that government should improve its promotion of sustainable marketing while 78% admit this approach actually affects their purchasing choices.
- The majority of respondents consider sustainable marketing strategies to strengthen customer loyalty.

Suggestions

- Public education about sustainable marketing together with eco-friendly products should be a focus for companies.
- People need better accessible and detailed product sustainability information to assist their purchasing decisions.
- Upfront financial support combined with marketing incentives should become a priority of governments for businesses that practice sustainable marketing.
- Forces in the market should develop strategies to decrease the cost and increase availability of environmentally friendly products.
- Organizations need to develop continuous sustainable initiatives in their entire supply chain network to enhance their ecological impact.
- Sustainable marketing has to become linked with long-term customer loyalty through brand value alignment with environmental concerns.

Conclusion

Public awareness of sustainable marketing continues to increase as this approach delivers positive effects for social welfare. Multiple survey participants understand sustainable marketing constitutes an essential component for business advancement alongside ecological sustainability. The emphasis on sustainable marketing efforts by businesses comes from its power to direct customer choices and maintain client devotion. Dissipating some potential difficulties exist regarding sustainable product pricing and the availability of information on green products. Eco-friendly practices depend on government partnerships with business operations and consumer alignment to deliver both cost-effective sustainable products and make them available to the public for a sustainable future to develop.

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Title: "Predictive Analytics for Customer Churn in the Streaming Industry"

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Abstract

The study "Predictive Analytics for Customer Churn in the Streaming Industry" explores why customers stay or leave streaming platforms. The survey focuses on how people get themselves engage with different content types, such as sports, action, drama and animation, to identify what keeps them satisfied. Using advanced data analysis, the study found that the content availability is a key factor in retaining customers. End users prefer personalized content, and many have mixed feelings about their current streaming services, creating opportunities for competitors to attract dissatisfied users. The study highlights how predictive analytics can help streaming companies reduce customer loss and company loss. By analyzing user behavior, companies can improve recommendations, enhance platform performance, and create targeted marketing strategies. This research includes the importance of data- driven decisions in keeping customers and ensuring perpetual succession in the highly competitive streaming industry.

Keywords: [Predictive analytics, Customer churn, logistic regression, Power BI, subscribers, streaming industry, Machine learning.]

1] Introduction

In the highly competitive streaming industry, keeping customers for long term is essential for success. Many platforms offering a vast range of entertainment options, customers loyalty has become unpredictable. Churn refers to the percentage of users who cancel their subscriptions within a specific period, and it remains a major challenge for streaming services. To maintain a strong subscriber base, companies must actively track and predict customer churn. Predictive analytics is a valuable solution to this issue. By analyzing past data and using statistical models and machine learning, companies can forecast customer behavior. In terms of churn, this means identifying patterns that signal when a user is likely to leave. With these insights, streaming services can take early action to retain customers before they unsubscribe.

Importance of study

Gaining new customers is much more expensive than keeping existing ones, making churn prediction essential for streaming services. By recognizing the factors that cause customers to leave, companies can enhance their services, boost customer satisfaction, and create personalized strategies to retain users. This helps reduce churn and increases customer lifetime value which measures of success for subscription businesses.

Furthermore, knowing why customers leave allows streaming platforms to improve their content selection, enhance user experience, and adjust pricing strategies to better meet different customer needs.

1.1] Objectives of Study

This research aims to:

- 1. To analyze customer churn patterns using predictive analytics techniques Logistic Regression and visualizing through Power BI.
- 2. To explore the impact of content personalization and customer engagement on churn rates and assess how these factors influence customer retention.

1.2] Scope of the Study

The study on customer churn in streaming platforms analyzes data to understand why customers leave. It collects customer details like demographics and viewing history to find patterns linked to churn. Predictive analytics, especially logistic regression, helps forecast which users may leave. Businesses use these insights to improve engagement and retention. The process involves defining objectives, gathering and cleaning data, using analytic tools. Predictive models assign scores to customers, enabling real-time decisions to reduce churn effectively. Power BI enhances predictive analytics by providing interactive data visualization and reporting.

2] Research Methodology

2.1] Problem statement

In this competitive world streaming industry, customer churn is one of the most significant challenges that companies face. Predictive customer churn accurately allows companies to take measures to improve retention, reduce loss of revenue, and maintain customer engagement.

2.2] Research design

The research design used for the study is analytical and descriptive in nature. This involves using facts and information available and analyzing them to evaluate customer churn in streaming industry. Analytical research design helps in examining existing datasets and applying logistic regression enabling evaluation of customer behaviour leading to churn.

This research focuses on proving accurate representation of the factors that influence customer churn and understanding how predictive analytics can aid in reducing churn.

Methods of Data collection

Secondary Data: The secondary data for this research was collected from the various databases of the streaming platforms. This data includes:

Primary Data: Although this study primarily relied on historical data from streaming platforms, primary data collection remains vital for gaining direct insights. Surveys and feedback forms are valuable for capturing customer satisfaction, engagement levels and preferences enriching the analysis beyond historical data.

- Customer demographics: Age, gender, location.
- Subscription history: Start/end dates, renewal patterns.
- Viewing habits: Preferred genres, viewing frequency.
- Churn information: Details of customers who have unsubscribed.

Additional secondary data was sourced from industry reports, articles and relevant websites to understand broader market trends and factors influencing churn in the streaming industry.

Research tools

- 1. Power BI
- 2. Microsoft Excel, Microsoft Word

Sampling Technique: Sequential Sampling Technique

Sample size: 3067 Subscription records.

3] Theoretical Concepts:

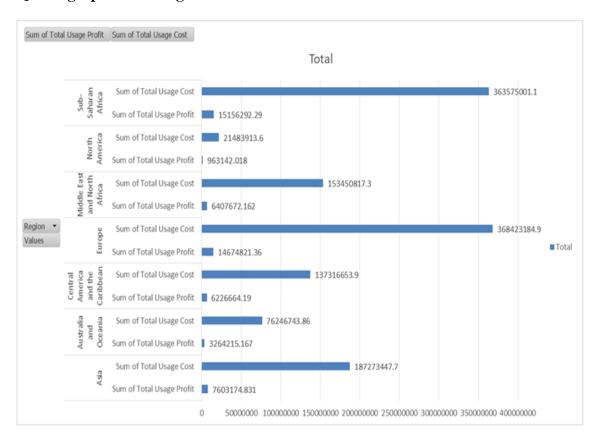
Predictive analytics leverages historical data to predict future outcomes using a combination of data mining, machine learning and statistical techniques. In the context of customer churn in the streaming industry, predictive analytics enables businesses to anticipate which customers are likely to cancel their subscription. Streaming platforms collect large amounts of data from their customers, including content preferences, viewing behavior and interactions with the platform. Predictive analytics is particularly valuable in the subscription- based business model of streaming platforms. Churn directly impacts recruiting revenue, customer lifetime value, and market share. With the insights generated through predictive analytics, companies can improve decision- making and customer relationship management (CRM) strategies to reduce churn and increase retention.

Logistic regression is particularly useful for predicting binary outcomes like churn, where the goal is to estimate the probability that a customer will churn based on their characteristics and behavior. In this technique it generated coefficients for each independent variable which indicates the strength and direction of their impact on churn.

Power BI is a business analytics tool that enables users to visualize data, generate insights, and make data- driven decisions. It provides interactive reports, dashboards and data modeling capabilities, helping businesses analyze and share insights efficiently.

4] Data Analysis:

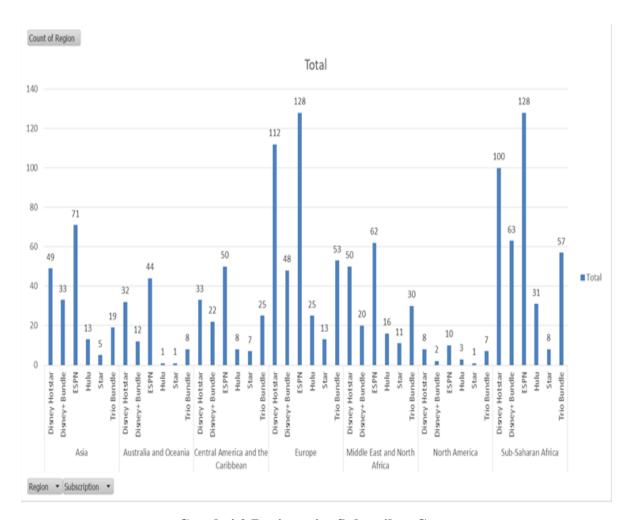
4.1] This graph shows Region wise Cost and Profit



Graph 4.1 Region wise Cost and Profit

4.1] Interpretation – The graph shows the total usage cost and profit across different regions, North America and Europe have the highest usage costs and profits, while Sub- Saharan Africa hs the lowest. The total usage cost is significantly higher than the total usage profit in all regions, suggesting a need to address cost optimization strategies.

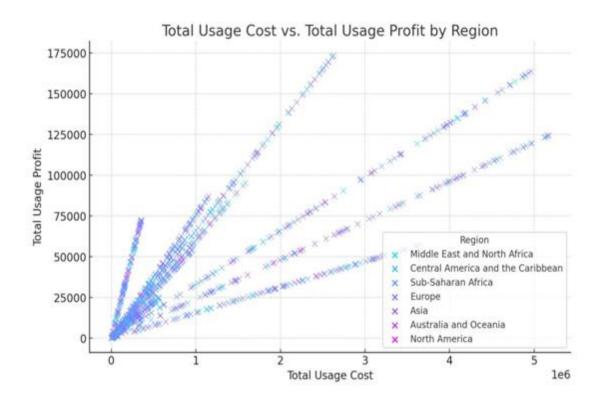
4.2] The graph shows Region wise Subscriber Count



Graph 4.2 Region wise Subscriber Count

4.2] Interpretation – This graph shows the distribution of subscription across different regions and services. North America and Europe have the highest number of subscription. Asia and Sub-Saharan Africa have significantly lower subscription numbers.

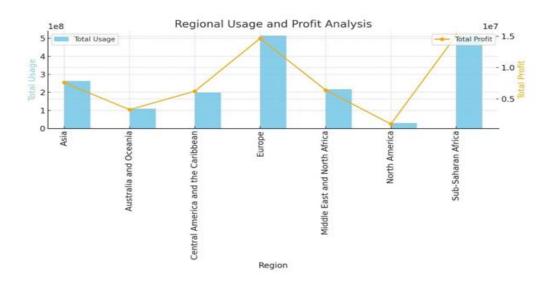
4.3] This graph shows Active Subscriber Usage Status



Graph 4.3 Active Subscriber Usage Status

4.3] Interpretation – This plot illustrates the relationship between total usage cost and total usage profit across various regions. Positive correlation is evident, suggesting that higher usage costs generally lead to increased profits. However, the data points for each region cluster differently, indicating variations in the cost- profit relationship. This variation might be due to factors like pricing strategies, market dynamics or operating costs specific to each region.

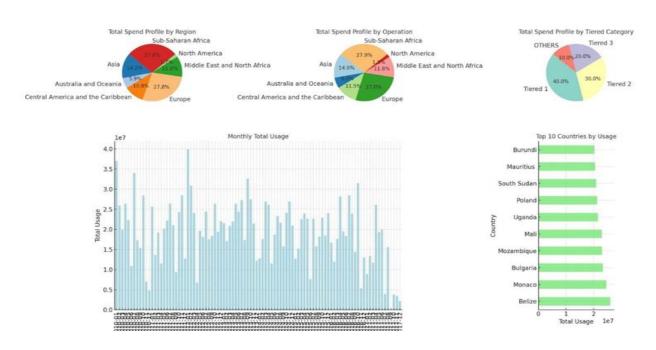
4.4] This graph shows the total usage profit over total usage cost with respect to region.



Graph 4.4 Total usage profit over total usage cost with respect to region.

4.4] Interpretation – This graph reveals significant regional disparities in usage and profit. This analysis suggests a need to investigate factors driving these variations, such as market size, pricing and competitive landscape.

4.5] This is Power BI dashboard



4.5] Interpretation

Certainly, let's condense the summary even further while retaining key information. This BI Report visualizes spending and usage trends.

- Regional Spending: Pie charts show regional spending, with Sub-Saharan Africa leading.
- Operational & Category Break down: Pie charts analyze spending by operation and tiered categories.
- Top Usage Countries: A bar graph ranks countries by usage volume.
- Usage trends: A time series graph tracks monthly usage fluctuations.

Key insights:

- Regional spending varies significantly.
- Tiered 1& 2 categories dominate spending.
- Usage patterns exhibit regional differences and seasonal trends.

Power BI Utilization:

- The image likely leverages Power BI's interactive features for deeper data exploration.
- This version aims for maximum brevity while still conveying the core message of the data visualization.

5] Key Findings:

- 1. Users who engage less are more likely to leave. They rarely log in or watch content. They feel the services lack value.
- 2. Personalized content helps in customer retention. Relevant recommendations keep users engaged. Fewer people cancel when content matches their interests.
- 3. Price strongly influences customer decisions. Many users leave due to high costs. They switch if the service feels overpriced.
- 4. New customers cancel more often. Those subscribed for less than three months are at risk. They leave if they don't find value quickly.
- 5. A smooth user experience retains customers. Slow speeds and poor design frustrate users. A well- functioning platform keeps them subscribed.
- 6. Churn rates vary by region. North Americans cancel due to competition. In Asia- Pacific, price and local content matter more.
- 7. Competition impacts retention. Users subscribe to multiple services. They keep platforms with exclusive or engaging content.

6] Conclusion

In this study it shows how predictive analytics can be applied to the streaming industry, particularly for predicting customer churn. By using Power BI, study analyzed and reported churn predictions, helping to create strategies for retaining customers. Machine learning models played a key role in predicting churn, and these predictions can guide actions to reduce churn rates.

The finding showed that factors such as content personalization, customer engagement, pricing sensitivity, and user experience significantly impact churn. Based on these insights, the study suggests actions like implementing retention strategies and offerings more flexible pricing options to reduce churn.

The results were presented using graphs and dashboard, which helped make the findings easier to understand. The study used machine learning techniques like logistic regression, assumptions, such as customers behave similarly across regions, were considered and addressed in the analysis.

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Title: "Revolutionizing Transaction-Central Bank Digital Currency (CBDC) and Unified Payment Interference (UPI)"

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Abstract

In Feb 2022 India's finance minister Niramala Sitaraman introduced CBDC. This currency is regulated by Central Bank of India. Indian government is spending lots of funds to promote digital currency. Indian digital currency is known as e-rupees. CBDC is digital form of physical currency each note have specific number like physical currency also governor signature is printed on it. This research undertakes a comparative analysis between Central Bank Digital Currency (CBDC) and Unified Payment System (UPI). This paper undertakes comparative analysis of Central Bank Digital Currency and Unified Payment System respective roles in driving digital revolution. Analysis will explore their common goal, advantages and limitations.

Keywords: [CBDC, UPI, Digital Currency, Cashless transaction, Banks]

Introduction-

Central Bank Digital Currency (CBDCs) are type of Digital Currency. It is introduced and regulate by Central Bank of India. Central Bank digital Currency and Unified Payment Interface plays different roles as CBDC is digital Currency and UPI is real time interbank transfer.

RBI has introduced CBDC in late 2022 it is known as E-rupees. CBDC is work similarly as physical currency such as safety, settlement, and transference transaction etc. In Feb 2022 Nirmala Sitaraman introduced Digital Currency. Digital currency overcome the expenses which occur due to physical currency like handling, security, transportation of cash,

ATM fees for cash withdrawal, CBCD works like physical cash each note have number on it like physical currency. It includes notes and coins. User can transfer money to the person who doesn't have bank account. Also, with help of CBDC cross-border transactions are possible. UPI facilitates transactions between existing bank account, whereas digital currency operates as separate digital assets. CBDC is a currency while UPI is mode of transfer of money. Like UPI there is no 3rd party involve in CBDC. RBI is control over CBDC. Settlement is immediate settlement CBDC, UPI takes time for settlement. In CBDC money transfer from one wallet to another while in UPI money transfer from one bank account to another bank account.

Following banks are included -:

- 1) State Bank of India
- 2) ICICI bank
- 3) Yes Bank
- 4) Bank of Baroda
- 5) Union Bank of India
- 6) Kotak Mahindra Bank
- 7) HDFC Bank

Objectives of the study

- To study the drivers of government initiative to replace physical currency to digital currency.
- To know structure of UPI and its role in India's digital payment system.
- To understand the difference between of CBDC and UPI (including benefits & challenges)

Research Methodology

This study includes descriptive research & desk research. Secondary data used in research data collected form research papers, articles, Central bank reports, commercial bank's reports.

Statement of research problem

Central bank digital Currency is new for users. A large part of population is not yet aware about CBDC. The study investigates whether CBDC works same as physical currency or CBDC is complicated to understand. This study also includes detail study of CBDC over UPI.

Relevance of the study

CBDC is accepted globally this study is helpful to understand the acceptance and growth of CBDC in India. It also includes the comparative study with UPI and assisting financial institutions in developing strategic frameworks.

Scope of the study

The conceptual scope of the study is Central Bank Digital Currency is introduced and regulated by Central Bank of India. This study covers the revolution of Central Bank Digital Currency and how it differs from Unified Payment Interference (UPI).

CBDC Vs UPI

Overview of Central Bank Digital Currency (CBDC)

More than 13 countries are adopted digital payment system. In India Digital rupees was proposed in January 2017 and launch in 1st December 2022. Digital currency is digital form of physical currency. It is a legal tender which regulated by central banks. RBI introduced CBDC is two form wholesale CBDC and retail CDBC. Main purpose of CBDC is providing business and customer transference, accessibility, convenience, privacy and security. CBDC proved way to users for cross border transaction. CBDC does not need any third party involvement. CBDC is stored in Digital wallet. Digital wallet is open at users' phone. One can store physical currency in that wallet just like we keep physical currency in purse and can transfer whenever required.

Type of CBDC

- Wholesale CBDC CBDC-W is used by the banks to transfer amounts to the other financial institutes.
- **Retail CBDC** CBDC-R is available for general public, private sectors, non-financial institutes, businesses.

Advantages of CBDC

- **Financial inclusion** CBDC has potential to bridge the financial inclusion gap by expanding access to financial services. It increases access to financial services for the unbanked and rural area population.
- **Hassle-free transaction** These methods enable fast and effortless money transfer, significantly reducing transaction cost and time. This innovation solution allows for rapid, low-cost transactions without the need for intermediaries.
- Safety and Security- CBDC being regulated by the central bank, provides secure and reliable form of digital currency. The transfer design of CBDCs provides a detailed record of all transactions, facilitating the detection and prevention of money laundering and other illicit activities.
- **Cross border transaction** CBDC facilitates fast and efficient cross-border transactions, reducing time and increase convenience.
- **Reduce expenses on cash handling-** The government can significantly reduce expenditures, including currency printing, transportation, ATM fees and intermediary charges, by transitioning from physical to digital currency.

Limitations of CBDC

- **Risk of Financial stability-** There should be risk of shifting large number of public to central bank from commercial bank it impacts reduction in funding of commercial banks. Due to limited fund their lending capacity and stability could reduce.
- **Technological infrastructure development** for successful implication of CBDC government has to develop proper technology it required large amount of investment. This is the big challenge for developing countries.
- **Privacy and security** through block chain technology all monetary transaction is gets access and record by central bank. Due to this privacy and security concern arise. Central bank has to balance privacy policy of users and money laundering activities.

Overview of Unified Payment Interference (UPI)

Unified payment system (UPI) is a real time payment system developed by National Payment Corporation of India (NPCI). UPI help users to make payments, transfer money and bill payments. It is real time money transfer between to banks. By using scanner, contact number users can make payment easily.

Merchants can receive payment by display QR code for customers to scan and make payments. It is mobile based transaction. By installing apps like Gpay, phone pay etc. customer can transfer and receive money easily. Customer can link multiple bank accounts with UPI and can easily transfer amount to self-account. UPI transactions are secure with two-factor authentications and encryptions.

Advantages of UPI

- **Instant and convenience** Unifies payment system is user friendly and quick way to transfer money from one person to another person. By using mobile app, it is easy to transfer money without remembering the bank account details.
- **Multiple payment options** UPI provides multiple payment option like transfer money by using contact number. Merchant can receive amount by displaying the QR code and customer can make payment by scanning the code. UPI provide facility to transfer amount from one bank to another bank.
- Access to multiple bank accounts- Users can access multiple bank account by one UPI
 app. UPI provide facility to link multiple bank account and credit card. It is easy for
 customer to access multiple account and credit card easily. Transfer of money to selfaccount is easy with UPI.
- Low transaction cost- For transfer of money UPI charges are low or negligible. There are zero charges for day-to-day transaction by general public. Sending money by UPI is almost free of any charges
- **Transition History-** UPI provides transaction history access facility. Customer can check past transaction by checking transaction history.

Limitations of UPI

- **Transaction limit-** There is transaction limit for money transfer by UPI. It is restriction on users while money transfers. Limit of transactions are varied as per bank and UPI.
- **Fraud risk-** Increasing transaction through UPI is raiser concern of fraud. UPI faces lot of security and risk issues. Due to lack of awareness among the people UPI frauds are increasing now a day. Robust security measure is an essential part of UPI system.
- Need Digital literacy and Infrastructure- Many people especially from rural area or less techno-savvy struggles while using UPI system. UPI is operated by mobile app. It needs internet connection. Unavailability of network connection is the barrier of transaction.

Literature Review

The study by **Ms. Aishwarya Kapoor, Dr. Rajiv Sindwani & Dr. Manisha Goel** explains the type of CBDC which is Retail CBDC for general public & wholesale CBDC for financial institutes who provide financial services like banks. This study includes opportunities brought by CBDC like enhancing Bank efficiency & capability, Possibility of enhance financial inclusion, cross border remittance with CBDC.

Harshdeep Kaur, in his research paper explains the history of money from barter system to Digital currency. He explain how digital currency introduced India. His focus was on journey of CBDC from 1st Feb. 2022 when Nirmala Sitaraman accounce the Indian government's

commencement to introduce Digital Currency. In this study also explains how Digital Currency adopted internationally. In 2021 86% of Central Bank were issue Digital Currency and 14% are in process to introduce the Digital Currency.

As per Jothish S, Dr. Preeti Garg, people in India prefer online payment system like net banking, UPI, Digital currency. From the survey of 110 people from different age group, income 70% of people uses digital payment as compared to Crypto currency E-rupees is secure to use. This study also highlights on challenges of CBDC in India.

Aditya Kulkarni & Victor De Rosal, state that over the 200 people of 84.2% participants are aware about Digital Rupees. In India young population is prefer Digital platform for payment. Students who are pursuing masters and young work force from IT industries have biggest support to Digital Rupees. UPI is the biggest competitor of CBDC.

D Priyadarshini, and Sabyasachi Kar, in their study explain the challenges and benefits face by Developing countries and Sovereign Nation. Benefits face by Developing countries are efficiency of Cross border payment, National CBDC to prevent dollarization by other countries and challenges are disintermediation of banks, accessibility and privacy, balancing financial integrity and privacy respectively legal regulatory consideration. While benefits for developing countries are possibility of better financial inclusion, possibility of digital safety net and challenges are need for adequate digital platform.

The researcher **Jasdeep Kaur** in his study explains the Cryptocurrency is not regulated by any bank there is the issue of securities that's why majority of counties are introduced their own digital currency. Also Cryptocurrency is no linked with any assets or currency that's why there is issue of fluctuation. People from regional area still not familiar with digital payment platform they need help to access digital platform. CBDC provide safe and convenient way to store and transfer of money. There are some risk factors also with CBDC like Cyber fraud, decrease in deposit in banks, etc. due to this concern RBI decided to move slowly and steadily, whereas initial focus is wholesale CBDC.

Main objective of **Dr. E. Vanajakshi**l's study is identifying the difference between CBDC and UPI. Since 2016 to 2022 till Dec. 2022 UPI processed over 1000 core transition per month. UPI is most probably use for person to persona and Person to Merchant transitions. CBDC is new concept for Indian public as around 13 countries issue their won digital Currency. As compare to UPI CDBC is more secure digital platform.

Conclusion

CBDC and UPI are two different approaches to digital payments, but they can work together. CBDC gives central banks more control over money and provide facility to transfer money internationally. On the other hand, UPI is mode of money transfer. It helps the people access financial services digitally and making digital payment more popular. CBDC is operated by Central Banks there is no requirements of any commercial banks or any financial institutes, while for UPI bank account is mandatory for users. UPI is the transfer of money from one bank account to another bank account. CBDC works offline but UPI need good network connection. In the future will be find the combine of both the systems. Integrating CBDC with UPI could make the payment system stronger and more reliable.

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Title: "A Study on Impact of Digital Payments on Customers Satisfaction"

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Abstract

This study explores how digital payments have changed the way of handling money. The main purpose of this study is to highlight the benefits of digital payments, such as faster transactions, lower costs and lower risks related with cash. But there are also some drawbacks of the digital payment because of that customers' satisfaction level was reduced and because of that they have less trust on digital payment. From the last few years various digital payment methods have been introduced in the market and day by day customers are getting familiar with digital payment mode for doing any type of money transaction. For this project, we used questionnaire and other data. The paper also talks about how digital payments are improving and growing. As we know technology is improving day by day that's why digital payments will become easier and safest platform for customers, which will improve the customer experience and help more people access financial services.

The increasing demand for cashless transactions across the world has significantly changed the consumers' perception towards electronic payment systems and their adoption. Digital payment system has made the life of the customer easier. However, consumers are worried about information leakage and sharing of personal data while doing digital transactions.

Keywords: [Digital Payments, Customer Satisfaction, Financial Technology, Security, Economic Impact, Future Trends]

1] Introduction

This research work determines the level of customers' satisfaction with digital payment systems in Pune, Maharashtra, India. The use of digital payments has been on the rise globally and has shifted the way people manage their money. A shift to digital payments is because of improved access to smartphones and the internet, new innovations in easily usable mobile applications, and enhancements by the government and other companies to encourage the use of digital services. Digital platforms are very popular because of their convenience, speed and security. Digital payment systems are beneficial in many ways, including fast funds transfer, cost effectiveness, and enhanced security through measures such as encryption and biometric authentication. These features reduce many risks that are associated with cash transactions such as theft, loss of money, or forgery. Digital payments also provide a better way of making financial transactions more transparent and accountable. Moreover, the development of digital payment infrastructure has

extended the reach of financial services to the unbanked and the underserved, particularly in rural and isolated areas.

India's fast digital growth has deeply changed its financial system, bringing in a time of cashless transactions. The main part of this change is digital payment systems, which include online payment platforms, the Unified Payments Interface (UPI), and e-wallet services. This research looks into the important parts of this changing system, focusing on what users think and how they feel about these technologies. It is very important for policymakers, banks and businesses to understand what encourages people to use digital payments, the problems they face, and their overall experience. This research work aims to give a complete analysis of the current situation of digital payments in India. It focuses on how consumes behave and think about UPI and E-Wallet systems, helping to better understand the country's changing cashless economy. It will also look at how government programs like Digital India have affected the use and adoption of these technologies. The research will also study how new technology and the changing needs and expectations of Indian consumers are connected. An important part of this research work will be comparing different digital payment systems, pointing out their strengths and weaknesses in terms of ease of use, security and overall effectiveness. Finally, the research will look into the gaps and limitations in current studies about how consumers behave when it comes to digital payments in India.

2] Objectives of the Study

- 1. To know how digital payments enhance customer satisfaction.
- 2. To identify key benefits such as efficiency, security, and convenience.
- 3. To explore the challenges faced by users, including security risks and technical issues.
- 4. To analyze customer satisfaction with digital payment systems based on ease of use, security, and transaction speed.

3] Research Methodology

3.1] Statement of the Research Problem

With the fast growth of digital payments in India, it is important to understand how they effect on customers' satisfaction. Digital payments provide convenience, speed, and financial access, but problems like security risks, technical issues, and government rules can impact user trust and experience. This study will examine how digital payment systems influence customer satisfaction, focusing on ease of use, safety, reliability, and availability, especially in Pune, Maharashtra.

3.2] Research Design

This study adopts a descriptive research design with a quantitative approach to analyze the impact of digital payments on customer satisfaction. The primary data was collected through a structured questionnaire to gather insights on users' preferences, challenges, satisfaction levels, and perceptions toward digital payment systems.

3.3] Sampling Method and Data Collection

Primary data was collected using a closed-ended questionnaire distributed both online and offline. A convenience sampling method was employed to select participants from Pune, Maharashtra. This non-probability sampling technique was chosen due to its practicality and accessibility, given the localized focus of the study. The target population included individuals aged 18 and above who have used digital payment methods at least once.

3.4] Sample Size

The study surveyed 52 respondents, ensuring a diverse representation across age groups, genders, and occupations.

3.5] Limitations of the Methodology

- The small sample size (52 respondents) limits generalizability.
- Convenience sampling may introduce selection bias.
- The study's focus on Pune restricts its applicability to other regions.

4] Data Analysis & Interpretation

4.1 Age:-

Age Group	Response	Percentage
18-24	9	17.3%
25-30	30	57.7%
30-35	12	23.1%
Above 40	1	1.9%
Total	52	100%

Table no. 4.1.1 (Source: Primary Data)

• **Interpretation:** - From the above table, it has been interpreted that the majority of respondents (57.5) belong to the 25-30 age group, indicating that most active users of digital payments.

4.2. Gender:-

Age	Response	Percentage
Male	36	70.60%
Female	16	29.4%
Total	52	100%

Table no. 4.2.1 (Source: Primary Data)

• **Interpretation:** - From the above tablet it has been interpreted that, 70.6% of respondents are male as compared to women, suggesting a higher adoption of digital payment.

4.3 Occupation:-

Type	Response	Percentage
Student	8	15.40%
Employed	33	63.5%
Self-Employed	8	15.4%
Unemployed	3	5.8%
Total	52	100%

Table no. 4.3.1 (Source: Primary Data)

• **Interpretation:** - From the above chart, it has been interpreted that most respondents (63.5%) are working professionals.

4.4 How often do you use digital payment methods?

Type	Response	Percentage
Almost daily	23	44.20%
Rarely	29	55.8%
Never use	0	0.00%
Total	52	100%

Table no. 4.4.1 (Source: Primary Data)

• **Interpretation:** - 44.2% of respondents use digital payments almost daily, while 55.8% use them rarely, it means since digital payments are popular, cash transactions are still being used by some consumers.

4.5 Which digital payment methods do you use?

Type	Response	Percentage
Internet Banking	7	13.5%
Credit/Debit Card	11	21.50%

UPI (e.g., Paytm, Google Pay, Phone Pay)	34	65.40%
Total	52	100%

Table no. 4.5.1 (Source: Primary Data)

• **Interpretation:** 65.4% of users prefer UPI (Google Pay, Paytm, PhonePe) over other methods like credit/debit cards or internet banking, highting UPI's ease of use and accessibility.

4.6 For what purposes do you primarily use digital payments?

Type	Response	Percentage
Shopping	18	34.60%
Bill Payment	23	44.2%
Money transfer	11	21.2%
Total	52	100%

Table no. 4.6.1 (Source: Primary Data)

• **Interpretation:-** From the above information is has been interpreted that respondents use digital payment to pay Bill Payment (44.2%) and shopping (34.6%) the most.

4.7 What do you consider the main advantages of using digital payments?

Type	Response	Percentage
Convenience	9	17.3%
Speed of	10	19.20%
transaction		
Security	11	21.2%
Record-keeping	8	15.4%
All of Above	14	26.9%
Total	52	100%

Table no. 4.7.1 (Source: Primary Data)

• **Interpretation:-** From the above chart it has been interpreted that most of the respondents thinks the key advantages of digital payments are security (21.2%), transaction speed (19.2%), and Convenience (17.3%). Also 26.9% believe all these factors contribute to their preference for digital transaction.

4.8 Have you used digital payments for international transactions?

Type	Response	Percentage
Yes	11	21.2%
No	41	78.80%
Total	52	100%

Table no. 4.8.1 (Source: Primary Data)

• **Interpretation:-** From the above information it has been interpreted that 78.8% of respondents have never used digital payments for international transactions indicates that lover confidence or accessibility for cross border payments.

4.9 What are the main challenges you face while using digital payments?

Туре	Response	Percentage
Lack of digital literacy	9	17.3%
Internet connectivity issue	30	57.7%
Security concerns	13	25.0%
Total	52	100%

Table no. 4.9.1 (Source: Primary Data)

• **Interpretation:-** From the information it has been interpreted that Internet connectivity (57.7%) is the biggest challenge faced by users, followed by security concerns (25%) and digital knowledge (17.3%). It shows that awareness plays an important role in digital payment adoption.

4.10 How do you resolve issues related to digital payments?

Туре	Response	Percentage
Contact Customer	14	27.5%
Support		
Branch Visit	22	43.1%
Use online help forum	15	29.4%
Total	52	100%

Table no. 4.10.1 (Source: Primary Data)

• **Interpretation:-** From the above chart it has been interpreted that 43.1% respondents prefer visiting a bank branch to resolve issues, showing that some users still rely on traditional banking services when they face technical problems.

4.11 What is your preferred method of receiving digital payment receipts?

Type	Response	Percentage
Email	18	34.6%
SMS	21	40.40%
App Notification	13	25%
Paper printout	0	0%
Total	52	100%

Table no. 4.11.1 (Source: Primary Data)

• **Interpretation:** As per the research 40.4% of responders prefer receiving digital payment receipts via SMS, followed by 34.6% via email it means they gave preference for mobile-based notifications.

4.12 Is digital payments influence your budgeting and financial planning?

Type	Response	Percentage
Yes	18	34.60%
Not sure	21	40.40%
No	13	25%
Total	52	100%

Table no. 4.12.1 (Source: Primary Data)

• **Interpretation:-** From the above information it has been interpreted that their is a mixed perception of digital transaction' impact on budgeting, because 34.6% respondents believe digital payments influence their financial planning, while 40.4% are unsure,

4.13 Have you ever experienced any fraud or unauthorized transactions with digital payments?

Type	Response	Percentage
No	35	67.3%
Yes	17	32.7%
Total	52	100%

Table no. 4.13.1 (Source: Primary Data)

• Interpretation: - From the above information it has been interpreted that 67.3% of respondents have never experience fraud or unauthorized transactions, while 32.7% have faced such issues, indicating that security remains a major concern for users.

4.14 What improvements would you like to see in digital payment systems?

Туре	Response	Percentage
Better security measures	23	44.2%
Lower transaction fees	17	32.7%
Wider acceptance	12	23.1%
Total	52	100%

Table no. 4.14.1 (Source: Primary Data)

• **Interpretation:-** As per the research 44.2% of respondents want better security measures, while 32.7 % demand lower transaction fees, suggesting that security improvements are necessary for increased trust in digital payment.

4.15 How comfortable are you with the idea of a cashless society?

Туре	Response	Percentage
Very comfortable	13	25%
Somewhat comfortable	24	46.2%
Neutral	14	25.9%
Very uncomfortable	01	1.9%
Total	52	100%

Table no. 4.15.1 (Source: Primary Data)

• **Interpretation:** - From the above information it has been interpreted that 46.2% of respondents are somewhat comfortable with a cashless society, while 25% are very comfortable, indicating that digital transactions are widely accepted, though some concerns remain.

4.16 How satisfied are you with digital payment services?

Type	Response	Percentage
1	0	0%
2	1	1.9%
3	21	40.4%
4	24	46.2%
5	6	11.5%
Total	52	100%

Table no. 4.16.1 (Source: Primary Data)

• **Interpretation:**-From the above graph it has been interpreted that 46.2% of respondents rated their satisfaction with digital payment services as 4 out of 5, showing a generally high level satisfaction.

5] Discussion & Findings

- Most people prefer UPI for digital payments over other methods like credit/debit cards or net banking. UPI is the most preferred digital payment method, because of its convenience and user-friendly interface.
- Most of the users use digital banking on the daily basis and they satisfied with it.
 However, Internet Connectivity is the biggest challenge, affecting smooth digital transactions.
- Security remains a major concern for many users, and improvements are required.

• Most users are satisfied with digital payment services, but demand better security and lower fees for improved trust and usability.

6] Suggestions

- Some awareness programs should be arranged, which will guides about the digital payment system and how it works and how we should take care of our own money by not clicking on various links and take care that not getting into various frauds.
- There should be a dedicated support system to quickly address technical issues and ensure minimal downtime. 27/7 customer support system with quicker response times for fraud and transaction failures.
- Lower transaction charges for smaller transactions to encourage cashless payments.

7] Conclusion

The study on the Impact of Digital payment on customers' satisfaction reveals that digital transactions have significantly transformed financial behavior, particularly in Pune. The widespread adoption of UPI and other digital payment platforms has made transactions faster, more convenient and secure. However, challenges such as internet connectivity, security concerns, and lack of knowledge still hinder. Advanced security features like encryption and biometric authentication have helped build user trust by reducing fraud. Since digital transactions are cheaper and reduce the need for physical banks, they have saved money for both customers and businesses. Digital payment is rapidly spreading all over the world, in upcoming years it will replace other traditional methods of payment.

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