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INVISIBLE CONSUMPTION IN THE DIGITAL ECONOMY: SPENDING BEHAVIOUR ON NON-OWNED DIGITAL PRODUCTS AMONG CENTRAL GUJARAT.

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ABSTRACT

Giving a boost to consumer behaviour, the digital economy has given rise to the so-called shift from an economy of possession to an economy of use, or else digital economy of consumption. The study is about consumer spending attitude to the category of some non-owned digital products such as streaming service, cloud storage, premium applications, virtual goods, and online memberships of the residents of Central Gujarat. Data were obtained from a structured questionnaire, 105 respondents were involved making the study to be quantitative research design. Data analysis was performed using descriptive statistics, reliability analysis, one sample t-test, simple linear regression and Pearson correlation. Results indicated a positive attitude of the consumer towards invisible digital consumption, and the measurement is reliable based on the value of Cronbach's Alpha obtained 0.818. All of the tests showed that spending behaviour was significantly higher than the neutral level to support this, the one-sample t-test was run. Results from regression analysis revealed that aspects such as convenience, accessibility, affordability and others had positive impacts on their willingness to spend more and Pearson correlation analysis showed that there was a significant positive relationship between perceived value and spending attitude. Based on the above the study gives a conclusion that invisible digital consumption as part of consumer expenditure has become an important constituent in Central Gujarat.

KEYWORDS: Digital Economy, Invisible Consumption, Digital Products, Subscription Services, Virtual Goods, Consumer Spending Behaviour, Non-Owned Assets, Streaming Platforms, Digital Ownership, Central Gujarat

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INTRODUCTION

The digital economy is rapidly growing and evolving, and this has changed how consumers discover, consume and finance products and services. The perception of consumption has traditionally been linked to ownership of tangible products, but with the development of digital platforms the preference for consumption is now shifting towards access and subscription-based. People are now more likely to pay for others' content — think streaming services, cloud storage, online games and content, virtual goods, mobile apps, software licenses and digital memberships. To mark this process, sometimes called "invisible consumption," are activities for which payments are made without the acquisition of property, but rather of a license to use or temporary access.

Digital services have had a significant impact on consumer spend in urban and semi-urban areas. From movie streaming subscriptions and music platforms, to e-books and online learning portfolios, to virtual gaming assets, consumers are now spending a share of their incomes on products that have no tangible physical form. These items might not be seen, but they still form a significant part of household spending, and influence current consumption patterns.

Research Paper

The demand for non-ownership, digital products has geared up in India as a result of the growing penetration of the internet, cheap mobile phones, electronic payment systems and the vast adoption of eCommerce platforms. So Central Gujarat with all the economically active cities and emerging urban centres provide the appropriate context to explore the perception and participation of consumers in such a digital expenditure. Analysing why the money is being spent, how often it is used, how consumers feel about the value, and consumers' attitudes toward digital ownership can deliver valuable data as to what drives market shifts and trends.

The notion of hidden consumption also poses policies and practices questions on financial literacy, spending behaviour and sustained consumer satisfaction. With the growth of digital services, businesses and policy makers need to grasp the consumer assessment of value for products that they don't own. So, in this study the researcher has set a target to investigate the action towards spending money on non-owned digital products of consumers in central Gujarat and see what aspects affect their involvement in the digital consumption value chain.

LITERATURE REVIEW

Content analysis reveals that in both the developed and developing economies the literature highlighted that the digital economy has significantly shifted the current governance, business practices and consumer consumption patterns. Namraksa (2024) asserted that technical/digital skills help to generate income and future financial gains. Junchairussamee (2025) highlighted how blockchain can make digital governance more efficient, transparent and trustworthy, whereas Guo and Waked (2025) concluded that the negative consumption impact of population ageing can be mitigated by using digital economy development, by expanding digital literacy and financial inclusion. According to He, Zeng, and Zhou (2025), while there are obstacles to infrastructure and data governance, digital technologies enhance the consumption experience. Moreover, Randive and Joshi (2025), Kharbanda and Chawla (2025), and Wardani, Soleh, and Fitriano (2025) found that digital payment, cashback policies, e-wallet and e-money have a significant positive effect on consumer spending and excessive purchases. Nuel-Okoli, Okoli, Scholastica (2026) and Chaudhari (2026) showed that digital transformation and digital marketing can boost the competitiveness of the organization; improve customer engagement; and expand the market. The study conducted by Srivastava et al. (2026), Chalimatus Sa'diah and Shanti Nugroho Sulistyowati (2026), Geetha and Aishwariya (2026), and Lalwani (2026) all indicated that factors such as UPI adoption, digital payments, convenience, and trust were substantial factors in spending behaviour, while financial discipline, privacy, and cybersecurity were identified as concerns. In addition, according to Ranjan (2026), Geethasaranya (2026), Christian, Madhu, Makwana, and Limbachiya (2026), Jin (2026), and Razdan (2026), the digital platforms, artificial intelligence-driven services, social media, and fast food delivery systems have transformed the purchasing process, offering improved convenience, personalization, accessibility, and financial inclusion. Yet, while a lot was studied about digital payments and digital commerce and digital transformation, not much was studied regarding spending by consumers on non-owned digital products like streaming subscriptions, Cloud storage, premium applications, virtual goods, and other types of invisible spending on digital products. Their indirect of indirect differences present a good base for the present study on spending behaviour towards non-owned digital products in Central Gujarat.

RESEARCH GAP

Previous research into digital consumption has mostly involved digital commerce transactions, online shopping behaviour, technology diffusion and digital payment systems. There has been little work directly exploring the concept of 'invisible consumption' which is the case for both non-owned digital products, such as virtual goods and access-based services, and subscriptions. Moreover, the majority of research has been performed in western countries and there is a lack of empirical findings in regional Indian settings. The study areas in Central Gujarat show a lack of consumers' research in the perception, expenditure and attitudes of people within digital ownership in general. This study aims to fill this gap and introduce primary evidence on consumer spending behaviour on non-owned digital products in the context of an emerging Digital economy.

RESEARCH OBJECTIVES

1. To examine the level of consumer spending behaviour towards non-owned digital products and services among residents of Central Gujarat.
2. To examine the influence of convenience, accessibility, affordability, and related factors on consumers' willingness to increase spending on non-owned digital products among residents of Central Gujarat.
3. To examine the relationship between the perceived value of non-owned digital products and consumers' spending behaviour among residents of Central Gujarat.

RESEARCH METHODOLOGY

Research Design: Descriptive - Quantitative research design.

Research Approach: Survey methods and use of Primary source data.

Study area: Central Gujarat area.

Sample Size: 105 respondents.

Sampling Technique: Structured Questionnaire based survey (Sampling technique is not clearly articulated in the papers).

Source of Data: Primary data obtained with the help of structured questionnaire.

Data Analysis Software: SPSS (Statistical Package for the Social Sciences).

Reliability Test: Cronbach's Alpha = 0.818, as a result of Cronbach's Alpha Test, the instrument has high internal consistency.

Statistical Tools Used: Descriptive Statistics

One-Sample t-Test : Simple Linear regression analysis

Pearson Correlation Analysis
Variables Studied: Spending Behaviour
Influence Factors (Convenience, Accessibility, Affordability)

DATA ANALYSIS AND INTERPRETATION

According to the descriptive statistics, there was no missing case in the study and the number of valid respondent was 105. As seen in the average of the demographic profile, the sample is relatively young (Mean age group = 5.67) and knowledgeable (Mean educational qualification = 2.40), and earns a monthly personal income of 2.56 (which is relatively high). According to the results of the reliability test, the measurement of the scale could be concluded as the reliability and alpha Cronbach's score in the measurement of indicators was very high, namely 11 indicators with an alpha Cronbach's score of 0.818, this was because the internal consistency of the instrument was very good. The mean score for each item is between 3.87 and 4.14, which shows that general attitude of the subjects is positive with regard to the spending of non-owned digital products. The largest means, respectively, were 4.14 (SD = 0.91) for "Convenience motivates me to purchase non-owned digital products", 4.06 for paid streaming platforms and perceived value for money, indicating that convenience, accessibility and value are the greatest motives for invisible digital consumption. Opinions also reflected satisfaction with Digital subscription and would be ready to spend more on them and continue doing so in the future, which in general shows how well subscription in Digital services has connected with the spending behaviour of the respondents in Central Gujarat.

Null Hypothesis (H_0)
The mean spending behaviour score of consumers towards non-owned digital products and services among residents of Central Gujarat is not significantly different from the neutral level ($\mu = 3$).

Alternative Hypothesis (H_1)
The mean spending behaviour score of consumers towards non-owned digital products and services among residents of Central Gujarat is significantly higher than the neutral level ($\mu > 3$).

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Spending Behaviour Score	105	3.9619	.71031	.06932

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Spending Behaviour Score	13.876	104	.000	.96190	.8244	1.0994

One-sample t-test was performed to see if there was a significant difference between the mean spending behaviour score and the neutral score of 3. As per the results, the mean of the respondents was 3.96 (SD = 0.71) which is significantly higher than the test value ($t = 13.876$, $df = 104$, $p < 0.001$). The mean difference was 0.962 with a 95% confidence interval of (0.824, 1.099) meaning the true mean of the population is significantly greater than the neutral value. The p value is < 0.05, so we reject the null hypothesis and accept the alternative hypothesis. The results reveal that there is a significant positive level of spending behaviour among the residents of Central Gujarat towards non-owned digital products and services, indicating subscription and access-based digital consumption has gained hold among the respondents.

Null Hypothesis (H_0)
Convenience, accessibility, affordability, and related influence factors do not have a significant effect on consumers' willingness to increase spending on non-owned digital products among residents of Central Gujarat.

Alternative Hypothesis (H_1)
Convenience, accessibility, affordability, and related influence factors have a significant positive effect on consumers' willingness to increase spending on non-owned digital products among residents of Central Gujarat.

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.308[a]	.095	.086	1.01882
a. Predictors: (Constant), Influence Factors Score				

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	11.220	1	11.220	10.809	.001[b]
	Residual	106.913	103	1.038		
	Total	118.133	104			
a. Dependent Variable: I am willing to increase my spending on digital subscriptions in the future.						
b. Predictors: (Constant), Influence Factors Score						

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.991	.579		3.437	.001
	Influence Factors Score	.470	.143	.308	3.288	.001
a. Dependent Variable: I am willing to increase my spending on digital subscriptions in the future.						

To analyse the influence of the consumers increase their spending on non-owned digital products, the influence factors (convenience, accessibility, affordability, and relations) were included in this study and analysed by simple linear regression analysis. This model was statistically significant ($F = 10.809$, $p = 0.001$), meaning that the predictor has a significant predictive effect on the variation in intention to spend of consumers in the future. The model results showed R of 0.308 and R^2 of 0.095, indicating that the influence factors determined in the model were able to explain the variation in the intention to increase spending by as much as 9.5%. The regression coefficient of the Influence Factors Score was positive and significant ($\beta = 0.308$, $B = 0.470$, $t = 3.288$, $p = 0.001$), indicating that the more convenient, accessible, affordable and beneficial a non-owned digital product is to shop for, the more willing individuals are to spend on the product. Since the p-value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. The results show that such factors have a very positive impact on the future purchase decisions of consumers over subscription based products and other non owned digital products by the consumer in central Gujarat.

Null Hypothesis (H_0)

There is no significant relationship between the perceived value of non-owned digital products and consumers' spending behaviour among residents of Central Gujarat.

Alternative Hypothesis (H_1)
There is a significant positive relationship between the perceived value of non-owned digital products and consumers' spending behaviour among residents of Central Gujarat.

Correlations			
		Spending Behaviour Score	Perceived Value Score
Spending Behaviour Score	Pearson Correlation	1	.586
	Sig. (2-tailed)		.000
	N	105	105
Perceived Value Score	Pearson Correlation	.586	1
	Sig. (2-tailed)	.000	
	N	105	105

To investigate the correlations between the perceived value of non-owned digital products and consumers' spending behaviour, a Pearson correlation analysis was used. Results showed a moderately strong positive correlation between variables ($r = 0.586$, $p < 0.001$, $N = 105$). It suggests that consumers' subjective value judgment for non-owned digital goods and services is more likely to result in higher spending behaviours on non-owned digital goods and services. The strong positive correlation indicates that as people perceive the value of a digitized product to be higher, they spend more money on such products, which are often subscription-based. As the p-value is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis. Thus it can be concluded that the perceived value has significant positive relationship with buying behaviour of the consumers of non-owned digital products in Central Gujarat.

CONCLUSION

The study results show that the consumers of Central Gujarat have been inclined to spend on non-owned digital products/services like cloud storage, premium applications, subscription model digital contents, streaming services, etc. Based on descriptive statistics, it was found that the overall attitude for the variables on the measurement scale was positive, while the reliability of the measurement scale was 0.818 which is classified as very reliable. The one-sample t-test showed that the mean of the overall spending behaviour score was significantly higher than the neutral mean score (Mean = 3.96), confirming widespread acceptance of the attitude of access-based digital consumption. Results of the regression analysis further showed that convenience, accessibility, affordability, and related influence factors significantly impact consumers' intentions to spend more on digital subscriptions in the future, but that these factors only accounted for a small variance (9.5%) in consumer behavior. Furthermore, Pearson correlation analysis indicated that there is a fair strong positive correlation between Perceived Value and Spending behaviour ($r = 0.586$, $p < 0.001$) which indicate that consumers who find the product digital products to be valuable are more likely to spend on such products if they do not own them. It concludes that invisible digital consumption is gaining ground as a habit of the consumers spending behaviour in Central Gujarat overall. This shift from ownership to access-based consumption is explained by convenience, perceived value and affordability, which are all characteristics of the emerging digital economy and consumer preference regarding subscription-based digital consumption.

Recommendations

From the results, it can be concluded that digital service providers need to improve the perceived value by creating high quality contents, providing personalization, and providing flexible subscription plan. Pricing that does not strain customers' budgets, and subscription packages that include additional value can also help drive customer retention and adoption. To enhance user experience, seamless and easy to navigate experience across multiple devices and platforms should be catered for a company. Exclusive digital offers, freebies, and value-added messaging focused on convenience can bolster hard consumer decisions to subscribe. There is a also need for digital literacy and a secure digital payment system so as to build the confidence of consumers, which should be encouraged by policy makers and digital businesses. Future studies could include a look at other psychological, technological and social determinants that may impact invisible digital consumption by region and demographic.

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