© March 2026 | MR2603 | Volume 1 | Issue 1 | ISSN: ISSN: 3107-7536 (Online)
Vyavahāra: International Journal of Commerce, Ethics, Law & Management

IMPACT OF AI-POWERED CONTENT ON GEN Z CONSUMER ATTENTION SPAN AND PRODUCTIVITY IN THE DIGITAL ECONOMY

Dr. K. R. RADHIKA[1], AMIRTHAVARSHINI B[2], DIVYA M[3]

[1] Assistant Professor, B.Com (Professional Accounting), Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet, Chennai - 44, India, radhika.kr@sdnbvc.edu.in

[2] [3]Student, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet, Chennai - 44, India, bamirthavarshini@gmail.com | divya040906@gmail.com

ABSTRACT:

Artificial Intelligence (AI) is experiencing a phenomenal expansion that is transforming the digital economy by changing how digital content is created, distributed and consumed. Technology that is AI-powered has become a key influencer of online experience in the form of personalized recommendations, computer generated content, and adaptive learning systems. Generation Z (Gen Z) has experienced digital revolution since childhood, which affected their attention and engagement patterns as well as their academic behaviours. This research investigates how AI-supported content, tailored digital spaces and their impact on attention span and academic productivity in Gen Z consumers. AI-supported tools undoubtedly provide benefits regarding the facilitation of access, personalized learning and more efficient task solving, but may also come with downsides: splitting attention and increased reliance on automated systems. Finally, by framing the debate in the larger setting of the digital economy, the study seeks to lay a conceptual foundation for how AI-enabled personalization impacts not only consumer behavior but academic performance among Gen Z's.

Keywords: Artificial Intelligence (AI), Algorithmic Personalization, Generation Z, Attention Economy, Academic Productivity.

1. INTRODUCTION

The digital economy has rapidly expanded, causing major changes in how information is produced, disseminated, and consumed in various fields such as marketing, education, entertainment, and commerce. A central factor that led to this transformation is the use of Artificial intelligence (AI), which has been further enhanced by the extensive adoption of smartphones, high-speed internet, and digital platforms, significantly changing the global consumer behavior and patterns of content consumption. AI through automated content generation, predictive analytics, and algorithm-based personalization can analyse user data and behaviour. Such systems are increasingly determining what people read, watch, buy, or

learn, leading to the growth of the attention economy where user engagement defines platform value and market dominance. Gen Z is the very first generation to be completely digitally connected. The whole Gen Z has been exposed to personalized content feeds, short-form media, and AI-powered recommender systems since childhood. On the one hand, such personalization increases relevance and convenience; on the other hand, it might lead to problems with attention span, multitasking, and deep information processing.

Some AI educational solutions such as adaptive learning platforms and intelligent tutoring systems are capable of facilitating personalized learning and help students achieve academic efficiency. Still, over-reliance on AI as well as continuous exposure to short-form content can damage critical thinking and deep learning, thus more systematic empirical research on the long-term effects of AI is highly warranted.

2. REVIEW OF LITERATURE

Smith and Anderson (2016) looked at the rise of social media platforms controlled by algorithms and discovered that providing users with personalized content greatly increased the time they spent being engaged. Their research underlined how recommendation systems play a major role in creating consumer exposure patterns while at the same time strengthening content consumption cycles. Nonetheless, their work basically centred on engagement metrics and did not consider cognitive or academic effects.

Turel and Qahri, Saremi (2016) investigated how social networking platforms impact one's ability to regulate attention and found that uncontrolled exposure through algorithms results in diminished self-regulation and a greater tendency to multitask. Their data revealed that the layout of digital platforms has a direct effect on how people's attention is scattered, especially in the case of the younger generation.

Alalwan et al. (2017) analysed how consumers came to accept AI based digital services and found that when the technology was seen as useful and easy to use, these factors had a very strong impact on technology acceptance. Even though their research gave some clues to behavioural intention, they did not look at the issue of productivity in academic settings.

Montag and Walla (2018) conducted an analysis on the psychological impacts of short digital content and found that the repeated use of algorithm-curated feeds might lead to a decline in people's ability to concentrate for longer periods. The study pointed out that it is necessary to examine the cognitive effects that will be experienced over time by those generations that are native to the digital world.

Hwang and Choi (2019) carried out a study on the AI-based adaptive learning systems and revealed that personalization is one of the main factors that bring about the increase in learning efficiency and also the satisfaction of students. **Khalil and Ebner (2020)** found that there is a directional relationship between the use of AI and productivity in task performance. However, they also found that the excessive use of digital devices could lead to disengagement from deep learning.

Chaudhary and Sharma (2023) through their experiment decided to know the effect of AI in learning among university students and the results brought to light the fact that the use of AI tools effectively raises the students' academic efficiency and hence the availability of information. On the other hand, the students indicated that they had a hard time concentrating because of the constant notifications from different digital platforms and having to switch between them.

2.1.RESEARCH GAP

The majority of the work that has been done based on the existing literature focus separately on AI adoption, digital engagement, and educational technologies. There are a couple of studies at least focusing on either consumer engagement or the use of academic technologies, nevertheless, very few empirical studies have really gone down to demonstrate the effects of AI-Driven content personalization on consumer attention fluctuations and academic productivity, among Generation Z in particular. Most of all, the combination of AI exposure with attention fragmentation and academic performance still remains a very restricted area of the literature, especially in the context of developing economies. This study strives to make up for the lack of studies through a real-world data analysis of the extent to which AI-powered content creation and personalization influence changes in the attention patterns of Gen Z consumers as well as their academic productivity in the digital economy.

2.2.OBJECTIVES OF THE STUDY

The present study has been undertaken with the following specific objectives :

- To study the demographic profile of Generation Z respondents
- To analyse the impact of entertainment-based screen time on consumer attention disruption among Generation Z
- To examine the association between educational screen time and academic productivity among Generation Z

- To identify the underlying factors influencing AI utilisation intensity, attention disruption, academic productivity and perception towards AI-powered personalization

3. RESEARCH METHODOLOGY

The current study adopts an empirical research method to examine the impact of AI-powered content creation and personalization on Gen Z consumers' attention span and academic productivity in the digital economy.

3.1.1. NATURE OF STUDY

The study is empirical and analytical in nature, as it is based on the primary data collected from respondents and analysed using appropriate statistical tools to derive meaningful conclusions.

3.1.2. RESEARCH DESIGN

A descriptive and analytical research design has been adopted to understand patterns of AI usage, attention behaviour, and academic productivity among Gen Z respondents.

3.1.3. SAMPLING METHOD

The study adopted a convenience sampling method where the respondents were chosen based on feasibility and willingness to participate in the survey.

3.1.4. SAMPLE SIZE

There were, in total, 151 respondents all from Generation Z who are active users of the AI-powered platform.

3.2. DATA COLLECTION METHOD

The data was collected using a structured questionnaire which included multiple types of questions like MCQ, large-scale statements related to AI-powered content usage, academic productivity and perception towards AI personalisation.

3.2.1. TOOLS AND TECHNIQUE OF ANALYSIS

The collected data were coded, classified and analysed using appropriate statistical techniques. The following tools were employed for the analysis :

- Percentage Analysis
- ANOVA (Analysis of Variance)
- Chi-Square Test
- Factor Analysis

4. RESULTS AND DISCUSSIONS :

The collected data were analysed using Percentage analysis, anova, Chi square and factor analysis to analyse the impact of AI-powered content on gen z consumer attention span and productivity in the digital economy

Table 4.1: Demographic Profile of the Respondents

Particulars	Category	Frequency	Percentage (%)
Age	14-17 years	28	18.54
	18-21 years	48	31.79
	22-25 years	31	20.53
	26-29 years	44	29.14
Gender	Female	82	54.3
	Male	69	45.7
Average Daily Screen Time	Less than 2 hours	42	27.81
	2-4 hours	35	23.18
	4-6 hours	35	23.18
	More than 6 hours	39	25.83
Total		151	100

Table 4.1. Shows the demographic profile of the respondents. The majority of respondents were between the age group of 18 to 21 years, representing 31.79%, followed by the age group 26 to 29 years with 29.14%. The females constituted 54.30% while the male constituted 45.70% of the total sample. A substantial proportion of respondents (around 25.83%) revealed that they spend more than six hours every day on screen, thus indicating a very high level of digital engagement in Gen Z.

Table 4.2: ANOVA - Entertainment Screen Time and Attention Disruption

Source of Variation	Sum of Squares	df	Mean Square	F value	Sig.
Between Groups	42.368	3	14.123	6.214	0.001*
Within Groups	333.947	147	2.272		
Total	376.315	150			

The influence of entertainment-based screen exposure on attention disruption was analyzed through one-way ANOVA. The findings as shown in table 2 indicate that there is a significant inverse relationship between entertainment-based screen time and attention disruption ($F=6.214$, $p<0.05$). It clearly reflects that, the more time spent on entertainment-related digital content, the less the ability for sustained attention among Gen Z.

Table 4.3: Association between Educational Screen Time and Academic Productivity

Educational Screen Time	Improved	No Change	Reduced	Total
Less than 1 hour	8 (27.59%)	12 (41.38%)	9 (31.03%)	29 (100%)
1-2 hours	21 (46.67%)	16 (35.56%)	8 (17.78%)	45 (100%)
2-4 hours	27 (56.25%)	14 (29.17%)	7 (14.58%)	48 (100%)
More than 4 hours	19 (65.52%)	7 (24.14%)	3 (10.34%)	29 (100%)
Total	75 (49.67%)	49 (32.45%)	27 (17.88%)	151 (100%)

Table 4.4: Chi-Square Test Result

Test	Value	df	Sig.
Pearson Chi-Square	14.826	6	0.022*

Correlation between educational screen time and academic productivity was examined through the Chi-Square Test. Results as presented in Table 3 and Table 4 reveal a statistically significant association between educational screen time and academic productivity (= 14.826, $p < 0.05$). Respondents who indicated higher levels of educational screen time engagement showed better academic productivity as compared with those with lower levels of educational screen time.

Table 4.5: KMO and Bartlett's Test

Particulars	Value
KMO Measure of Sampling Adequacy	0.842
Bartlett's Test - Approx. Chi-Square	912.47

	6
Degrees of Freedom	210
Significance	0.0

The appropriateness of the data for factor analysis was checked by the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. Table 5 presents the findings, where the KMO value of 0.842 reflects sufficient sampling adequacy. Bartlett's Test of Sphericity was also highly significant (= 912.476, $p < 0.001$), which is consistent with the factor analysis suitability of the data.

Table 4.6: Total Variance Explained and Rotated Factor Loadings

Factor	Component	Item Description	Rotated Loading	% of Variance	Eigen Value
I	AI Utilization Intensity	AI recommendations influence decisions	0.781	29.67	5.934
		Reliance on AI-generated summaries	0.746		
		Frequent use of AI tools	0.728		
		AI helps complete tasks faster	0.692		
		Personalized content increases engagement	0.661		
II	Digital Attention Disruption	App switching behaviour	0.774	10.74	2.148
		Short-form content affects focus	0.742		
		Notifications urge while studying	0.694		
		Decrease in attention span	0.671		
III	Academic Productivity Impact	AI saves academic time	0.763	8.06	1.612
		AI improves academic performance	0.731		
		AI improves subject understanding	0.705		
		Excessive digital content reduces productivity	0.642		
IV	AI Perception	AI is essential in digital economy	0.748	6.42	1.284

	Orientation	AI should be regulated	0.716		
		Over-personalization affects critical thinking	0.684		
		AI influences future learning	0.659		

Explanatory Factor Analysis using Principal Component Analysis with Varimax rotation extracted four factors, which together account for a large part of the total variance. The findings are shown in Table 6.

- **Factor I:** AI usage Intensity indicates 29.67% of the variance and covers the variables such as frequent AI usage, dependence on AI-generated summaries, influence of AI in decision, time-saving of task, and personalized content engagement.
- **Factor II:** Digital Attention Disruption represents 10.74% of the variance and consists of variables associated with switching between apps behavior, short form content influence, notification, induced distraction, and perceived attention span reduction.
- **Factor III:** Academic Productivity Impact accounts for 8.06% of the variance and describes time-saving benefits, improved academic performance, better subject understanding, and productivity difficulties due to overconsumption of digital content.
- **Factor IV:** AI-Perception Orientation accounts for 6.42% of the variance and describes the respondents' beliefs about the significance of AI in the digital economy, the necessity of its regulation, its impact on critical thinking, and its implications for future learning.

5. FINDINGS:

The study's findings imply that the majority of individuals who were surveyed belong to the age group of 18-21 years, and at the same time female respondents constitute a greater proportion of the sample. A substantial share of Generation Z respondents are estimated to be on digital screens for over six hours a day, thus demonstrating a high level of digital exposure. Going by entertainment based screen time, it shows a significant impact on attention disruption, thus more entertainment screen use correlates with more frequent app switching and less sustained attention. Educational screen time has been proven to be significantly related to academic productivity, thus a higher level of involvement in educational digital activities has a positive influence on academic performance. The results of the KMO and Bartlett's Test suggest that the current data are suitable for factor analysis. Factor analysis extracts four key latent dimensions - AI Utilization Intensity, Digital Attention Disruption, Academic Productivity Impact, and AI Perception Orientation. Thus, it

is clear that AI-powered content creation and personalization have a complex effect on consumer attention behaviour and academic productivity of Generation Z.

5.1. CONCLUSION :

The research reveals that AI's effect on Generation Z is double-edged. It is a positive influence if the students benefit from AI in the right way and it becomes a negative influence if students use it excessively without any self-regulation. Thus, a judicious and well-regulated application of AI products has to be a priority not only to enhance productivity but also to maintain attention and cognitive depth in the case of Gen Z users.

REFERENCES:

- Smith, A., & Anderson, M. (2016). Social media use in 2016. Pew Research Center.
- Turel, O., Qahri-Saremi, H. (2016). Problematic use of social networking sites: Antecedents and consequences from a dual-system theory perspective. Journal of Management Information Systems, 33(4), 1087-1116.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2017). Consumer adoption of mobile banking in Jordan: Examining the role of usefulness, ease of use and trust. International Journal of Information Management, 37(3), 99-110.
- Montag, C., & Walla, P. (2018). Carpe diem instead of losing your social mind: Beyond digital addiction and why we all suffer from digital overuse. Cogent Psychology, 5(1), 1475046.
- Hwang, G. J., & Choi, H. (2019). Effects of AI-based adaptive learning systems on students' learning performance and satisfaction. Educational Technology & Society, 22(4), 129-142.
- Khalil, M., & Ebner, M. (2020). Learning analytics in higher education - A literature review. International Journal of Educational Technology in Higher Education, 17(1), 1-21.
- Sun, Y., & Zhang, Y. (2021). A review of theories and models applied in studies of social media addiction and implications for future research. Addictive Behaviors, 114, 106699.
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., et al. (2022). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research. International Journal of Information Management, 57, 102409.
- Chaudhary, R., & Sharma, S. (2023). Impact of artificial intelligence tools on learning efficiency of university students. Journal of Educational Technology Systems, 51(2), 187-203.