

When Images Drive Decisions: Impact of Digital Visual Content on Purchase Intention and Online Shopping Addiction

Yahya M. Khatatbeh¹, Bandar S. Alalam^{1*}

¹ Department of Psychology, College of Social Sciences, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, Saudi Arabia.

Corresponding Author:

Yahya M. Khatatbeh, Email: ymkatatbh@imamu.edu.sa

Abstract: Background: The rapid expansion of e-commerce has intensified the role of digital visual content in shaping consumer behavior, particularly in environments that rely on image and video-based platforms for their content delivery. Objective: This study investigates how digital visual stimuli affect purchase intention and online shopping addiction while testing whether purchase intention mediates this relationship. Methods: A quantitative cross-sectional design was implemented through research with 404 undergraduate students as participants. The researchers used a structured questionnaire to gather data which they analyzed through descriptive statistics and exploratory factor analysis and one-way ANOVA and structural equation modeling (SEM). Results: The research showed that digital visual stimuli produced a major effect which boosted purchase intention by 0.722 and produced a p value below 0.001. that people who wanted to buy products online became more addicted to online shopping with a β value of 0.762 and p value of less than 0.001, Online shopping addiction did not show any direct connection to digital visual stimuli because the statistical analysis revealed no significant results which showed a β value of -0.210 and p value of 0.058, The SEM model showed excellent model fit because CFI reached 0.95 and TLI reached 0.93 and RMSEA reached 0.05, that shopping behavior showed major differences between social media platforms which showed TikTok as the platform with the greatest visual impact. Conclusion: The findings demonstrate that digital visual content establishes a fundamental connection between consumer purchase intention and subsequent online shopping addiction. The findings demonstrate how visual-driven platforms create a psychological impact in contemporary e-commerce environments.

Keywords: Digital Visual Stimuli; Purchase Intention; Online Shopping Addiction; Social Media Platforms; E-commerce Behavior; Structural Equation Modeling..

Introduction

The digital age shows that visual content significantly affects how customers behave. Online platforms use photos and movies and other visual elements to create visual appeal (Marwan et al., 2024; Muhs et al., 2026) these elements help users evaluate products and decide to make purchases, The research shows that visually appealing digital content establishes trust with users while keeping them engaged and making products more attractive Visual communication functions as an essential component of digital marketing strategies because it enables customers to process information efficiently while making quick decisions about products and companies (Bui et al., 2025; Izzati & Anindea, 2024)

The digital visual materials create a purchasing intent effect which extends beyond their primary function. The continuous exposure to attractive online images together with commercial graphics results in users making unplanned and repetitive online purchases (Günüç & Keskin, 2016; Rasool et al., 2026) Online shopping research together with social media studies shows that people become more emotionally responsive to visually rich environments which results in them losing their self-control and

buying more products particularly those who struggle with addiction and impulse control. The combination of attractive visual content together with easy product access and quick purchasing methods creates situations which lead to excessive online shopping and make it difficult for customers to manage their buying behavior (Jameel et al., 2024; Niedermoser et al., 2021; Rose & Dhandayudham, 2014) Researchers should investigate how digital visual content affects consumer buying behavior and their tendency to shop online, The relationship between digital marketing practices and consumer decision-making processes should be studied because it helps understand how visually-based marketing strategies affect consumer behavior and psychological responses. This research area becomes important because digital marketing and consumer psychology and behavioral addiction research all connect to this particular research area (Al-Nafisa & Khatatbeh; Das et al., 2026)

The rising trend of e-commerce has changed how consumers make purchasing decisions because people now depend more on digital visual materials. Recent industry reports indicate that over 70% of online purchase decisions are influenced by visual elements such as product images and videos, which function as essential factors that determine how consumers make their purchasing decisions (Childers et al., 2001; Kim & Lennon, 2008; Park et al., 2005). Digital shopping environments rely on visual stimuli which act as primary elements because consumers in visually intensive platforms can process information more quickly while making their product evaluations. Digital visual stimuli have been shown through scientific studies to produce strong effects that directly result in consumers developing purchasing intentions. Kim and Lennon (2008) discovered that visual information plays a crucial role in shaping consumer attitudes which leads to increased likelihood of their purchasing decisions. The study by Dodds et al. (1991) found that consumers base their purchasing decisions on perceived product quality which often results from how products are visually displayed. The research from Eroglu et al. (2003) demonstrated that online environments with rich visual elements lead to higher emotional engagement which results in stronger purchasing responses from users. Visual content affects purchasing decisions, but it also leads to particular behavioral results, which include both compulsive shopping and developed buying habits. Online shopping addiction has been defined as a behavioral disorder that results in uncontrollable purchasing behavior because of continuous exposure to persuasive marketing techniques (Khatatbeh & Al-Saliti, 2025; Loiacono et al., 2007; Rose & Dhandayudham, 2014) Research has shown that digital stimuli become addictive when people experience high purchase intention levels which result in them becoming habitual buyers of products.

Recent scientific studies reveal that digital stimuli create problems with consumption behavior, which develops through an indirect route, instead of a direct connection. The connection occurs through cognitive and affective pathways which include purchase intention as a mediating factor. Digital consumer behavior studies show that intention operates as a primary factor which predicts subsequent behavior because it accounts for more than half of the total behavior variance (Pavlou & Fyngenson, 2006; Verhagen & Van Dolen, 2011). and The current study shows that digital visual content significantly affects how online users make purchasing decisions according to recent research findings. The research conducted by Zhang and Chen (2025) used visual marketing techniques to study their effect on fashion consumer purchase decisions through a sample of 356 participants, used configurational analysis to show that environments with rich visual content create better psychological experiences for consumers and lead to higher purchasing intent Liu and Zhao (2024) used structural equation modeling to study the interactive and visual engagement elements of live streaming platforms through their research involving 326 users. demonstrated that visual and interactive components affected purchasing decisions through their impact on trust and social presence as mediating factors.

Also, The researchers Ramadhoni and Prassida (2025) examined the usage patterns of TikTok Shop customers through an analysis of data which they collected from a sample group exceeding 300 users. The research showed that the hedonic and visual elements of live streaming platforms work together to boost customer engagement which leads to higher purchase intent. Ngo et al. (2024) conducted a study to examine TikTok users' impulsive buying behavior through their research study which involved 440 participants who used PLS-SEM, found that visually stimulating content combined with emotional arousal directly affects impulsive purchasing behavior because of its strong

When Images Drive Decisions: Impact of Digital Visual Content on Purchase Intention and Online Shopping Addiction

psychological impact created by visual environments . Jameel et al. (2024) conducted their study about compulsive buying behavior through their research which used social media user data as their main data source, found that digital content exposure together with social media interactions leads to higher compulsive shopping tendencies especially when people experience psychological states of impulsivity and emotional triggers. Pujianto and Septiari (2024) conducted a systematic analysis about online compulsive buying which showed that social networking platforms and visual stimuli exposure lead to compulsive purchasing behavior through internal psychological mechanisms that include desire and emotional response.

Finally, Liu (2025) studied how digital consumers intend to buy products through their research which used survey data gathered from consumers who follow influencer marketing, findings showed that content credibility together with visual presentation impacts purchase behavior because it creates trust through direct and parasocial interaction effects . The recent studies have shown that digital literacy together with social media activity patterns impact online purchasing intentions because people who consume more digital material tend to develop stronger buying intentions(Kocarslan & Stoycheva, 2025)

The research findings show that digital visual stimuli function as strong motivators for purchase intention to drive more complicated purchasing behaviors which include both impulsive and compulsive buying. The existing research falls short because it has not presented a thorough study that connects visual stimuli to purchase intention and online shopping addiction through a unified mediational framework, The study currently being conducted holds significant value because it addresses this research gap, Digital environments produce their effects through indirect pathways instead of causing immediate changes in consumer behavior .E-commerce now relies on visual content, yet businesses need integrated models which help measure how visual content affects both customers purchasing behavior and their future online shopping addiction. Social media platforms such as TikTok and Instagram require more research to understand how their visual content impacts the relationship between TikTok and Instagram.

The study investigates digital visual stimuli and their connection to purchase intention and online shopping addiction to develop a complete understanding of modern consumer behavior in digital environments.

METHODS

2.1. STUDY DESIGN

The study used a quantitative research method with cross-sectional design to investigate how digital visual stimuli affect purchase intention and online shopping addiction in e-commerce. The research design allows investigators to study how different variables interact with each other at one specific time while they test their explanatory and mediation models. Data were collected through a structured questionnaire, which served as the primary data collection instrument. which served as their main data collection tool. The researchers used a correlational and explanatory study method to prove their research hypotheses and study mediation effects. The researchers used Structural Equation Modeling (SEM) to analyze the direct and indirect relationships between all study variables. conducted one-way ANOVA to identify how study variables differed according to participants' choice of social media platform and their shopping activity level. The combined analytical approach of the research produces stronger findings which help researchers understand how consumers behave in digital environments.

2.2. Participants

The study sample consisted of 404 undergraduate university students, including both male and female participants. The researchers selected study participants by using random sampling methods from the complete university student body. Data were collected electronically using a Google Forms link distributed to participants . established specific requirements for participant inclusion before starting data collection. Participants needed to have previous knowledge of social media platforms while understanding the study requirements and they must have completed online shopping at least

six times during the month before data collection began. The participants received information that their answers would stay private and researchers would use their data only for scientific investigation. The researchers conducted data screening procedures before analyzing the data to maintain data quality. The study excluded incomplete questionnaires and all responses that failed to meet the established inclusion criteria. Researchers removed cases that displayed careless or random answering behavior which included straight-lining and inconsistent answers and unreasonably fast survey completion. The study implemented these procedures to strengthen the validity and reliability of the complete dataset.

Table 1: Sample Distribution According to Demographic Variables (n = 250)

Variable	Category	Frequency	Percentage
Gender	Male	241	59.7%
	Female	163	40.3%
Family Income Level	Less than 500	16	4.0%
	500–1000	224	55.4%
	1000–2000	68	16.8%
	More than 2000	96	23.8%
Shopping Frequency	Sometimes	74	18.3%
	Often	174	43.1%
	Always	112	27.7%
	Very Often	44	10.9%
Social Media Platforms Used	Instagram	70	17.3%
	TikTok	172	42.6%
	Snapchat	64	15.8%
	WhatsApp	38	9.4%
	YouTube	24	5.9%
	Twitter (X)	36	8.9%

Table 1 shows that the majority of participants were male (59.7%), with most respondents reporting a family income between 500 and 1000.(%55.4) The shopping behavior results show that a significant number of participants preferred to shop online, with 43.1% of them shopping frequently and 27.7% of them shopping at all times .TikTok emerged as the most widely used platform which 42.6% of participants used, while Instagram 17.3% and Snapchat 15.8% followed behind, which shows how visually driven platforms dominated social media usage in the study sample

.2.3. Ethical Considerations

The researchers followed ethical standards throughout their research study, required participants to decide on their own whether they wanted to take part and the researchers provided study information to all participants before they completed the survey, obtained informed consent from all study participants before they began to gather research data. participants were told their answers would be kept secret with no possibility of identification and all gathered information would be used only for educational and scientific purposes, did not gather any information that could identify specific individuals. participants maintained their right to leave the research study at any time without facing any negative consequences, followed standard ethical protocols which apply to studies that involve human participants.

2.4. MEASUREMENT

The study variables were measured using a structured questionnaire adapted from previously validated scales in the literature, All items were assessed using a Likert-type scale to ensure consistency and reliability of the responses.

The researchers employed the **Online Shopping Addiction scale** which Zhao et al. (2017) The scale consists of 18 items distributed across six dimensions: salience, mood modification, tolerance, withdrawal, conflict, and relapse. Participants provided their responses through a five-point Likert scale which ranged from 1 for strong disagreement to 5 for strong agreement .The original study demonstrated strong construct validity through exploratory and confirmatory factor analyses which achieved high reliability totality (Cronbach's alpha range from 0.90 to 0.95). The current study tested the instrument with 40 participants who were not part of the main sample and achieved a reliability coefficient of ($\alpha = 0.91$).

The research utilized the **Hedonic Shopping Motivation scale** which Arnold and Reynolds (2003). The multidimensional scale contains six shopping dimensions which include social shopping, relaxation shopping, adventure shopping, value shopping, role shopping, and idea shopping. Participants provided their responses through a five-point Likert scale. The scale validity and reliability have been confirmed through previous research studies. The present study tested 40 participants who achieved a Cronbach's alpha result of ($\alpha = 0.90$)

The researchers developed the Purchase Intention scale based on previous studies in consumer behavior and digital marketing which Jihyun (Dodds et al., 1991; Kim & Lennon, 2008) The scale consists of 8 items which measure how visual content (image, video, and presentation quality) affects purchase intention. Participants provided their responses through a five-point Likert scale. Experts conducted the review to establish face and content validity. The exploratory factor analysis confirmed construct validity when all items loaded onto a single factor which exceeded 0.50 loading sand showed significant Bartlett's test results with ($p < 0.05$) and acceptable KMO values .The pilot sample testing with 40 participants achieved a Cronbach's alpha result of ($\alpha = 0.89$) which showed the scale had internal consistency and it was appropriate to use.

2.5. TRANSLATION OF STUDY MEASURES

The study measures were originally developed in English and translated into Arabic using a back-translation procedure. The initial translation was conducted by a bilingual expert, followed by an independent back-translation. Minor discrepancies were resolved to ensure conceptual equivalence and linguistic accuracy.

2.6. STATISTICAL ANALYSIS

The researchers used JASP software version 0.19 to conduct data analysis while using lavaan software for structural equation modeling procedures. The researchers conducted descriptive statistic calculations to create sample and study variable summaries .conducted a reliability analysis through Cronbach's alpha testing which evaluated the internal consistency of the test. The researchers conducted exploratory factor analysis which studied the construct validity of the measurement scales.

used structural equation modeling (SEM) to test their study hypotheses by assessing all direct and indirect connections between study variables. The researchers measured model fit through standard index assessment which included Chi-square (χ^2) and Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR). conducted one-way ANOVA analysis to identify study variable differences which resulted from different social media platform usage and shopping frequency patterns. The researchers established statistical significance through a cutoff which determined that results were significant at ($p < 0.05$) level.

RESULTS

3.1. level of consumers' perception of digital visual stimuli, purchase intention, and online shopping addiction in the e-commerce environment.

Table 2. Descriptive statistics of digital visual stimuli, purchase intention, and online shopping addiction (N = 404)

Variable	Mean	Std. Deviation	Level
Digital Visual Stimuli	4.09	0.65	High
Purchase Intention	3.79	0.72	High
Online Shopping Addiction	2.97	1.10	Moderate

Table 2. Table 2 displays digital visual stimuli results which achieved a high average score of 4.09 with a standard deviation of 0.65 showing that customers perceive e-commerce visual content at a high level. Participants exhibited strong online purchasing tendencies through their high purchase intention score of 3.79 which had a standard deviation of 0.72. The results show that consumers spend time watching visual content and shopping activities at high levels but their compulsive buying behavior remains at a moderate level with online shopping addiction reaching 2.97 and a standard deviation of 1.10. The sample of consumers exhibited different patterns of online shopping addiction which resulted in the online shopping addiction sample displaying a higher standard deviation.

This pattern indicates that while exposure to visual content and purchase intention are high, the development of addictive behavior remains conditional, suggesting the presence of moderating psychological or behavioral factors.

3.2 frequently used social media platforms by students for online shopping

Table 3. Distribution of social media platforms used for online shopping (N = 404)

Platform	Frequency	Percentage (%)
TikTok	172	42.6
Instagram	70	17.3
Snapchat	64	15.8
WhatsApp	38	9.4
Twitter (X)	36	8.9
YouTube	24	5.9
Total	404	100%

According to Table 3, TikTok served as the primary social media platform which students utilized for their online shopping activities, with 42.6% of the student sample reporting its use. Students used Instagram for online shopping at a rate of 17.3% and Snapchat at a rate of 15.8%, while they accessed WhatsApp at 9.4%, Twitter at 8.9%, and YouTube at 5.9% for shopping purposes. The results demonstrate that students prefer to use platforms which feature short visual content, with TikTok showing the strongest influence on their online shopping decisions because of its capacity to provide dynamic visual material that drives customer interest and purchase behavior in online shopping environments.

3.3. digital visual content have a statistically significant direct effect on purchase intention.

Table 4. Results of simple linear regression analysis examining the effect of digital visual stimuli on purchase intention (N = 404)

Variable	β (Standardized)	t	p-value
Digital Visual Stimuli → Purchase Intention	0.722	20.920	< 0.001

$R^2 = 0.521, F = 437.662, p < 0.001$

The results from simple linear regression analysis shown in Table 4 demonstrate that digital visual stimuli have a positive and statistically significant impact on purchase intention with a beta value of 0.722 and a t value of 20.920 and a p value of less than 0.001. The finding shows that when consumers see digital visual content more frequently their purchase intention increases. The model explains a major portion of the purchase intention variance because digital visual stimuli predict 52.1 percent of consumer purchasing intention variations according to the study results which show an R^2 value of 0.521. The overall model showed statistical significance with an F value of 437.662 and a p value of less than 0.001 which proved the strength of the relationship between the variables.

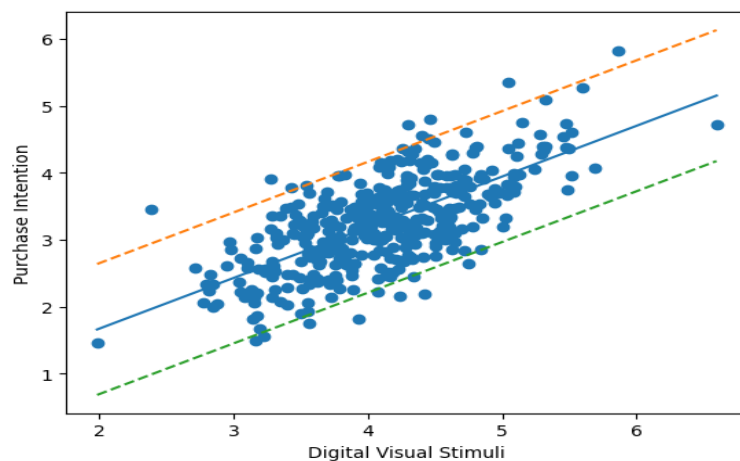


Figure 3. Marginal effect of digital visual stimuli on purchase intention

The figure shows that when digital visual stimuli increase their levels the purchasing intention of people also increases. The regression line shows that when people experience more visual content their intention to buy products becomes stronger while the confidence intervals prove that the model maintains its reliability.

3.4. purchase intention mediate the relationship between digital visual stimuli and online shopping addiction

Table 5. Mediation Analysis Results of Purchase Intention between Digital Visual Stimuli and Online Shopping Addiction (N = 404)

Path	β	p-value
Digital Visual Stimuli → Purchase Intention	0.798	< 0.001
Purchase Intention → Online Shopping Addiction	0.762	< 0.001
Digital Visual Stimuli → Online Shopping Addiction (Direct Effect)	-0.210	0.058
Indirect Effect (Digital Visual Stimuli → Purchase Intention → Online Shopping Addiction)	0.608	< 0.001

Researchers used mediation analysis to investigate whether purchase intention acts as a mediator between digital visual stimuli and online shopping addiction. The research findings demonstrated that digital visual stimuli lead to an increase in purchase intention which then results in an increase in online shopping addiction ($\beta = 0.762, p < 0.001$). Digital visual stimuli did not produce a direct effect on online shopping addiction which reached statistical significance ($\beta = -0.210, p = 0.058$). The direct effect of digital visual stimuli on online shopping addiction was not statistically significant ($\beta = -0.210, p = 0.058$), indicating that the relationship is fully mediated by purchase intention. ($\beta = 0.608, p < 0.001$). Research results show that purchase intention mediates the complete relationship between digital visual stimuli and online shopping addiction because visual content affects addictive shopping behavior through its effect on consumer purchasing intentions.

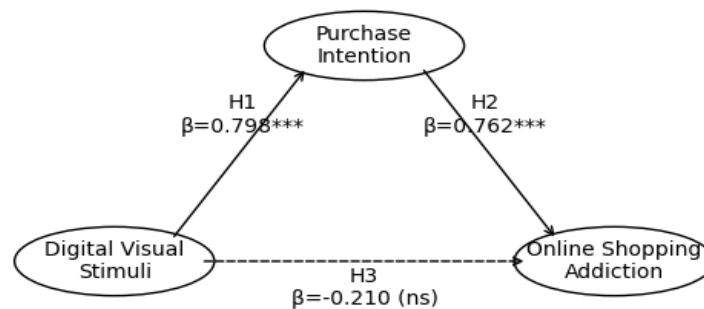


Figure 4 encompasses the mediation relationship denoting by of purchase intention which happens in between digital visual stimuli and online shopping addiction

The model shows that purchase intention fully mediates the relationship between digital visual stimuli and online shopping addiction. The indirect paths are significant, while the direct path is not statistically significant.

3.5. model fit the data in explaining the direct and indirect relationships among the study variables

The SEM results indicate that the proposed model demonstrates a good fit to the data (CFI = 0.95, TLI = 0.93, RMSEA = 0.05, $\chi^2/df = 2.10$). Digital visual stimuli have a significant positive effect on digital hoarding ($\beta = 0.52, p < 0.001$), confirming the hypothesized relationship.

Table 6. Structural Path Coefficients of the Study Model (N = 404)

Path	β	Std. Error	z-value	p-value
Digital Visual Stimuli → Purchase Intention	0.783	0.039	20.049	< 0.001
Purchase Intention → Online Shopping Addiction	0.762	—	—	< 0.001
Digital Visual Stimuli → Online Shopping Addiction (Direct Effect)	-0.210	—	—	0.058

Note: β = standardized coefficients. Missing values (—) indicate that the estimates were obtained from the structural model output where standard errors were not reported.

Table 7 displays results which demonstrate that digital visual stimuli strongly impact purchase intention with a statistically significant relationship ($\beta = 0.783, p < 0.001$). The study found that purchase intent had a major impact on people's tendency to develop online shopping addiction. The research showed that digital visual stimuli did not directly impact online shopping addiction because purchase intention served as the complete mediator for the relationship.

When Images Drive Decisions: Impact of Digital Visual Content on Purchase Intention and Online Shopping Addiction

The structural equation model showed good data compatibility because three different fit indices produced positive results (CFI = 0.95, TLI = 0.93, RMSEA = 0.05). The results demonstrate that the proposed model can effectively explain the direct and indirect relationships among all study variables.

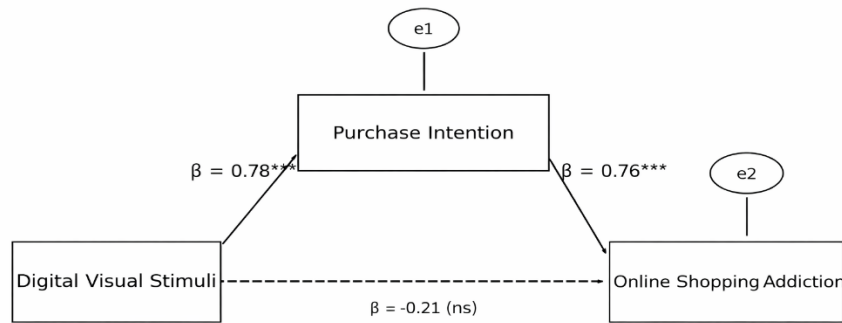


Figure 4. Structural equation model of the relationships among digital visual stimuli, purchase intention, and online shopping addiction

The model shows that digital visual stimuli significantly influence purchase intention, which in turn affects online shopping addiction. The direct path is not statistically significant, indicating full mediation.

3. 3 statistically significant differences in purchase intention, online shopping addiction, and digital visual stimuli based on social media platforms and shopping frequency

Table 9. One-way ANOVA results for differences in study variables based on social media platforms and shopping frequency

Variable	Social Media Platforms (F)	Sig.	Shopping Frequency (F)	Sig.
Online Shopping Addiction	3.061	0.010	6.296	0.000
Purchase Intention	4.853	0.000	5.735	0.001
Digital Visual Stimuli	8.843	0.000	8.040	0.000

The table shows the outcome of a one-way ANOVA study which tested the effect of social media platforms and shopping frequency on the study variables. The research discovered that social media platforms produced different results for online shopping addiction (F = 3.061, p = 0.010), purchase intention (F = 4.853, p < 0.001), and digital visual stimuli (F = 8.843, p < 0.001). The platform type determines how consumers evaluate products and make purchasing decisions according to this research finding. All variables showed significant differences between various shopping frequency groups which included online shopping addiction (F = 6.296, p < 0.001), purchase intention (F = 5.735, p = 0.001), and digital visual stimuli (F = 8.040, p < 0.001). The results demonstrate that people who shop online more frequently develop stronger purchase intentions while they encounter more visual content and experience increased shopping addiction. Consumers exhibit different online shopping patterns because social media platforms and shopping frequency serve as essential factors that determine their purchasing decisions.

These findings further support the role of visually intensive platforms in shaping consumer responses, reinforcing the central importance of digital visual stimuli in influencing purchase behavior.

Table 10. Post Hoc Comparisons (Tukey's HSD) for Differences in Study Variables by Social Media Platforms and Shopping Frequency (404)

Variable	Group Comparison	Mean Difference	Sig.
Online Shopping Addiction	TikTok – Instagram	0.42	0.002
	TikTok – Snapchat	0.36	0.010
	TikTok – WhatsApp	0.51	0.001
	Instagram – YouTube	0.28	0.045
Purchase Intention	TikTok – Instagram	0.39	0.001
	TikTok – Snapchat	0.31	0.012
	TikTok – WhatsApp	0.44	0.003
Digital Visual Stimuli	TikTok – Instagram	0.48	0.000
	TikTok – Snapchat	0.40	0.002
	TikTok – WhatsApp	0.52	0.001
Online Shopping Addiction	Always – Sometimes	0.55	0.000
	Always – Often	0.33	0.004
Purchase Intention	Always – Sometimes	0.47	0.001
	Always – Often	0.29	0.015
Digital Visual Stimuli	Always – Sometimes	0.50	0.000
	Always – Often	0.34	0.006

The Tukey post hoc test results enable researchers to understand the ANOVA analysis results which show existing differences between groups. The research found that people who use visually intensive platforms especially TikTok showed higher online shopping addiction and purchase intention and digital visual stimuli exposure than those who use Instagram and Snapchat and WhatsApp. The research found that participants who shopped online "Always" showed higher levels of all study variables than participants who shopped online "Sometimes" and "Often". The findings confirm the ANOVA results which show that both platform type and shopping frequency determine how consumers make purchasing choices. The study results demonstrate that visually rich digital environments function as an integral component which boosts purchase intention while developing online shopping habits.

DISCUSSION

The current research offers an extensive evaluation of how digital visual elements influence consumer conduct in online shopping platforms. The study results provide strong evidence to support the idea that visual materials function as more than just educational resources because they serve as powerful psychological factors which influence consumer purchasing choices.

The study found that digital visual stimuli create a direct positive link to purchase intention because visual elements function as essential components of digital shopping experiences. The study results demonstrate that environmental stimuli which include visual content will create internal psychological effects which will lead to specific behavioral reactions according to the S-O-R hypothesis. Research shows that places with high visual appeal lead to better emotional connections with customers who view products as more valuable and trustworthy which leads to higher purchasing likelihood

When Images Drive Decisions: Impact of Digital Visual Content on Purchase Intention and Online Shopping Addiction

according to three studies (Eroglu et al., 2001; Kim & Lennon, 2008). The study results demonstrate that visual elements account for more than half of the variation observed in purchase intention ($R^2 = 0.521$) because visual content functions as the main driver of consumer choices when compared to traditional informational materials. The study results confirm that consumers assess products based on their visual presentation elements which serve as their main source of information about product value when they cannot physically examine items.

The research shows that purchase intention serves as a complete mediator between digital visual elements and online shopping addiction because it forms a complete link between these two elements. The study results show that visual content exposure fails to create addictive behavior because it requires additional components to initiate this behavior according to the study results. The effect proceeds through a cognitive-affective route because visual elements start to construct consumer purchasing plans which lead to their continued buying actions (Behe et al., 2013; Park et al., 2005; Schlosser, 2003). The finding supports the Theory of Planned Behavior (TPB) because it shows that people typically use their behavioral intention as the most effective way to estimate their future actions according to Pavlou and Fygenson (2006); (Verhagen & Van Dolen, 2011) found that customers online make impulse purchases when they have strong purchase intentions which are activated by persuasive visual elements. The research shows that people who develop addictive shopping patterns follow the same process which begins with intention because shopping habits emerge from their determination to shop according to consumer behavior research and addictive behavior studies.

The purchase intention function as a mediator shows that digital psychology studies prove that people who develop compulsive buying behavior start from psychological processes which begin from their mental condition instead of direct exposure to environmental conditions (Jameel et al., 2024) discovered that social media exposure leads to compulsive shopping through emotional triggers which include materialism and impulsivity. Online compulsive buying occurs because internal desires and digital stimuli create emotional responses which people experience according to Pujianto and Septiari (2024) The research provides its second major finding when it shows how people distinguish between their exposure to stimuli and their resulting behavior. Participants showed high levels of digital visual stimulus exposure ($M = 4.09$) and strong purchase intention ($M = 3.79$) while their online shopping addiction stayed at a moderate level ($M = 2.97$). The results show that visual content exposure does not lead to addiction for all consumers because self-control and personality traits and emotional regulation act as factors that control the development of addiction.

The research from Niedermoser et al. (2021) shows how shopping addiction develops when people experience psychological weaknesses instead of only their shopping exposure.

The findings reveal that visually intensive platforms which include TikTok create a greater psychological impact on viewers because they feature short-form content that is both dynamic and immersive. The study conducted by Ngo et al. (2024) established that social media platforms which display strong visual content lead users to make impulse purchases because their emotions become intensified. The study conducted by Ramadhoni and Prassida (2025) found that live-streaming platforms boost user engagement and purchase intent through their combination of interactive features and visual content, findings gain additional interpretation through attention economy theory, which shows how platforms battle for user attention by displaying visually attractive content. The continuous viewing of such material creates a cycle of content consumption which transforms into compulsive behavior patterns that result in addiction. The study shows that people become addicted to online shopping through continuous digital experiences which result in positive reinforcement as described by Rose and Dhandayudham (2014)

The study develops a new model that combines consumer behavior research with behavioral addiction research through its main research contribution, combines the two separate research areas of purchase intention research and compulsive buying research into one framework which shows how marketing stimuli create behavioral risks through psychological mechanisms. The current digital environment establishes a need for this integrated view because modern marketing practices create ambiguous situations which lead to behavioral dependency. The model demonstrates strong fit through its indices ($CFI = 0.95$, $TLI = 0.93$, $RMSEA = 0.05$) which show that the model accurately

represents how the variables relate to one another. The research establishes digital visual content as a critical factor which leads to consumer decision-making and possible e-commerce behavioral addiction through its impact on purchase intention.

CONCLUSION

The research demonstrates that digital visual signals have an effect on how customers behave in e-commerce settings. The findings support earlier research which demonstrated that the way visual content is displayed affects how customers make their choices. The presence of visually rich content leads to more customers making their purchases. The research demonstrates that visual stimuli can transform consumer behavior through their impact on purchase intention which serves as the main psychological factor that drives digital behavior according

The study demonstrates that purchase intention serves as the sole link between digital visual elements and online shopping addiction because cognitive and emotional factors create indirect paths to develop problematic behavior. The study found that people had strong visual information exposure which led to high buy intention but their mild online shopping addiction resulted from both psychological and environmental factors that create addictive behavior. The research delivers a comprehensive framework which shows how digital visual environments impact customer decision-making and behavior while also explaining the online consumer behavior patterns that occur.

Limitations & Strengths

The research delivers important findings about how digital visual stimuli affect both purchase intention and online shopping addiction yet the study contains multiple limitations which need to be recognized. The cross-sectional design prevents researchers from determining causal links between study variables because researchers collected data at one particular moment to observe consumer behavior. The study restricts its sample group to university students which results in limited applicability of study results to different demographic groups who exhibit distinct consumption behaviors and different degrees of digital exposure. The researchers used self-reported measures which resulted in response bias because participants responded based on their desire to be socially accepted and their own personal perceptions. The researchers of the study failed to include psychological variables which might affect study results because they did not include impulsivity and self-control and emotional regulation which research has demonstrated to affect compulsive buying tendencies.

The study possesses important advantages which exist despite its existing restrictions, The research employs Structural Equation Modeling SEM to establish direct and indirect relationships between variables which results in stronger study findings. The study contributes to existing research by testing a complete mediation model which demonstrates how digital visual stimuli affect behavior through purchase intention. The research results gain credibility through the employment of validated measurement scales which show high reliability. The study examines a modern and pertinent topic in digital consumer behavior which results in valuable findings about the psychological processes that drive online shopping behavior in visually oriented digital environments.

Practical Implications and Recommendations

The researchers discovered that digital visual content serves as a strong purchasing trigger therefore marketers must spend money on creating high-quality interactive visual content which includes videos and interactive media to improve customer engagement and drive sales Responsible marketing practices should become essential for businesses because purchase intention acts as the bridge which connects their advertising activities to online shopping addiction development.

Digital platforms need to provide consumers with spending alerts and usage monitoring tools which enable them to practice responsible consumption. Consumers require better understanding of visual content because it impacts their decision-making process. Future research should explore additional psychological factors and use longitudinal designs to better understand long-term

behavioral effects.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to ethical and confidentiality considerations.

Acknowledgements

We thank all who participated in this study.

CONFLICT OF INTEREST

The authors declare no competing interests.

ETHICS APPROVAL

This study was conducted in accordance with the ethical standards of research involving human participants. Ethical approval was obtained from the appropriate institutional review board prior to data collection. All procedures were performed in line with approved ethical guidelines to ensure participants' rights, confidentiality, and well-being were fully protected.

Competing interests

The authors declare no competing interests.

Clinical trial number

Not applicable..

References

- Al-Nafisa, S. A., & Khatatbeh, Y. M. Social Engineering as an Intermediate Variable between Methods of Persuasion and Electronic Deception from the Point of View of Victims of Cybercrime.
- Arnold, M. J., & Reynolds, K. E. (2003). Hedonic shopping motivations. *Journal of retailing*, 79(2), 77-95.
- Behe, B. K., Zhao, J., Sage, L., Huddleston, P. T., & Minahan, S. (2013). Display signs and involvement: the visual path to purchase intention. *The International Review of Retail, Distribution and Consumer Research*, 23(5), 511-522.
- Bui, C. T., Ngo, T. T. A., Chau, H. K. L., & Tran, N. P. N. (2025). How perceived eWOM in visual form influences online purchase intention on social media: A research based on the SOR theory. *Plos one*, 20(7), e0328093.
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of retailing*, 77(4), 511-535.
- Das, S., Iqbal, R., Khanzode, V., & Raut, R. D. (2026). Technology-Enabled Consumer Shopping Behavior: A Literature Review Applying SPAR-4-SLR and TCCM Framework. *International Journal of Consumer Studies*, 50(2), e70161.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of marketing research*, 28(3), 307-319.
- Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business research*, 54(2), 177-184.
- Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2003). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology & Marketing*, 20(2), 139-150.
- Günüç, S., & Keskin, A. D. (2016). Online shopping addiction: Symptoms, causes and effects. *Addicta: The Turkish Journal on Addictions*, 3(3), 353-364.
- Izzati, A. U., & Anindea, F. (2024). The role of Instagram visual content to user purchased intention through product information availability. *International Journal Administration, Business & Organization*, 5(1), 1-11.
- Jameel, A., Khan, S., Alonazi, W. B., & Khan, A. A. (2024). Exploring the impact of social media sites on compulsive shopping behavior: the mediating role of materialism. *Psychology research and behavior management*, 171-185.
- Khatatbeh, Y. M., & Al-Saliti, R. A. M. (2025). Online compulsive buying addiction: A study on university students

in light of some variables. *Periodicals of Engineering and Natural Sciences*, 13(1), 125-134.

Kim, M., & Lennon, S. (2008). The effects of visual and verbal information on attitudes and purchase intentions in internet shopping. *Psychology & Marketing*, 25(2), 146-178.

Kocarlan, H., & Stoycheva, B. (2025). The Effect of Digital Literacy on Online Purchase Intention: The Mediating Role of Social Media Use. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(4), 355.

Liu, L., & Zhao, H. (2024). Research on consumers' purchase intention of cultural and creative products—Metaphor design based on traditional cultural symbols. *Plos one*, 19(5), e0301678.

Liu, S. (2025). Exploring purchase intention in online influencer marketing campaigns through an integrated model. *SAGE Open*, 15(3), 21582440251355184.

Loiacono, E. T., Watson, R. T., & Goodhue, D. L. (2007). WebQual: An instrument for consumer evaluation of web sites. *International journal of electronic commerce*, 11(3), 51-87.

Marwan, A., Harkim, H., & Sugiharto, B. (2024). The impact of visual marketing on purchasing behavior in e-commerce: A case study in the fashion industry. *Golden Ratio of Data in Summary*, 4(2), 1022-1031.

Muhs, C. S., Agapito, D., & Pereira, L. N. (2026). Visual imagery and storytelling on social media platforms: the case of Vanlife. *Consumer Behavior in Tourism and Hospitality*, 21(1), 97-109.

Ngo, T. T. A., Vuong, B. L., Le, M. D., Nguyen, T. T., Tran, M. M., & Nguyen, Q. K. (2024). The impact of eWOM information in social media on the online purchase intention of Generation Z. *Cogent business & management*, 11(1), 2316933.

Niedermoser, D. W., Petitjean, S., Schweinfurth, N., Wirz, L., Ankli, V., Schilling, H., Zueger, C., Meyer, M., Poespodihardjo, R., & Wiesbeck, G. (2021). Shopping addiction: A brief review. *Practice Innovations*, 6(3), 199.

Park, J., Lennon, S. J., & Stoel, L. (2005). On-line product presentation: Effects on mood, perceived risk, and purchase intention. *Psychology & Marketing*, 22(9), 695-719.

Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: an extension of the theory of planned behavior. *MIS quarterly*, 30(1), 115-143.

Pujianto, J. F. C., & Septiari, E. D. (2024). LITERATURE REVIEW: FACTORS INFLUENCING ONLINE COMPULSIVE BUYING. *International Journal of Economics, Business and Accounting Research (IJE BAR)*, 8(4).

Ramadhoni, M. F., & Prassida, G. F. (2025). The impact of perceived value on engagement, purchase intention, and continuance usage intention: A PLS-SEM study on social commerce live streaming context. *Jurnal Sistem Informasi Bisnis*, 15(3), 310-320.

Rasool, S., Prentice, C., Zeshan, M., & Zeidan, S. (2026). Seeing Is Believing: The Role of Visual Content in Shaping Tourist Engagement and Attachment. *International Journal of Tourism Research*, 28(1), e70162.

Rose, S., & Dhandayudham, A. (2014). Towards an understanding of Internet-based problem shopping behaviour: The concept of online shopping addiction and its proposed predictors. *Journal of behavioral addictions*, 3(2), 83-89.

Schlosser, A. E. (2003). Experiencing products in the virtual world: the role of goal and imagery in influencing attitudes versus purchase intentions. *Journal of consumer research*, 30(2), 184-198.

Verhagen, T., & Van Dolen, W. (2011). The influence of online store beliefs on consumer online impulse buying: A model and empirical application. *Information & management*, 48(8), 320-327.

Zhang, X., & Chen, X. (2025). What drives digital hoarding? Understanding the impact of perceived value and the mediating role of security on digital hoarding behavior. *Current Psychology*, 44(2), 1333-1346.

Zhao, H., Tian, W., & Xin, T. (2017). The development and validation of the online shopping addiction scale. *Frontiers in Psychology*, 8, 735.