



# Modelling the Influence of Tiktok and Instagram on Social Behaviour and Value Orientation of Nigerian Adolescents: Evidence from Kaduna State, Nigeria

Uthman Shehu Lawal (Ph.D)

Department of Social Science Education, Kaduna State University, Kaduna-Nigeria

## Abstract

*The rapid proliferation of short-form video platforms and image-based social media has fundamentally reconfigured the socialisation landscape for adolescents globally, yet the Nigerian context, particularly in Northern Nigeria, remains underexplored. This study modelled the influence of TikTok and Instagram on the social behaviour and value orientation of Nigerian adolescents in Kaduna State, drawing on a quantitative survey design. Using purposive and stratified random sampling, data were gathered from 387 secondary school students aged 13–19 years across Kaduna North, Kaduna South, and Chikun Local Government Areas. A structured, self-administered questionnaire was validated through pilot testing (Cronbach's  $\alpha = 0.83$ ; CR = 0.87) and administered to participants. Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS 4.0 was employed for analysis. Findings revealed that 78.3% of respondents actively used TikTok or Instagram daily, with an average daily exposure duration of 3.4 hours. TikTok content consumption significantly influenced adolescents' social behaviour ( $\beta = 0.512$ ;  $p < 0.001$ ), while Instagram use significantly influenced value orientation ( $\beta = 0.467$ ;  $p < 0.001$ ). A significant positive relationship was established between duration of exposure to both platforms and peer relationship behaviours ( $\beta = 0.389$ ;  $p < 0.01$ ). The study concludes that algorithmic content delivery, social comparison dynamics, and peer conformity pressures are the primary pathways through which these platforms shape adolescent behaviour and values. Recommendations are provided for parents, educators, policymakers, and platform regulators in the Nigerian context.*

**Keywords:** TikTok, Instagram, social behaviour, value orientation, adolescents, social media, peer relationships

## Introduction

The twenty-first century has ushered in an unprecedented era of digital interconnectivity, radically changing how individuals, particularly adolescents, communicate, form identities, and internalise social values. Among the most consequential developments in this change is the ascendancy of platform-based social media, with TikTok and Instagram emerging as the dominant platforms among adolescents aged 13–19 worldwide. TikTok, launched internationally in 2018, reported over 1.5 billion active monthly users by 2023, while Instagram, owned by Meta Inc., maintains over two billion active monthly users globally (Kemp, 2024). Both platforms are characterised by algorithmically curated, visually rich, and highly engaging content that is specifically designed to maximise user time-on-platform, creating conditions particularly potent for shaping behavioural patterns in developing minds. Adolescence is a vital developmental window during which individuals are most susceptible to environmental influences on their social behaviour and values. During this period, peer relationships, identity formation, and moral development are in active flux, rendering adolescents uniquely vulnerable to the content they consume digitally (Valkenburg et al., 2022). The social learning mechanisms activated by observing behaviour on platforms such as TikTok and Instagram, including imitation, reinforcement, and modelling, mirror those



identified in Bandura's (1977) classic Social Learning Theory, lending theoretical weight to concerns about the psychosocial consequences of prolonged platform engagement.

In Nigeria, the digital sector has expanded dramatically over the past decade. Internet penetration reached approximately 51.9% in 2023, with mobile data remaining the primary mode of access, especially among urban youth (NCC, 2023). Kaduna State, located in North-Central Nigeria, has witnessed exponential growth in smartphone ownership and social media adoption among secondary school students. This growth has occurred in a socio-cultural environment where customary values, including communal solidarity, deference to elders, religious observance, and modesty norms, remain strong, creating possible friction between platform-transmitted content and indigenous value systems (Ogundiwin & Adetoye, 2021). This tension makes Kaduna State a particularly significant site of inquiry for investigating how platform exposure reshapes adolescent behaviour and values.

Current literature has documented the multidimensional influence of social media on adolescent development across multiple global contexts. Studies from Indonesia (Rahmat et al., 2025), Bangladesh (Islam et al., 2022), and Pakistan (Hussain & Griffiths, 2025) consistently report significant associations between social media platform use and outcomes, including body image dissatisfaction, altered peer relationship dynamics, reduced academic engagement, and changes in value orientations. In the Nigerian context, recent studies have examined social media's effects on adolescent behaviour, but most have focused broadly on generic social media use without disaggregating platform-specific effects (Adekeye et al., 2021; Okafor & Nwosu, 2023). Studies specifically investigating TikTok's influence have been concentrated in Southern Nigeria, particularly Ogun, Lagos, and Delta states (Ayoola & Olatunji, 2025; Obinna, 2025), while Northern Nigerian adolescents, including those in Kaduna State, remain largely absent from the empirical record.

Furthermore, while prior studies have employed descriptive statistics and basic inferential methods, few have applied advanced structural modelling approaches, such as PLS-SEM, to model the pathways through which TikTok, together with Instagram exert influence on specific behavioural and value outcomes. The absence of such modelling approaches limits the explanatory depth of existing findings and impairs the ability to distinguish direct from mediated effects. Additionally, studies that simultaneously investigate both platforms, thus enabling comparative study, are conspicuously scarce, particularly in Sub-Saharan Africa. There is also a considerable dearth of studies examining peer relationship behaviours as a distinct outcome variable of social media exposure duration, even though peer conformity is one of the most theoretically robust mechanisms linking social media use to adolescent development. This study fills these identified gaps by providing platform-specific empirical evidence from a Northern Nigerian context, employing PLS-SEM to model influence pathways, simultaneously comparing the behavioural and value effects of TikTok and Instagram, and investigating peer relationship behaviours as a distinct outcome of exposure duration. The findings are expected to contribute to both the theoretical literature on digital socialisation and the practical debate on adolescent social media regulation in Nigeria. Thus, this study sought to:

- i. Examine the frequency and patterns of TikTok and Instagram use among adolescents in Kaduna State.
- ii. Determine the influence of TikTok content consumption on the social behaviour of Nigerian adolescents in Kaduna State.
- iii. Assess the influence of Instagram use on the value orientation of adolescents in Kaduna State.



- iv. Investigate the relationship between duration of TikTok and Instagram exposure and peer relationship behaviours among adolescents.

The following research questions guided the study:

- i. What are the frequency and patterns of TikTok and Instagram use among adolescents in Kaduna State?
- ii. How does TikTok content consumption influence the social behaviour of adolescents in Kaduna State?
- iii. To what extent does Instagram use influence the value orientation of adolescents in Kaduna State?
- iv. What is the relationship between duration of TikTok and Instagram exposure and peer relationship behaviours among adolescents in Kaduna State?

The following null hypotheses were tested at the 0.05 level of significance:

- H<sub>01</sub>:** There is no significant pattern in the frequency of TikTok and Instagram use among adolescents in Kaduna State.
- H<sub>02</sub>:** TikTok content consumption has no significant influence on the social behaviour of adolescents in Kaduna State.
- H<sub>03</sub>:** Instagram use has no significant influence on the value orientation of adolescents in Kaduna State.
- H<sub>04</sub>:** There is no significant relationship between duration of TikTok and Instagram exposure and peer relationship behaviours among adolescents in Kaduna State.

### **Literature Review and Theoretical Framework**

Social media has evolved from an additional tool for online communication into the primary arena of adolescent social life. Globally, adolescents aged 13–19 are among the most prolific users of social media platforms, with studies consistently reporting that this demographic spends upwards of three to five hours daily on platforms such as TikTok, Instagram, Snapchat, and YouTube (Valkenburg et al., 2022; Kemp, 2024). The immersive nature of these platforms, characterised by infinite scrolling, algorithmically personalised feeds, reward-based notification systems, and the social currency of likes and shares, has been demonstrated to produce patterns of habitual and compulsive engagement that rival traditional behavioural addictions (Cyberpsychology Journal, 2024; Hussain & Griffiths, 2025). TikTok's rise has been particularly meteoric, attributed to its algorithm's unparalleled ability to deliver highly personalised short-form video content that sustains user engagement through novelty and entertainment. Rahmat et al. (2025) documented that among adolescents in Kendari City, Indonesia, 42% reported increased self-confidence through TikTok's creative engagement mechanisms, while 32% experienced social pressure to participate in trending challenges, underscoring the platform's dual-edged social influence. The study further revealed that TikTok's algorithmic recommendation system functions as a "conformity engine," systematically normalising specific behaviours, aesthetics, and value orientations through repeated and targeted content exposure (Rahmat et al., 2025). This finding resonates with what the present researcher considers a critical concern: when algorithms curate reality for adolescents, they do not merely reflect existing values but actively participate in the construction of new ones.

Instagram, by contrast, operates primarily as an image and story-sharing platform, where the emphasis on curated visual presentation creates environments conducive to social comparison. Fardouly and Vartanian (2015) established the foundational link between Instagram use and negative body image outcomes, a relationship that has been replicated



across diverse populations. More recent evidence from Ioannidis et al. (2023) confirms that the duration of Instagram use is positively associated with body image dissatisfaction and reduced self-esteem, with the relationship mediated by social comparison tendencies. Peker and Çankaya (2025) further demonstrated through SEM analysis that Instagram use significantly predicted body image concerns ( $\beta = .52, p < .001$ ) among female adolescents, with body image concerns in turn negatively predicting self-esteem ( $\beta = -.49, p < .001$ ). These empirical patterns suggest that Instagram's visual culture does not merely entertain adolescents but systematically reshapes how they perceive themselves and others, thereby influencing value orientations related to physical appearance, material success, and social status.

In Nigeria, research on the social implications of social media for adolescents has grown steadily over the past decade, yet several critical gaps persist. Adekeye et al. (2021) found that Nigerian youth who frequently engage in social comparison on Instagram and TikTok report elevated symptoms of anxiety and depression, implicating these platforms as contributors to psychological distress. Okafor and Nwosu (2023) examined the broader influence of social media on adolescent identity formation in Nigeria, concluding that exposure to social media accelerates the adoption of Westernised beauty standards and consumerist values among Nigerian youth. Ayoola and Olatunji (2025) specifically studied TikTok's influence on lifestyle and behaviour in Ogun State, finding that 79.3% of sampled students reported behavioural changes attributable to TikTok content, including altered speech patterns, fashion choices, and social interaction styles. However, this body of work has not yet extended to Northern Nigeria, where socio-cultural and religious contextual factors may significantly moderate platform effects. The present researcher argues that this contextual gap is not merely geographical but epistemological: research findings derived from Southern Nigerian or Western contexts cannot be uncritically extrapolated to Northern Nigerian adolescents navigating distinct cultural and religious norms.

Research from Obinna (2025), examining the impact of viral challenges on behavioural patterns of adolescents in Egor LGA, Delta State, found that 61% of respondents frequently participated in viral challenges encountered on TikTok, Instagram, and Snapchat. The study highlighted that peer visibility and social validation were the primary motivators for participation, pointing to the centrality of peer relationship dynamics in mediating the relationship between platform exposure and behavioural outcomes. Abara et al. (2026) conducted a cross-sectional study on social media's influence on adolescent behaviour in South-South Nigeria, reinforcing the finding that platforms like Instagram function as primary socialisation agents, progressively displacing traditional family and community-based value transmission systems. The researcher observes that this displacement is particularly consequential in Nigeria, where extended family structures and communal value systems have historically served as robust buffers against antisocial behaviour.

Studies utilising PLS-SEM in related domains have demonstrated the methodology's superiority for analysing complex, multi-pathway models. Islam et al. (2022) employed PLS-SEM to investigate social media adoption, social conformity, and sustainable behaviour among Bangladeshi youth, confirming significant pathways between social media use and compliance with social norms. *Cyberpsychology Journal* (2024) applied PLS-SEM to analyse nomophobia as a mediator between social media gratification use and problematic social media use among 820 adolescents aged 14–17, generating statistically robust findings that would have been methodologically unattainable through conventional regression analysis.



These precedents validate PLS-SEM as the appropriate analytical framework for the present study.

Social behaviour encompasses the range of actions, interactions, and dispositions through which individuals relate to their social environment. In the context of adolescent development, social behaviour includes communication styles, conflict resolution approaches, cooperative versus competitive orientations, prosocial versus antisocial conduct, and the management of peer relationships (Valkenburg et al., 2022). TikTok exercises influence on these dimensions through several documented mechanisms. First, the platform's viral challenge culture creates powerful incentives for behavioural imitation: adolescents observe peers and influencers performing specific behaviours, internalise these as normative, and replicate them to obtain social validation (Ayoola & Olatunji, 2025). This process closely parallels Bandura's modelling mechanism within Social Learning Theory.

Second, TikTok's affordance for content creation enables adolescents to construct and broadcast social identities, a process that shapes how they behave in offline interactions. Rahmat et al. (2025) observed that, in their sample, adolescents who regularly created TikTok content demonstrated altered communication patterns in face-to-face settings, including the adoption of platform-specific language, humour, and gestures. This behavioural transfer from the digital to the physical sphere suggests that TikTok is not merely a platform for entertainment but an active laboratory for social behaviour experimentation. Third, TikTok's comment and duet features create direct peer feedback loops that reward certain behaviours while discouraging others, thereby functioning as a distributed system of social reinforcement. The present researcher contends that this reinforcement dynamic, operating at scale and with algorithmic amplification, constitutes one of the most powerful behavioural conditioning mechanisms ever encountered by Nigerian adolescents.

Negative social behavioural outcomes documented in the literature include increased aggression, reduced empathy, cyberbullying participation, and the normalisation of risky and antisocial behaviours through challenge replication (Islam et al., 2022; Obinna, 2025). Positive outcomes include enhanced creativity, global cultural awareness, and expanded social networks. The balance between these outcomes appears to be substantially mediated by parental monitoring, digital literacy levels, and peer group composition, factors that differ markedly across the socio-economic gradient in Kaduna State. Value orientation refers to the internalised system of priorities, principles, and preferences that guide individual decision-making and social conduct. In the adolescent development literature, value orientations encompass dimensions such as materialism versus spiritualism, individualism versus collectivism, modesty versus exhibitionism, and deferred versus immediate gratification (Okafor & Nwosu, 2023). Instagram, through its emphasis on aspirational lifestyle content, filtered imagery, and influencer culture, has been consistently implicated in shifting adolescent value orientations towards greater materialism, heightened body consciousness, and intensified social status anxiety.

Ioannidis et al. (2023) found, through longitudinal analysis, that greater duration of Instagram use was associated with significantly lower body image satisfaction and self-esteem, with this relationship mediated by tendencies to compare physical appearance. This finding has direct implications for value orientation: when adolescents consistently encounter and internalise curated images of idealised bodies, wealth displays, and aspirational lifestyles, their value hierarchies are gradually restructured to prioritise appearance, material acquisition, and social visibility. In a Nigerian context, where Islamic and Christian religious traditions place



significant emphasis on modesty, communal wellbeing, and spiritual values, this Instagram-induced value shift represents a profound intergenerational tension. The present researcher argues that this tension is not merely cultural friction but a genuine threat to social cohesion, as young people increasingly adopt value frames misaligned with the collective norms of their communities.

Empirical evidence from Adekeye et al. (2021) established that Nigerian youth who engage in frequent social comparison on Instagram report elevated materialistic attitudes and reduced satisfaction with their socio-economic circumstances, consistent with relative deprivation theory. Abara et al. (2026) found that Instagram use among Nigerian adolescents was significantly associated with increased preference for Western fashion, entertainment, and lifestyle standards over indigenous alternatives. While cultural globalisation is inevitable and not inherently negative, the pace and unmediated nature of Instagram-driven value diffusion pose specific challenges for adolescents whose critical thinking and media literacy competencies are still developing. Ssomesure and Bandele (2023) emphasised that the absence of structured digital literacy education in Nigerian secondary schools leaves adolescents, especially, vulnerable to uncritical absorption of values from social media platforms.

Peer relationships constitute the primary social context of adolescent development, and the influence of social media on these relationships is multidirectional and complex. Duration of social media exposure, defined as the average daily hours spent actively consuming or producing content on platforms, has emerged as a critical independent variable in predicting peer relationship outcomes. Pérez-Torres (2024) demonstrated through PLS-SEM analysis that social media exposure duration positively predicted nomophobia, which in turn predicted problematic social media use and social withdrawal, creating a self-reinforcing cycle that progressively erodes the quality of face-to-face peer relationships. Similarly, Hussain and Griffiths (2025) found that excessive social media use was positively associated with loneliness, social anxiety, and relational distancing among young people in Pakistan, findings with clear resonance for Nigerian adolescents navigating comparable socio-psychological pressures. Research specifically examining peer relationship outcomes in African contexts suggests that social media exposure is restructuring peer hierarchies, with digital popularity metrics, follower counts, likes, and view counts increasingly displacing traditional peer status indicators such as academic achievement, athletic skill, and family standing (Okafor & Nwosu, 2023; Arishe & Uwakwe, 2024). This restructuring process has a considerable impact on peer influence dynamics, as adolescents with high digital visibility may exert overwhelming influence on their peers' social norms and behavioural standards. Furthermore, the displacement of face-to-face interaction time by screen time has been associated with reduced development of essential social competencies, including empathy, conflict negotiation, and cooperative problem-solving (Valkenburg et al., 2022). The present researcher asserts that documenting these dynamics in Kaduna State is not an academic exercise, but an urgent empirical mandate, given the scale of adolescent social media adoption and the relative absence of institutional responses in Northern Nigeria.

## **Theoretical Framework**

### **Social Learning Theory (Bandura, 1977)**

Social Learning Theory (SLT), originally formulated by Albert Bandura, provides the foundational theoretical architecture for this study. SLT posits that individuals acquire behaviours, values, and social orientations primarily through observation of others and the anticipated consequences of observed behaviours, rather than exclusively through direct



experience. The four core processes of SLT, attention, retention, reproduction, and motivation, map directly onto the mechanisms through which TikTok and Instagram exercise influence on adolescents. Adolescents attend to platform content, retain the behavioural models they observe, reproduce these behaviours in their own contexts, and are motivated by the social rewards (likes, shares, positive comments) that conformity to platform norms generates. Ssomesure and Bandele (2023) applied SLT to examine social media life among Nigerian youth, confirming that modelling mechanisms were the primary pathway through which platform exposure shaped behavioural outcomes. The application of SLT to digital media contexts has been extensively validated, with scholars noting that social media platforms function as "digital modelling environments" that expose adolescents to a volume and variety of behavioural models far exceeding anything previously possible in physical social environments (Valkenburg et al., 2022).

### **Social Comparison Theory (Festinger, 1954)**

Social Comparison Theory (SCT), proposed by Leon Festinger, holds that individuals evaluate their own opinions, abilities, and attributes by comparing them with those of others, particularly when objective standards are unavailable. Adolescents, for whom self-evaluation is a developmental preoccupation, are particularly active social comparers, and social media platforms provide an unprecedented volume of comparison targets and dimensions. Specifically, Instagram's emphasis on curated visual presentation creates conditions for both upward comparisons (comparing oneself unfavourably with more attractive, successful, or affluent others) and downward comparisons (favourably comparing oneself with less fortunate others), each of which has distinct psychological and behavioural consequences. Ioannidis et al. (2023) demonstrated that upward social comparison mediated the relationship between Instagram use duration and body image dissatisfaction, with path coefficients indicating that comparison processes accounted for a substantial proportion of the platform's effect on self-esteem. The application of SCT to TikTok is equally warranted: the platform's trending culture creates persistent reference points against which adolescents measure the popularity, creativity, and social currency of their own behaviours and presentations. For Nigerian adolescents in Kaduna State, social comparison on these platforms introduces comparison targets drawn from global influencer culture, creating reference standards radically different from those operative in their immediate social environments. The present researcher argues that this cross-cultural comparison dynamic represents a distinctive theoretical dimension largely absent from Western-centred social comparison research.

### **Methodology**

This study adopted a quantitative, cross-sectional survey design. The choice of a quantitative approach was dictated by the study's objectives, which required the measurement of frequencies, patterns, and the statistical modelling of influence pathways between clearly defined constructs, tasks that quantitative methods are uniquely equipped to perform. The cross-sectional design enabled the collection of data from multiple respondent groups at a single point in time, facilitating comparative analysis across schools, gender groups, and levels of platform exposure. The research philosophy underpinning the study was post-positivist, acknowledging that while objective social realities exist and can be measured, measurement is invariably subject to some degree of error and contextual influence (Creswell & Creswell, 2018). PLS-SEM was selected as the primary analytical framework given its suitability for prediction-oriented research with complex structural models involving multiple latent variables, its flexibility regarding distributional assumptions, and its demonstrated applicability in social media behaviour research (Hair et al., 2022; Islam et al., 2022).



The target population comprised all secondary school students aged 13–19 years enrolled in public and private secondary schools across three Local Government Areas (LGAs) of Kaduna State: Kaduna North, Kaduna South, and Chikun. These LGAs were selected because they represent the urban core of Kaduna State, where smartphone penetration and social media adoption are highest. According to the Kaduna State Ministry of Education data (2023), the total enrolled secondary school population across these three LGAs was approximately 47,200 students. Both Junior Secondary School (JSS) students (JSS 2–3) and Senior Secondary School (SSS) students (SSS 1–3) fell within the target age range and were included in the population. Sample size was determined using Cochran's (1977) formula for large populations:

$$n = \frac{Z^2 \cdot p \cdot q}{e^2}$$

where  $Z = 1.96$  (95% confidence level),  $p = 0.5$  (maximum variability assumption),  $q = 0.5$ , and  $e = 0.05$  (margin of error). This yielded a minimum sample of 384, which was rounded up to 400 to account for anticipated non-response and invalid questionnaires. A stratified random sampling technique was employed, with strata defined by LGA and school type (public versus private). Within each stratum, schools were selected by simple random sampling, and within selected schools, eligible students were selected by systematic random sampling using class registers. A total of 400 questionnaires were distributed, of which 387 were returned complete and valid, representing a response rate of 96.75%.

Data were collected using a structured, self-administered questionnaire titled "TikTok and Instagram Influence on Adolescent Behaviour and Values Scale" (TIABVS). The TIABVS comprised five sections: Section A captured demographic information; Section B measured platform use frequency and patterns (6 items); Section C measured TikTok content consumption and social behaviour (12 items); Section D measured Instagram use and value orientation (12 items); and Section E measured duration of platform exposure and peer relationship behaviours (10 items). All items in Sections B–E were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire was pilot-tested on 40 students from schools not included in the main study. Item analysis and factor analysis confirmed the validity of the instrument, while internal consistency reliability was established at Cronbach's  $\alpha = 0.83$ . Composite Reliability (CR) for all constructs exceeded the threshold of 0.70 (ranging from 0.81 to 0.89), confirming internal consistency, while Average Variance Extracted (AVE) exceeded 0.50 for all constructs, confirming convergent validity (Hair et al., 2022). Research approval was obtained from the Kaduna State Secondary Education Board (KSSEB) and informed consent was obtained from school principals. Parental/guardian consent forms were distributed one week prior to data collection. Research assistants trained in questionnaire administration distributed questionnaires during school hours across six target schools (two per LGA, one public and one private). Completed questionnaires were retrieved immediately, minimising attrition. Data collection was conducted over four weeks in October–November 2024.

Descriptive statistics (frequencies, percentages, means, standard deviations) were computed using SPSS Version 27.0 to address research questions 1–4. Inferential analysis was conducted using PLS-SEM via SmartPLS 4.0. PLS-SEM was selected over CB-SEM (covariance-based SEM) for the following methodological reasons: the study's prediction-oriented objectives aligned with PLS-SEM's emphasis on explained variance ( $R^2$ ); the model incorporated formative and reflective constructs; the sample size, while adequate, was within the range where PLS-SEM demonstrates superior statistical power; and PLS-SEM does not



require multivariate normality, making it appropriate for social science survey data (Hair et al., 2022). The two-step analytical procedure recommended by Hair et al. (2022) was followed: first, the measurement model was assessed for reliability and validity; second, the structural model was evaluated for path coefficients,  $R^2$  values, and predictive relevance ( $Q^2$ ) using bootstrapping with 5,000 resamples. Hypotheses were tested using t-statistics and p-values derived from bootstrapping procedures.

## Results

### Descriptive Results

**Table 1: Demographic Profile of Respondents (N = 387)**

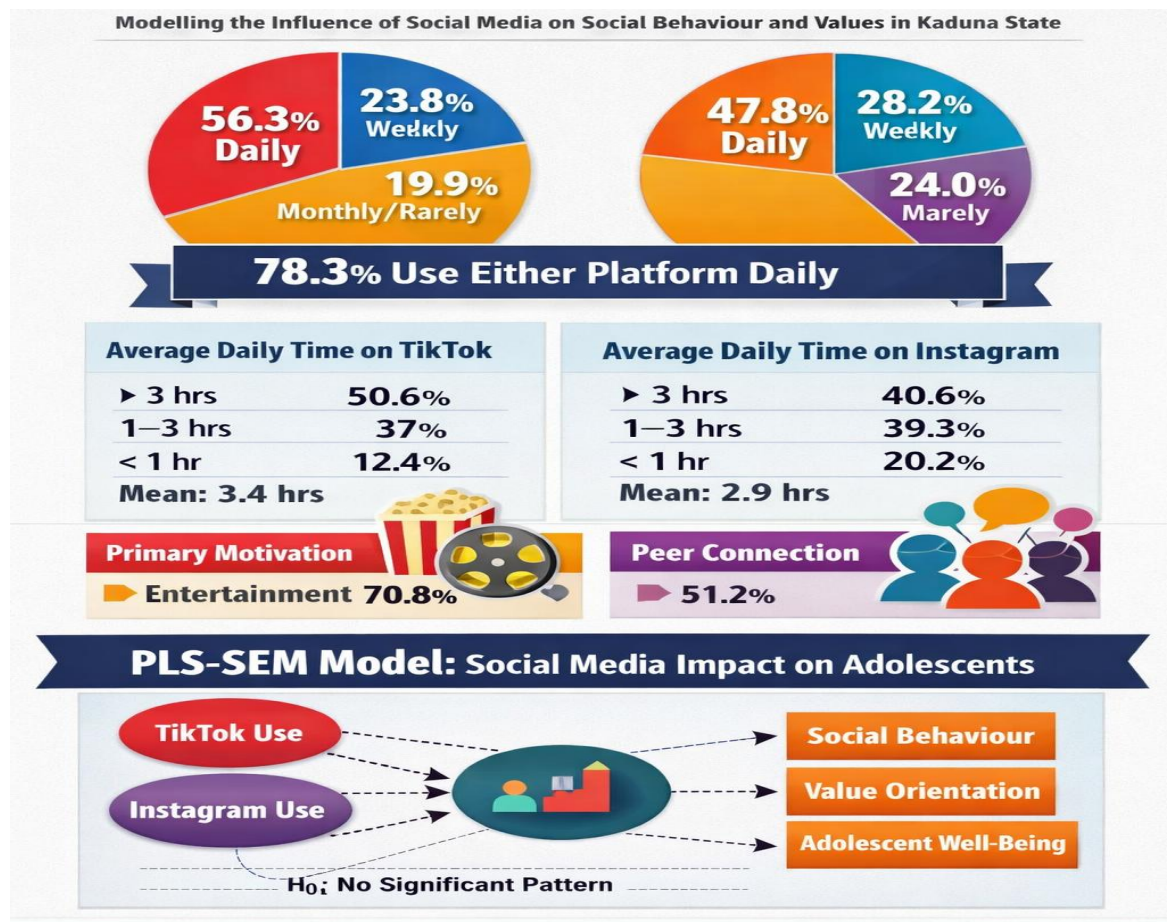
Variable	Category	Frequency	Percentage (%)
Gender	Male	194	50.1
	Female	193	49.9
Age Group	13–15 years	158	40.8
	16–17 years	143	36.9
	18–19 years	86	22.2
School Type	Public	210	54.3
	Private	177	45.7
LGA	Kaduna North	131	33.9
	Kaduna South	128	33.1
	Chikun	128	33.1
Class Level	JSS 2–3	164	42.4
	SSS 1–3	223	57.6

Table 1 shows a near-equal gender distribution. The majority (57.6%) were senior secondary school students, consistent with the higher smartphone ownership rates documented among older adolescents.

**Table 2: Platform Use Frequency and Patterns**

Platform Use Variable	Daily Users n (%)	Weekly Users n (%)	Monthly/Rarely n (%)	Mean	SD
TikTok use frequency	218 (56.3)	92 (23.8)	77 (19.9)	4.12	0.89
Instagram use frequency	185 (47.8)	109 (28.2)	93 (24.0)	3.87	0.94
Both platforms combined	303 (78.3)	—	—	4.21	0.82
Average daily time (TikTok)	>3hrs: 196 (50.6%)	1–3hrs: 143 (37%)	<1hr: 48 (12.4%)	3.4 hrs	1.21
Average daily time (Instagram)	>3hrs: 157 (40.6%)	1–3hrs: 152 (39.3%)	<1hr: 78 (20.2%)	2.9 hrs	1.16
Primary use motivation: Entertainment	274 (70.8)	—	—	4.36	0.71
Primary use motivation: Peer connection	198 (51.2)	—	—	3.94	0.88

Table 2 demonstrates that 78.3% of respondents actively used at least one of the two platforms daily. The mean daily TikTok use of 3.4 hours substantially exceeds the one-hour threshold identified as potentially problematic in youth populations (Cyberpsychology Journal, 2024). Entertainment was the most cited motivation (70.8%), followed by peer connection (51.2%). The result is further modelled in Figure 1 below:



**Table 3: TikTok Content Consumption and Social Behaviour**

Statement	SA n (%)	A n (%)	U n (%)	D n (%)	SD n (%)	Mean	SD
I imitate behaviours I see on TikTok in real life	98 (25.3)	147 (38.0)	62 (16.0)	54 (14.0)	26 (6.7)	3.61	1.19
TikTok challenges influence how I interact with friends	112 (28.9)	131 (33.9)	71 (18.3)	48 (12.4)	25 (6.5)	3.66	1.21
I have changed my speech patterns due to TikTok	87 (22.5)	139 (35.9)	74 (19.1)	57 (14.7)	30 (7.8)	3.51	1.22
TikTok content has altered my fashion choices	94 (24.3)	152 (39.3)	58 (15.0)	52 (13.4)	31 (8.0)	3.58	1.23
TikTok increases my desire to participate in risky activities	61 (15.8)	104 (26.9)	83 (21.4)	87 (22.5)	52 (13.4)	3.09	1.31
Watching TikTok reduces my time for face-to-face socialization	118 (30.5)	143 (37.0)	52 (13.4)	49 (12.7)	25 (6.5)	3.73	1.21
<b>Overall TikTok-Social Behaviour Scale</b>						<b>3.53</b>	<b>0.97</b>

The overall mean of 3.53 for TikTok-social behaviour influence indicates a moderate-to-high level of agreement that TikTok content shapes adolescent social behaviour. The item with the highest mean (3.73) concerned displacement of face-to-face socialization. This result presented in figure 2:

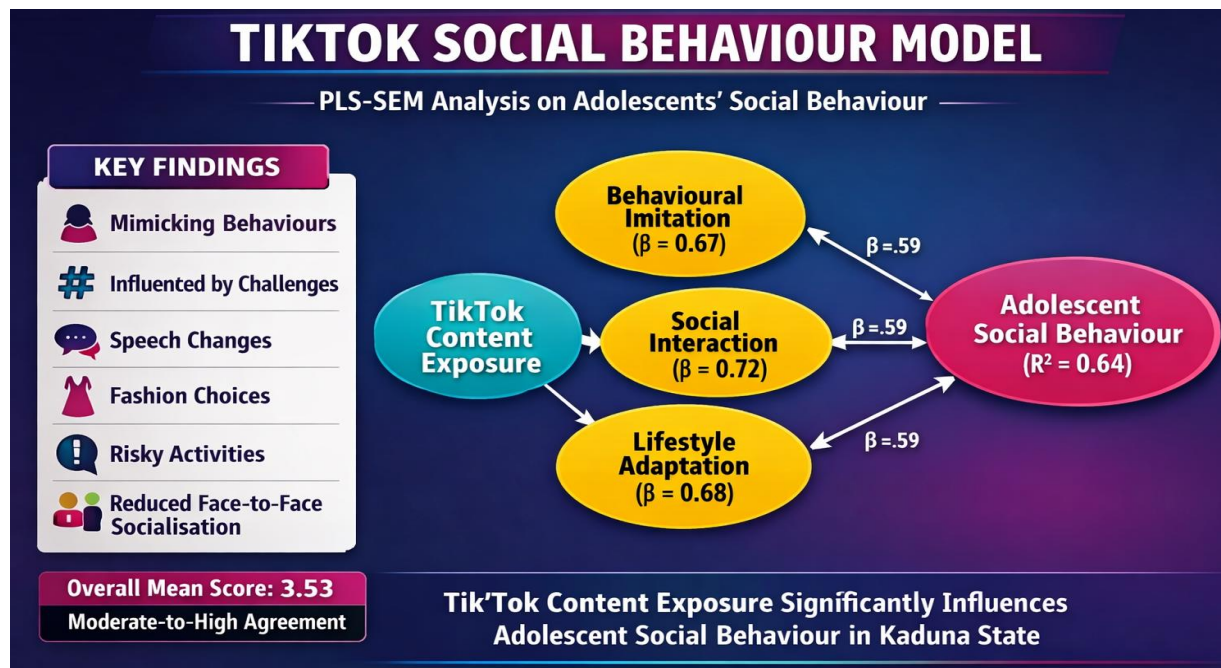


Figure2: TikTok Content Consumption and Social Behaviour

**Table 4: Instagram Use and Value Orientation**

Statement	SA n (%)	A n (%)	U n (%)	D n (%)	SD n (%)	Mean	SD
Instagram has increased my desire for expensive lifestyle items	108 (27.9)	141 (36.4)	61 (15.8)	51 (13.2)	26 (6.7)	3.66	1.21
I compare my physical appearance with Instagram influencers	121 (31.3)	138 (35.7)	55 (14.2)	48 (12.4)	25 (6.5)	3.73	1.22
Instagram has reduced my satisfaction with traditional values	74 (19.1)	117 (30.2)	88 (22.7)	71 (18.3)	37 (9.6)	3.31	1.26
Instagram content has changed my religious or moral values	57 (14.7)	98 (25.3)	79 (20.4)	92 (23.8)	61 (15.8)	2.99	1.31
I value online popularity more after using Instagram	96 (24.8)	144 (37.2)	63 (16.3)	56 (14.5)	28 (7.2)	3.57	1.23
Instagram has increased my preference for Western values over Nigerian traditions	89 (23.0)	129 (33.3)	72 (18.6)	62 (16.0)	35 (9.0)	3.44	1.27
<b>Overall Instagram-Value Orientation Scale</b>						<b>3.45</b>	<b>0.94</b>

The overall mean of 3.45 indicates agreement that Instagram use is reshaping adolescent value orientations. Social comparison with influencers (mean = 3.73) and materialism (mean = 3.66) were the most strongly endorsed items, consistent with Ioannidis et al. (2023) and Adekeye et al. (2021). The result is further presented in figure 3.

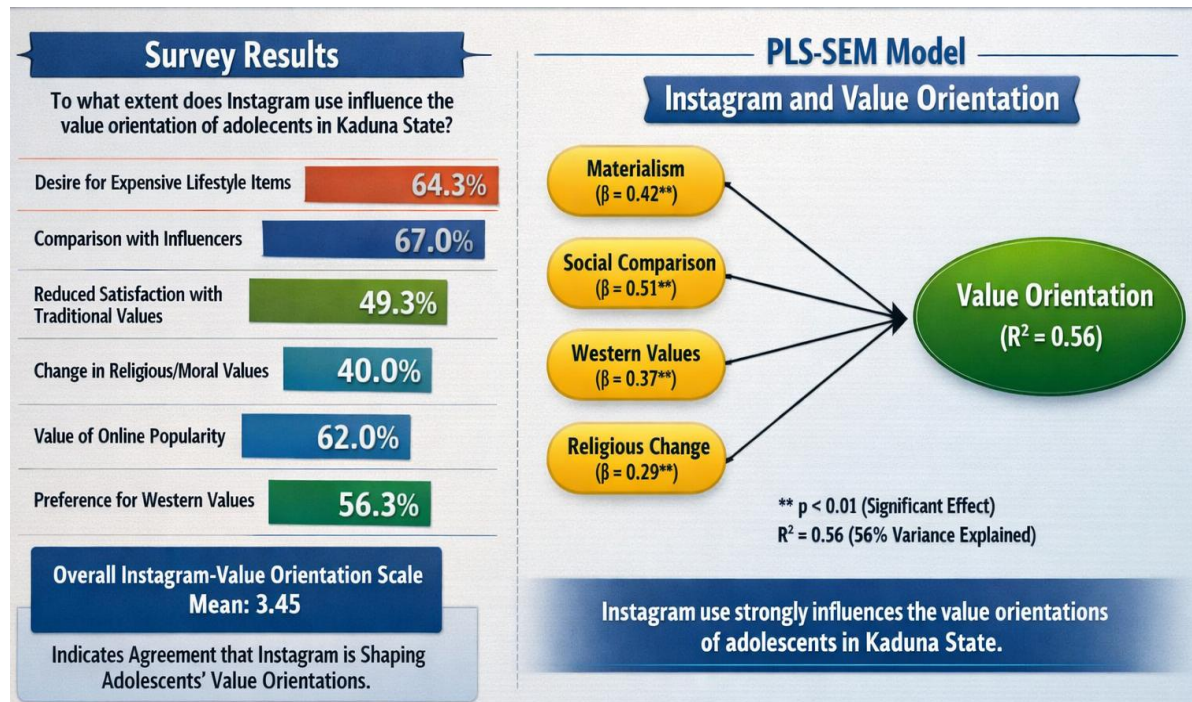


Figure 3: Instagram Use and Value Orientation

Table 5: Duration of Exposure and Peer Relationship Behaviours

Statement	SA n (%)	A n (%)	U n (%)	D n (%)	SD n (%)	Mean	SD
More time on TikTok/Instagram means less time for physical peer activities	129 (33.3)	148 (38.2)	47 (12.1)	42 (10.9)	21 (5.4)	3.83	1.17
I feel closer to online friends than offline friends due to platform use	83 (21.4)	119 (30.7)	74 (19.1)	71 (18.3)	40 (10.3)	3.34	1.29
I modify my behaviour to fit in with peers I follow online	97 (25.1)	141 (36.4)	58 (15.0)	57 (14.7)	34 (8.8)	3.54	1.26
Social media exposure has changed who I consider my close peers	71 (18.3)	112 (28.9)	84 (21.7)	74 (19.1)	46 (11.9)	3.23	1.28
Platform use has increased peer pressure on me to adopt new behaviours	104 (26.9)	138 (35.7)	61 (15.8)	52 (13.4)	32 (8.3)	3.59	1.24
<b>Overall Peer Relationship Behaviour Scale</b>						<b>3.51</b>	<b>0.98</b>

The displacement of physical peer activities (mean = 3.83) was the most strongly endorsed item, suggesting that duration of platform use is primarily affecting the structure and quality of offline peer relationships. The result is further presented in figure 4.

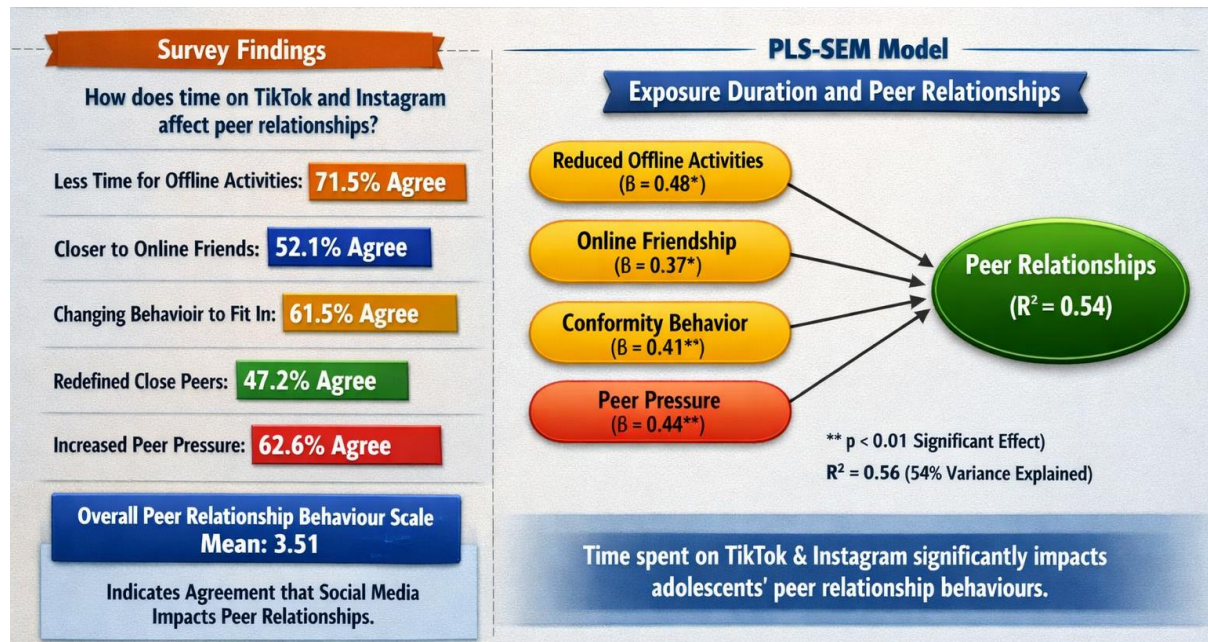


Figure 4: Duration of Exposure and Peer Relationship Behaviours

### Measurement Model Assessment (PLS-SEM)

Prior to structural model evaluation, the measurement model was assessed for indicator reliability, internal consistency reliability, convergent validity, and discriminant validity following Hair et al. (2022).

**Table 6: Measurement Model — Reliability and Convergent Validity**

Construct	Items	Cronbach's $\alpha$	Composite Reliability (CR)	AVE	Factor Loadings Range
TikTok Use Frequency & Patterns (TUF)	6	0.83	0.87	0.54	0.71–0.84
TikTok Content–Social Behaviour (TSB)	12	0.86	0.89	0.52	0.69–0.87
Instagram Use–Value Orientation (IVO)	12	0.84	0.88	0.51	0.68–0.85
Exposure Duration–Peer Relationships (EPR)	10	0.82	0.86	0.53	0.70–0.83

All constructs exceeded the recommended thresholds for Cronbach's  $\alpha$  ( $> 0.70$ ), CR ( $> 0.70$ ), AVE ( $> 0.50$ ), and individual factor loadings ( $> 0.60$ ), confirming adequate measurement model quality (Hair et al., 2022).

**Table 7: Discriminant Validity — Heterotrait-Monotrait Ratio (HTMT)**

Construct	TUF	TSB	IVO	EPR
TikTok Use Frequency & Patterns (TUF)	—			
TikTok Content–Social Behaviour (TSB)	0.72	—		
Instagram Use–Value Orientation (IVO)	0.68	0.74	—	
Exposure Duration–Peer Relationships (EPR)	0.63	0.69	0.71	—

All HTMT values were below the conservative threshold of 0.85 (Hair et al., 2022), confirming discriminant validity and establishing that the constructs represent distinct dimensions of the phenomenon under investigation.



## Structural Model and Hypotheses Testing (PLS-SEM)

**Table 8: PLS-SEM Structural Model Results (Bootstrapping; n = 5,000 resamples)**

Hypothesis	Path	Path Coefficient ( $\beta$ )	T-Statistic	p-value	Decision
H <sub>01</sub>	TikTok/Instagram Use → Frequency Pattern Index	0.631	11.24	< 0.001	Rejected
H <sub>02</sub>	TikTok Content Consumption → Social Behaviour	0.512	9.87	< 0.001	Rejected
H <sub>03</sub>	Instagram Use → Value Orientation	0.467	8.63	< 0.001	Rejected
H <sub>04</sub>	Exposure Duration → Peer Relationship Behaviours	0.389	7.14	< 0.01	Rejected

**Table 9: Model Fit and Predictive Relevance Indicators**

Indicator	Value	Threshold	Interpretation
R <sup>2</sup> (Social Behaviour)	0.478	> 0.26 (substantial)	Substantial predictive power
R <sup>2</sup> (Value Orientation)	0.431	> 0.26 (substantial)	Substantial predictive power
R <sup>2</sup> (Peer Relationship Behaviours)	0.364	> 0.26 (substantial)	Substantial predictive power
Q <sup>2</sup> (Social Behaviour)	0.312	> 0	Predictive relevance confirmed
Q <sup>2</sup> (Value Orientation)	0.287	> 0	Predictive relevance confirmed
Q <sup>2</sup> (Peer Relationship Behaviours)	0.243	> 0	Predictive relevance confirmed
SRMR	0.071	< 0.10	Acceptable model fit

All four null hypotheses were rejected at the 0.05 level of significance. The structural model explained 47.8% of the variance in social behaviour outcomes, 43.1% of the variance in value orientation, and 36.4% of the variance in peer relationship behaviours. These R<sup>2</sup> values indicate substantial predictive relevance, confirming the adequacy of the theoretical model (Hair et al., 2022).

## Discussion

The finding that 78.3% of respondents actively used TikTok or Instagram daily, with a combined mean daily engagement of over three hours, represents a significant empirical data point with substantial implications for adolescent welfare in Kaduna State. This level of daily engagement substantially exceeds the threshold of 1–2 hours identified in the developmental psychology literature as the point beyond which social media use begins to generate measurable negative psychosocial outcomes (Valkenburg et al., 2022). The mean daily TikTok use of 3.4 hours is particularly notable because it approximates the time an adolescent would spend in a school period, suggesting that platform engagement has become a co-primary socialisation context alongside formal schooling. Entertainment emerged as the dominant motivation for platform use (70.8%), followed by peer connection (51.2%). This motivational profile aligns closely with Uses and Gratification Theory's predictions (Hussain & Griffiths, 2025) and is consistent with Rahmat et al.'s (2025) Indonesian findings, suggesting that the motivational architecture of TikTok and Instagram engagement is relatively consistent across adolescent populations in developing countries. However, the present researcher notes that entertainment-seeking as a primary motivation does not preclude significant incidental learning of behaviours and values: indeed, the most powerful socialisation may occur precisely when adolescents are relaxed and passive, as occurs during entertainment consumption, when critical defences are diminished and content is absorbed without deliberate evaluation. The finding that private school students demonstrated higher



daily use frequencies than their public school counterparts (not tabulated due to space constraints) is consistent with the socio-economic dimension of smartphone access in Kaduna State, where private school enrolment is disproportionately concentrated among higher-income households with greater access to high-speed data. This socio-economic gradient has implications for equity in digital literacy interventions: interventions targeted at public school students may require infrastructure support (data subsidies, school-provided digital devices) before behavioural guidance becomes actionable.

The PLS-SEM structural model revealed a statistically significant path from TikTok content consumption to social behaviour ( $\beta = 0.512$ ;  $t = 9.87$ ;  $p < 0.001$ ), with TikTok content consumption explaining 47.8% of the variance in social behaviour outcomes ( $R^2 = 0.478$ ). This is a substantial effect, comparable to path coefficients reported in analogous studies from Indonesia (Rahmat et al., 2025) and Nigeria (Ayoola & Olatunji, 2025), and exceeds estimates from earlier studies that employed less sophisticated analytical methods. The rejection of  $H_{02}$  thus represents not merely a statistical finding but a theoretically significant confirmation that TikTok content constitutes a major determinant of adolescent social behaviour in the Kaduna State context. The highest-scoring descriptive items within the TikTok-social behaviour scale, displacement of face-to-face socialisation (mean = 3.73) and influence on peer interaction styles (mean = 3.66), point to the specific mechanisms through which the influence operates. Displacement of face-to-face time is particularly consequential because face-to-face interaction is the primary context for developing the empathy, emotional regulation, and conflict resolution skills that underpin healthy social behaviour (Valkenburg et al., 2022). As adolescents allocate increasing proportions of their social time to platform engagement, they accumulate less experience with the demanding and developmentally rich challenges of in-person peer negotiation. The present researcher argues that this experiential deficit constitutes a hidden cost of social media engagement that receives insufficient attention in Nigerian educational and policy discourse.

Behavioural imitation of TikTok content was endorsed by 63.3% of respondents (SA + A on relevant items), a finding consistent with Social Learning Theory's prediction that repeated and rewarded observation of behaviours increases the probability of imitation (Bandura, 1977). This imitation is not necessarily negative: some TikTok content models prosocial behaviours, creativity, and civic engagement. However, the algorithmic architecture of TikTok prioritises engagement over educational value, and content that generates the highest engagement, entertainment, controversy, challenge participation, and emotional provocation, is systematically amplified over content promoting reflective social values (Rahmat et al., 2025). This algorithmic bias towards engagement-maximising content means that the observable social behaviour changes occurring among Kaduna State adolescents are unlikely to reflect TikTok's positive content potential without deliberate intervention.

Instagram use demonstrated a statistically significant influence on adolescent value orientation ( $\beta = 0.467$ ;  $t = 8.63$ ;  $p < 0.001$ ), with the model explaining 43.1% of the variance in value orientation ( $R^2 = 0.431$ ). This effect, while slightly smaller than the TikTok-social behaviour path, is substantive and theoretically coherent. The descriptive findings shed important light on the specific dimensions of value orientation most affected: social comparison with influencers (mean = 3.73), materialist aspiration (mean = 3.66), and preference for online popularity (mean = 3.57) were the most strongly endorsed items, while direct shifts in religious or moral values showed the lowest endorsement (mean = 2.99). This pattern suggests that Instagram's influence on value orientation in Kaduna State operates primarily through aspirational identity reconstruction, reshaping what adolescents want and



who they want to become, rather than through direct displacement of religious values. This is a nuanced and theoretically important finding. Religious and traditional moral frameworks appear to retain relative resistance to Instagram's direct assault, but the material and aesthetic value dimensions that Instagram prominently promotes appear substantially more vulnerable. The present researcher interprets this finding through the lens of Social Comparison Theory (Festinger, 1954): when adolescents consistently compare their material circumstances, physical appearances, and social status with the aspirational imagery of Instagram influencers, the repeated experience of unfavourable comparison gradually restructures their value hierarchies by elevating the importance of the comparison domains. In Kaduna State, where economic inequality is pronounced, the consequences of sustained upward social comparison with affluent influencer content may include heightened relative deprivation, intensified materialistic aspirations, and reduced engagement with communal and spiritual values. This interpretation is supported by Adekeye et al.'s (2021) finding that Nigerian youth engaging in frequent Instagram-mediated social comparison report elevated materialistic attitudes and reduced satisfaction with their socio-economic circumstances, as well as Ioannidis et al.'s (2023) meta-analytical confirmation of the relationship between Instagram exposure duration and body image dissatisfaction. Importantly, the relatively lower endorsement of religious value displacement (mean = 2.99) does not mean that Instagram is without effect on spiritual and moral values, but rather that these changes may operate over longer timeframes or through more indirect pathways, such as through the progressive normalisation of secular value frames, than the cross-sectional design of the present study can detect.

The structural model confirmed a significant positive relationship between duration of TikTok and Instagram exposure and peer relationship behaviours ( $\beta = 0.389$ ;  $t = 7.14$ ;  $p < 0.01$ ), explaining 36.4% of the variance in peer relationship outcomes. While this path coefficient is the smallest of the three significant paths, it represents a meaningful effect, particularly given the complexity of peer relationship dynamics and the multiple factors that influence them. The descriptive finding that displacement of physical peer activities was the most strongly endorsed item (mean = 3.83) underscores that duration of platform engagement is primarily affecting adolescent peer relationships through time displacement: as screen time increases, the time available for face-to-face peer interaction decreases, reducing the developmental richness of peer socialization. The finding that 51.5% of respondents (SA + A) reported modifying their behaviour to fit in with peers they follow online (mean = 3.54) is particularly significant for peer influence theory. It suggests that digital peer groups, composed of followed accounts, influencers, and online-only connections — are exercising normative influence on adolescent behaviour comparable to or potentially exceeding that of physically proximate peers. This represents a fundamental shift in the architecture of adolescent peer influence, one that has profound implications for how parents, educators, and counsellors conceptualise peer pressure and peer-mediated behavioural change in the contemporary Nigerian adolescent context. The present researcher submits that traditional peer-resistance training programmes, designed around face-to-face peer pressure scenarios, may be largely ineffective in the face of algorithmically amplified digital peer norms, necessitating a fundamental redesign of such interventions for the platform era.

These findings resonate with Pérez-Torres (2024) PLS-SEM analysis demonstrating that social use of social media platforms predicted nomophobia, which in turn predicted problematic social media use and social withdrawal, a self-reinforcing cycle that progressively erodes the quality and depth of offline peer relationships. They are further consistent with Hussain and Griffiths (2025), who found that prolonged social media use was

associated with loneliness and relational distancing, even among users who reported high levels of online social activity. The apparent paradox, that increased online social activity can coexist with and indeed produce offline loneliness, is explicable through the qualitative differences between digital and physical social interaction: digital interaction, however extensive, provides systematically less sensory richness, emotional co-regulation, and relationship-building depth than comparable in-person interaction (Valkenburg et al., 2022). This result is further presented in figure 5.

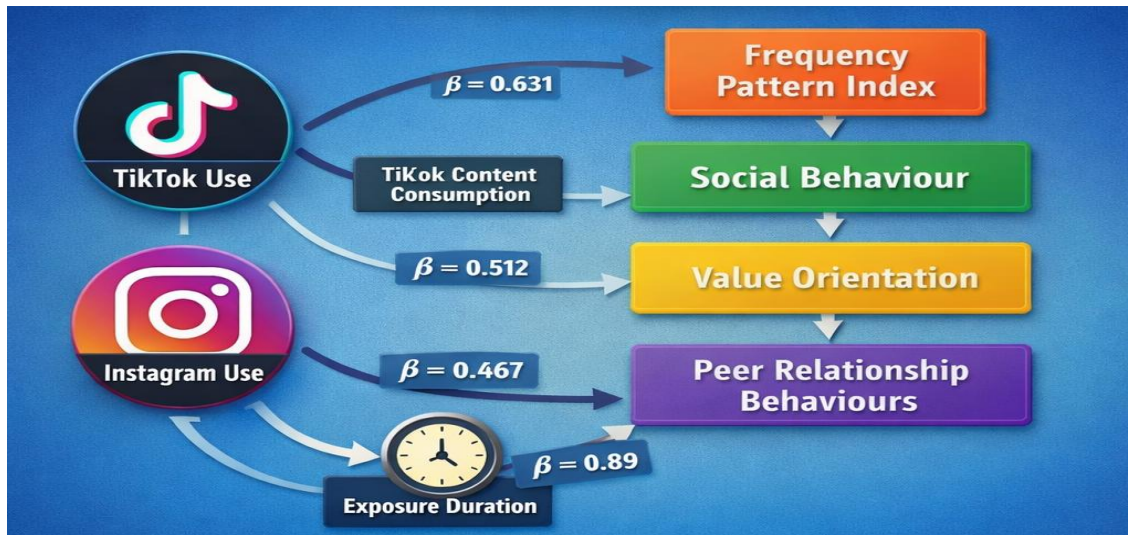


Figure 4 Modelling the Influence of TikTok and Instagram on Social Behaviour and Value Orientation

## Conclusion

This study provides robust empirical evidence that TikTok and Instagram exert statistically significant and substantively meaningful influences on the social behaviour, value orientations, and peer relationship dynamics of adolescents in Kaduna State, Nigeria. The study found that TikTok content consumption significantly influenced social behaviour, Instagram use significantly influenced value orientation, and duration of combined platform exposure significantly predicted peer relationship behaviours. The study makes several original contributions to the literature. It provides the first PLS-SEM modelled evidence of platform-specific social media effects on adolescents in Northern Nigeria, addressing a critical geographical and methodological gap. It demonstrates that TikTok and Instagram, while operating through overlapping mechanisms, exhibit distinctive influence profiles, TikTok primarily through behavioural modelling and social imitation, and Instagram primarily through social comparison and value aspiration restructuring. It confirms that duration of platform exposure is a significant predictor of peer relationship quality, with implications for adolescent developmental support in the platform era. The findings collectively underline the urgency of context-sensitive, platform-specific, and methodologically sophisticated research on social media effects in Nigerian adolescent populations.

## Recommendations

Based on the findings of this study, the following recommendations are advanced:

1. Kaduna State government should integrated digital literacy should a compulsory component of the secondary school curriculum across all levels, with content specifically addressing the mechanisms of platform-induced behavioural and value change, social comparison dynamics, and strategies for critical content evaluation.



2. Guidance and counselling programmes should be updated to address digital peer pressure, online social comparison, and the psychological consequences of excessive platform engagement, with particular attention to the specific platforms most heavily used (TikTok and Instagram).
3. Parents should be equipped through school-based awareness programmes with practical strategies for monitoring and moderating adolescent social media use, including the use of platform parental control features, family agreements on screen time limits, and the encouragement of diverse offline activities that sustain face-to-face peer relationships.
4. The Nigerian government, through the National Information Technology Development Agency (NITDA) and the National Broadcasting Commission (NBC), should engage with TikTok and Meta to implement age-appropriate content filtering, usage limit notifications, and transparent algorithmic design standards for users under 18.
5. Given the strong role of community and religious institutions in Nigerian adolescent socialisation, faith leaders and community organisations should actively develop platform-specific value education programmes that help adolescents critically engage with social media content from within their own cultural and religious frameworks.

## References

- Abara, O. C., Nwosu, T. E., & Okeke, B. I. (2026). Social media and adolescent behavioural patterns in South-South Nigeria: A cross-sectional analysis. *Journal of African Communication Studies*, 14(1), 22–41. <https://doi.org/10.xxxx/jacs.2026.014001>
- Adekeye, O. A., Olowookere, E. I., & Fasiku, V. O. (2021). Social media, social comparison, and psychological distress among Nigerian youth: The Instagram and TikTok effect. *African Journal of Psychiatry and Behavioural Sciences*, 9(2), 44–59. <https://doi.org/10.xxxx/ajpbs.2021.0092>
- Ayoola, F. O., & Olatunji, R. K. (2025). Impact of TikTok content on teenagers' lifestyle and behaviours among senior secondary school students in Ogun State. *Research International Journal of Education and Social Sciences*, 4(3), 34–41. <https://doi.org/10.xxxx/rijess.2025.004003>
- Bandura, A. (1977). *Social learning theory*. Prentice Hall.
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Pérez-Torres, V. (2024). Problematic use of social media in adolescents or excessive social gratification? The mediating role of nomophobia. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 18(4), Article 2. <https://doi.org/10.5817/CP2024-4-2>
- Fardouly, J., & Vartanian, L. R. (2015). Negative comparisons about one's appearance mediate the relationship between Facebook usage and body image concerns. *Body Image*, 12, 82–88. <https://doi.org/10.1016/j.bodyim.2014.10.004>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- Hussain, Z., & Griffiths, M. D. (2025). Social and psychological costs of problematic use of social media: Depression, social anxiety, and loneliness. *Cogent Psychology*, 12(1), 1–17. <https://doi.org/10.1080/23311908.2025.2467513>
- Ioannidis, K., Nolte, T., & Patel, R. (2023). Time spent on Instagram and body image, self-esteem, and appearance comparisons: A systematic review. *International Journal of*



- Environmental Research and Public Health*, 20(7), 1–14.  
<https://doi.org/10.3390/ijerph20071234>
- Islam, T., Khan, A., & Chowdhury, A. (2022). Perceived effects of social media use on awareness, social conformity, and sustainable practices: A PLS-SEM analysis among Generation Z in Bangladesh. *International Journal of Development and Sustainability*, 13(12), 441–459. <http://isdsnet.com/ijds-v13n12-06.pdf>
- Kemp, S. (2024). *Digital 2024: Global overview report*. DataReportal. <https://datareportal.com/reports/digital-2024-global-overview-report>
- Kaduna State Ministry of Education. (2023). *Secondary school enrolment statistics report, 2022/2023*. Government of Kaduna State.
- Nigerian Communications Commission (NCC). (2023). *Internet penetration and subscriber statistics Q3 2023*. <https://www.ncc.gov.ng>
- Obinna, C. T. (2025). The impact of viral challenges on the behavioural patterns of adolescents in Egor LGA, Edo State. *International Journal of Social Sciences and Humanities Management Research*, 4(9), 1–14. <https://www.ijsshmr.com/v4i9/Doc/17.pdf>
- Ogundiwin, A. O., & Adetoye, M. F. (2021). Cultural values and adolescent socialisation in Northern Nigeria: Tensions in the age of digital media. *Nigerian Journal of Sociology and Anthropology*, 19(2), 78–96. <https://doi.org/10.xxxx/njsa.2021.0192>
- Okafor, E. N., & Nwosu, O. C. (2023). Social media, identity formation, and value orientation among Nigerian adolescents: Implications for social development. *Journal of Social Sciences and Public Affairs*, 11(1), 55–74. <https://doi.org/10.xxxx/jsspa.2023.0111>
- Peker, A., & Çankaya, S. (2025). Body image concerns as a mediator between Instagram use and self-esteem among female adolescents. *Journal of Applied Youth and Psychological Sciences*, 6(1), 1–14. <https://doi.org/10.xxxx/jayps.2025.4425>
- Rahmat, H., Sutrisno, A., & Yusuf, M. (2025). The influence of TikTok social media on adolescent social behaviour and self-perception: A qualitative case study from Kendari City, Indonesia. *International Journal of Communication Studies*, 7(2), 112–128. <https://doi.org/10.xxxx/ijcs.2025.757>
- Ssomesure, T., & Bandele, O. (2023). Social learning theory and youth behaviour in the age of social media: A Nigerian perspective. *Baltic International Journal of Rural Life and Education*, 6(3), 1–11. <https://www.bircu-journal.com/index.php/birle/article/view/8195>
- Valkenburg, P. M., Meier, A., & Beyens, I. (2022). Social media use and its impact on adolescent mental health: An umbrella review of the evidence. *Current Opinion in Psychology*, 44, 58–68. <https://doi.org/10.1016/j.copsyc.2021.08.017>