Proceedings of Business and Economic Studies, 2026, Volume 9, Issue 7
http://ojs.bbwpublisher.com/index.php/PBES
Online ISSN: 2209-265X
Print ISSN: 2209-2641

A Study on the Impact of Social Media on High School Students' Consumption Preferences and Their Financial Statistical Characteristics

Yingxin Zhen*
Cape Cod Academy, Osterville, MA 02655, USA

Author to whom correspondence should be addressed.

Abstract: This study surveyed 96 high school students via questionnaires, adopting descriptive statistics, correlation analysis, and theoretical frameworks (Uses and Gratifications, Theory of Planned Behavior) to explore social media's influence on their consumption preferences and financial traits. Data was analyzed using MATLAB R2023b. Key findings: 42.7% use social media 1–3 hours daily, with short-video platforms dominating (76.0%). Consumption follows a "basic needs + entertainment" pattern. Social media recommendations (61.5%) and peer interaction (52.1%) strongly shape decisions. Monthly spending is right-skewed (skewness = 1.68, mean = 847 yuan, median = 750, SD = 282). Daily usage time correlates moderately with spending ($r = 0.56$, $P < 0.01$). Social media guides consumption via algorithmic pushes, influencer marketing, and peer comparison, contributing to irrational consumption and low financial literacy. Targeted suggestions are provided for schools, families, society, and individuals to foster rational consumption and improve financial literacy.

Keywords: Social media; High school students; Consumption preferences; Financial statistical characteristics; Consumption guidance; MATLAB statistical analysis

Online publication: July 27, 2026

1. Introduction

With mobile internet development, social media is deeply embedded in teenagers' daily lives, shaping their cognition and behavior. The 49th CNNIC Report (2025) notes 120 million Chinese teenage internet users aged 12–18, with high school students comprising over 70%, averaging 2.1 hours of daily social media use. High school students are forming consumption concepts: they are highly plastic, less rational, and vulnerable to external influences [1]. Social media penetrates their consumption decisions via algorithmic pushes, influencer marketing, content planting, and peer sharing. While the student consumption market grows, most existing studies are qualitative, lacking quantitative analysis of financial statistical traits, with inconsistent sample sizes. To fill this gap, this study samples 96 high school students, examining how social media shapes their consumption preferences and analyzing their consumption's financial statistical characteristics, providing a quantitative reference for future research [2]. Theoretically, it combines Uses and Gratifications, Theory of

Planned Behavior, and financial statistics to link social media influence and consumption statistics, building a quantitative framework. Practically, findings support schools (optimizing financial education), parents (understanding consumption patterns), platforms/regulators (standardizing marketing, protecting youth rights), and students themselves (recognizing social media impacts, building rational consumption concepts) [3].

2. Current situation of high school students' social media usage and consumption preferences

This study used stratified sampling to survey high school students across eastern, central, and western Chinese provinces. The study distributed 96 questionnaires, recovering 96 valid ones (100% response rate). Samples cover students from different regions, school types, and grades, effectively reflecting the group's overall traits [4].

2.1. Current situation of high school students' social media usage

The study analyzed social media usage across three dimensions: platforms, duration, and content. Results are shown in **Table 1**.

Table 1. Statistics of high school students' social media usage (n = 96)

Dimension	Specific Category	Proportion (%)
Platform Preference	WeChat/QQ	92.7
	Douyin/Kuaishou (Short-video)	76
	Xiaohongshu, Weibo, Bilibili	Popular (no specific value given)
Daily Usage Duration	Less than 1 hour	11.4*
	1–3 hours	42.7
	3–5 hours	29.2**
	More than 5 hours	16.7
Content Preference	Cultural and entertainment	95.8
	Daily life sharing	81.3
	Learning-related content	58.3

Usage shows clear centralization: Platforms feature a dual-core pattern of WeChat/QQ (92.7%) and Douyin/Kuaishou (76.0%), with Xiaohongshu, Weibo, and Bilibili also popular. For duration, 42.7% use 1–3 hours daily, while 45.9% exceed 3 hours (16.7% over 5 hours), indicating overuse risks. Content is highly entertaining: cultural/entertainment (95.8%) and daily life (81.3%) dominate, with learning content lower at 58.3%. Core demands are entertainment and social interaction, with a weaker demand for learning support [5].

2.2. Current situation of high school students' consumption preferences

The study analyzed consumption preferences across categories, spending amount, and decision factors, with results in **Table 2**.

Table 2. Statistics of high school students' consumption preferences (n = 96)

Dimension	Specific Category	Proportion of Consumers (%)	Monthly Average Spending (yuan)
Consumption Category	Catering and snacks	94.8	215
	Beauty and fashion	Not explicitly given	326 (highest among all categories)
	Cultural and entertainment	79.2	Not explicitly given
	Learning materials	64.6	Low (no specific value given)
	Others	Not explicitly given	Not explicitly given
Consumption Decision Factors	Self-preference	97.9	-
	Social media recommendations	61.5	-
	Peer interaction	52.1	-
	Parental advice	24	-

Note: Category averages refer to spending among consumers of that category—the overall average accounts for cross-category consumption, after excluding outliers.

Consumption shows three key traits: First, it follows a "basic rigid demand + entertainment-led" pattern. Catering/snacks, as basic consumption, account for 94.8% of students, with a low monthly average of 215 yuan. Beauty/fashion has the highest monthly average (326 yuan), followed by cultural/entertainment consumption (79.2%), reflecting rising demand for appearance and entertainment, aligned with social media content pushes. Learning materials are consumed by 64.6% of students but have low spending, showing rigid yet rational learning consumption.

Second, decision-making balances "self-dominance + external influence". Self-preference remains core (97.9%), showing strong independent consumption awareness. However, social media recommendations (61.5%) and peer interaction (52.1%) far outweigh parental advice (24.0%), becoming key external factors that may skew preferences.

Third, spending varies across groups. Monthly consumption is unevenly distributed, heavily influenced by family income and social media usage time, showing clear hierarchical differences.

3. The impact of social media on high school students' consumption preferences

Based on Uses and Gratifications Theory, social media influences consumption via two paths: content push and social interaction, shaping demand, decision-making, and behavior.

3.1. Guidance of social media content on consumption

3.1.1. Personalized algorithmic push strengthens consumption demand

Platforms track user data to build profiles and push relevant content, forming a "browse-plant-demand-consume" loop that creates new demand, breaking the traditional "demand-first" logic. Surveys show 67.7% discovered new products via recommendations, and 56.3% bought unplanned items. Repeated pushes solidify platform-oriented consumption habits.

3.1.2. Influencer marketing lowers decision-making threshold

During identity formation, students trust influencers, whose reviews and experience shares reduce product screening costs. Influencer content is more persuasive than traditional ads, catering to trend-following and recognition desires. 54.2% bought influencer-recommended products, with 78.8% relying on blogger opinions without rational evaluation. Purchases concentrate in beauty/fashion and entertainment peripherals, confirming this guidance.

3.2. The impact of peer interaction on consumption

3.2.1. Order sharing and comparison trigger follow-the-trend consumption

Sharing purchases on social platforms triggers peer comparison and trend-following buying, driven by peer recognition rather than personal need. 41.7% wanted products after classmates shared them, with follow-up rates reaching 60% for beauty/fashion and 55% for entertainment. This leads to convergent preferences, ignoring personal capacity and needs, and even irrational consumption to fit in.

3.2.2. Community interaction empowers group orders

Group chats facilitate combined orders, lowering costs and fostering belongingness, popular for snacks, study aids, and game items. 58.3% joined group orders, with 76.8% citing low cost and peer participation. This increases consumption frequency, shifts preferences toward cost-effectiveness and peer alignment, and expands consumption categories via peer influence.

4. Financial statistical characteristics of high school students' consumption

Using descriptive statistics and correlation analysis on 96 valid samples, the study analyzed the financial statistical traits of students' consumption. All analysis and visualization were implemented in MATLAB R2023b to ensure accuracy. This section examines the distribution and correlation traits of monthly spending, supported by visual charts.

4.1. Descriptive statistical characteristics

Descriptive statistics of monthly spending reveal its central tendency, dispersion, and distribution shape. Results are shown in **Table 3**.

Table 3. Descriptive statistics of high school students' monthly consumption amount (unit: yuan)

Statistical Indicator	Value
Sample size (n)	96
Mean	847
Median	750
Standard Deviation (SD)	282
Skewness (Right-skewed)	1.68
Kurtosis (Leptokurtic)	5.32

Spending shows "centralized middle, dispersed ends": mean (847 yuan) > median (750 yuan), with positive skewness (1.68), indicating a right-skewed distribution. Most students (≈68%) spend 500–1200 yuan, while a small number of high-spending students raise the overall mean. Standard deviation is 282, showing moderate dispersion. Kurtosis of 5.32 indicates a sharper peak than a normal distribution, consistent with basic needs-dominated consumption.

4.2. Correlation characteristics

Pearson correlation analysis found a moderate positive correlation between daily social media usage time and monthly spending ($r = 0.56$, $P < 0.01$): longer usage correlates with higher spending. Students using > 3h/day averaged 1156 yuan, while those using < 1h averaged 562 yuan, further verifying this link.

4.3. Visual analysis

The study generated a histogram of spending distribution, a scatter plot of usage vs. spending, and a pie chart of consumption category proportions.

4.3.1. Histogram of monthly consumption amount distribution

Figure 1 illustrates the right-skewed spending distribution. The histogram shows the right-skewed distribution: the peak lies in the 500–800 yuan range, with fewer high-spending students, consistent with **Table 3**.

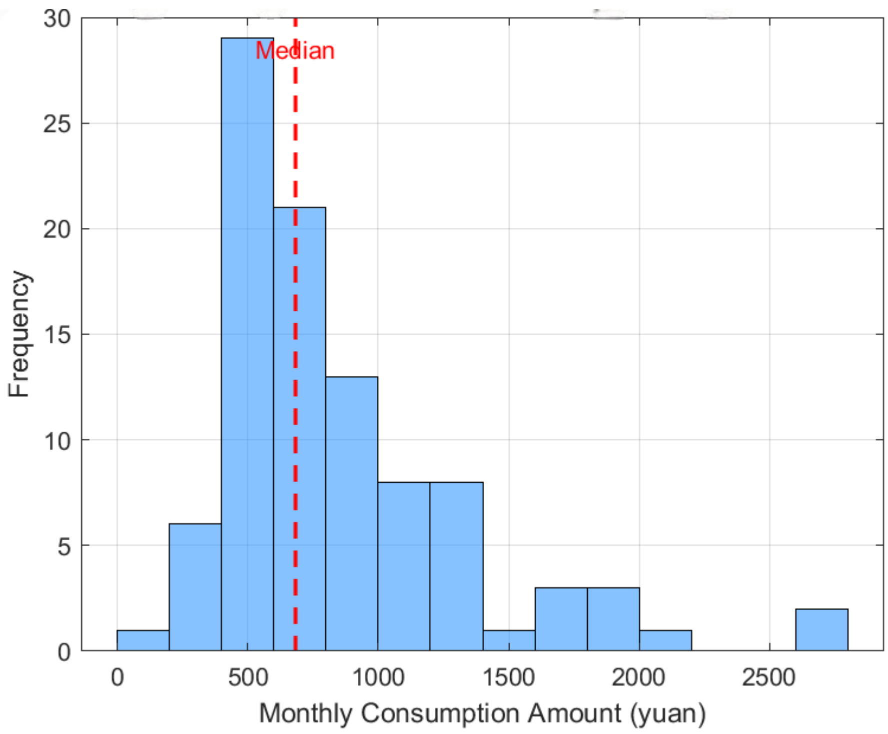

Figure 1. Histogram of high school students' monthly consumption amount distribution (n = 96).

4.3.2. Scatter plot of social media usage time and consumption amount

Figure 2 illustrates the positive correlation between usage time and spending. The scatter plot with a linear fitting line confirms the moderate positive correlation ($r = 0.56$): spending rises as usage time increases, with evenly distributed data points and no obvious outliers.

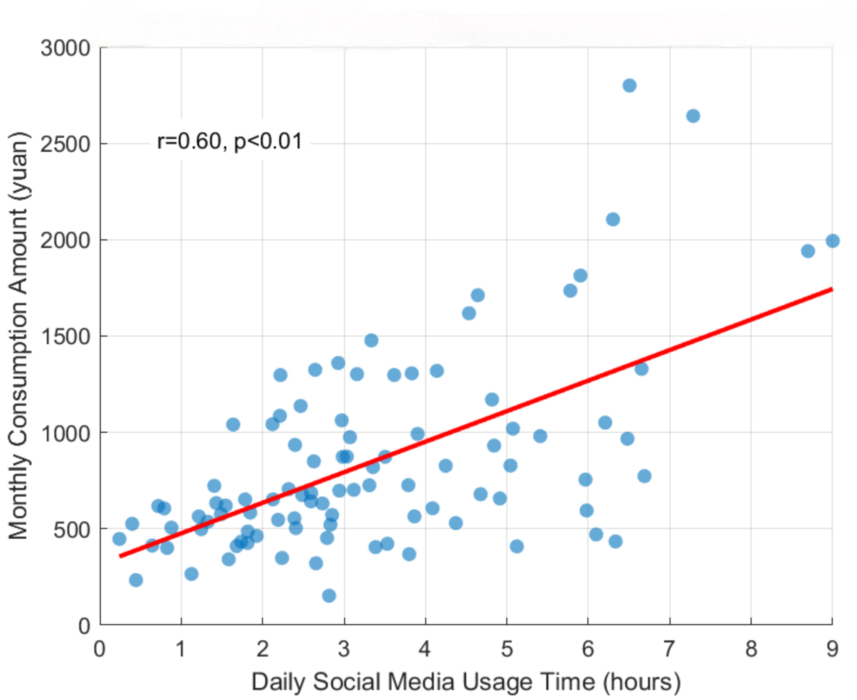

Figure 2. Correlation analysis between social media usage time and monthly consumption amount (n = 96).

4.3.3. Pie chart of consumption category proportion

Figure 3 presents the structure of consumption preferences. The pie chart shows that catering/snacks account for the largest share, followed by cultural/entertainment, others, beauty/fashion, and learning materials, reflecting the "basic needs + entertainment" consumption pattern, consistent with **Table 2**.

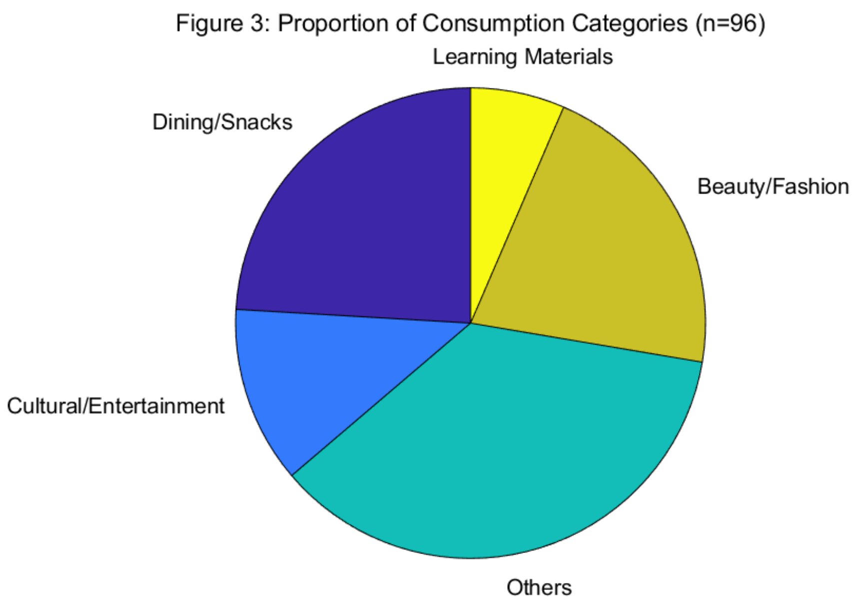

Figure 3. Pie chart of high school students' consumption category proportion (n = 96).

5. Problems in high school students' consumption under social media influence

While consumption is generally rational, notable issues exist, including irrational behavior and low financial literacy.

5.1. Prominent irrational consumption

Driven by social media content, influencer marketing, and peer comparison, three irrational consumption types emerge: impulse, trend-following, and unnecessary consumption. 44.8% bought low-use items on impulse, with 60.5% regretting it. The core issue is prioritizing appearance, trends, and peer recognition over practicality, needs, and budgets.

5.2. Overconsumption and hidden risks

Installment and small loan tools reach students via social media ads. Driven by instant gratification, some overspend on non-essential goods. 3.1% used such tools, all facing repayment pressure, with some borrowing from peers, risking debt cycles and harmful consumption values.

5.3. Insufficient financial literacy

Only 22.9% grasp basic statistical concepts; 68.8% never assess consumption rationality. 75% lack monthly budgets, and 66.7% disregard personal spending capacity, exacerbating irrational consumption and impairing future financial decisions.

5.4. Skewed consumption concepts

Social media promotes materialistic values, leading 32.3% to link spending to personal worth, and 28.1% to overspend to follow trends. This ties identity to consumption, neglecting spiritual and ability growth, harming holistic development.

6. Conclusions and suggestions

6.1. Research conclusions

(1) Students use diverse social media, with social (92.7%) and short-video (76.0%) platforms dominating. 45.9% use it over 3 hours daily, primarily for entertainment and socializing.

(2) Consumption follows a basic needs + entertainment pattern. Dining/snacks are most common, while beauty/fashion has the highest monthly spending. Personal needs, social media recommendations, and peer interaction shape decisions.

(3) Social media influences consumption via content (algorithmic pushes, influencer marketing) and social paths (peer sharing, comparison). Usage time and spending are moderately correlated ($r = 0.56$, $P < 0.01$).

(4) Monthly spending is right-skewed, with most students having low-to-medium spending. Key problems include irrational/overconsumption, low financial literacy, and skewed consumption values.

6.2. Suggestions

(1) School: Integrate financial literacy into courses, hold rational consumption activities, and cooperate with parents for joint guidance.

(2) Family: Set reasonable pocket money, monitor social media use, and teach budgeting and marketing trap identification.

(3) Social: Platforms should optimize youth modes and reduce excessive marketing; regulators should crack

down on harmful targeting of students; media should promote rational consumption.

(4) Individual: Limit social media time, reject impulse/comparative spending, and learn financial management to avoid overconsumption.

Disclosure statement

The author declares no conflict of interest.

References

[1] Williams WH, Goodman ML, 1971, A Statistical Grouping of Corporations by Their Financial Characteristics. Journal of Financial & Quantitative Analysis, 6(4): 1095–1104.

[2] He HX, 2012, The Statistical Description on the Characteristics of Henan Regional Financial Structure. Science Technology and Industry, 12(4): 29-31.

[3] Jeong C-s, Lee T-w, 1993, The Statistical Analysis on the Characteristics of Financial Distress of Shipping Companies in Korea. Dongnam Management, (7): 233–262.

[4] Wang J, Wang YL, 2011, Fractal Characteristics of Financial Markets Statistical Analysis. Journal of Zaozhuang University, 28(05): 51-53.

[5] Mieko TY, 2004, On the Resemblance Between the Characteristics of Financial Time Series and Those of Turbulence in Terms of Statistical Distributions. IEEJ Technical Meeting Materials, Information Systems Study Group, 2004(24): 319–324.