The Impact of Social Media Development on Consumption Behavior of Different Income Groups in Beijing

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Abstract. This study explored how social media development impacts consumption patterns across income segments in Beijing. A survey examined social media usage, shopping attitudes, and platform perceptions among 111 residents. The analysis found a limited correlation between income status and social media behaviors or views. However, age and advertising effect opinions showed significant relationships. Overall social media influence and equal platform access were key factors predicting differentiated advertising receptivity. Findings imply a broad social media impact on consumption across income levels in Beijing, with differentiation driven more by age and access than income status. Despite limitations in sampling and scope, this study provides a useful baseline understanding of the intersection between rising digital consumerism and income disparity in urban China. Further research with probabilistic sampling and qualitative data will be valuable. As social media evolves rapidly, tracking usage and attitudes will remain important. This study offers an early perspective on how consumption patterns are shaped by expanding virtual communities amidst economic gaps in Chinese cities. Follow-up studies can build on these findings through expanded methodology.

Keywords: Social media, consumers' behavior, income.

1. Introduction

Beginning with the 2000s, the rapid development of technology has revolutionized communication and social interaction [1]. With the rise of social media platforms, individuals worldwide have gained access to virtual communities where they can connect, share, and engage with others like never before. Smartphone ownership among Americans has increased dramatically in recent years, rising from 35% in 2011 to 77% today [2]. Consequently, social media usage has witnessed an unprecedented surge, becoming deeply ingrained in the daily lives of millions of people. The usage rates of social media have experienced a significant increase in recent years, from 7% to 65% from 2005 to 2015 [3]. It has now taken an indispensable part in people's lives, and gaining more and more weight. As individuals increasingly rely on social media platforms for news updates, entertainment, and socializing, it has become an integral part of modern society [4].

Alongside this surge in social media usage, another noteworthy phenomenon has emerged – the introduction of consumerism to these virtual platforms [5]. Social media has become a place for advertising, brand promotion, and commercial activities, creating unprecedented opportunities for consumerism. With a single scroll, users can now encounter numerous advertisements strategically placed within their feeds, enticing them to explore a vast range of consumer goods and services. With that, the influence that these social media platforms have on individuals' consumption behavior has been researched [6]. Due to the addictive nature of social media and its role in shaping personal identities, individuals are often persuaded by advertisement-driven content [7]. This has fundamentally changed consumers' consumption behavior, as people tend to rely on social media recommendations and endorsements when making purchasing decisions [8]. The power of social media influencers cannot be underestimated, as their ability to sway consumer preferences and shape trends has transformed the traditional advertising landscape [9]. As it has become thoroughly embedded into the rhythms of everyday life, social media has transformed into a robust stimulus of consumer drives and shopping practices that define the times we live in [10]. This integration of technology and consumer behavior has profound implications for both individuals and society.

Hence, it is crucial to explore the relationship between social media and consumers' consumption behavior specifically. This paper aims to discuss how social media influences different income groups' consumption behavior in the case of Beijing, harnessing the digital questionnaire.

2. Questionnaire Design

The questionnaire commences with foundational demographic inquiries regarding the participant's name, age, gender, and monthly post-tax income. The income question stratifies respondents into discrete income categories, facilitating a comparison of social media influence across income brackets. Following the demographic section, the next battery of questions centers on social media platform usage habits – specifically, which platforms the participant uses, time devoted daily to social media, whether direct purchases are made via social media and the perceived sway of social media content on purchasing choices. This segment reveals variability across income strata in consumption-oriented social media engagement. Additional questions delve into broader shopping mindsets and beliefs – for instance, the importance ascribed to social media commentary, the level of trust placed in influencers, and the overall bearing of social media on purchasing decisions. Divergences in response patterns across income groups here are telling. Finally, questions evaluate perspectives on the social media platforms themselves. This consists of whether the platforms are seen as equally fulfilling the needs of all income segments, how advertising is thought to impact different demographic groups and preferences between organic user-created and sponsored brand content. These responses furnish supplementary context on the relationship between income and social media outlooks. In totality, the questionnaire structure progresses from demographic profiling to social media usage behaviors, shopping attitudes, and platform perceptions. This enables multilayered analysis of the nexus between social media and consumption patterns across income strata. The sequence of questions generates data to address the study's aims in a comprehensive manner.

3. Data analysis

3.1. Descriptive Statistics

Table 1 summarises demographic information for a sample of 111 respondents.

Table 1. Frequency and proportion

		Frequency	Proportion
Gender	Male	61	55%
	Female	50	45%
Age	18-24	74	67%
	25-34	21	19%
	35-44	5	4%
	45-54	8	7%
	50+	3	3%
Income (after tax) thousand	<3	19	17%
	3-7	37	34%
	7-10	26	23%
	10-15	11	10%
	15-20	10	9%
	20+	8	7%

The data is broken down into gender, age, and income categories. For gender, there were 61 males (55% of the sample) and 50 females (45%). For age, the largest group was 18-24 years old, comprising 74 respondents (67%). The 25-34 age range had 21 respondents (19%), 35-44 had 5 (4%), 45-54 had 8 (7%), and 50+ had 3 (3%). For income groups, the categories are broken into thousands of Chinese yuan earned after tax. The largest income category was 3-7k, with 37 respondents (34%). The lowest

income group (0-3k) had 19 respondents (17%), while 7-10k had 26 (23%), 10-15k had 11 (10%), 15-20k had 10 (9%), and 20k+ had 8 (7%).

In summary, the sample skewed young, with most under 34, and lower-middle income, with over half earning less than 10k. There were slightly more males than females. This data provides a demographic snapshot of the respondents.

According to Table 2, the minimum, maximum, and average duration of using the above platform every day are 1, 4, and 2.89 hours, indicating that the platform duration is generally high. The influence of social media use on purchasing behaviour is scaled between 1 and 11, with an average of 6.05, illustrating that the overall influence degree is moderately high. The influence of social media advertising on income groups is scaled between 1 and 4, with an average of 2.57, suggesting that the influence is generally high.

Table 2. Descriptive statistics

	N	Minimum	Maximum	Mean	Standard Deviation
How long you use the platform each day	111	1	4	2.89	0.985
The extent to which social media influences your overall buying behavior	111	1	11	6.04	2.621
The impact of social media advertising on different income groups	111	1	4	2.57	1.240

3.2. Correlation Analysis

As reported in Table 3 below, the correlation coefficient between "the influence of social media advertising on different income groups" with gender, age, monthly income after tax, time spent, shopping directly through social media, that factors affect shopping decisions, the trustworthiness of influencers or celebrities, the overall influence of social media on purchasing behaviour, and the extent to meeting needs from various income groups are shown in the table. They are more likely to believe in the correlation between user-generated content on social media and the promotional information of the merchants themselves.

The influence of social media advertising on different income groups is being used as a detected variable, compared with other variables. The correlation value between the detected variable and gender is 0.009, close to 0, and the p-value is 0.924 is greater than 0.05, showing that no correlation exists between the detected variable and gender. The correlation value between the detected variable and age is 0.231, and the significance level is 0.05. This shows that a positive correlation exists between the detected variable and age. The correlation value between the detected variable and the monthly income after tax is -0.094, which is close to 0, and the p-value is 0.326, greater than 0.05, demonstrating that no correlation exists between the detected variable and the monthly income after tax.

The correlation value between the detected variable and the daily use time of the above platforms is -0.076, close to 0, and the p-value is 0.429 is greater than 0.05, illustrating that no correlation exists between the detected variable and the daily use time of the above platforms. The correlation value between the detected variable and whether shopping directly through social media is 0.159, close to 0, and the p value is 0.095 is greater than 0.05, demonstrating that no correlation exists between the detected variable and whether shopping directly through social media. The correlation value between the detected variable and the degree to which social media publicity influences purchasing decisions is 0.324. This suggests that 0.01 is the level of significance. This shows that a positive correlation exists between the detected variable and the degree to which social media publicity influences purchasing decisions.

Table 3. Pearson Correlation Analysis

Items	Correlation Coefficient	p-Value
Gender	0.009	0.924
Age	0. 231*	0.015
Monthly income after tax	-0.094	0.326
How long you use the platform each day	-0.076	0.429
Shop directly through social media or not	0.159	0.095
The extent to which social media publicity influences purchasing decisions	0.324**	0.001
The most important factor when shopping	0.103	0.281
The credibility of influencers or celebrities on social media	0.256**	0.007
The extent to which social media influences your overall buying behavior	0.244**	0.010
Whether social media platforms can meet the needs of all income groups equally	0.366**	0.000
More likely to trust user-generated content on social media or their own promotional messages	0.171	0.073

* $p<0.05$ ** $p<0.01$

The correlation value between the detected variable and the most important factors in shopping is 0.103, which is close to 0. Also, the p-value is 0.281 is greater than 0.05, illustrating that no correlation exists between the detected variable and the most important factors in shopping. The correlation value between the detected variable and the trustworthiness of influencers or celebrities on social media is -0.256, with a significance of 0.01 level. Therefore, there is a negative correlation between the detected variable and the credibility of influential people or celebrities on social media. The correlation value between the detected variable and the degree of influence of social media on consumers' overall purchasing behavior is -0.244, showing 0.01 is the significance level, meaning that a correlation exists between it and the degree of influence of social media on consumers' overall purchasing behavior. The correlation value between the detected variable and whether social media platforms can equally meet the needs of all income groups is 0.366 and shows a significance of 0.01. Therefore, there is a significant positive correlation between the detected variable and whether social media platforms can equally meet the needs of all income groups. The correlation value between the detected variable and the preference to believe the user-generated content on social media or the merchants' own publicity information is 0.171, close to 0, and the p-value is 0.073, which is greater than 0.05. Therefore, there is no correlation between the detected variable and the preference to believe the user-generated content on social media or the advertising information of the merchants themselves. In sum, social media advertisement influence did not correlate with gender, income, usage, shopping habits, or content preferences. It positively correlated with age and belief in social media's equal accessibility. It negatively correlated with trust in influencers and overall social media impact on purchasing. Those more influenced by social media ads tend to make more purchases by social media content.

3.3. Regression Analysis

In order to further study the "influence of social media advertising on different income groups", the study analyzes and establishes a multiple linear regression model, displayed in the equation below.

$$Y=B_0+B_1X_1+B_2X_2+u. \quad (1)$$

In the model, Y is "the influence of social media advertising on different income groups", X_1 is "the degree of influence of social media on your overall purchasing behavior" and X_2 is "whether social media platforms can equally meet the needs of all income groups".

Table 4. Regression Results

	Coefficient	Standard Error	t-Statistic	p-Value	VIF	Tolerance
X_1	0.346	0.118	2.928	0.004**	1.047	0.955
X_2	0.455	0.129	3.525	0.001**		
R^2	0.198					
Adjusted R^2	0.183					
F-Statistic	13.290					
D-W Value	2.077					

* $p<0.05$ ** $p<0.01$

As can be seen from Table 4, the degree of influence of social media on your overall purchasing behavior and whether social media platforms can equally meet the needs of all income groups are two variables in the model. The R-square value is 0.198. This means that the extent to which social media influences your overall buying behavior, and whether social media platforms serve the needs of all income groups equally, can explain 19.8% of the variation in the impact of social media advertising across income groups. This model passed the F test since F equals 13.290, which has a p-value smaller than 0.05. Accordingly, this illustrates the idea that the model was valid and useful. The result of the final concrete analysis illustrates that the regression coefficient value of the influence degree of social media on consumers overall purchasing behavior is 0.346, t equals 2.928, and p equals 0.004 which is smaller than 0.01. This result shows that the influence degree of social media on consumers' overall purchasing behavior has positively influenced the influence of social media advertising on different income groups. The regression coefficient value of whether social media platforms can equally meet the needs of all income groups is 0.455, t equals 3.525, and p equals 0.001 which is smaller than 0.01. This forms the meaning that whether social media platforms can equally meet the needs of all income groups existed a positive influence on the influence of social media advertising on different income groups. The summary analysis shows that the degree of influence of social media on your overall purchasing behavior and whether social media platforms can equally meet the needs of all income groups has positively influenced the influence of social media advertising on different income groups.

4. Conclusion

This study explored how social media development impacts consumption patterns across income groups in Beijing. Online survey data was collected from 111 residents on demographics, social media usage, shopping attitudes, and platform perceptions. The analysis found the sample skewed young and lower-middle income. Correlation analysis determined limited direct connections between income status and social media behaviors or views. However, age and advertising effect opinions showed significant relationships. Regression modeling identified overall social media influence and equal platform access as key factors predicting differentiated advertising receptivity across income levels. Key findings were that income status itself has little inherent linkage to social media activity or perspectives related to consumption. This implies a broad-based social media impact on consumerism across income segments in Beijing, rather than differentiation by income. While income was not an impactful factor, age and access considerations did relate to variances in advertising susceptibility. The results highlight that consumption patterns are shaped by complex dynamics as virtual platforms expand amidst persistent economic disparities.

This initial study provides a useful baseline understanding of the intersection between rising digital consumerism and income inequality issues in urban China. However, limitations exist in sampling methods and survey scope. Follow-up studies should implement probability sampling and expanded data collection through methods like in-depth interviews. Comparative research in other Chinese cities would also assess the wider generalizability of the findings. Tracking social media's rapid evolution and related consumer behaviors and attitudes will remain crucial. Despite current limitations, this exploratory study offers an early perspective on how expanding virtual communities

may influence consumption across income divides in Beijing and similar urban settings. Additional research can build on these insights using enhanced methodology. This will support a more robust analysis of social media's role in modern consumerism and corresponding policy implications as online platforms continue proliferating across socioeconomic boundaries.

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