

Research Article

Social Media Usage and Compulsive Buying Tendencies Among Consumers

Bogumiła Mucha^{1,*}, † , Adriana Wysocka^{1, 2, †} 

¹Institute of Psychology, Polish Academy of Sciences, Warsaw, Poland

²Faculty of Humanities, State Academy of Applied Sciences in Jarosław, Jarosław, Poland

Abstract

The rapid expansion of social media has transformed consumer decision-making processes and intensified exposure to social comparison and materialistic values, potentially increasing the risk of compulsive buying. This study examines the psychological mechanisms underlying compulsive buying among adult consumers in the digital environment, focusing on the relationships between social media use, demographic characteristics, and compulsive buying tendencies. The theoretical framework integrates self-determination theory, social comparison theory, and the concept of symbolic consumption to explain how digital interactions shape consumer behavior and reinforce purchasing as a form of psychological compensation. A quantitative cross-sectional study was conducted among 459 adult respondents using the Polish adaptation of the Compulsive Buying Scale (CBS). The findings revealed a highly statistically significant positive relationship between time spent on social media and the intensity of compulsive buying behaviors. Among the analyzed platforms, Instagram users exhibited the highest levels of compulsive buying tendencies. The analysis further demonstrated significant gender differences, with women reporting higher compulsive buying scores than men. In contrast, neither declared income nor place of residence significantly predicted compulsive buying propensity. These findings indicate that compulsive buying is more strongly associated with psychological and socio-cultural factors than with objective economic conditions. The results support the view that contemporary consumption is increasingly mediatized and that shopping behaviors frequently serve compensatory psychological functions related to identity construction, emotional regulation, and social validation. The study contributes to the growing body of literature on digital consumer behavior by providing empirical evidence on the psychological determinants of compulsive buying in the context of social media use and offers implications for consumer education, prevention strategies, and future research.

Keywords

Social Media, Compulsive Buying, Consumer Psychology, Materialism, Self-Determination Theory, Symbolic Consumption

1. Introduction

Today, consumption is one of the main determinants of life-style, and its study increasingly goes beyond the framework

of classical economic analyses, becoming a key domain of psychology [1]. Researchers are currently focusing on young

*Correspondence: Bogumiła Mucha (kontakt@bogumilamucha.pl)

† Bogumiła Mucha and Adriana Wysocka are co-first authors.

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women, for whom purchasing decisions, including those regarding the dynamically growing "accessible luxury" market, constitute a complex process of identity building and emotional regulation [2, 3]. These phenomena have drastically intensified in the digital age. To fully understand the psychological underpinnings of consumer behavior in the digital era, the study integrates four key theoretical perspectives, creating a comprehensive model of the impact of social media on purchasing decisions [3]. Social media have evolved beyond serving solely communication and information purposes, becoming an integral consumption channel that enables users to discover products, evaluate offers, and make purchases directly on social media platforms [14]. Social commerce has evolved into a major retail channel, where consumer-to-consumer interactions and trust significantly influence purchase intentions, highlighting the growing importance of social media as a direct shopping environment [13].

The foundation of this approach is self-determination theory (E. Deci, R. Ryan), which suggests that when there is a lack of opportunities to constructively satisfy the basic needs for autonomy, competence, and social relatedness, consumption begins to serve a compensatory function [3, 4]. These mechanisms are strongly stimulated by the external environment, which is aptly described by L. Festinger's social comparison theory [5]. It points to people's natural tendency to evaluate their own self-worth through the prism of others, which, in the context of social media filled with the idealistic visions of influencers, leads to a constant race for increasingly better material goods [5, 6]. According to the theory of symbolic consumption, objects lose their purely utilitarian character in this race, becoming an extension of the human "self" and a tool for manifesting status, which individuals reach for more eagerly the more their self-esteem is threatened [3]. Social media and the Internet effectively engage consumers in online shopping through advertising, trust-building and by facilitating purchasing decisions [12].

As research on the relationship between materialism and consumer well-being demonstrates, basing self-esteem on possessions generates high psychological costs, resulting in reduced life satisfaction, anxiety, and frustration when access to desired goods is lacking [3, 7]. This triggers the mechanism of the "hedonic treadmill," in which rapid adaptation to new material achievements instantly extinguishes the initial sense of happiness, forcing subsequent purchasing impulses [8].

The integration of these concepts yields a coherent model explaining this phenomenon: Social Media → Materialism → Consumer Behaviour. The digital environment serves as a potent catalyst; continuous exposure to advertisements and idealized content compels young women into constant social comparisons, thereby fostering materialistic attitudes within them [3, 9]. Materialism becomes a psychological mediator, prompting individuals to treat luxury goods as an essential element compensating for internal identity deficits [3]. The consequent outcome manifests as pathological market behaviors: attempts to cope with negative emotions through shopping,

which, rather than providing the anticipated hedonic gratification, result in chronic frustration, diminished spending control, and a severe reduction in overall psychological well-being [3, 8].

Based on the presented theoretical model and the aforementioned conditions, the following research questions were formulated:

- 1) RQ1: Is there a relationship between the time spent on social media and the intensity of compulsive buying tendencies?
- 2) RQ2: Does the user's preferred social media platform (e.g., Instagram, Facebook, TikTok) exert a differentiating effect on their propensity to lose control over purchasing?
- 3) RQ3: To what extent do sociodemographic variables (in particular, gender and material status) predict the occurrence of compulsive behaviors?

In response to the questions posed and anchored in the cited theoretical framework, four main research hypotheses were formulated:

- 1) H1: There is a highly significant, positive relationship between the time spent using social media and the propensity for compulsive buying (based on the phenomenon of overstimulation and social comparison theory).
- 2) H2: Users of platforms strongly oriented toward visual messages and image creation (especially Instagram) exhibit elevated levels of compulsive buying compared to users of other media.
- 3) H3: Women are characterized by a significantly higher propensity for compulsive buying than men (due to stronger engagement in social media and susceptibility to symbolic consumption).
- 4) H4: The level of earned income and the place of residence do not significantly predict the propensity for compulsive buying (according to self-determination theory, these purchases constitute a psychological mechanism compensating for internal deficits, independent of objective material resources).

2. Materials and Methods

The quantitative empirical study was conducted utilizing a cross-sectional design and employing the Computer-Assisted Web Interviewing (CAWI) technique. The final research sample subjected to statistical analysis comprised 459 participants. To achieve a multidimensional assessment of the respondents' behaviors, a research instrument consisting of three integral thematic sections was deployed. First, key sociodemographic variables conditioning the participants' life and financial situations were gathered; these included gender, age, education level, occupational status, size of the place of residence, and average monthly net income.

The subsequent questionnaire module served to evaluate the respondents' engagement with the digital environment and

to assess their consumer attitudes. Beyond the standard measurement of daily time spent on social media and the identification of preferred platforms, the instrument diagnosed behavioral and psychological dimensions of e-consumption. Specifically, it measured the frequency of online shopping, the level of exposure to digital advertising messages, and the propensity to complete transactions driven by digital visual stimuli. Particular attention was dedicated to susceptibility to influencer marketing, examining the frequency of viewing content from online creators, the perceived need to possess products promoted by them, and the overall impact of such recommendations on final purchasing decisions. Furthermore, the utilization of modern deferred payment services (e.g., PayPo, Klarna, Allegro Pay) was included as an auxiliary variable, representing an environmental facilitator for rapid, often impulsive consumption.

To measure the primary dependent variable—namely, the propensity for compulsive buying—the Polish adaptation of the Compulsive Buying Scale (CBS) developed by Valence, d'Astous, and Fortier [10] was utilized. The employed instrument consists of 11 items, to which participants responded using a Likert scale. This scale directly measures the intensity of uncontrolled purchasing impulses and the psychological tensions accompanying consumption. Statistical analysis of the gathered data demonstrated high reliability for the instrument, yielding a Cronbach's alpha internal consistency coefficient of $\alpha = 0,899$. To verify the formulated research hypotheses and

assess the significance of differences between the distinguished groups, a one-way analysis of variance (ANOVA) was performed.

3. Results

The empirical findings derived from the quantitative study provide detailed insights into the determinants of the propensity for compulsive buying. To test the proposed research hypotheses, a one-way analysis of variance (ANOVA) was conducted. The overall mean score on the Compulsive Buying Scale (CBS) for the entire sample ($N = 459$) was $M = 18.67$ with a standard deviation of $SD = 7.46$.

3.1. Sociodemographic Characteristics of the Sample

A total of 459 individuals participated in the study. The sample was diversified in terms of gender, with a predominance of male participants (64.5%) relative to female participants (35.5%). Regarding the place of residence, the most heavily represented cohorts were inhabitants of large cities with over 500,000 residents (26.8%) and rural residents (23.5%). The income distribution indicates a predominance of individuals earning within the bracket of 4,001 to 6,000 PLN net (22.2%). A comprehensive overview of the sociodemographic variables is presented in Table 1.

Table 1. Sociodemographic Characteristics of the Research Sample ($N = 459$).

Sociodemographic variable	Category	Frequency (n)	(%)
Gender	Male	296	64.5
	Female	163	35.5
Age	18-24 years	10	2.2
	25-34 years	47	10.2
	35-44 years	116	25.3
	45-54 years	127	27.7
	55 years and older	159	34.6
Education	Primary	2	0.4
	Secondary	136	29.6
	Post-secondary (non-tertiary)	27	5.9
	Bachelor's/Engineer's degree	74	16.1
	Master's degree	208	45.3
	Doctoral degree	12	2.6
Employment Status	Employed full-time	223	48.6
	Retired	94	20.5
	Self-employed	85	18.5

Sociodemographic variable	Category	Frequency (n)	(%)
Place of residence	Other	20	4.4
	Unemployed	19	4.1
	Employed part-time	11	2.4
	Student	7	1.5
	Rural area	108	23.5
	Town up to 20k residents	70	15.3
	City 20-100k	93	20.3
	City 100-500k	65	14.2
Average monthly net income	Large city (over 500k)	123	26.8
	Below 2000 pln	16	3.5
	2000-4000 pln	58	12.6
	4001-6000 pln	102	22.2
	6001-8000 pln	80	17.4
	8001-10000 pln	62	13.5
	10001-15000 pln	42	9.2
	Above 15000 pln	27	5.9
	Prefer not to say	72	15.7

Source: own study

3.2. Duration and Type of Social Media Use and the Propensity for Compulsive Buying

A key element of the analysis involved examining the relationship between digital environment activity and compulsive behavior tendencies. The analysis of variance (ANOVA) confirmed a highly statistically significant effect of time spent on

social media on the propensity for compulsive buying. The data presented in Table 2 reveal a clear upward trend: the more time an individual spends on social media, the higher their score on the CBS scale. The lowest score was recorded in the group utilizing social media for less than 1 hour per day ($M = 17.33$), whereas the maximum was reached within the 4–6 hours per day bracket ($M = 24.91$). These findings provide unequivocal support for hypothesis H1.

Table 2. Mean CBS scale scores by duration of social media use.

Time spent on social media	N	Mean (M)	Standard Deviation (SD)
Below 1 hour	154	17.33	6.27
1-2 hours	194	18.40	7.11
2-4 hours	94	20.37	8.93
4-6 hours	11	24.91	8.90
Above 6 hours	6	23.50	8.55

Note: One-way analysis of variance: $F = 5.268$; $p = 0.0004$

Source: own study

Another investigated aspect was the verification of the relationship between the type of the most frequently used platform and compulsivity (Table 3). The choice of the primary communication channel significantly differentiated the participants. The highest propensity for compulsive buying was displayed by users of platforms relying heavily on intensive visual messaging and image cultivation, namely Instagram ($M =$

21.82) and X/Twitter ($M = 21.00$). Considerably lower values were recorded among individuals declaring YouTube ($M = 17.85$) and Facebook ($M = 19.29$) as their primary platform. The obtained data provide an empirical basis for the positive verification of hypothesis H2.

Table 3. CBS scale scores by most frequently used social media platform.

Social media platform	N	Mean (M)	Standard Deviation (SD)
Instagram	40	21.82	9.39
X	6	21.00	6.03
TikTok	16	20.00	7.02
Facebook	156	19.29	8.42
YouTube	213	17.85	6.43
Other (e.g. LinkedIn, Pinterest)	28	15.11	4.09

Note: One-way analysis of variance: $F = 2.484$; $p = 0.016$.

Source: own study

3.3. Sociodemographic Variables and the Propensity for Compulsive Buying

In the subsequent step, sociodemographic factors were analyzed. The results indicate that gender is the strongest predictor within this group of variables. As illustrated in Table 4, women exhibit a highly statistically significant, stronger propensity for compulsive buying compared to men. The mean difference amounts to nearly 3.5 points, reflecting higher severity among the surveyed women. This constitutes a direct confirmation of hypothesis H3.

Table 4. Analysis of differences in compulsive buying levels by gender.

Sex	N	Mean CBS (M)	Standard Deviation (SD)
Female	163	20.9	9.11
Male	296	17.44	6.05

Note: One-way analysis of variance: $F = 23.634$; $p < 0.001$.

Source: own study

To verify whether compulsive buying is a function of material status, the relationship between income level and the CBS scale score was examined (Table 5). The results of the

analysis of variance unequivocally demonstrated the absence of such a relationship. This implies that the propensity for irrational purchasing manifests with similar intensity regardless of the objective financial resources of the respondent. Similarly, the place of residence (ranging from rural areas to metropolises) showed no statistically significant relationship with the level of compulsivity ($F = 1.93$, $p = 0.105$). No statistically significant relationship was observed between income level, place of residence and compulsive buying tendencies.

Table 5. Mean CBS scores by average monthly income.

Monthly net income	N	Mean (M)
Below 2000 pln	16	20.94
2001-4000 pln	58	18.71
4001-6000 pln	102	18.47
6001-8000 pln	80	19.30
8001-10000 pln	62	17.81
10001-15000 pln	42	19.48
Above 15000 pln	27	19.81
Prefer not to say	72	17.56

Note: One-way analysis of variance: $F = 0.810$; $p = 0.579$.

Source: own study

4. Discussion

The obtained empirical findings provide exceptionally robust support for the premises of the integrated theoretical model: Social Media → Materialism → Consumer Behavior. A granular analysis facilitates the formulation of several fundamental conclusions anchored in the relevant literature.

The confirmation of hypotheses H1 and H2 (as detailed in Tables 2 and 3) unequivocally points to an environmental triggering mechanism. In line with L. Festinger's [5] social comparison theory, internet users who spend a substantial amount of time on social media are perpetually exposed to influencer marketing and narratives that equate material success with happiness. The study demonstrated that Instagram—a platform relying almost entirely on visual communication, the aestheticization of lifestyle, and the continuous exhibition of commodities (frequently framed as "accessible luxury")—yields the highest scores on the CBS scale. Users of such platforms possess an inherent propensity to evaluate their self-worth through the prism of others' perpetually updated statuses, which accelerates a spiral of upward social comparisons and engenders profound frustration [5].

Conversely, the positive verification of hypothesis H4 (Table 5), demonstrating the absence of a correlation between objective income levels or geographical location and compulsive buying, provides compelling evidence supporting self-determination theory (Deci & Ryan) [3, 4]. Respondents engage in compulsive buying behaviors not due to a surplus of disposable income, but rather to compensate for unfulfilled psychological needs regarding autonomy or relatedness. The act of purchasing functions as a self-regulatory and escapist mechanism deployed to cope with daily emotions [3, 11]. The gratification derived from purchasing is short-lived (reflective of the "hedonic treadmill"), thereby necessitating a repetition of the cycle, irrespective of whether the individual's net income is 2,000 PLN or exceeds 15,000 PLN [8].

Finally, the support found for hypothesis H3 (Table 4) aligns closely with the tenets of symbolic consumption theory. Female consumers utilize social media more frequently for seeking inspiration and display a higher susceptibility to constructing their identity ("self") through the symbolic value of acquired commodities. As they constitute the dominant and most active demographic on social media platforms, they are more frequently exposed to peer and influencer recommendations, which progressively cultivate materialism and ultimately trigger compulsive buying tendencies [3].

These findings necessitate a paradigm shift in mental health prevention strategies within digital environments. Mitigating compulsive buying behavior demands profound interventions targeting emotional regulation and the cultivation of self-esteem detached from material contingencies. Fostering mindfulness practices and advancing consumer literacy emerge as crucial and effective strategies for counteracting this behavioral addiction. Future research trajectories should focus on a granular exploration of the specific algorithmic mechanisms

that most potently induce purchasing compulsions across distinct age cohorts.

5. Conclusions

The conducted study and the accompanying theoretical analysis facilitate the formulation of multidimensional conclusions regarding the nature of contemporary consumerism. The proposed conceptual model (Social Media → Materialism → Consumer Behavior) demonstrates that the digital environment has fundamentally redefined purchasing processes, transitioning them from the domain of satisfying objective life needs to the realm of continuous psychological well-being and identity management.

The primary conclusion derived from the empirical phase is the indisputable confirmation of social media's role as an environmental trigger for compulsive behaviors. Both the duration of exposure to digital content and the specific nature of the platform utilized (with particular emphasis on the visually and image-oriented Instagram) correlate in a highly statistically significant manner with the propensity to lose control over spending. This corroborates the tenets of social comparison theory, according to which perpetual confrontation with the idealized lives of other users and influencers engenders profound frustration, thereby stimulating individuals toward material emulation [5].

Remarkably, the investigation unequivocally demonstrated the absence of a statistical relationship between the propensity for compulsive buying and objective income levels or geographical location. This finding constitutes robust evidence supporting the premises of self-determination theory [3, 4]. Compulsive buying is thus not an economic phenomenon or a derivative of financial affluence; rather, it represents a deeply rooted, pathological mechanism of emotional regulation. Purchasing behaviors fulfill a compensatory function: individuals, irrespective of their financial capacity, utilize commodity acquisition to cope with self-esteem deficits, loneliness, or psychological stress. The significantly higher susceptibility of women to this mechanism stems from their intensive engagement with social media and a greater inclination toward identity construction through symbolic consumption.

From a practical standpoint, these conclusions necessitate a profound paradigm shift regarding the prevention and treatment of compulsive buying. Grounding interventions in traditional financial counseling or household budgeting is inherently bound to fail, as it completely ignores the emotional core of the phenomenon. Instead, remedial interventions must rely on psychological support aimed at cultivating stable self-esteem that is decoupled from material possessions. Furthermore, it is imperative to implement comprehensive consumer education and promote practices such as mindfulness training and minimalism, which assist individuals in redirecting their focus from materialistic values toward non-material sources of satisfaction and prosocial relationships.

In conclusion, although the present study provides substantial insights into consumer psychology, its inherent limitations must be acknowledged. The reliance on self-reported survey methodology and the cross-sectional design preclude a comprehensive tracking of behavioral dynamics over time. Future research trajectories should employ longitudinal designs and experimental approaches to precisely isolate the impact of specific algorithmic features (e.g., recommendation systems on TikTok relative to Instagram) and targeted persuasive techniques deployed in influencer marketing on triggering purchasing impulses across diverse age cohorts. Social media reinforce consumerist attitudes by exposing users to content that promotes specific lifestyles, the influence of influencers, and mechanisms of social comparison, which leads to an increase in purchase intentions and behaviors associated with conspicuous consumption [15].

Abbreviation

CBS	Compulsive Buying Scale
CAWI	Computer-Assisted Web Interviewing
ANOVA	A One-way Analysis of Variance

Author Contributions

Bogumiła Mucha: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Writing – original draft, Writing – review& editing

Adriana Wysocka: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Writing – original draft, Writing – review& editing

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