

# Influence of Family on Adolescents' Impulsive Digital Consumption Behavior: a Literature Review Based on Multidimensional Family Factors

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## Abstract:

Adolescents' impulsive digital consumption behavior has become increasingly common under digital globalization, and yet its correlation with multiple family factors has not been well explored. The authors conduct a comprehensive review of previous researches on impulsive consumption and family factors and aim to profoundly explain the mechanisms behind the two's relationship. The authors first summarize the primary research orientation and major focal topics in earlier relevant studies. Next, The authors synthesize a multi-dimensional theoretical framework from the literature, encompassing socialization, power, ecology, platform, and neurocognitive levels, structured from primary to secondary and internal to external influences. Based on the theoretical foundation, the authors explain the influence from different family factors on impulsive digital consumption through the hypothesis that family factors give rise to circumstances where different psychological needs are not satisfied, and the latter trigger impulsive digital consumption correspondingly. This study reaches the conclusion that family factors significantly influence performance of adolescents' impulsive digital consumption behavior, and that unsatisfied psychological needs work as a mediating variable between the interaction.

**Keywords:** Impulsive digital consumption, family factors, unmet psychological needs, socialization

## 1. Introduction

In the past decade, adolescents' consumption-related activities have increasingly shifted from offline shopping malls to online shopping platforms, resulting

in a unique consumption type, namely digital consumption. To clarify the scope of this review, digital consumption was defined as all transactional behaviors made through internet-connected devices such as mobile phones and tablets to purchase goods, ser-

vices, or digital content [1]. This behavior is often accompanied by several defining features that distinguish it from traditional consumption and are more likely to be associated with impulsivity: intangibility (lower pain of paying for digital currencies), immediacy (one-click purchasing without waiting), and context embeddedness (shopping is interwoven with other social, game, or entertainment context like live streams and social media feeds) [2]. This review focuses on one specific facet of transactional behaviors, namely the impulsive aspect of digital consumption in online environments, and the multidimensional family factors that may affect it.

### 1.1 Synthesis and Key Themes Highlighted of Past Research

In general, past research provides evidence that family factors significantly influence adolescents' consumption-related outcomes. More specifically, family factors can refer to specific parenting styles (authoritative vs. authoritarian) in consumer socialization process, parental power (demandingness and responsiveness), family communication orientation, and family financial situation [3-7]. First, parenting style, as well as pattern in balance of power between parents and children, especially the control and responsiveness dimensions, is one of the most commonly used angles. Yang et al. have shown that adolescents who have experience with an authoritative style tend to engage in self-regulated and planned decision-making, while adolescents with authoritarian parents are more inclined to impulsive decision-making [3]. Second, family communication orientation (socio-oriented vs. concept-oriented) has also been frequently found in consumer socialization research to significantly impact adolescents' autonomy and susceptibility to external influence [5]. Third, the financial situation of a family is also an important background factor that has been related to adolescents' available consumption resources and proneness to risky or impulsive consumption [6, 7]. At the same time, other family-level individual differences, such as age and gender of family members, and sibling structure, have also been found to be related to adolescents' consumption [8]. Moreover, external socialization agents (peers, subculture, media) are also recognized as the common antecedents of adolescents' impulsive or problematic consumption when intersected with improper family influence; peers may act as a major deciding factor in adolescents' consumption socialization, at least in some cases, even overcoming parents' efforts and control [9]. Besides family influence, other leading factors include external ones (e.g., price discounts), internal ones (e.g., time and money availability, demographic variables, and emotional state), and the most

unique one, cultural context, such as collectivist versus individualist values, that underlies and shape parenting and family communication styles from both inside and outside (parts of culture already identified and parts to be identified by family members), thus affecting adolescents' autonomy-conformity balance and decision-making in digital consumption, despite being less often addressed directly [10-13]. Together, these past findings on the role of family and contextual factors can be the solid foundation for understanding the association between family/contextual factors and adolescents' impulsive digital consumption behaviors.

### 1.2 Gaps to be Exploited for Creative Opportunities

In what ways could the existing studies be improved or expanded upon? In what ways are there "holes" in the past literature that might be filled?

In light of the rapid growth of digital platforms and online shopping over the last decade, more attention needs to be given to investigating how family factors might specifically shape adolescents' impulsive or problematic consumption behaviors online [14, 15]. Second, relatively few interdisciplinary studies have integrated family studies with psychology and neuroscience, despite their potential to reveal the psychological and biological mechanisms underlying family influences on behavior. Although initial attempts have been made to identify biological and cognitive correlates of family influence, this area remains underdeveloped [16, 17]. Third, although consumer socialization literature often perceives the role of a family as the primary (if not exclusive) socialization agent for young consumers and adolescents, the latter are also increasingly active in renegotiating or even resisting their parents' influence when they socialize with their peers in the digital environment [8]. Besides, many studies have paid attention to family influence from the perspective of direct buying behavior, like transmitted buying habits (impulsive ones) and dependence on family members' advice of purchase choices [12]. However, there are fewer studies focused on the psychological process of impulsive consumption under a family dynamic. Pei Xie et al. have proved that family dynamics function as a mediating role in the relationship between personal traits and impulsive buying, but they did not explain the mechanism behind it very explicitly [18]. There is also a lack of research specifically paying attention to online impulsive consumption and its differences from traditional purchases. For example, store atmosphere is also mentioned, its digital counterparts such as website interface design and user convenience remain underexplored, yet given the coming of the digital

age and increasingly frequent online purchases, relevant similar factors like website interface and user convenience have not been well discussed [19]. Therefore, by explicitly focusing on adolescents' impulsive digital consumption behaviors as the primary outcome variable, exploring the effects of various family factors on the said outcomes, and using a rapidly changing digital consumption context as the setting, this review aims to address these gaps by bringing together the key family-related mechanisms influencing adolescents' digital consumption.

## 2. Theoretical Foundations

Adolescents' impulsive digital consumption is not caused by a single factor. It is instead the product of multiple mechanisms by which the family can influence behavior. These mechanisms may be stacked on one another and can exert influence at the social, relational, environmental, technological, and even neurodevelopmental levels. The next five sections detail five different existing theories, bringing them together into a single path in this diagram. It explains how each theoretical perspective contributes to understanding the family factors discussed in the following section.

### 2.1 Socialization: Value Transmission Family/Consumer Socialization Theory

The process begins with the family and the values, norms, and skills that they pass down related to consumption. This is done through modeling, communication, and co-experienced activities [4, 20]. The Family/Consumer Socialization Theory explicitly links a particular adolescent's ability to internalize norms of self-control to their parents' communication style and style of parenting [21]. Parents who are authoritative (i.e. both responsive and set reasonable controls over their adolescent's behavior) tend to encourage more planned and reflective decision-making, while authoritarian or permissive parents get the opposite—reactive, impulsive purchases [3]. These values provide adolescents with a framework for approaching all forms of consumption, particularly digital contexts for approaching all consumption, digital or otherwise.

### 2.2 Power: Decision Autonomy Power Relational Theory

These consumption values and learned self-control norms directly translate to how much freedom an adolescent feels they have to make their own purchase decisions within their family. Power Relational Theory [4, 22] states that the internal hierarchy of the family (parental authority, sibling positions, and relationships), and thus an

adolescent's freedom to start or complete a purchase (or be cut off from resources they need), depends on all of the previous factors. Adolescents who have greater purchase autonomy and have not been socialized to high self-control will make more impulse purchases, especially online, where parental authority is more difficult to enforce and "say no."

### 2.3 Ecology: Technology-embedded Environment Bronfenbrenner's Bioecological Model + Ecological techno-subsystem

All of this autonomy in decision-making is taking place within an environmental context. Bronfenbrenner's ecological system model first identified the family as the microsystem of environmental influence on the adolescent [23]. The ecological techno-subsystem further points out that in recent decades, digital technology has become a part of most people's daily lives, representing its own embedded, technology-laden "environment" within the microsystem [24]. Parental mediation strategies (the degree to which they are actively mediating online activity, setting rules/restrictions, co-use, supervising their adolescent, etc. ), as well as the adolescent's general offline environment, are factors that have a major impact on the behaviors that can take place online [25]. For example, active mediation may help an adolescent build digital literacy and the internal psychological processes to critique persuasive design or suspend systems of value, whereas no mediation means they are entirely alone and vulnerable to impulsive triggers [15].

### 2.4 Platform: Digital Behavior Triggers Digital Consumption Behavior Theory

All of this is taking place, both online and offline, within a technology saturated environment, in which the design of the digital platforms themselves are a direct and potent source of impulsive behavior. The Digital Consumption Behavior Theory describes the mechanisms within the technology environment (embedded features) that can make impulse purchases more likely: for example, one-click payment, algorithmic targeting, shopping cues embedded in entertainment or social media platforms, etc. [2]. These cues make impulse buying far more likely by reducing 'purchase friction', that is, the psychological resistance associated with making a purchase, but only under the right conditions: if all of the previous mechanisms are ripe for impulse consumption (low self-control values), if autonomy in purchase decisions is high, and if the parents are not heavily mediating the process [2].

### 2.5 Brain: Self-Control Development Neurocog-

### itive Perspective

Without regulatory processes (either internally sourced like self-control processes or externally sourced like parental monitoring and mediation), repeated exposure to embedded platform cues can in turn influence the development of the brain systems that support that regulatory process, specifically self-control. For example, neuro-cognitive studies have found associations between high family conflict & low parental monitoring and weakened functioning of two brain areas shown to be key to behavioral inhibition in adolescents: the orbitofrontal cortex and the anterior cingulate cortex [16]. Conversely, other evidence suggests that warm, supportive, and well-monitored home environments are related to more well-developed (strengthened) functioning of this inhibition circuitry. This, in turn, enables adolescents to resist the temptations of impulsive digital consumption in the long term.

## 3. Analysis on Family Factors

Based on the five theoretical perspectives above, a deeper discussion into the reason behind divergent levels of influence from different family factors on impulsive consumption behavior is presented below. The authors suppose that impulsive consumption is performed to symbolically make up for unmet psychological needs at subconscious level. Based on this hypothesis, it is easy to understand that the family factor that poses larger influence on the satisfaction of mental needs will have stronger influence on impulsive consumption behavior as well. This will be examined in each family factor below

### 3.1 Family Communication Orientation

According to family/consumer socialization theory, family communication orientation directs how children integrate with their own peer groups. For example, children in socio-oriented family pay more attention to social norms and how their images are perceived by others, while children in concept-oriented family put their own will and needs at first priority [5]. The former orientation can induce vulnerabilities in children's sense of personal identification, and children symbolically mend for it through attaching to a greater collective: blindly following or deliberately seeking for convergence in peer purchasing customs. For example, they may experience conformity pressure in online shopping communities, which significantly raises the possibility of impulsive purchasing. The result from Moschis's study also proves that children in concept-oriented family tend to evaluate more alternatives before purchasing and demonstrate less impulsive and more socially desirable consumer behaviors [5].

### 3.2 Parenting Style

Yang et al. reveal four major types of parenting style in their study: authoritative, authoritarian, permissive, and neglectful [3]. The first one is most balanced in family power structure, with the second inclining to parents while the third and fourth inclining to children. According to power relational theory, long-term oppression of children's power (authoritarian) leads to fierce rebellion in possible form of hypercorrection in implementing personal will, while little engagement and intervention in children behavior (permissive and neglectful) leads to children's neglect of rules; both fail to coordinate properly with children's exact amount of need for autonomy and power. Therefore, significant inclines in family power structure, no matter its direction, induce children's abuse (misuse) of their initiative. Consuming, as a behavior closely related to personal preference and freedom in choices, becomes a significant carrier of such impulsiveness.

### 3.3 Parental Mediation in the Digital Environment

Parental mediation in children's consumption behavior reflects their level of attention and care on children. Lack or loss of parental mediation leaves children with the perception of not getting enough guidance and company. In addition, considering children's easy access to digital consuming channels in technology-saturated environment, according to digital consumption behavior theory, it is highly likely that children unconsciously perform undesirable impulsive consumption behaviors online as the release of a nonverbal cue to attract parents' attention for more parental engagement. This explains the results in Lou et al.'s study why absent mediation induces impulsive consumption [15].

### 3.4 Family Economic Status

Family economic status (FES) influences impulsive digital buying because it affects how much money adolescents can spend and how they respond to their emotional needs. Rani and Catherine found that high money availability increases impulsive buying because consumers feel fewer financial limits and are more willing to act on sudden desires [10]. This supports the idea that adolescents from higher-income families may buy digitally on impulse simply because they can purchase items quickly without worrying about cost. Alqutub showed that emotional factors such as stress, mood, and the need for instant satisfaction strongly increase impulsive buying among young consumers [11]. This helps explain how low SES may also lead to impulsive digital purchases. Adolescents in

financially constrained households may experience frustration, insecurity, or feelings of deprivation, and small digital purchases can temporarily relieve these emotions. Even when overall resources are low, affordable digital products offer a quick way to improve mood, which fits the emotional-driven impulse mechanism discussed by Alqutub. These findings show that family economic status affects adolescent impulsive digital consumption through two separate pathways: high income increases impulsive buying by providing financial freedom, while low income may trigger impulsive buying as a way to cope with emotional or psychological pressure.

### 3.5 Sibling and Media Influence Interaction

Sibling dynamics and media influence on impulsive digital consumption are two distinct factors that, based on the uploaded documents, are not explicitly examined together in the context of impulsive buying or digital consumption patterns. While family structure in terms of nuclear, stem, and extended family is mentioned as a variable in consumer socialization, and media's role is noted in the context of parental mediation and Internet use, there is no direct evidence or discussion on a specific interaction between siblings and media influence on impulsivity in these documents [7,14,26]. However, family cohesion is mentioned as a protective factor against problematic online behaviors [14]. As it is a part of the family's organization it could be impacted by siblings but no sibling specific mechanisms are mentioned by the authors. Therefore, future research can explore how sibling relationships act as a key mechanism within the family system to mediate adolescents' online impulsive consumption.

## 4. Research Gap

### 4.1 Limited Research on the Specific Connection between Family Factors and Impulsive Digital Buying Behavior among Adolescents

The relationship between family factors and impulsive buying behavior among young people in digital environments remains unclear. Most research examines conventional shopping or Internet use broadly without distinguishing impulsive digital purchases [14]. While parenting style, communication, and money conflicts are identified, their specific impact on impulsivity in the online sphere (accelerated by digital cues and instant buying) is not well established [3, 6]. The shift to fast, less tangible digital platforms further increases this gap. However, research does not adequately connect this digital transformation to the effects of family factors [2]. Longitudinal studies

that can track the changes in family factors alongside the changing digital consumption patterns of adolescents are one way to uncover the causal factors.

### 4.2 The Call for Interdisciplinary Collaboration (Psychology + Family Studies + Digital Consumption Research)

Collaboration among psychology, family studies, and digital consumption research is essential to gain a comprehensive understanding of the issue. Some studies only focus on psychology elements, such as traits and self-control or family factors, like mediation and monitoring [15,16]. For example, parental monitoring and engagement alleviate Internet-related problems in adolescents, but how, in terms of emotional, biological, or cognitive reasons, is less examined [26]. Digital design theories may reveal the online triggers on platforms, but the missing pieces are their relationship with the process of socialization in the family context [2]. An interdisciplinary approach to combine these areas can be employed to fill in the missing gaps using a mixed-methods research approach in future work, which advances both the theory and solutions.

### 4.3 The Investigation of Adolescent Agency and Reciprocal Effects in the Family-consumption Relationships

Adolescent agency and reciprocal effects in the relationship between families and consumption need further study. Adolescents are often viewed as passively accepting of parental expectations in research, missing their active struggle for independence and their resistance to familial control online [8]. The study has shown that teens can reconfigure the family's role through online peer contact, which might influence how the family tries to control or guide shopping. However, this mutuality has yet to be quantified [9]. The digital environment makes it easier for them to express their individuality, but the feedback loop that might change the family's orientation is yet to be discovered. Interviews, observations, and digital trace analyses can jointly help capture these dynamics and how teen decisions interact with and shape family factors in the context of impulsive digital buying.

## 5. Conclusion

This review has addressed the essential role of multidimensional family factors in adolescents' impulsive digital consumption by using an integrated theoretical framework from multiple disciplines. Findings have revealed that family factors such as family communication orientation, parenting styles, parental mediation, SES, and sibling

relationships influence adolescents' impulsive digital consumption through shaping their unconscious biological needs and psychological needs for autonomy, status, belonging, and security, to motivate adolescents' compulsive or impulsive consumption on digital platforms. Despite those significant findings, there are also some research gaps identified in this review. For instance, family factors might increase the risk of general consumption behaviors, yet it is uncertain how those factors specifically contribute to impulsive digital consumption as compared to impulsive real-life consumption. Furthermore, interdisciplinary theoretical and empirical investigations on the family and adolescent consumption are needed to provide a better understanding of the family factors. In addition, more detailed mechanisms such as cognitive, emotional, and biological pathways about the role of family factors are unclear. Also, it is important to consider the adolescent's agency and the possibility of them resisting or negotiating the effects of family factors in the digital context.

In the future, longitudinal and mixed-methods studies are needed to capture developmental changes and provide robust evidence to provide a better understanding of how adolescents' digital consumption behaviors change over time as well as the reciprocal relationship between digital consumption and family systems. In sum, the findings and implications of this review could be utilized to develop prevention or intervention programs in order to reduce adolescents' impulsive digital consumption by having the perspectives of the family and digital environment.

#### Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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