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Online compulsive buying addiction: A study on university students in light of some variables

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ABSTRACT

The study aimed to identify the level of electronic compulsive buying among Saudi university students and the differences in their compulsive buying based on several relevant variables. A descriptive approach was used to achieve the objectives of the study. The study sample consisted of (328) male and female students, who were selected in the available way. The study results showed that the level of compulsive buying among students was moderate. The results showed an apparent variation in the arithmetic means and standard deviations of the level of compulsive buying attributed to the variables (academic stage, economic level, number of times exposed to electronic fraud). The results showed no statistically significant differences attributed to the effect of (gender, specialization, and type of communication media used). The results also showed that the economic level and the academic stage were predictors of compulsive buying among university students. Compulsive electronic purchasing among university students is widespread among both genders and in various majors due to the ability to shop electronically via Internet applications. Therefore, university counselors' efforts must focus on students' motivations for compulsive behaviors, including compulsive buying, to reduce these behaviors and spread awareness among students and their parents about the danger of compulsive thoughts and behaviors such as compulsive shopping.

Keywords: Addiction to compulsive buying, university students, educational level, economic level, number of times exposed to electronic fraud.

1. Introduction

Shopping-dependent people buy to relieve stress and cope with destructive emotions, unlike other shoppers. Impulsive and compulsive buying are often confused [1]. Compulsive purchasing reduces stress and manages emotions, while impulsive buying is random. Preoccupation with buying, intrusive impulses, excessive spending on superfluous products, and substantial social, financial, or professional impairment are diagnostic criteria for compulsive shopping. Compulsive shopping causes severe anxiety and a strong desire to shop, interrupting daily living [2, 3].

Recent studies have examined online compulsive buying (OCB) among university students, revealing significant prevalence rates and associated factors. Research indicates 7.4% of Spanish students [4] and 16% of Parisian students. The authors of [5, 6] display anti-social behavior. The risk factors for Opioid Use Disorder (OCB) include materialism, psychological anguish, and a lack of life fulfillment. Studies on Turkish university students found that life satisfaction, self-esteem, and problematic mobile phone usage significantly influence OCB [5]. Self-esteem also partially mediates the relationship between life satisfaction and OCB. These findings highlight the complex interplay of psychological and technological factors contributing to OCB among young adults.

Among college students, 7.9% suffer from compulsive shopping, with a greater incidence among women (10.5%) than males (5%) [7]. Anxiety, financial concerns, or psychological stress can all cause compulsive purchasing, resulting in detrimental repurchases of previously purchased things [8, 9]. Compulsive buying may affect 2 to 8% of the population, with women accounting for 80 to 95% [10]. The allure of new products and services, spurred by technological advancements and the appeal of online shopping, has reinforced compulsive

buying habits. Although traditional purchasing allowed for face-to-face connection, the rise of online shopping and the issues associated with physical shopping have hastened the transition. As a result of this transformation, the number of people who routinely shop online has increased, particularly among young people [8].

2. Compulsive buying

Compulsive buying disorder (CBD) is the result of compulsive shopping activities with bad outcomes. Driven by poorly controlled incentives across several payment methods, it is typified by an irresistible need to acquire impractical products [8]. Affecting roughly 5% of the U.S. population, CBD moves through four phases: anticipation, planning, shopping, and expenditure; women are more likely to be affected [11]. While OCD is linked to genetic, chemical, and structural brain problems, with mistaken ideas perpetuating symptoms, compulsive behaviors learned via anxiety relief reinforce each other [12]. In the early 20th century, Kreplin and Bleuler coined "obsessive buying," which is severe and disorganized shopping. Women may disclose this troublesome activity more efficiently.[13-16]. Often associated with trauma, underlying mental health illnesses, mood and anxiety disorders, impulse control problems, and eating disorders is obsessive buying. According to O'Guinn and Faber [17], it is a chronic, repeating behavior used as a coping technique for life's challenges driven by negative emotions. Faber and O'guinn [18]also detailed it as extreme shopping motivated by intrusive ideas and uncontrollable impulses.

Despite not needing anything, obsessive shoppers shop. People rarely use their items while they're dealing with work or personal stress. Shopping is fun for a short time but seldom pays off emotionally or financially [17, 19].

Habitual and impulsive shopping is used to satisfy immediate cravings rather than actual needs. It often harms individuals and people around them[20, 21]. Its broader societal impact is demonstrated by the fact that university students, affected by materialism and pleasure-seeking, are especially vulnerable to this behavior [22]; compulsive buying has become more common due to technological improvements and the convenience of internet shopping. Overconsumption is promoted by creative advertising, regular product upgrades, and the ease of Internet shopping, which makes it hard for people to differentiate between necessities and wants [23]. Insomnia, compulsive buying, out-of-control spending, and buying despite poor outcomes are all signs of compulsive shopping [8]. Undergraduates are particularly impacted by gender, level of education, and significance. Emotional advertising may cause compulsive buying behavior in women to cope with stress, whilst other factors may influence emotional buying behavior in men. Budgeting may be easier for advanced students who are more financially literate compared to impulsive first-year students. As Rodríguez-Brito et al. [24] point out, the media and marketing bring attention to advertising, which impacts consumer behavior; on the other hand, the arts and humanities mold societal ideals, which in turn impact consumer behavior.

Social media type affects emotions, social ties, and marketing, which affects obsessive online shopping. Higher-income people are more vulnerable since they have more financial freedom, while lower-income people may limit such activity due to financial constraints. Companies target wealthy customers with fancy goods and poor customers with low-cost offerings. Cyber fraud victims often become more cautious, reducing impulsive buying [3]. University students are increasingly compulsively shopping due to social and economic factors [25]. Key elements are:

- Convenience: Online purchasing lets students shop from home.
- Promotions and Advertising: Discounts and tempting offers can encourage unnecessary purchases.
- Psychological Escape: Shopping relieves intellectual and social stress.
- Technology Dependence: social media and targeted marketing cause overconsumption.
- Low-income, independent students overspend more.
- Peer Pressure: Gillenson and Sherrell [23] say students overspend to be trendy.

Online shopping is addictive since it's convenient, anonymous, and calming. Social networking and e-commerce enable nighttime buying to evade detection. Shopping helps moody people release tension[14, 26]. Although not a DSM-5 disease, compulsive shopping is comparable to addiction, obsessive-compulsive, and impulse-control disorders. Shopping preoccupation, loss of control, excessive spending, and buying despite negative consequences are symptoms [8]. University students are primarily influenced by gender, education, and significance. Females may buy compulsively to relieve stress, encouraged by emotional advertising, while males may buy emotionally for many reasons. Advanced students with financial literacy may budget better than impulsive undergraduates. Media and marketing raise advertising awareness, which affects buying habits, but humanities and arts shape social norms[24, 27].

Using 861 university students in Turkey, Eren et al. [22] studied the expanding phenomena of compulsive shopping. Study: consumerism and the quest for pleasure and happiness drive compulsive buying. Villardefrancos and Otero-López [4] A survey of 1,448 Galician university students found that 7.4% were compulsive purchasers. Female predominance was more significant. Compulsion buyers also felt vulnerable and distressed. A study found that Basit et al. [28] Female university students are more addicted to online shopping than male pupils. In one study, females scored higher on addiction measures (M = 49.5, SD = 12.0) and compulsive buying behaviors than males (M = 43.1, SD = 12.4) and Otero-López et al. [29]Spanish research of 1,093 students found that compulsive shopping was more common in women. Five primary personality traits and coping techniques contributed to compulsive shopping. In a sample of 386 American university students, views towards physical beauty, fitness, health, and eating disorder risk strongly predicted compulsive purchases. The most important indicators were appearance-focused behaviors. [30]16% of 200 Parisian students were compulsive online consumers, while 26% were addicted to the Internet. Online shopping provides instant gratification and mass offerings. Compulsive internet shoppers spend more time and money. Compulsive purchase behavior is substantially predicted by an online shopping addiction, accounting for up to 41% of the variance (β =.64, p <.000). It only explains 3% of life satisfaction variance [28]obsessive purchasers prioritize outside goals like money and popularity over internal ones like self-acceptance and community, which protect them from obsessive buying [7, 31].

- **H[1]** University students exhibit a notable level of electronic compulsive buying addiction.
- **H[2]** There are statistically significant differences at the 0.05 level among university students according to gender, academic stage, specialization, social media type, economic level, and exposure to cyber fraud.
- Demographic and behavioral variables, including gender, academic stage, specialization, social media type, economic level, and cyber fraud exposure can predict H3 for compulsive buying addiction among university students.

3. Methodology

The descriptive approach was used as the appropriate curriculum to achieve the study's objectives. The study targeted undergraduate students in Saudi Arabia, with a final sample of 328 male and female participants selected based on the following criteria: consent to participate, recent experience with compulsive shopping, possession of credit cards with financial independence, and a history of compulsive shopping at least five times in the month before the study. Initially, 377 students were recruited, but 49 questionnaires were excluded due to incomplete responses or failure to meet the study criteria. Akbari et al. [32] The Electronic Compulsive Purchase Scale assessed university students' electronic compulsive buying. The 28-item scale, translated and customized for Jordan, measures impulsiveness, preoccupation with online shopping, mood alteration through shopping, unpleasant feelings following purchases, and behavioral and financial difficulties. A 3-point Likert scale scores responses: always = 3, rarely = 2, never = 1. To ensure clarity, relevance, language accuracy, and study setting fit, psychology, counseling, and evaluation professionals assessed the electronic compulsive purchase scale. Five experts' feedback led to linguistic rephrasing changes. Internal consistency and validity were determined using an exploratory sample of 30 students. The correlation coefficients of each item with the total score, dimension, and other dimensions were determined to confirm internal validity and consistency. Within dimensions, item correlations ranged from 0.51 to 0.93, while total scale correlations were 0.41 to 0.80. Results confirm the scale's construct validity.

Table 1. Correlation Coefficients between each item, its dimension, and the total score

N	Correlation coefficient With domain	Correlation coefficient With the tool	N	Correlation coefficient With domain	Correlation coefficient With the tool	N	Correlation coefficient With domain	Correlation coefficient With the tool
1	**.70**	**.67**	**11**	**.83**	**.41**	**21**	**.85**	.72
2	**.58**	**.55**	**12**	**.70**	**.53**	**22**	**.93**	.76
3	**.74**	**.64**	**13**	**.68**	**.51**	**23**	**.85**	.79
4	**.74**	**.72**	**14**	**.70**	**.80**	**24**	**.76**	.64
5	**.71**	**.62**	**15**	**.81**	**.70**	**25**	**.69**	.44
6	**.77**	**.66**	**16**	**.72**	**.59**	**26**	**.76**	.50
7	**.66**	**.59**	**17**	**.81**	**.55**	**27**	**.66**	.58

N	Correlation coefficient With domain	Correlation coefficient With the tool	N	Correlation coefficient With domain	Correlation coefficient With the tool	N	Correlation coefficient With domain	Correlation coefficient With the tool
8	**.74**	**.47**	**18**	**.70**	**.50**	**28**	**.72**	.41
9	**.51**	**.52**	**19**	**.72**	**.51**			
10	.77	.44	20	.85	.65			

sig(0.05) (0.01)

All correlation coefficients were statistically significant and acceptable, so no items were removed. Domain correlations with the total score and between domains were also calculated, as shown in Table 2.

Table 2. Correlation coefficients between domains and total degree

Domains	Domains				
	1	3	4	5	
Impulsivity	1				
Excessive preoccupation with online shopping	.383	1			
Using online shopping as a mood modifier (mood modification)	.500	.555	1		
Behavioral and financial problems	.812	.514	.394	1	
Negative emotions about buying	.533	.502	.499	.613	1
Electronic Compulsive Purchase Scale	.883	.677	.751	.855	.592

sig (0.05) (0.01)

Table 2 shows that all correlation coefficients were acceptable and statistically significant, indicating an appropriate degree of construct validity. The test-retest method assessed reliability by reapplying the scale to 30 participants after two weeks, and Pearson's correlation was calculated. Internal consistency was evaluated using Cronbach's alpha. Table 3 presents the reliability coefficients deemed suitable for the study's purposes. Cronbach's alpha coefficients for the sub-dimensions and overall score ranged from 0.79 to 0.87, indicating reliable values for the study.

Table 3. Cronbach alpha internal consistency coefficient, repetition stability of domains, and total degree

Domain	Replay stability	Internal consistency
Impulsivity	0.90	0.87
Excessive preoccupation with online shopping	0.88	0.82
Using online shopping as a mood modifier (mood (modification	0.85	0.80
Behavioral and financial problems	0.81	0.79
Negative emotions about buying	0.83	0.81
Electronic Compulsive Purchase Scale	0.92	0.86

4. Results and discussion

4.1. Arithmetic means and standard deviations of the level of addiction to compulsive buying behavior

Table 4. Arithmetic Means and Standard Deviations of Compulsive Buying Addiction Levels, Ranked in Descending Order by Mean Scores

Rank	N	Domain	mean	Standard deviation	Level
3	1	Impulsivity	1.83	.481	medium
4	2	Excessive preoccupation with online shopping	1.81	.537	medium
1	3	Using online shopping as a mood modifier (mood (modification	2.20	.557	medium
5	4	Behavioral and financial problems	1.69	.571	medium
2	5	Negative emotions about buying	1.86	.484	medium
		Electronic Compulsive Purchase Scale	1.89	.405	medium

Table 4 shows arithmetic averages ranging from 1.69 to 2.20. "Using online shopping to modify mood" ranked highest with a mean of 2.20, while "behavioral and financial problems" ranked lowest at 1.69. The overall mean for compulsive buying addiction was 1.89.

4.2. There are differences among university students according to gender, academic stage, specialization, social media type, economic level, and exposure to cyber fraud

Arithmetic means and standard deviations for compulsive buying addiction levels were calculated based on gender, school stage, specialization, communication type, economic level, and exposure to electronic fraud. Normal distribution was confirmed before addressing the second and third questions, as shown in Tables 5 and 6. Table 7 presents the results.

Table 5. The moderation of the normal distribution of the responses of the study members

Variable	Kolmogorov – Smirnov test	sig
Impulsivity	1.077	0.197
Excessive preoccupation with online shopping	1.016	0.253
Using online shopping as a mood modifier (mood (modification	1.091	0.185
Behavioral and financial problems	1.076	0.197
Negative emotions about buying	1.097	0.18
Electronic Compulsive Purchase Scale	1.076	0.198

Table 5 clearly shows that all dimensions are not statistically significant at the level of (0.05) except for the negative emotions resulting from compulsive buying, which indicates the moderation of the distribution of the responses of the study members.

Table 6. Arithmetic averages and standard deviations of the level of addiction to compulsive buying behavior

variable		Arithmetic mean	Standard deviation	N
Sex	Male	1.87	.417	180
	Female	1.92	.389	148
Grades	Bachelor	1.85	.434	200
	Graduate	1.96	.344	128
Specialization	Humane	1.91	.407	236
	Scientific	1.84	.398	92
Type of means of communication used	WhatsApp	1.90	.401	298
	Other	1.75	.427	30
Economic level	High	1.92	.364	16
	medium	2.00	.446	105
	low	1.82	.359	59
	Very low	1.84	.383	148
Number of times you have been exposed to online fraud	1-3	1.87	.413	299
	4-6	2.17	.236	19
	6More than	1.86	.113	10

Table 5 shows an apparent variation in the arithmetic averages and standard deviations of the level of addiction to compulsive buying behavior due to the different categories of gender variables, school stage, specialization, type of means of communication used, economic level, and the number of times they were exposed to electronic fraud.

Table 7. Analysis of variance for the impact of Dependent variable of addiction to compulsive buying behavior

Contrast source	Sum of squares	DF	Average squares	P	Sig
Sex	.012	1	.012	.079	.779
Grades	.652	1	.652	4.331	.038
Specialization	.567	1	.567	3.769	.053
Type of means of communication used	.154	1	.154	1.024	.312
Economic level	1.912	3	.637	4.234	.006
Number of times you have been exposed to online fraud	2.584	2	1.292	8.582	.000
Error	47.875	318	.151		
Total	53.561	327			

Based on Table 7 findings, no statistically significant differences (α = 0.05) were found for gender (P = 0.079, significance = 0.779), specialization (P = 3.769, significance = 0.053), or type of communication used (P = 1.024, significance = 0.312). Significant differences were observed for the academic stage (P = 4.331, significance = 0.038), favoring postgraduate students. Economic levels showed significant differences (P = 4.234, significance = 0.006); post-hoc comparisons using Scheffe clarified these differences. In Table 8, exposure to electronic fraud also revealed essential differences (P = 8.582, significance = 0.000); Scheffe's post-hoc analysis highlighted these differences in Table 9.

Table 8. Dimensional comparisons by the method Scheffe for the impact of the economic level on the level of addiction on compulsive buying behavior

Economic level	Arithmetic mean	High	medium	low	Very low
High	1.92				
medium	2.00	.08			
low	1.82	.10	.18		
Very low	1.84	.08	.15	.02	

sig (= 0.05).

Table 8 shows statistically significant differences (α = 0.05) between medium and very low, and the differences came in favor of average.

Table 9. Dimensional comparisons by (Scheffe) of the effect of the number of times exposed to electronic fraud on the level of addiction to compulsive buying behavior

Number of times you have been exposed to online fraud	Mean	1-3	4-6	6More than
1-3	1.87			
4-6	2.17	.30		
6More than	1.86	.02	.32	

Sig. α = 0.05

Based on Table 9, significant differences (α = 0.05) were observed between groups 1-3 and 4-6 for fraudulent exposures, favoring 4-6. No significant differences were found for gender (P = 0.079, significance = 0.779), specialization (P = 3.769, significance = 0.053), or communication type (P = 1.024, significance = 0.312). Significant differences were noted for the academic stage (P = 4.331, significance = 0.038), favoring postgraduate students. Economic level differences were substantial between medium and low, favoring the medium group.

4.3. The predictive factors of addiction to compulsive buying behavior among university students

Table 10. Stepwise Multiple Regression Analysis Identifying Predictors of Compulsive Buying Addiction among University Students.

Predictive variables	(R)	(R2)	(R2)	(B)	(F)	(t)	constant	sig
Economic level	.147	.022	.022	-.060	7.184	-2.680	2.074	.008
Grades	.194	.037	.016	.105	6.328	2.318	1.914	.002

Dependent variable: Compulsive Purchase Scale

Findings from Table 10 The economic level and school stage were significant predictors of compulsive buying behavior, explaining 3.7% of the variance. The financial level was the strongest predictor, accounting for 2.2% of the variance, followed by the school stage, which contributed an additional 1.6%. Both variables were statistically significant (α = 0.05). Gender, specialization, communication type, and exposure to cyber fraud were not included in the regression model as their contributions were not statistically significant.

From Table 9, an increase in the economic level by one standard deviation reduced compulsive buying scores by 0.060, while an increase in the school stage by one standard deviation raised scores by 0.105. Both effects were significant at (α = 0.05).

According to research findings, the arithmetic averages for the first question were found to fall between 1.69 and 2.20. The "use of online shopping to modify mood" component has the most significant average score, reaching 2.20. In contrast, the "behavioral and financial problems" dimension has the lowest average score, reaching 1.69. A moderate level of addiction was indicated by the overall average level of compulsive electronic purchase behavior, which was 1.89. This mild level can be linked to university students navigating a crucial moment in their lives and attempting to stay up with trends and modeling themselves after their classmates. They experience instant gratification and favorable emotions due to the convenience, confidentiality, and speed associated with internet shopping. It was observed by [30].

The study found significant differences ($\alpha = 0.05$) between groups 1-3 and 4-6, with the latter group having a better outcome. No statistically significant gender differences were observed ($P = 0.079$, significance = 0.779). Due to the similar demands, they endure at university, Saudi male and female students go shopping to release stress and have fun. Both sexes use social media and online shopping platforms equally and are exposed to targeted marketing and promotions. The modern advertising industry focuses on individual interests rather than gender, which may lead to obsessive spending.

According to Tomaret al. [33], chases better-predicted obsessive buying. Obsessive purchasers scored higher on materialism's worth, success, and happiness, according to Villardefrancos and Otero-López [4]. They suffered more mentally. Compulsion customers had higher hedonism, money success, image, popularity, and conformity, according to Otero-López et al. [7] .However, non-compulsive consumers scored higher on intrinsic goals, including self-acceptance, affiliation, community, and generative care. Roberts and Jones (2001) studied college student credit card abuse and compulsive shopping. We connected credit cards to impulse shopping. Young compulsive buyers were behaviorally distinguished by Maccarrone-Maccarrone-Eaglen and Schofield [34]. There were significant differences in anxiety, product preferences, feelings, attitudes, and credit card influence between groups, indicating mild and severe cases. Iqbal et al. (2024) found that internet shopping addiction affects Pakistani college students' compulsive buying.

Significant differences ($\alpha = 0.05$) were seen across students depending on the academic stage ($P = 4.331$, significance = 0.038), with postgraduate students benefiting. Due to their high self-esteem and need to appear successful, they often shop for unnecessary products. Because of academic pressures, research, and projects, some graduate students use compulsive buying to cope or boost their mood. Academic demands and social isolation support this behavior. These data support Pawar et al. (2014). Impact of Communication Type: No significant changes ($\alpha = 0.05$) were seen in communication type ($P = 1.024$, significance = 0.312). Online stores promote the same products across platforms. Targeted marketing and influencer collaborations on Facebook, Instagram, and TikTok expose viewers to similar material. Advanced algorithms tailor adverts to users' preferences, making platform type less critical than messaging and promotions. The study found substantial differences ($\alpha = 0.05$) between medium and very low economic levels, favoring the medium group. Middle-income students, who made up most respondents, can afford things without worrying about money. Social pressure on beauty and status can sometimes cause compulsive shopping in affluent people. According to Pawar et al. (2014), financial security may encourage compulsive buying. Fraudulent Exposure Impact: Groups exposed to fraud 1-3 times showed significant differences ($\alpha = 0.05$), favoring the latter. Online purchases are anonymous and lack direct interaction, so customers cannot inspect things before buying. Identity theft and bogus commercial pages exploit these vulnerabilities. This conclusion supports Hamida & Destyarini (2023), who identified e-commerce fraud as a significant issue involving non-delivery, counterfeit products, and phishing tactics with legal consequences. Economic and academic status best predicted compulsive buying [20, 29, 34, 35]. Level of Economy Predicts: Higher-income students can buy more, which fosters obsessive buying. Due to financial constraints, the compulsion to acquire is less common among low-income pupils. Targeted digital advertising and enticing Internet purchasing technologies reach high-income people more. Wealthier students may also buy luxury things to preserve a particular image, increasing obsessive shopping. Predictor: Academic Stage Psychological maturity, social effect, and financial freedom influence compulsive buying in advanced academics. Graduate students understand financial risks better and may work part-time, giving them more financial independence and internet shopping. Academic stress and anxiety may be relieved by compulsive shopping. Graduate students have more financial freedom and economic aspirations, which may encourage compulsive buying [3, 14, 17, 18, 26, 36]. The analyses for the academic year 2024-2025 indicate a troubling pattern of heightened financial outlay among university students. Rashid et al. [35] revealed that female college students in Pakistan demonstrated more significant levels of internet shopping addiction ($M = 49.5$, $SD = 12.0$) compared to their male peers ($M = 43.1$, $SD = 12.4$), $t(198) = 3.7$, p Research indicates a notable relationship (r

= .64, p < .000) between online shopping addiction and compulsive buying behavior, with online shopping addiction accounting for 41% of the variance. Ching et al. [5] noted that avoidance coping had an impact on psychological discomfort and compulsive purchasing behaviors among female Chinese college students. The recent findings reveal the intricate dynamics at play in the compulsive buying behaviors of university students, highlighting the need for targeted interventions and additional academic investigation [2, 14]

5. Conclusion

This study shows how gender, academic stage, economic status, and exposure to online fraud affect university students' online compulsive buying addiction. The findings highlight the need for focused treatments, awareness programs, and counseling to address this developing issue. Identifying the causes of compulsive buying is crucial to reducing its psychological, social, and financial effects. Future studies should include more factors and cross-cultural situations to understand this phenomenon better and inform prevention.

6. Recommendations

1. Encourage university students to understand the causes, motivations, and effects of compulsive shopping.
2. Create counseling programs for compulsive buyers.
3. Encourage familial, financial, and psychological education for those affected.
4. Warn parents and decision-makers about the increase in this disorder and online fraud threats.

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Authors Contributions

The current Authors wrote, reviewed, and performed statistical processing of the research; all research elements are complete according to scientific principles.

Conflict of Interest Statement

The author has no conflicts of interest.

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