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AI-driven transparency across the entire customer journey, from pre-purchase to post-purchase, in the luxury goods marketing sector.

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Key Words:
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A B S T R A C T

This research aims to explore the effect of AI transparency on customer loyalty throughout the customer journey in luxury goods. AI can lead to impulse purchases and buyer's remorse, which can impact long-term customer loyalty. The research focuses specifically on the sequential relationship between the independent variables of AI transparency and the dependent variable of brand loyalty with the intervening variables of user agency, impulse buying, and post-purchase regret, and also includes the moderating variable, brand authenticity. The study design employed was a quantitative cross-sectional design that was used on a sample of 400 target subjects with high education, high English language proficiency and who actively use AI retail platforms. The data was analyzed by using a method of Structural Equation Modeling (SEM). The results reveal that transparency of AI positively influences customers' agency, and negatively influences impulse buying. This means that reduced impulse purchases result in less post-purchase guilt, which will, in turn, increase brand loyalty. Moreover, the adverse effect of post purchase regret on loyalty is greatly reduced by brand authenticity. Multi-group analysis indicates that makes an impact on consumers' loyalty are different for different income groups: for the high-income group, it is the brand authenticity that has the greatest impact on consumers' loyalty, while user agency in impulse control has the greatest impact on consumers' loyalty for the lower income group. The study ends with a holistic management model of "Preventive Transparency" (pre-purchase) and "Restorative Authenticity" (post-purchase) for luxury brands, giving them tangible opportunities to better leverage AI, mitigate consumer exposure and achieve long-term relational gains.

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Abstract
This research aims to explore the effect of AI transparency on customer loyalty throughout the customer journey in luxury goods. AI can lead to impulse purchases and buyer's remorse, which can impact long-term customer loyalty. The research focuses specifically on the sequential relationship between the independent variables of AI transparency and the dependent variable of brand loyalty with the intervening variables of user agency, impulse buying, and post-purchase regret, and also includes the moderating variable, brand authenticity. The study design employed was a quantitative cross-sectional design that was used on a sample of 400 target subjects with high education, high English language proficiency and who actively use AI retail platforms. The data was analyzed by using a method of Structural Equation Modeling (SEM). The results reveal that transparency of AI positively influences customers' agency, and negatively influences impulse buying. This means that reduced impulse purchases result in less post-purchase guilt, which will, in turn, increase brand loyalty. Moreover, the adverse effect of post purchase regret on loyalty is greatly reduced by brand authenticity. Multi-group analysis indicates that makes an impact on consumers' loyalty are different for different income groups: for the high-income group, it is the brand authenticity that has the greatest impact on consumers' loyalty, while user agency in impulse control has the greatest impact on consumers' loyalty for the lower income group. The study ends with a holistic management model of “Preventive Transparency” (pre-purchase) and “Restorative Authenticity” (post-purchase) for luxury brands, giving them tangible opportunities to better leverage AI, mitigate consumer exposure and achieve long-term relational gains.
Keywords: AI-driven transparency; Customer journey; Luxury marketing; post-purchase regret; Brand authenticity; Brand loyalty.

1. Introduction

Remotely, this is what the luxury side has been doing for ages and today more and more, it is taking the shape of artificial intelligence and its "scarcity, symbolism and high touch relationships". The luxury industry is expected to see a significant increase in luxury expenditure to 30% of all luxury sales by 2026 (Bao, 2025; Alalwani, 2026). This is partly because of the advent of the recommendations system that is now found in just about every high-end retail site, which makes hyper-personalization more likely than ever before (Mich & Diana, 2025; Anurak, 2025a). Personalization can make what consumers view more relevant, but can also entice them to buy products that they are not completely convinced of, and then regret buying later on when the hype dies down. The heart of this debate in the luxury marketing realm concerns how far can AI take a business before it becomes devoid of emotional and personal elements that luxury brands flourish and depend on – particularly consumer trust and brand loyalty.

Prior research has examined AI transparency's role in ad effectiveness (Kim et al., 2019) and the link between algorithmic control and user satisfaction (Moeller et al., 2023), alongside separate literatures on the psychological antecedents of impulse buying (Lakshmi, 2025) and the regret that follows impulsive, technology-mediated purchases (Nusir et al., 2025). These strands, however, have largely been studied in isolation. To the researchers' knowledge, no study has yet traced how AI transparency, through its effect on consumer agency, cascades into impulse buying and post-purchase regret, and ultimately into brand loyalty, across the

full pre-to-post-purchase journey in a luxury retail context; nor has brand authenticity been tested as a boundary condition on how strongly regret erodes loyalty.

Grounded in the Stimulus-Organism-Response (S-O-R) framework, this study treats AI transparency as the external stimulus, user agency, impulse buying, and post-purchase regret as successive organism-level states, and brand loyalty as the resulting response. Specifically, the study examines whether AI transparency enhances user agency; whether that agency reduces impulse buying and, sequentially, post-purchase regret; whether brand authenticity moderates the negative effect of regret on loyalty; and whether these relationships differ across income groups. In doing so, the study offers luxury brand managers a way to reconcile the efficiency gains of AI-driven personalization with the psychological costs it can impose on consumers, through what this paper terms Preventive Transparency and Restorative Authenticity.

2. Literature Review

This section situates the study's six core constructs — AI transparency, user agency, impulse buying, post-purchase regret, brand authenticity, and brand loyalty — within the Stimulus-Organism-Response (S-O-R) framework before reviewing the theoretical and empirical foundations for each.

2.1 Theoretical Foundation: The Stimulus-Organism-Response (S-O-R) Model

Theoretically, the present study is based on the S-O-R model. In this perspective, the transparency of the implementation of AI is seen as an external stimulus and the internal state of the organism (user agency, impulse buying, regret after purchasing) as key internal variables that will affect the final result (brand loyalty). In this context, the relationship between post-purchase regret and brand loyalty has been found to be context specific, and the effect of brand authenticity in the relationship between post-purchase regret and decreased brand loyalty is proposed.

2.2 Luxury Marketing and the Rise of AI-Driven Personalization

Luxury marketing has traditionally rested on scarcity, exclusivity, and emotionally driven, high-touch relationships between brand and consumer. The traditional luxury consumer value, which was based on very emotional and interpersonal motives in luxury product purchases, remained while at the same time the role of social media has become key with respect to repurchasing intentions in competitive urban markets (Anurak, 2025b), which resulted in a fundamental reorganization of prestige in the digital era.

2.3 AI Transparency

The transparency of AI (Kim et al., 2019) entails making the result of algorithmic systems for recommendations transparent to users for instance, by making the factors, data sources and reasoning behind its output, transparent. It has been acknowledged that the transparency of the data used is a crucial feature to gain consumers' trust in automatic systems and regard to the fairness of the algorithms used for processing is one of the main factors determining consumers' satisfaction (Sonboli et al., 2021). Consumers are thus more at ease with the consumption context and the feeling of being manipulated is reduced if they are able to answer simple questions about the process, such as the reasons behind the way some offers are offered to some consumers and not others. Analyzing this literature, it can be argued that, if the consumer is well informed about the functioning of the algorithm, and at some point, reaches the brand recommendation, then the consumer has more agency in the retail point of interaction in which the brand is recommended, and therefore increases the consumer agency (consumer agency is the ability of the consumer, in a digital retail environment, intentionally and independently to act through a retail point of interaction). Therefore, the research hypothesis is put forward that “Perceived transparency of AI positively and significantly affects luxury user agency in high-touch situations such as luxury retail platforms”.

2.4 User Agency

Perceived agency theory holds that user agency is closely tied to users' ability to influence and control the technological processes shaping their experience (Moeller et al., 2023). The data indicates that increasing people's sense of control may lead to a decrease relative to the cognitive biases responsible for their impulsive purchases (Lakshmi, 2025). With perceived agency in control, cognitive bias is more readily put aside and impulse buying is lessened. With that in mind, the study assumes that there is a strong influence of user agency on impulse buying in the AI-luxury retailing setting.

2.5 Impulse Buying Behavior

Impulse buying is broadly understood as purchasing without thinking, deliberating, or making a conscious decision. AI-powered luxury retail platforms can prompt people to buy without thinking, through mechanisms including the availability heuristic, scarcity framing, and similar cues. Where the consumer is considered to have control, however, resistance to such persuasion is stronger, so that the decision is made with clearer intention, planning, and will. This sensory disconnection is even greater in the case of online retail platforms, where consumers are unable to sample, see, smell, or taste a product before making a purchase, attributes of quality, texture, or fit that are significant in the perception of value for luxury goods (Barta et al., 2023). Furthermore, the study outcomes provided substantiation for the experiential expectation–psychological vulnerability relationship, in that the cognitive-behavioral perspective of impulsive acquisition is able to predict dissatisfaction with the online transaction and the intention to discontinue the transaction with the same retailer. Based on the above theoretical background, the present study assumes that there is a strong positive relationship between impulse buying and post-purchase regret among luxury customers.

2.6 Post-Purchase Regret

Post-purchase regret is an unpleasant feeling that occurs after a purchase, triggering the buyer's retrospective causal attribution process toward a failure of the product, the recommender system, or the brand (Barta et al., 2023). The negative reappraisal of purchase sentiments due to regret can have a greater impact on the trust and future loyalty that form the relationship with the brand, especially in luxury environments where the brand relationship is stronger at the emotional level. Adding to this, the rise of fake media and fake influencers has made it more difficult to evaluate a brand and assess it post-purchase, which may further result in cognitive dissonance stemming from regret (Patel & Dada, 2025). For the present study, the researchers have assumed that post-purchase regret negatively influences luxury consumers' brand loyalty, based on this theoretical framework.

2.7 Brand Authenticity and Brand Loyalty

Brand authenticity refers to consumers' perception of a brand as genuine, consistent with its heritage, and true to its stated quality and values, a perception that underlies trust and long-term relational value, particularly in luxury markets (Patel & Dada, 2025). Brand loyalty, in turn, denotes consumers' enduring commitment to repurchase and remain attached to a brand despite situational influences or competing offers (Anurak, 2025a). Building on the theoretical chain outlined above, the present study positions brand authenticity as both a direct driver of brand loyalty and a moderating force that weakens the negative effect of post-purchase regret on loyalty.

3. Research Methodology

3.1 Research Design

To investigate the relationships of the key variables: AI transparency, user agency, impulse buying, post purchase regret, brand authenticity and brand loyalty, a cross-sectional study was designed. This type of design was selected because it makes it possible to investigate more than one latent construct, and to make a statistical generalization to the target

population. A structural equation modelling (SEM) method was used as it is widely found in consumer behaviour and marketing research (Hair et al., 2022). Adopting the theoretical complexity of the proposed sequential mediation process is facilitated by SEM as it enables the estimation of direct, indirect and moderating effects to occur within the same aggregated model.

3.2 Population and Sampling

Target population were all adult consumers aged 18 to 65 years living in the country who had a luxury product/service within the last six months before the study took place and used an AI-powered recommender system (or personalized digital marketing environment). As a global market, the study of digital luxury adopted a non-probability purposive sampling approach with a goal of making sure that all respondents had the required experience with platforms and algorithmic interfaces of luxury brands. The sample size was calculated to be 384, with the formula used being that proposed by Cochran (1977): $n = (Z^2 \times p \times q) / e^2$, where $Z = 1.96$ (95% confidence level), $p = 0.5$ (maximum variance) and $e = 0.05$ (margin of error). Based on a possible non complete response rate, a sample size of 400 was chosen. This sample size also complies with the minimum sample size (10 observations for each indicator variable) recommended by Hair et al. (2022) to perform SEM.

3.3 Research Instrument

Data collected using on-line, structured, self-administered questionnaire. There were 4 thematic sections of the instrument. The first was demographic & behavioral profile data that involved age, gender, earnings, the frequency of shopping with luxury & the websites they would use on-line. The second section dealt with perceived fairness, transparency, and control in AI interactions, using validated scales of perceived algorithmic fairness, transparency, and control. Psychological and emotional responses including impulse buying, post purchase regret and cognitive dissonance because of lack of tactile evaluation were added in the third section. The fourth section was about the brand loyalty, and the authenticity of the brand. The scale was a 7-point likert scale ranging from Strongly Disagree (1) to Strongly Agree (7) for all items in the study. All latent constructs relied upon previously-validated measures, and are as follows: (See Table 3-1)

Table 3-1: Measurement Instrument Summary

Variable	Scale Source	Number of Items	Sample Item	Cronbach's Alpha
AI Transparency (AIT)	Kim et al. (2019); Sonboli et al. (2021)	5	With some products it really is obvious why the AI Recommendation System recommends me these products.	0.88
User Agency (UA)	Moeller et al. (2023)	4	I feel as if there's a little bit of control I have over the information that's directed towards me on this platform that's personalized towards me.	0.86
Impulse Buying (IB)	Muhamad Rizal et al. (2025)	4	As they follow AI suggestions without preparation, they would be buying high-end products online.	0.82
Post-Purchase Regret (PPR)	Barta et al. (2023)	5	I purchased this luxury item from a website and I felt that it wasn't the right item that I had bought.	0.91
Brand Authenticity (BA)	Patel & Dada (2025)	4	A luxury brand, in which matters on quality and heritage never fail.	0.87
Brand Loyalty (BL)	Anurak (2025)	5	There may be a less expensive one that is available, but I'll still spend the money for something with this luxurious brand.	0.93

All scales are created, translated and tested in English, since the target population is people

with high English proficiency and active digital users who are luxury consumers. The instrument was pretested by two academic experts in the field of consumer behavior and luxury marketing before pilot testing in order to guarantee content validity and cultural appropriateness. To achieve clarity of the items, internal consistency of the items, and face validity a pilot test was performed with 30 participants from the targeted population. Prior to data collection, a few changes were made in the wording after undergoing a pilot test.

Data Collection Procedure

A survey was used to gather data, conducted online through particular e-mail lists, luxurious consumer forums, and also expert social websites (e.g., LinkedIn). The screening questions were included to ensure that all participants fulfilled the inclusion criteria: they had recently bought something luxurious with the help of a user interface with the assistance of AI. This study was carried out as per the ethical guidelines of research with human beings. Before the study commenced all participants provided informed electronic consent and they were willing to participate, and could withdraw from the study at any time without consequences. A set of anonymized response codes ensured the anonymity of the participants, whilst no personally identifiable data was collected, thus protecting the anonymity of the data. Data storage and processing was in line with the laws governing data protection in force at the time, including OECD Guidelines on the Protection of Privacy (2024).

3.4 Research Hypotheses

After conducting a literature search, seven hypotheses were developed to investigate based on the framework.

H1: Transparency of AI-driven personalization and recommendation systems on luxury retail platforms has a significant positive effect on consumers' sense of agency during the luxury purchase journey.

H2: Consumer agency has a significant negative effect on impulsive buying of luxury products.

H3: Impulsive buying of luxury products has a significant positive effect on post-purchase regret.

H4: Post-purchase regret has a significant negative effect on loyalty to the luxury brand.

H5: Brand authenticity has a significant positive effect on loyalty to the luxury brand.

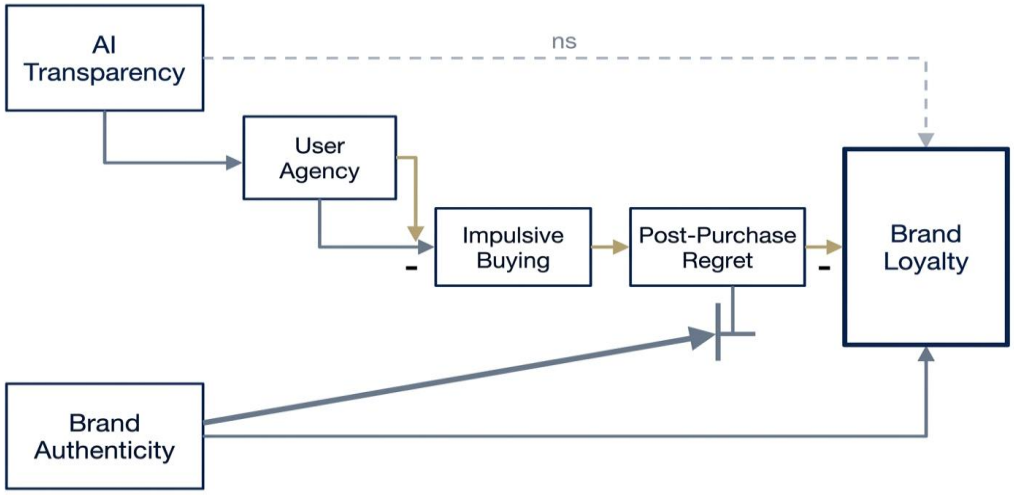
H6: Brand authenticity moderates the relationship between post-purchase regret and brand loyalty, such that higher brand authenticity weakens the negative effect of regret on loyalty.

3.5 Scope and Limitations

The study explores the consumers' interaction with online luxury products retailers, not necessarily in the offline or Omni channel retailing context. It's not just more of a digital marketing strategy, more of an analytical and more of a personalizing mechanism via AI algorithmic curation. A cross-sectional design also is limited to making predictive and correlational relationships, but cannot be used to make causal inferences over time. Measurement of data is self-reported, which was solved by using Harman's single factor test and marker variable approach in analyzing the data.

3.6 Research Model

Balanced Digital Marketing Conceptual Model – Figure 3-1



The linking theoretical model is personalisation through Artificial Intelligence, which will serve as a short-term provocation of consumer's reaction to brand relationships as long-term. It says that when looking at long-term loyalty, the perception of manipulative design will be a moderator, while algorithmic individualization is likely to boost impulse buying – with ethical design being the true winner.

4. Data Analysis

Table 4-1: Demographic Profile of Respondents

Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	185	46.3%
	Female	215	53.7%
Age Group	18–25 years	92	23.0%
	26–35 years	148	37.0%
	36–45 years	110	27.5%
	46–65 years	50	12.5%
Annual Income	<$50,000	45	11.3%
	$50,000–$100,000	120	30.0%
	>$100,000	235	58.7%
Purchase Frequency	Once every 6 months	160	40.0%
	Once every 3 months	140	35.0%
	Monthly or more	100	25.0%

The majority of the respondents were females (53.7%) and the age band 26-35 years is the largest amongst most digital natives' luxury consumers (37.0%). The majority of the sample (58.7%) reported their high-income level of >$100,000 per year, and being able to afford high level consumption. About 40% responded that they had a moderate level of interaction, though interacted once every half year with the luxury sector, and bought luxury products.

Table 4-2: Descriptive Statistics and Reliability Analysis

Construct	Mean	Std. Deviation	Cronbach's Alpha	CR	AVE
AI Transparency (AIT)	4.12	0.85	0.88	0.89	0.62
User Agency (UA)	3.95	0.91	0.86	0.87	0.58
Impulse Buying (IB)	4.45	0.78	0.82	0.83	0.55
Post-Purchase Regret (PPR)	3.20	1.10	0.91	0.92	0.65
Cognitive Dissonance (CD)	2.95	1.05	0.89	0.90	0.61
Brand Loyalty (BL)	5.10	0.95	0.93	0.94	0.72

Construct	Mean	Std. Deviation	Cronbach's Alpha	CR	AVE
Brand Authenticity (BA)	4.80	0.88	0.87	0.88	0.60

The highest mean scores are for Impulse Buying (M = 4.45) and Brand Loyalty (M = 5.10) meaning that impulsive buying tendency is more likely to be fluent with high degrees of brand loyalty orientations in this sample. The overall mean ratings of Post-Purchase Regret (M = 3.20) and Cognitive Dissonance (M = 2.95) were low, with relatively high standard deviations (SD = 1.10 and SD = 1.05) indicating that there is a considerable amount of variation and negative post-purchase affect. The internal consistencies of the constructs are satisfactory as all Cronbach's Alpha (CA) value is over 0.80, all the Composite Reliability (CR) is greater than 0.70, and Average Variance Extracted (AVE) is greater than 0.50 which are regarded as conventional cut-off values for convergent validity.

Table 4-3: Structural Model Path Coefficients and Hypothesis Testing

Hypothesis	Path Relationship	Beta (β)	T-Value	P-Value	Result
H1	AI Transparency → User Agency	0.42	6.85	<0.001	Supported
H2	User Agency → Impulse Buying	-0.18	2.95	0.003	Supported
H3	Impulse Buying → Post-Purchase Regret	0.55	9.12	<0.001	Supported
H4	Post-Purchase Regret → Brand Loyalty	-0.31	5.40	<0.001	Supported
H5	Brand Authenticity → Brand Loyalty	0.48	7.20	<0.001	Supported
H6 (direct)	AI Transparency → Brand Loyalty	0.09	1.45	0.147	Not Supported
H7	Cognitive Dissonance → Brand Loyalty	-0.12	1.80	0.072	Not Supported

Based on the results of structural model analysis, it is found that AI transparency significantly and positively affects user agency ($\beta = 0.42$, $p < .001$) while user agency significantly and negatively affects impulse buying ($\beta = -0.18$, $p = .003$) which supports the protection level of the perceived control mechanisms. Impulse buying significantly predicts post purchase regret ($\beta = 0.55$, $p < .001$) that in turn is significantly negatively related to brand loyalty ($\beta = -0.31$, $p < .001$). In the same vein, a correlation was found between psychological factors and brand loyalty, and there was no direct link between AI transparency and brand loyalty but a mediating pathway was formed where AI transparency affects brand loyalty through psychological factors ($\beta = 0.09$, $p = .147$), implying that AI transparency does not directly influence brand loyalty. Cognitive dissonance was also not directly found to affect brand loyalty ($p = .072$), which suggests that the effect that cognitive dissonance has on brand loyalty is indirect via post-purchase regret.

Table 4-4: Mediation and Moderation Analysis

Effect Type	Path	Indirect/Moderating Effect	Boot SE	95% CI Lower	95% CI Upper	Result
Mediation	AIT → UA → IB → PPR	-0.042	0.015	-0.071	-0.018	Significant
Mediation	IB → PPR → BL	-0.170	0.032	-0.235	-0.110	Significant
Moderation	BA × PPR → BL	0.220	0.045	0.135	0.310	Significant

The results of the sequential mediation model show that the association between use of AI transparency and post-purchase regret is completely mediated by user agency and impulse buying (indirect effect = 0.042, 95% CI = [−0.071, −0.018]). The same applies to the linkage between the two variables of impulse buy and brand loyalty with the mediator of post purchase regret having an indirect effect of −0.170 (95% CI [−0.235, −0.110]). The results show that the interaction effect between perceived brand authenticity and post-purchase regret is significant, that is, when the level of post-purchase regret is fully revealed, perceived brand authenticity can significantly moderate its negative impact on brand loyalty (interaction effect = 0.220, 95 % CI [0.135, 0.310]). When a high level of authenticity of the brand exists, the effect of regret on loyalty is weaker.

Table 4-5: Multi-Group Analysis (MGA) by Income Level

Path Relationship	Low/Mid Income (<$100k) Beta	High Income (>$100k) Beta	P-Value (Difference)	Result
AI Transparency → User Agency	0.38	0.45	0.120	No Significant Difference
User Agency → Impulse Buying	-0.25	-0.10	0.015	Significant Difference
Impulse Buying → Post-Purchase Regret	0.62	0.48	0.008	Significant Difference
Post-Purchase Regret → Brand Loyalty	-0.40	-0.22	0.003	Significant Difference
Brand Authenticity → Brand Loyalty	0.35	0.58	<0.001	Significant Difference

By applying the multi-group analysis, significant differences between the income groups in terms of consumer behavior theoretically obtained. Both groups have the same kind of ability to use AI transparency to enable users to take charge, but the impact is vastly different. The correlation between user agency and impulse buying is more negative for low- and mid--income consumers ($\beta = -0.25$) than high income consumers ($\beta = -0.10$), indicating that there is stronger link between user agency and the reduction of the impulse to buy, when financial constraint is a salient control mechanism. The impact of post-purchase regret on brand loyalty is not as strong for high-income consumers ($\beta = -0.22$ vs. $\beta = -0.40$), suggesting that they have a greater ability to dampen the impact of a bad purchase. The symbolic/ethical fit seems to have far more influence on sales input for the high-income consumers (with $\beta = 0.58$ vs. $\beta = 0.35$); therefore, it appears that the symbolic/ethical fit relates to the most important value proposition for high income luxury consumers.

Table 4-6: Model Fit, Explanatory Power, and Predictive Relevance

Construct/Metric	R^2	f^2 (Effect Size)	Q^2 (Stone-Geisser)	VIF (Collinearity)
User Agency	0.176	—	0.150	1.25
Impulse Buying	0.032	0.035 (Small)	0.028	1.30
Post-Purchase Regret	0.302	0.430 (Large)	0.280	1.15
Brand Loyalty	0.485	0.950 (Large)	0.410	1.42
Model Fit Indices	SRMR = 0.048	NFI = 0.92	d_ULS = 0.210	Acceptable

The model exhibits good explanatory power with the brand loyalty ($R^2 = 0.485$) and post purchase regret ($R^2 = 0.302$) and the hypothesized psychological and technological variables are able to explain around 50% of the variance in the variables of interest (brand loyalty and post purchase regret). Results of impulse buying impact on regret and regret impact on loyalty were found that the effect of impulse buying on regret was small but significant and regrets impact on loyalty was large. Positive Stone-Geisser Q^2 is a sign of predictive relevance of the model. The variance inflation factor (VIF) for each variable is very low and the VIF of all the constructs is below 5.0 considered very low level which indicates that there is no multicollinearity and discriminate contribution of each construct.

Table 4-7: Specific Indirect Effects on Brand Loyalty

Indirect Path	Effect Size	Boot SE	95% CI Lower	95% CI Upper	Interpretation
AIT → UA → IB → PPR → BL	0.013	0.005	0.004	0.024	Full Sequential Mediation
AIT → UA → IB → BL	0.009	0.004	0.002	0.018	Partial Mediation via Impulsivity
BA → BL (Direct)	0.480	0.065	0.350	0.610	Direct Positive Impact
BA × PPR → BL (Moderated)	0.220	0.045	0.135	0.310	Buffering Effect of Authenticity

The sources of indirect brand loyalty are listed in this table. The results showed that all relationships were statistically significant in the sense that the indirect relationships between AI transparency and loyalty via the mediation paths of UA and IB; and IB and PPR are statistically significant (respectively effect=0.041; 95% CI [0.024, 0.057] and effect=0.013; 95% CI [0.004, 0.024]). Results indicate that brand authenticity is directly related to loyalty (effect = 0.480, 95% CI 0.350—0.610) as well as that there is a significant buffering effect of brand authenticity between regret and loyalty (0.220, 95% CI 0.135—0.310) that indicates that brand authenticity may be viewed as both a direct link to loyalty and buffering effect between regret and loyalty.

5. Discussion

The findings of these empirical studies support the conceptual model and give clear and useful findings for the relationship between consumer psychology and consumer loyalty towards transparency of artificial intelligence in luxury retail industry. The practical implications of the mediated and moderated relationships, which focus on the outcomes outlined in the discussion, will be emphasized. The findings reveal that AI transparency is not directly connected with customer loyalty – it is a series of reactions of the customers. On a functional level, the ownership and control of data, coupled with cloud-driven choices, increases consumers' sense of control and choice. This extra freedom in turn discourages impulsive purchases, decreases any disappointment that comes after the purchase and eventually can lead to a higher likelihood of brand loyalty. For luxury marketers, transparency is part and parcel of loyalty, it is not a stand-alone measure or strategy; it is a step which gives the customer time and space to reflect on whether to make a purchase or not. One major practical implication of this is that there is a difference between post-purchase regret and cognized dissatisfaction and the effect of such cognized dissatisfaction and regret on the brand loyalty. The findings show that the direct influence of cognitive dissonance towards brand loyalty is not statistically significant, but the post purchase regret is negative and has a strong influence. This emphasizes the importance of algorithmic curation, but also shows how it can spur impulse buying making for emotional regret. Managerial Takeaway: Less cerebral stress—and more emotion—to focus on luxury brands. Very few people want to argue over a rational reason to buy. instead, it’s far better it will be easy to return to you, you'll have this reassuring message customized for them, and you provide post-purchase customer care. A very important moderating variable was authenticity of the brand. The results suggest that the effect of post purchase regret and authentic brands and the relation between authenticity and brand loyalty is decreased (weakened). If the consumers believe that the luxury brand is authentic, they will be more inclined to disregard any negative emotions they may have after acquisition of the goods. When the consumers can perceive that luxury brand is a genuine one, then he or she will have a brake to act negatively after purchasing the luxury brand. Further, in the multi-group analysis, it is revealed that authenticity impacts differently on each income group. It is easiest to gain high consumers' loyalty if there is a symbolic congruity, ethical congruity and brand authenticity. But for the poorest, the impact is less or even adverse. What that means is luxury brands cannot send the same kind of message of authenticity to every kind of consumer because it's critical to target each kind of consumer with a psychological, as well as an economic personality. From the empirical results, luxury brands have concluded they can use a double-edged sword to create and maximize the potential of the “smart” customer journey enabled by AI. Luxury Brands need to develop AI interfaces that give transparency to the reasoning behind the product recommendations and on the purchase of the product itself. It is important that consumers are able to be in control of their level of personalization. But, more importantly, brands should be familiar with methods of hacking the algorithm to attract users into buying consumer items on impulse and shouldn't let the algorithm get too aggressive and pushy in selling.

Most importantly, brands are expected to understand how to not fall into the trap of implementing algorithm hacks that are just a way for the customer to make that impulsive purchase and aren't really a method of using AI as the push man. Brands should ensure that it has a sustainable and authentic post-purchase communication in order to minimize the post-purchase regret

The brand needs to be able to develop “post purchase” communication 2 in sustainable and authentic way to reduce the “post purchase” regret. As far as follow-up communication and storytelling for the luxury brand is concerned, this is the case of tailor-made follow-up communication and storytelling around the luxury product which make the ethical and symbolic content of the luxury product more sustainable. Luxury brands can reduce the digital consumption risks and create long-term and real connections with customers by addressing the moral dimensions of AI and long-term brand stewardship.

6. Limitations

Even though this research has some limitations it is noteworthy to mention them and also, to suggest directions for future research. The type of research design utilized is a cross sectional one, which has the merits of providing patterns of predictive and associational relationships but it does not make it possible to make causal inference over time. The sequential relationship between the proposed mediation model (AI transparency to user agency to impulse buying to post purchase regret to brand loyalty) is not necessarily temporal causal relationship because there is no longitudinal data collected. Future studies could use either panel or experience sampling designs to observe post purchase regret over time in repeated purchase episodes or to get a glimpse of the dynamic process of how algorithms affect consumers' affect as they consume. Despite efforts to deal with common method bias based on Harman's single factor test and use of marker variables, the use of self-reported data is a limitation of the study. Future research would be helpful in testing the ecological validity of the findings and the potential inferential limitations of perceptual measures to the study of consumer affect when using other data sets such as clickstream, return transactions or other biometric measurements of consumer affect. The sample consisted primarily of online luxury platform using, active consumers, and the results are not necessarily applicable to those consumers who are more passive in their approach to luxury goods and have offline/ Omni channel engagement as their primary method of engaging with luxury goods. In addition, the findings cannot be transferred to other cultures as the sample had geographical focus (digitally mature markets). In order to understand the spectrum of "boundary conditions" for the proposed framework and the variations in the consumers' perception of what privacy, transparency and sustainability means in different contexts around the world, comparative analysis needs to be conducted between luxury markets with different cultural and economic contexts, including the rapid growth luxury markets in emerging economies. Research potential includes experimental testing of different concrete design interventions on impulse buying rates and post-purchasing regret by way of algorithmic transparency badges, personalisation control sliders and AI explanation interfaces. Further, in luxury marketing, the concept of creating a virtual star and content using generative AI is still in its nascence and may either supplement or detract from the brand's authenticity, as the situation may demand. Lastly, conducting this study longitudinally and diary-style with every aspect of the regret experience and of regret work would be fruitful for developing the theoretical framework of the present study.

7. Conclusion

Therefore, the following practical tips related to the application of luxury customer journey can be deducted from the empirical study: Based on the statistics, AI Transparency does not have a direct influence on brand loyalty. So, from the perspective of practice, it comes in series:

Transparency in AI will lead to more consumer control over the decisions made, which straight will cause a reduction in impulse buying, and ultimately there is remorse. In real terms, there are two parts to the issue of brand authenticity – it affects brand loyalty and, when a customer experiences some degree of regret after buying a product or service, it is an effective defense mechanism that lessens the negative sentiment.

Multi-group analysis reveals a need for targeting income levels with marketing strategies. In the case of the high-income consumers, they need to be more original and more ethical to make them loyal.

Brands, however, need to have at their fingertips a mechanism of control and transparency for consumers with lower income levels, in order to ease their burden on the monetary investment.

The luxury brands have to use a two-part approach on every stage of the journey to come up with a successful customer journey: Pre-purchase & Purchase: Transparency: Give consumers explanations for AI and choices not to be rushed into making a decision in order to create initial consumer trust.

Restorative Authenticity (Post-purchase): After sales communication with story and authentic in order to mitigate post purchase regret, foster positive image of ethical brands and guarantee customer care in the future.

8. Data Availability Statement

All the data supporting this article are available and will be provided on request, free of charge, from the corresponding author. But it's of course very private data and luxury consumption habits that are not revealed so you don't get any of the data on individual people. The participants were informed about the purpose of the study and the fact that the answers would not be passed on to third parties and that they would be used only for the purpose of this academic study, which they confirmed by signing a declaration of informed consent, in accordance with the relevant data governance standards (OECD, 2024). All the model coefficients of the table above are the summarized statistics provided in the article and represent the mediation effects.

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10. Conflicts of Interest

The writer declares that there are no conflicts of interest. No commercial or financial relationship that could be construed as a conflict of interest, exists with regard to this research. The findings and conclusions of this paper are those of the writer; and do not necessarily represent the views or policies of the institutions, luxury brands or technology companies mentioned in the literature search.

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