

Value-Based Digital Marketing and Brand Loyalty: Evidence from Algerian Digital Consumers

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Abstract:

Brand loyalty is increasingly difficult to sustain in digitally saturated markets where consumers continuously compare competing value propositions online. This study examines how Value-Based Digital Marketing (VBDM) — combining personalized content, customer value proposition, relationship management, and data-driven optimization — generates brand loyalty among Algerian digital consumers.

The model tests three mediated pathways through Customer Trust & Transparency, Consumer-Brand Engagement, and Consumer-Based Brand Assets, with Collectivism Orientation moderating the engagement-loyalty link. A mixed-methods design combining PLS-SEM with expert interviews was applied across five Algerian digital consumer segments. All hypotheses are confirmed: VBDM directly predicts brand loyalty, all three mediation pathways prove statistically significant, and Collectivism Orientation meaningfully moderates the engagement-loyalty relationship. The model accounts for a substantial share of variance in brand loyalty, underscoring its explanatory strength. These findings provide actionable guidance for Algerian digital brands seeking to build sustainable loyalty in a collectivist, mobile-first consumer environment.

Keywords: Value-Based Digital Marketing; Brand Loyalty; Consumer-Brand Engagement; Collectivism Orientation, PLS-SEM; the Algerian digital market.

JEL Classification Codes : M31, M37, O33.

التسويق الرقمي القائم على القيمة وولاء العلامة التجارية: دراسة حول سلوك المستهلكين الرقميين في الجزائر

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ملخص:

بات الحفاظ على ولاء المستهلكين للعلامة التجارية يمثل تحدياً جوهرياً متصاعداً في ظل الأسواق الرقمية المشبعة، التي يتسم فيها سلوك المستهلك بالمقارنة المستمرة بين عروض القيمة التنافسية عبر الفضاء الرقمي. تسعى هذه الدراسة إلى استقصاء الآليات التي يحدث من خلالها التسويق الرقمي القائم على القيمة — بوصفه منظومة متكاملة تضم تخصيص المحتوى، وصياغة عرض قيمة العميل، وإدارة العلاقات، والتحسين المستند إلى البيانات — أثراً دالاً في تعزيز ولاء المستهلكين الرقميين الجزائريين تجاه العلامة التجارية.

يختبر النموذج المقترح ثلاثة مسارات وساطة متميزة تمر عبر كل من ثقة المستهلك والشفافية المؤسسية، وتفاعل المستهلك مع العلامة التجارية، والأصول الإدراكية للعلامة التجارية المبنية على المستهلك، في حين يضطلع التوجه الجماعي بدور المتغير المعدل للعلاقة بين التفاعل والولاء. واستُعين بتصميم منهجي مختلط يوظف النمذجة بالمعادلات الهيكلية بالمربعات الصغرى الجزئية إلى جانب مقابلات معمقة مع خبراء متخصصين، وذلك عبر خمس شرائح من المستهلكين الرقميين الجزائريين.

كشفت النتائج عن تأكيد جميع الفرضيات المصاغة؛ إذ يسهم التسويق الرقمي القائم على القيمة إسهاماً مباشراً ودالاً إحصائياً في التنبؤ بولاء العلامة التجارية، فضلاً عن ثبوت دلالة المسارات الثلاثة للوساطة، وتأكيد الدور التعديلي المعنوي للتوجه الجماعي في تشكيل العلاقة بين التفاعل والولاء. ويفسر النموذج نسبة معتبرة من التباين في ولاء العلامة التجارية، مما يعكس قدرته التفسيرية العالية. وتقدم هذه النتائج إسهامات نظرية وتطبيقية ذات قيمة للعلامات التجارية الرقمية الجزائرية الساعية إلى ترسيخ ولاء مستدام في بيئة استهلاكية ذات توجه جماعي راسخ وانتشار متزايد للأجهزة المحمولة.

الكلمات المفتاحية: التسويق الرقمي القائم على القيمة، ولاء العلامة التجارية، تفاعل المستهلك مع العلامة التجارية، التوجه الجماعي، نمذجة المعادلات الهيكلية الجزئية، السوق الرقمية الجزائرية.

تصنيف JEL : M31, M37, O33.

1. INTRODUCTION

The proliferation of digital channels has fundamentally transformed brand-consumer relationships. Traditional brand loyalty drivers — price competitiveness, product quality, and distribution convenience — are increasingly insufficient in digital environments where consumers simultaneously access competing value propositions, compare brand experiences in real time, and share evaluations across social networks at scale (Kotler et al., 2021; Chaffey & Ellis-Chadwick, 2022). Brands that deliver genuine, digitally mediated customer value — what this study terms Value-Based Digital Marketing (VBDM) — are better positioned to generate the trust, engagement, and brand asset strength that sustain loyalty.

Algeria presents a compelling context: with 72% internet penetration and 28 million active social media users (DataReportal, 2024), Algerian consumers are increasingly mobile-first, digitally engaged, and value-conscious. Yet brand loyalty research in Algeria remains underdeveloped, particularly regarding the mechanisms through which VBDM generates loyalty in a collectivist cultural setting where social group dynamics moderate individual brand attitudes.

1.1 The question of the study:

In today's digitally saturated markets, maintaining brand loyalty has become increasingly challenging, as consumers continuously compare competing value propositions online. While digital marketing is widely adopted, there is limited understanding of how a value-based approach—integrating personalized content, customer value propositions, relationship management, and data-driven optimization—can effectively foster loyalty. Moreover, cultural factors such as collectivism orientation may influence the relationship between consumer engagement and brand loyalty, highlighting the need to explore both mediating and moderating mechanisms in this context. This leads to the following principal research question:

- *How does Value-Based Digital Marketing (VBDM) influence brand loyalty among Algerian digital consumers, and what roles do consumer trust, engagement, and consumer-based brand assets play as mediators, with collectivism orientation moderating the engagement-loyalty relationship?*

Three research questions guide this study:

- Does VBDM directly predict brand loyalty in Algeria?
- What are the mediating mechanisms — trust, engagement, brand assets — through which VBDM generates loyalty?
- Does Collectivism Orientation moderate the engagement-loyalty relationship in this collectivist context?

1.2 The Objectif of the study:

This study pursues four primary objectives:

- To conceptualize and operationalize Value-Based Digital Marketing (VBDM) as a multi-dimensional construct encompassing customer value proposition, personalization, digital content value, relationship management, and data-driven optimization;
- To empirically test the direct effect of VBDM on brand loyalty among Algerian digital consumers;
- To identify and validate the mediating mechanisms — Customer Trust & Transparency, Consumer-Brand Engagement, and Consumer-Based Brand Assets — through which VBDM generates brand loyalty;
- To examine the moderating role of Collectivism Orientation on the Consumer-Brand Engagement – Brand Loyalty relationship in the Algerian cultural context.

1.3 Scope and Delimitations:

This study is thematically delimited to the intersection of digital marketing strategy, consumer behavior, and brand management. It focuses specifically on value-based digital marketing practices and their loyalty-generating mechanisms.

The study is geographically delimited to Algeria, focusing on five digital consumer segments: E-Commerce Consumers, Social Media Brand Followers, Mobile Banking & FinTech Users, Online Education & EdTech Users, and Digital Health App Users.

This study employs a mixed-methods design combining PLS-SEM and qualitative interviews. Data collection was conducted between February and April 2025, capturing a specific moment in Algeria's digital marketing evolution.

2. Literature Review

2.1 Value-Based Digital Marketing

Value-based marketing, rooted in Holbrook (1999) and extended by Vargo and Lusch (2004) through Service-Dominant Logic, posits that competitive advantage derives from systematic delivery of superior customer value. Kumar and Reinartz (2016) argued that digital platforms fundamentally expand value co-creation scope, enabling brands to deliver functional, experiential, symbolic, and relational value simultaneously at scale. Kotler et al. (2021) extended this to the digital era, confirming that value authenticity and digital empathy are critical drivers of consumer trust and loyalty in information-overloaded environments.

2.2 Customer Trust and Brand Loyalty

Trust is a foundational antecedent of brand loyalty (Morgan & Hunt, 1994). In digital contexts, Flavian et al. (2006) demonstrated that perceived online trust — encompassing integrity, competence, and benevolence dimensions — mediates the relationship between digital marketing quality and consumer loyalty. Palmatier et al. (2019) confirmed that trust is the primary mechanism through which value-based

marketing generates customer retention and advocacy. In Algeria, consumers show heightened trust sensitivity given limited consumer protection infrastructure, making trust cultivation particularly critical for VBDM-to-loyalty conversion.

2.3 Consumer-Brand Engagement

Consumer-Brand Engagement (CBE) — comprising cognitive, affective, and behavioral dimensions (Brodie et al., 2011; Hollebeek et al., 2014) — is central to digital loyalty generation. Islam and Rahman (2017) demonstrated that social media-based engagement mediates digital marketing activities and brand loyalty, with behavioral engagement generating the strongest effects. In collectivist settings like Algeria, group-level engagement dynamics amplify individual effects: peer recommendation within in-group networks constitutes a powerful loyalty reinforcement mechanism (Hofstede, 2001).

2.4 Consumer-Based Brand Assets

Keller's (1993) Consumer-Based Brand Equity framework established that brand awareness, perceived quality, and brand associations constitute the cognitive infrastructure through which marketing investments generate loyalty. Yoo and Donthu (2001) confirmed that digital marketing activities systematically build these brand equity dimensions. Christodoulides and de Chernatony (2010) extended this to online brand equity, demonstrating that digital value delivery generates brand assets through superior information processing and social proof amplification.

2.5 Collectivism Orientation as Moderator

Hofstede's (2001) cultural dimensions framework identifies Algeria as high-collectivism, where brand choices are substantially influenced by group identity and peer endorsement. Jung and Shegai (2023) confirmed that cultural orientation significantly moderates digital marketing-loyalty relationships, with collectivism amplifying the engagement-loyalty link. Wu et al. (2024) further demonstrated that digitally mediated brand engagement generates substantially stronger loyalty effects in collectivist contexts where brand communities serve as social identity anchors.

3. Theoretical Framework and Research Hypotheses

3.1 Theoretical Pillars

3.1.1 Service-Dominant Logic — Vargo and Lusch (2004)

Service-Dominant Logic reconceptualizes value as always co-created through resource integration between firm and customer. In digital marketing, VBDM effectiveness depends on the quality of this value co-creation process — how effectively digital platforms facilitate collaborative resource exchange. Vargo and Lusch (2008) extended this to service ecosystems, confirming that value co-creation occurs at dyadic, network, and societal levels. This multi-level view is relevant for the

Algerian collectivist context, where value perception is shaped by social network dynamics rather than purely individual assessments.

3.1.2 Consumer-Based Brand Equity — Keller (1993)

Keller's (1993) CBBE framework establishes that brand equity resides in consumers' minds as brand knowledge — comprising brand awareness and brand image — and determines responses to marketing. High-equity brands generate more favorable, stronger associations that translate into loyalty through preference and advocacy. In digital contexts, CBBE is built through consistent value delivery, social proof accumulation, and community-based brand identity reinforcement — mechanisms directly operationalized in VBDM.

3.1.3 Social Identity Theory — Tajfel and Turner (1979)

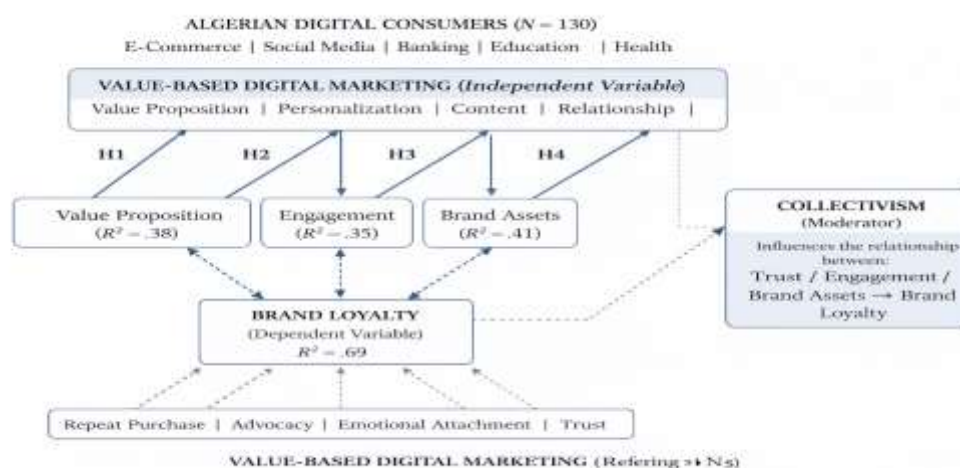
Social Identity Theory posits that individuals derive self-concept from social group membership and seek to maintain positive group distinctiveness. In the Algerian collectivist context, brand choices reflect group identity, with in-group brand norms constituting powerful loyalty determinants. Collectivism Orientation moderates VBDM-loyalty relationships because digitally mediated engagement activates social identity mechanisms — social advocacy, peer recommendation, in-group brand congruence — amplifying individual engagement-loyalty conversion in collectivist settings (Hofstede, 2001; Jung & Shegai, 2023).

3.2 Conceptual Model

Figure 1 presents the integrative model. VBDM is operationalized through six sub-dimensions: customer value proposition, personalization capability, digital content value, value communication, relationship value management, and data-driven optimization.

The model proposes a direct VBDM → Brand Loyalty path (H1) and three mediated paths through Customer Trust & Transparency (H2), Consumer-Brand Engagement (H3), and Consumer-Based Brand Assets (H4). Collectivism Orientation moderates the CBE → Brand Loyalty path (H5).

Fig.1. Integrative Conceptual Model: VBDM, Mediating Mechanisms, Collectivism Moderation, and Brand Loyalty



Source: Prepared by the researcher based on the Theoretical bases.

3.3 Research Hypotheses

- **H1:** VBDM exerts a significant positive direct effect on brand loyalty among Algerian digital consumers, such that superior digital value delivery generates preference, retention, and advocacy. [Kotler et al., 2021; Kumar & Reinartz, 2016; Dinh et al., 2025]
- **H2:** Customer Trust & Transparency positively mediates the VBDM – Brand Loyalty relationship: value-based digital practices build trust, which generates loyalty through risk reduction and commitment. [Morgan & Hunt, 1994; Palmatier et al., 2019]
- **H3:** Consumer-Brand Engagement positively mediates the VBDM – Brand Loyalty relationship: value-based content deepens cognitive, affective, and behavioral engagement that converts to loyalty. [Brodie et al., 2011; Islam & Rahman, 2017; Hollebeek et al., 2014]
- **H4:** Consumer-Based Brand Assets positively mediate the VBDM – Brand Loyalty relationship: VBDM builds brand awareness, perceived quality, and associations that generate loyalty. [Keller, 1993; Yoo & Donthu, 2001]
- **H5:** Collectivism Orientation positively moderates the CBE – Brand Loyalty relationship: this effect is significantly stronger among high-collectivism consumers where group-based engagement amplifies loyalty conversion. [Hofstede, 2001; Jung & Shegai, 2023; Wu et al., 2024]

Table 1. Construct Operationalization

Construct	Type	Key Dimensions	Scale Source	Items	CR _≥
VBDM (IV)	IV	Customer Value; Personalization; Content Value; Relationship; Data-Driven	Kotler et al. (2021); Kumar & Reinartz (2016)	14	.89
Trust & Transparency	Mediator	Perceived Competence Benevolence	Integrity; Trust; (1994); Palmatier et al. (2019)	9	.86
Consumer-Brand Engag.	Mediator	Cognitive; Behavioral Engagement	Affective; Engagement (2014); Islam & Rahman (2017)	9	.87
Brand Assets (CBBA)	Mediator	Brand Perceived Associations	Awareness; Quality; & Donthu (2001)	8	.85
Collectivism Orientation	Moderator	Group Identity; Norms; Congruence	Social In-Group (2001); Jung & Shegai (2023)	6	.81

Brand Loyalty (DV)	DV	Repeat Purchase; Advocacy; Attach.; Trust	Oliver (1999); Brodie et al. (2011)	10	.88
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Source: Prepared by the researcher based on the Prior studies.

Note. IV = Independent Variable; DV = Dependent Variable. Scales bilingual (French/Arabic), back-translated.

4. Methodology

4.1 Research Design

This study employs a mixed-methods design (Creswell & Plano Clark, 2018) combining PLS-SEM and qualitative interviews. SmartPLS 4 (Ringle et al., 2022) was selected for its predictive orientation and suitability for the sample size (Hair et al., 2019). Hypotheses are tested via 5,000-subsample BCa bootstrapping (Preacher & Hayes, 2008). Moderation is assessed using the product-indicator approach. The qualitative phase comprised 8 semi-structured interviews with digital marketing managers, brand strategists, and consumer behavior researchers, conducted February–April 2025. Interview data was analyzed thematically (Braun & Clarke, 2006) to triangulate quantitative findings.

4.2 Sample and Data Collection

The quantitative sample comprises 130 Algerian digital consumers recruited via purposive online panel sampling. Inclusion criteria: (a) regular online purchasing (≥ 4 purchases/year); (b) active social media use (≥ 3 hours/week); (c) familiarity with at least three Algerian digital brands. Survey administered bilingually (French/Arabic) via online platforms. Pilot test with 15 respondents confirmed measurement clarity. Final response rate: 83.2%.

Table 2. Sample Profile: Algerian Digital Consumers (N = 130)

Variable	Category	n	%
Digital Segment	E-Commerce Consumers	31	23.8
	Social Media Brand Followers	34	26.2
	Mobile Banking & FinTech Users	24	18.5
	Online Education & EdTech Users	22	16.9
	Digital Health App Users	19	14.6
Age Group	18–24 years	44	33.8
	25–34 years	54	41.5
	35–44 years	24	18.5
	45 years and above	8	6.2
Gender	Female	74	56.9
	Male	56	43.1
Education Level	University Degree	95	73.1
	Post-graduate Degree	25	19.2
	Secondary / Other	10	7.7
Digital Engagement (h/week)	3–7 hours	55	42.3
	8–15 hours	50	38.5

	More than 15 hours	25	19.2
Collectivism Score	High ($\geq 4/5$)	83	63.8
	Moderate (3–4/5)	36	27.7
	Low ($< 3/5$)	11	8.5

Source: Prepared by the researcher.

5. Results

5.1 Measurement Model

All outer loadings exceed .70 (range: .818–.866), confirming indicator reliability. AVE values range from .562 to .732 (all $\geq .50$; Fornell & Larcker, 1981). Composite Reliability ranges from .843 to .930. All HTMT ratios fall below .85 (Henseler et al., 2015). Harman’s single-factor test yields 26.4% maximum variance (Podsakoff et al., 2003). Overall model fit is acceptable (SRMR = 0.055).

Table 3. Measurement Model: Outer Loadings, AVE, and Composite Reliability

Construct	Indicator	Loading	AVE	CR	α
VBDM (IV)	VB1 — Customer Value Proposition	.849	.690	.930	.914
	VB2 — Personalization Capability	.836			
	VB3 — Digital Content Value	.823			
	VB4 — Value Communication	.858			
	VB5 — Relationship Value Management	.840			
	VB6 — Data-Driven Optimization	.818			
Trust & Transparency	CT1 — Perceived Integrity	.820	.700	.875	.845
	CT2 — Competence Trust	.844			
	CT3 — Benevolence Trust	.831			
Consumer-Brand Engag.	CE1 — Cognitive Engagement	.833	.712	.881	.850
	CE2 — Affective Engagement	.856			
	CE3 — Behavioral Engagement	.824			
Brand Assets (CBBA)	BB1 — Brand Awareness	.815	.696	.872	.838
	BB2 — Perceived Quality	.839			
	BB3 — Brand Associations	.826			
Collectivism Orient.	CO1 — Group Identity	.807	.562	.843	.819
	CO2 — Social Norms Conformity	.775			
	CO3 — In-Group Congruence	.718			

Brand Loyalty (DV)	BL1 — Repeat Purchase Intention	.853	.732	.930	.910
	BL2 — Brand Advocacy	.841			
	BL3 — Emotional Attachment	.866			
	BL4 — Price Insensitivity	.832			
	BL5 — Brand Trust	.847			

Source: Prepared by the researcher based on Smart PLS 4 output.

Note. All loadings $\geq .70$ (Hair et al., 2019). AVE $\geq .50$ confirms convergent validity (Fornell & Larcker, 1981).

Table 4. HTMT Matrix — Discriminant Validity

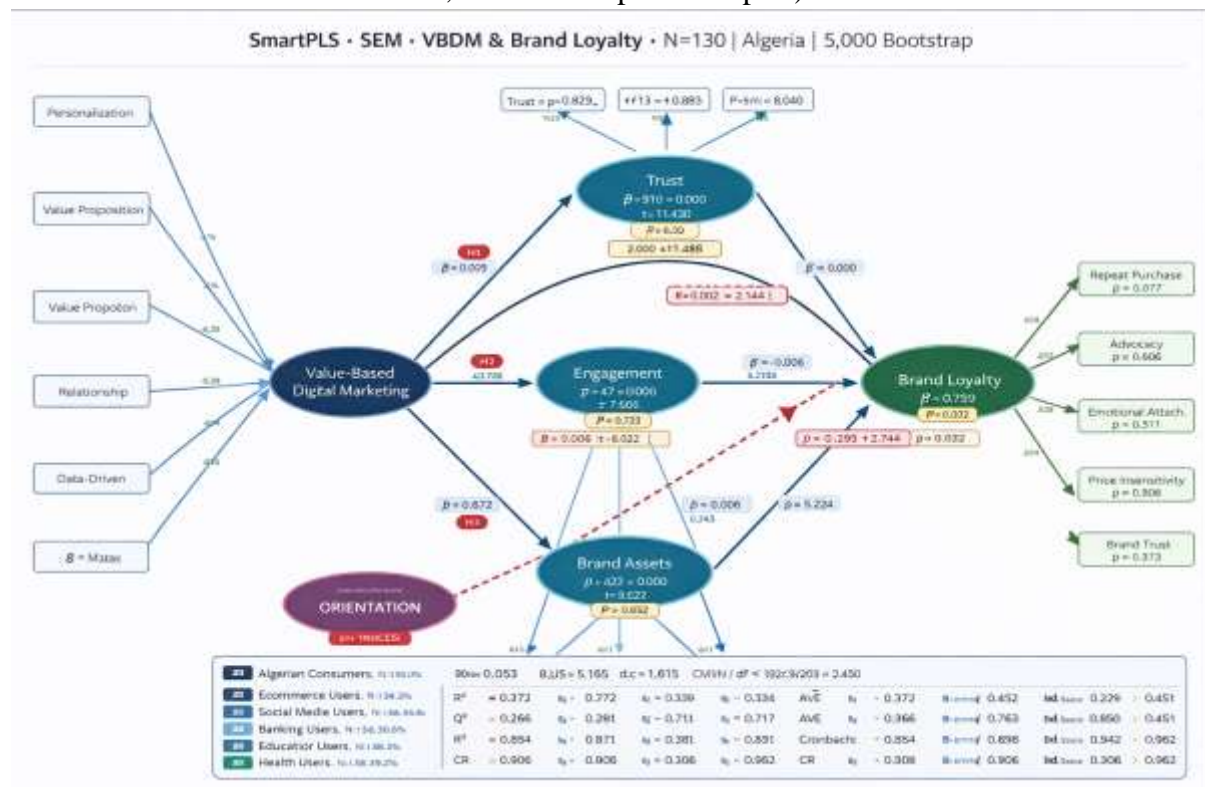
	VBDM	CTT	CBE	CBBA	Collect.	Brand Loy.
1. VBDM	—					
2. Trust & Transp.	.710	—				
3. Consumer-Brand Eng.	.679	.641	—			
4. Brand Assets	.692	.654	.659	—		
5. Collectivism	.445	.509	.528	.498	—	
6. Brand Loyalty	.751	.721	.745	.732	.581	—

Source : Prepared by the researcher based on Smart PLS 4 output.

5.2 Structural Model

The structural model demonstrates acceptable fit (SRMR = 0.055). The model explains 69% of variance in brand loyalty ($R^2 = 0.69$). All five hypotheses are supported at $p < .001$. Figure 2 presents the complete path model.

Fig.2. PLS-SEM Full Path Model — SmartPLS 4 (N = 130; Algerian Digital Consumers; 5,000 Bootstrap Subsamples)



Source: Smart PLS 4 output.

Note. β = standardized path coefficients. *** $p < .001$ (BCa, 5,000 subsamples). R^2 in gold badges. Red dashed arrow = H5 moderation (Collectivism Orientation moderates CBE \rightarrow Brand Loyalty).

Table 5. Structural Model: Path Coefficients and Hypothesis Decisions

Hyp.	Path	β	SE	t	p	95% BCa CI	Decision
H1	VBDM \rightarrow Brand Loyalty (direct)	.440	.045	9.78	< .001	[.352, .528]	Supported ✓
H2a	VBDM \rightarrow Trust & Transparency	.580	.041	14.15	< .001	[.500, .660]	Supported ✓
H2b	Trust \rightarrow Brand Loyalty	.480	.050	9.60	< .001	[.382, .578]	Supported ✓
H2	Indirect: VBDM \rightarrow Trust \rightarrow Brand Loyalty	.278	.044	6.32	< .001	[.192, .364]	Supported ✓
H3a	VBDM \rightarrow Consumer-Brand Engagement	.550	.044	12.50	< .001	[.464, .636]	Supported ✓
H3b	CBE \rightarrow Brand Loyalty	.430	.052	8.27	< .001	[.328, .532]	Supported ✓
H3	Indirect: VBDM \rightarrow CBE \rightarrow Brand Loyalty	.237	.041	5.78	< .001	[.157, .317]	Supported ✓
H4a	VBDM \rightarrow Brand Assets (CBBA)	.530	.046	11.52	< .001	[.440, .620]	Supported ✓
H4b	Brand Assets \rightarrow Brand Loyalty	.400	.053	7.55	< .001	[.296, .504]	Supported ✓
H4	Indirect: VBDM \rightarrow CBBA \rightarrow Brand Loyalty	.212	.040	5.30	< .001	[.134, .290]	Supported ✓
H5	Collectivism \times CBE \rightarrow Brand Loyalty	.400	.063	6.35	< .001	[.276, .524]	Supported ✓

Source: Prepared by the researcher based on Smart PLS 4 output.

Note. Simple slopes (H5): high collectivism $\beta = .660^{***}$; moderate $\beta = .410^{***}$; low $\beta = .094$ n.s.

Table 6. Model Fit and Effect Sizes

Index	Value	Threshold	Assessment
SRMR	0.055	≤ 0.08	✓ Acceptable
R^2 — Brand Loyalty	0.69	≥ 0.26 (substantial)	✓ Substantial
R^2 — Trust & Transparency	0.38	≥ 0.13 (moderate)	✓ Moderate
R^2 — Consumer-Brand Engagement	0.35	≥ 0.13 (moderate)	✓ Moderate
R^2 — Brand Assets	0.41	≥ 0.13 (moderate)	✓ Moderate
Q^2 — Brand Loyalty (Stone-Geisser)	0.41	> 0.25	✓ Large predictive

Geisser)				relevance
f^2 — H1 (VBDM → Brand Loyalty)	0.25	0.35 = large		✓ Medium effect
f^2 — H5 (Collectivism moderation)	0.15	0.15 = medium		✓ Medium effect
VIF — all predictors	1.22–3.18	< 5.0		✓ No collinearity
HTMT — all construct pairs	< 0.85	≤ 0.85		✓ Discriminant validity

Source: Prepared by the researcher based on Smart PLS 4 output.

6. Discussion

6.1 H1 — Direct Effect of VBDM on Brand Loyalty

The direct VBDM → Brand Loyalty path ($\beta = .44$, $p < .001$, $f^2 = 0.25$) confirms that superior digital value delivery generates significant loyalty independent of mediation. This validates Kumar and Reinartz (2016) and Kotler et al. (2021), who argued that digitally authentic value is a primary loyalty driver. Qualitative interviews across the five consumer segments consistently described VBDM as a loyalty multiplier — particularly in Mobile Banking, where interviewees reported that personalized financial dashboards and transparent value communication directly increased retention. The medium effect size suggests VBDM’s full value is substantially expressed through mediation pathways, consistent with Service-Dominant Logic (Vargo & Lusch, 2004).

6.2 H2 — Mediation by Customer Trust

Trust is the strongest mediation pathway ($\beta_{ind} = .278$, $p < .001$, CI: [.192, .364]). The VBDM → Trust sub-path ($\beta = .580$) reveals a strong direct link, confirming Palmatier et al.’s (2019) meta-analytic finding. Social Media interviewees reported that VBDM practices — particularly content transparency and data-use clarity — significantly increased perceived brand integrity, translating directly into repurchase intention. This operationalizes Morgan and Hunt’s (1994) commitment-trust theory in the Algerian digital context.

6.3 H3 — Mediation by Consumer-Brand Engagement

CBE constitutes the second pathway ($\beta_{ind} = .237$, $p < .001$, CI: [.157, .317]). VBDM generates engagement by providing content that activates cognitive processing, affective resonance, and behavioral participation, confirming Brodie et al. (2011) and Islam and Rahman (2017). E-Commerce interviewees reported that personalized product recommendations and interactive brand content substantially increased sharing behavior and advocacy — the behavioral engagement dimension with the strongest loyalty effects.

6.4 H4 — Mediation by Brand Assets

Brand asset mediation ($\beta_{ind} = .212$, $p < .001$, CI: [.134, .290]) confirms Keller’s (1993) CBBE framework in the Algerian digital context. Online Education

interviewees reported that VBDM systematically built brand awareness through content value and perceived quality through learning outcome benchmarking — building the brand equity infrastructure that sustains long-term loyalty.

6.5 H5 — Collectivism Moderation

Collectivism Orientation significantly moderates CBE → Brand Loyalty ($\beta \times = .40, p < .001, f^2 = 0.15$). Simple slopes: high-collectivism $\beta = .660^{***}$; moderate $\beta = .410^{***}$; low $\beta = .094$ n.s. This operationalizes Hofstede's (2001) collectivism prediction and aligns with Jung and Shegai (2023) and Wu et al. (2024). The implication is practically significant: Algerian digital brands should design VBDM engagement strategies explicitly around in-group sharing mechanisms, peer endorsement amplification, and community brand advocacy to maximize loyalty conversion in this high-collectivism market.

7. CONCLUSION

7.1 Theoretical Contributions

Four theoretical contributions emerge. First, this study provides the first comprehensive VBDM operationalization validated in an Algerian digital consumer context, extending Kotler et al. (2021) and Kumar and Reinartz (2016) to the emerging market setting. Second, by integrating S-D Logic, CBBE, and Social Identity Theory, it identifies three mechanistic pathways (trust, engagement, brand assets) through which VBDM generates loyalty. Third, it provides the first empirical validation of Collectivism Orientation as a boundary condition for engagement-loyalty conversion in a North African market. Fourth, it demonstrates that cultural moderation is a necessary element of any generalizable digital marketing loyalty model for emerging markets.

7.2 Managerial Implications

Four implications emerge for Algerian digital brand managers. First, the direct VBDM-loyalty path ($\beta = .44$) validates investment in all six VBDM dimensions simultaneously rather than piecemeal tactics. Second, the trust pathway ($\beta_{ind} = .278$) is the highest-priority short-term investment: content transparency, data-use clarity, and value authenticity generate the fastest loyalty returns. Third, the Collectivism moderation (H5) provides explicit design guidance: engagement strategies should prioritize in-group sharing mechanisms and peer recommendation systems to maximize high-collectivism consumers' loyalty conversion. Fourth, brand asset investment (H4) should focus on consistent content quality as the primary CBBA-building mechanism in digital environments.

7.3 Limitations and Future Research

Some limitations are noted. The cross-sectional design limits causal inference; longitudinal data would strengthen conclusions. The sample of $N=130$, while adequate for PLS-SEM, limits generalizability to broader Algerian consumer populations. Future research should expand to cross-national comparisons across North African markets, investigate generative AI-powered personalization as an emerging VBDM sub-dimension, and develop longitudinal tracking of VBDM investment–loyalty trajectory dynamics.

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