

Celebrity vs influencer endorsements: exploring the effects of credibility and parasocial relationships on consumer-based brand equity

Dominyka Venciute and Aurelija Degulytė
ISM University of Management and Economics, Vilnius, Lithuania

Ricardo Correia
UNIAG, Polytechnic Institute of Bragança, Bragança, Portugal

Raquel Meneses
*School of Economics and Management of the University of Porto & INESC TEC -
LIAAD, Porto, Portugal, and*

Vilte Auruskeviciene
ISM University of Management and Economics, Vilnius, Lithuania

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Abstract

Purpose – Brands increasingly rely on both celebrities and social media influencers to build brand equity in digitally mediated environments. Despite their widespread managerial use, it remains unclear why these two types of opinion leaders shape consumer-based brand equity (CBBE) through different psychological mechanisms. This study addresses this issue by examining whether credibility and parasocial relationships (PSRs) operate as distinct pathways through which celebrities and influencers contribute to brand equity on social media. Clarifying these mechanisms is essential for advancing endorsement theory and for guiding more effective endorsement strategy decisions.

Design/methodology/approach – The study employs a quantitative, cross-sectional design based on survey data from 310 active social media users in Lithuania. To capture both contributory and indispensable mechanisms, the analysis integrates partial least squares-structural equation modeling with Necessary Condition Analysis (NCA), allowing for a comparison of sufficiency-based effects and non-compensatory conditions across celebrity and influencer endorsement contexts.

Findings – The results reveal structurally different endorsement mechanisms. For influencers, credibility strengthens PSRs, which in turn positively drive CBBE. In contrast, for celebrities, PSRs do not significantly translate into brand equity. Instead, credibility emerges as a critical prerequisite for celebrities to generate brand equity, even though it does not exert a direct net effect. NCA further shows that PSRs are required, albeit weakly, for influencer-driven brand equity, whereas credibility constitutes a necessary condition in celebrity endorsements.

Practical implications – The findings demonstrate that celebrities and influencers should not be treated as interchangeable endorsement sources. Influencer strategies should prioritize long-term collaborations that foster relational closeness and emotional attachment, whereas celebrity endorsements require careful credibility screening and strategic fit with brand values. These insights enable managers to align endorsement choices with specific brand equity objectives and to evaluate endorsement effectiveness using mechanism-consistent performance metrics.

Originality/value – This study advances endorsement research by incrementally extending and refining existing theory to explain why celebrities and influencers influence brand equity through fundamentally different causal pathways. By combining structural equation modeling with NCA, it introduces an asymmetric perspective that moves beyond traditional net-effect explanations and clarifies theoretical boundary conditions in social media endorsement research.

Keywords Source credibility, Parasocial relationships, Consumer-based brand equity, Social media endorsements, Influencers, Celebrities

Paper type Research article



1. Introduction

The rise of the internet and social media networks (SMNs) has transformed marketing communication by reshaping how consumers access information, interact with brands and

form brand-related evaluations (Keller, 2012; Sokolova and Kefi, 2020). Despite this transformation, branding remains a central strategic concern, as strong brands enhance marketing effectiveness and generate long-term financial value (Keller, 2012; Yuan *et al.*, 2016; Gintale *et al.*, 2024). Within this digitally mediated environment, endorsements continue to play a pivotal role in building consumer-based brand equity (CBBE), although the mechanisms through which endorsements operate have become increasingly relational and interactive.

Historically, endorsement strategies relied on established celebrities communicating brand messages through mass media. The diffusion of SMNs has expanded this landscape by enabling social media influencers to emerge as prominent opinion leaders who engage audiences through continuous, personalized and interactive content (Reinikainen *et al.*, 2020; Sokolova and Kefi, 2020). Influencer marketing has therefore received growing scholarly attention, with evidence demonstrating its effectiveness across a range of brand-related outcomes (Farivar *et al.*, 2021; Giuffredi-Kähr *et al.*, 2022). Consumers increasingly report trust in influencer-promoted products, with 71% indicating confidence in influencer recommendations (Nielsen, 2021). Recent research further shows that influencer effects are heterogeneous, as micro-celebrity influencers often generate higher credibility and stronger parasocial engagement than mainstream influencers (Connell *et al.*, 2025).

By contrast, the role of established celebrities in social media endorsement contexts remains comparatively underexamined, despite their continued managerial relevance (Johns and English, 2016). While social media platforms allow celebrities to engage more directly with audiences and potentially cultivate perceptions of closeness (Aw and Labrecque, 2020), empirical evidence remains limited regarding whether celebrities and influencers shape brand-related outcomes through similar or distinct psychological mechanisms. Only a small number of studies directly compare these two categories of opinion leaders (Schouten *et al.*, 2020; Lee *et al.*, 2024), resulting in a fragmented theoretical understanding of how and why they influence CBBE (Conde and Casais, 2023).

Within endorsement research, source credibility has consistently been identified as a key determinant of endorsement effectiveness (Spörl-Wang *et al.*, 2025; Djafarova and Rushworth, 2017; Lou and Yuan, 2019; Spry *et al.*, 2011; Lee *et al.*, 2024). At the same time, parasocial relationships (PSRs) have emerged as a central mechanism in social media communication, enhancing message acceptance and brand trust (Horton and Wohl, 1956; Yuan *et al.*, 2016; Aw and Labrecque, 2020; Venciute *et al.*, 2023). Although PSRs have been shown to influence brand attitudes and purchase intentions, particularly in influencer contexts (Li *et al.*, 2025), their role in translating credibility into overall CBBE remains insufficiently examined, especially in comparative settings that distinguish between celebrities and influencers. Existing evidence further suggests that the effectiveness of credibility and PSRs may vary systematically across opinion leader types (Masuda *et al.*, 2022; Yuan *et al.*, 2016).

Another limitation of prior research is its strong focus on large Western markets, implicitly assuming cross-contextual generalizability of endorsement mechanisms. Endorsement effectiveness, however, is likely to be context-sensitive. Lithuania represents a theoretically meaningful boundary-testing context due to its high social media penetration, digital maturity and compact market structure (Oficialiosios Statistikos Portalas, 2022; Statista, 2022; Dixon, 2022). In such settings, influencers may operate in closer symbolic proximity to audiences, potentially intensifying parasocial bonds, whereas celebrities may exert influence primarily through credibility-based cues. Examining endorsement mechanisms in Lithuania therefore helps clarify theoretical boundary conditions (Homer and Lim, 2024).

Drawing on CBBE theory (Aaker, 1991; Keller, 1993) and PSR theory (Horton and Wohl, 1956), this study addresses the following research question: How do PSRs with opinion leaders, celebrities and influencers shape the relationship between source credibility and the CBBE of the endorsed brand?

To answer this question, the study pursues three objectives: (1) to examine the effects of source credibility on CBBE and the role of PSRs in this process; (2) to assess whether these

relationships differ between celebrities and influencers; and (3) to integrate these mechanisms into a unified framework explaining how different opinion leaders shape brand equity in social media environments. Consistent with established guidelines on theory development (Lim, 2026), the study offers an incremental theoretical contribution by extending and refining endorsement and PSR theories, demonstrating that credibility and relational mechanisms operate asymmetrically and non-compensatorily across endorsement contexts.

2. Literature review and hypothesis development

2.1 Opinion leaders and brand collaborations in social media networks

Opinion leadership refers to the socially embedded process through which certain individuals exert disproportionate influence on others' attitudes and decisions (Katz and Lazarsfeld, 1955; Weimann, 1994). Early research emphasized interpersonal influence grounded in expertise and trust (Corey, 1971). In contemporary SMNs, opinion leadership operates within interactive and algorithmically amplified environments that expand reach while increasing audience visibility and scrutiny (Chen *et al.*, 2024).

Recent research distinguishes between established celebrities and social media influencers as structurally distinct categories of opinion leaders (Schouten *et al.*, 2020; Lee *et al.*, 2024). Influencers typically cultivate niche audiences through sustained self-disclosure, perceived authenticity and frequent interaction. Celebrities, by contrast, draw on symbolic capital, reputational authority and visibility largely developed outside SMNs (Johns and English, 2016; Conde and Casais, 2023). Meta-analytic evidence confirms that these groups generate systematically different persuasive effects, indicating that endorsement outcomes do not generalize across opinion leader types (Lee *et al.*, 2024).

Although influencer marketing research has expanded rapidly (Casaló *et al.*, 2020; Farivar *et al.*, 2021; Giuffredi-Kähr *et al.*, 2022; Spörl-Wang *et al.*, 2025), recent studies caution against assuming uniformly positive influencer effects. Over-endorsement, declining authenticity and audience fatigue can erode credibility and engagement over time (Cheah *et al.*, 2024; Lee and Chung, 2025). At the same time, celebrity endorsements remain widely used on SMNs, yet their underlying psychological mechanisms, particularly relational mechanisms, remain comparatively underexplored (Aw and Labrecque, 2020; Schimmelpennig and Hunt, 2020).

Despite the frequent classification of both celebrities and influencers as opinion leaders, empirical research rarely examines whether they shape brand outcomes through similar or distinct psychological pathways (Schouten *et al.*, 2020; Conde and Casais, 2023). This lack of comparative evidence constrains theoretical development and limits understanding of how different endorsement sources translate influence into brand-related outcomes in social media environments.

Given the availability of multiple theoretical lenses to explain endorsement effectiveness in social media environments, a transparent justification of the theoretical perspectives guiding the present model is warranted. Accordingly, this study draws on the IMPACT framework (Hollebeek *et al.*, 2025) for theory selection (Interestingness, Matching, Parsimony, Applicability, Conceptual rigor and Testability) to justify the choice of its overarching and supplementary theories. First, Interestingness is achieved by integrating CBBE theory with PSR theory to explain asymmetric and non-compensatory endorsement mechanisms that challenge dominant net-effect assumptions. Second, Matching is ensured through the theoretical co-infusion of source credibility and PSRs with brand equity logic, clarifying how mediated social ties translate into brand value across different opinion leader types. Third, Parsimony is maintained by restricting the framework to theories that are strictly necessary to explain relational and credibility-based pathways. Fourth, Applicability is satisfied because the selected theories generate actionable insights regarding when celebrities versus influencers are more effective for building brand equity. Fifth, Conceptual rigor is ensured by drawing on well-established theories with clearly defined constructs and boundary conditions, enabling

precise hypothesis development. Finally, Testability is achieved because all theoretical components are operationalizable using validated measures and empirically examinable through complementary symmetric and asymmetric analytical approaches.

2.2 Parasocial relationships in digital endorsement contexts

PSRs describe one-sided, perceived interpersonal bonds that audiences form with media personas (Horton and Wohl, 1956). In social media environments, PSRs are facilitated by repeated exposure, perceived reciprocity and personalized communication (Labrecque, 2014; Tukachinsky *et al.*, 2020).

Prior research shows that PSRs are particularly salient in influencer–follower relationships, where frequent self-disclosure and interactive affordances foster perceived closeness (Farivar *et al.*, 2021; Conde and Casais, 2023). Empirical studies consistently demonstrate that PSRs enhance message acceptance and positively influence brand-related outcomes such as attitudes and purchase intentions (Yuan *et al.*, 2016; Sokolova and Kefi, 2020; Li *et al.*, 2025).

In contrast, the relevance of PSRs in celebrity endorsement contexts remains unclear. While some studies suggest that celebrities can cultivate PSRs through active social media engagement (Aw and Labrecque, 2020; Chung and Cho, 2017), others argue that celebrity–audience relationships remain primarily symbolic and less relational than influencer–follower ties (Breves *et al.*, 2019; Djafarova and Rushworth, 2017). Meta-analytic evidence further indicates substantial heterogeneity in PSR effects across media figures (Tukachinsky *et al.*, 2020; Lee *et al.*, 2024).

This inconsistency points to an unresolved question: Do PSRs function as a universal driver of brand equity in social media endorsements, or is their effectiveness contingent on the type of opinion leader involved?

2.3 Source credibility as a precursor to parasocial relationships

Source credibility, typically conceptualized through trustworthiness, expertise and attractiveness, has consistently been identified as a central determinant of endorsement effectiveness (Hovland and Weiss, 1951; Ohanian, 1990; Goldsmith *et al.*, 2000). In social media contexts, credibility judgments are increasingly shaped by authenticity cues, transparency and consistency of self-presentation (Lou and Yuan, 2019; Lee and Chung, 2025).

Recent research suggests that credibility not only influences persuasion directly but also facilitates relational processes, including parasocial interaction and relationship formation (Breves *et al.*, 2019; Reinikainen *et al.*, 2020; Spörl-Wang *et al.*, 2025). Credible opinion leaders are perceived as more trustworthy social partners, increasing the likelihood that audiences develop emotional attachment and perceived intimacy (Yuan *et al.*, 2016; Tukachinsky *et al.*, 2020).

Nevertheless, emerging evidence indicates that credibility may not translate into relational outcomes in the same way for all opinion leaders. Influencers often derive credibility from perceived similarity and authenticity, whereas celebrities rely more heavily on symbolic expertise and status (Schouten *et al.*, 2020; Masuda *et al.*, 2022; Lee *et al.*, 2024). This suggests that while credibility may be a necessary precursor to PSR formation, its relational implications may vary across endorsement contexts.

Accordingly, the following hypothesis is proposed:

- H1.* The credibility of the opinion leader has a direct positive effect on parasocial relationships.

2.4 Parasocial relationships and consumer-based brand equity

CBBE reflects the differential value a brand derives from consumer knowledge, associations, perceived quality and loyalty (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001). In social

media environments, brand equity formation is increasingly influenced by relational and affective processes rather than solely cognitive evaluations (Aw and Labrecque, 2020).

Recent studies demonstrate that PSRs enhance brand trust, reduce skepticism toward endorsements and positively influence brand attitudes and purchase intentions (Breves *et al.*, 2019; Yuan *et al.*, 2016; Li *et al.*, 2025). Influencer-driven PSRs, in particular, have been shown to strengthen customer equity drivers by fostering emotional attachment and repeated engagement (Farivar *et al.*, 2021; Conde and Casais, 2023).

However, evidence regarding the direct impact of PSRs on overall CBBE remains limited and fragmented, especially in comparative contexts involving celebrities and influencers. While PSRs appear central in influencer marketing, their relevance for celebrity-driven brand equity remains uncertain (Schouten *et al.*, 2020; Lee *et al.*, 2024).

Thus, we hypothesize:

H2. Parasocial relationships have a direct positive effect on consumer-based brand equity.

2.5 Source credibility and consumer-based brand equity

The relationship between source credibility and CBBE has produced mixed empirical findings. Some studies report positive effects of endorser credibility on brand equity antecedents such as brand trust, associations and perceived quality (Chang, 2014; Dwivedi and Johnson, 2013; Tabar *et al.*, 2025). In contrast, Spry *et al.* (2011) found no direct effect of celebrity credibility on CBBE, suggesting that credibility may operate through indirect or conditional mechanisms.

Recent research further indicates that credibility effects are context-dependent and may function as necessary but not sufficient conditions for favorable brand outcomes, particularly in celebrity endorsement contexts (Masuda *et al.*, 2022; Lee *et al.*, 2024). This inconsistency highlights the need to re-examine the credibility–CBBE relationship within social media environments and across different opinion leader types.

Accordingly, we propose:

H3. The credibility of the opinion leader has a direct positive effect on consumer-based brand equity.

2.6 The role of opinion leader type in endorsement effectiveness

A growing body of research suggests that influencers and celebrities differ fundamentally in how they activate psychological mechanisms such as credibility and PSRs (Breves *et al.*, 2019; Schouten *et al.*, 2020; Conde and Casais, 2023; Venciute *et al.*, 2025). Influencers typically generate stronger PSRs due to perceived similarity and interaction frequency, whereas celebrities rely more on symbolic authority and reputational cues (Djafarova and Rushworth, 2017; Venciute *et al.*, 2023).

Despite these insights, empirical evidence remains inconsistent, particularly regarding whether relational mechanisms translate into brand equity similarly for both groups. Recent meta-analytic findings explicitly call for comparative studies to disentangle these mechanisms (Lee *et al.*, 2024).

To address this unresolved issue, we propose:

H4. The structural relationships among credibility, parasocial relationships and consumer-based brand equity differ between celebrity and influencer endorsement contexts.

The conceptual model reflecting the proposed hypotheses is presented in Figure 1.

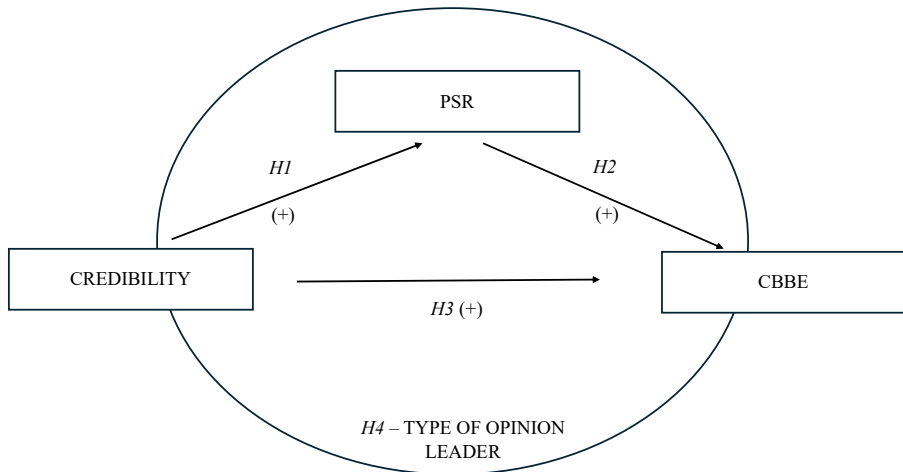


Figure 1. Conceptual model. Note: The conceptual model specifies both direct (H3) and indirect (H1–H2) effects of opinion leader credibility on consumer-based brand equity. The model is estimated separately for celebrity and influencer endorsement contexts using a multi-group analytical approach. Differences across contexts reflect structural heterogeneity rather than moderation effects (H4). Source: Authors' own work

3. Methodology

3.1 Study design

This study employs a quantitative, cross-sectional research design to examine how source credibility and PSRs influence CBBE in social media endorsement contexts. To capture both contributory and indispensable causal mechanisms, the analysis integrates partial least squares structural equation modeling (PLS-SEM) with Necessary Condition Analysis (NCA).

PLS-SEM is used to test the hypothesized relationships among latent constructs and to compare structural paths across celebrity and influencer endorsement contexts. This method is appropriate given the model complexity, the presence of higher-order constructs and the study's objective of theory extension rather than strict theory confirmation (Hair *et al.*, 2019; Sarstedt *et al.*, 2017). PLS-SEM allows simultaneous estimation of direct and indirect effects while accommodating non-normal data distributions and moderate sample sizes.

However, endorsement effectiveness may depend not only on whether antecedents are sufficient to influence brand equity but also on whether certain conditions must be present at minimum levels for CBBE to occur. To address this issue, NCA is applied as a complementary analytical technique. NCA identifies necessary but non-compensatory conditions that conventional symmetric methods cannot detect (Dul, 2016; Richter *et al.*, 2020). By combining PLS-SEM and NCA, the study distinguishes between factors that contribute to CBBE and factors that are required for CBBE to emerge.

Consistent with recent methodological recommendations in marketing and hospitality research, this dual-method approach integrates symmetric and asymmetric causal logics to provide a more nuanced understanding of complex consumer phenomena (Rasoolimanesh *et al.*, 2021; Richter *et al.*, 2020). The type of opinion leader, celebrity versus influencer, is modeled as a grouping variable, and structural differences are examined using multi-group analysis (MGA).

3.2 Empirical context: Lithuania as a meaningful social media endorsement market

The empirical setting is Lithuania, a digitally mature yet structurally compact market characterized by high social media penetration and intensive platform use. Approximately

73% of the population actively uses SMNs, resulting in widespread exposure to both local influencers and internationally visible celebrities (Oficialiosios Statistikos Portalas, 2022; Statista, 2022; Dixon, 2022).

From a theoretical perspective, Lithuania represents a meaningful boundary-testing context for PSR and source credibility theories. Influencers often operate in closer symbolic proximity to audiences, potentially intensifying parasocial bonds, whereas celebrities retain influence primarily through credibility-based cues. This dual exposure provides a natural setting for examining whether relational or credibility-based mechanisms dominate brand equity formation across opinion leader types. Despite this relevance, Lithuania remains underrepresented in endorsement research, allowing the study to contribute to theory boundary specification.

3.3 Sample and data collection

Data were collected through an online survey administered via Qualtrics between April 4 and April 22, 2023. The target population consisted of Lithuanian residents who actively use SMNs. A non-probability convenience sampling approach was adopted, consistent with prior social media endorsement research (Sokolova and Kefi, 2020; Yuan *et al.*, 2016).

Participants were recruited primarily through Instagram and Facebook using personal networks and peer-to-peer sharing. This strategy aligns with the study's objective of capturing respondents' natural exposure to opinion leader brand collaborations in real-world social media environments.

Sample size adequacy was assessed using the inverse square root method (Kock and Hadaya, 2018). Assuming a one-tailed significance level of $\alpha = 0.05$, a statistical power of 0.80, and a minimum standardized path coefficient of $\beta = 0.15$, the minimum required sample size was approximately 275 observations.

A total of 477 responses were collected. After excluding incomplete responses, failed attention checks, respondents unable to identify an endorsed brand or opinion leader, and non-residents, the final sample comprised 310 respondents. This exceeds the minimum requirement and supports robust MGA.

3.4 Measurement scales

Respondents were first asked to recall a social media post in which an opinion leader, either a celebrity or an influencer, promoted or reviewed a brand. They then identified the opinion leader and the endorsed brand and classified the opinion leader based on provided definitions.

Source credibility was measured using items adapted from Ohanian (1990). PSRs were measured using items adapted from Labrecque (2014), based on Rubin *et al.* (1985). CBBE was measured using items adapted from Yoo and Donthu (2001). Credibility and CBBE were specified as second-order reflective constructs, while PSRs were modeled as a first-order construct (see Table 1). All items were measured using Likert-type scales.

3.5 Ethical considerations

All procedures performed in studies involving human participants were conducted in accordance with the ethical standards of the relevant institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The paper is based on a master's thesis that did not require formal review by the university's ethics committee. All ethical standards were ensured in accordance with the associated university regulations and the General Data Protection Regulation.

Respondents were informed of the research objectives and their right to withdraw at any time. Their identities were not disclosed, and anonymity was fully ensured. Respondents were not manipulated in any way. Written informed consent was obtained from all participants involved in the study.

Table 1. Scales used in the questionnaire

Scale – dimensions	Source
<p><i>Credibility</i>–The perceived trustworthiness, expertise, and attractiveness of the opinion leader endorsing a brand I consider this opinion leader:</p> <p><i>Attractiveness:</i> Attractive (Attract) Classy (Classy) Beautiful (Beauty) Elegant (Elegant)</p> <p><i>Trustworthiness:</i> Honest (Honest) Reliable (Reliable) Sincere (Sincere) Trustworthy (Trustwor)</p> <p><i>Expertise:</i> Experienced (Experien) Knowledgeable (Knowhow) Qualified (Qual) Skilled (Skill)</p>	Adapted from Source-Credibility Scale (Ohanian, 1990)
<p><i>Parasocial Relationship (PSR)</i> – A one-sided, long-term sense of intimacy and friendship that followers feel toward an opinion leader on social media The recalled opinion leader makes me feel comfortable, as if I was with a friend. (Friend) When I interact with this opinion leader, I feel included. (Engaging) I can relate to this opinion leader. (Close) I like hearing what this opinion leader has to say. (LikeCont) I care what happens to this opinion leader. (Care) I hope this opinion leader can achieve their goals. (WishBest)</p>	Adapted from Labrecque (2014) based on the original scale by Rubin et al. (1985)
<p><i>CBBE</i>–The value consumers attribute to a brand based on their awareness, associations, perceived quality, and loyalty</p> <p><i>Loyalty:</i> I consider myself to be loyal to the brand in my recalled post. (Loyal) The brand in my recalled post would be my first choice. (FirstCh) I will not buy other brands if the brand in my recalled post is available at the selling point. (NoAltr)</p> <p><i>Perceived quality:</i> The quality of the brand in my recalled post is extremely high. (HQ) The likelihood that the brand in my recalled post would be functional is very high. (SatExp)</p> <p><i>Brand awareness/associations:</i> I can recognize the brand in my recalled post among other competing brands. (Distinct) I am aware of the brand in my recalled post. (Aware) Some characteristics of the brand in my recalled post come to my mind quickly. (Charact) I can quickly recall a symbol or logo of the brand in my recalled post. (Attribu) I have difficulty in imagining the brand in my recalled post in my mind. * (DiffRemb)</p>	Adapted from multi-dimensional customer-based brand equity (Yoo and Donthu, 2001)
<p>Note(s): * Indicates the items with reversed coding</p> <p>Source(s): Authors' own work</p>	

3.6 Data analysis

The data analysis consisted of two main stages. The first stage tested the hypotheses using a symmetric analytical approach, examining both the direct relationship between credibility and CBBE and the indirect relationship between credibility and CBBE mediated by PSRs. Using PLS-SEM, two models were estimated: the measurement model and the structural model.

The first step involved validating the measurement models. Reliability was assessed using composite reliability (CR), internal consistency was evaluated using average variance extracted (AVE) and discriminant validity was examined using the heterotrait–monotrait ratio (HTMT). These assessments were conducted for the full sample and separately for the celebrity and influencer subsamples. Subsequently, multicollinearity and the explanatory power of the structural model were evaluated for the full sample and for each subsample.

Hypotheses were tested using a bootstrapping procedure, with hypotheses considered supported when the p -value was below 0.05. A final MGA using bootstrapping was conducted to compare validated relationships between celebrity and influencer endorsement contexts.

The second stage involved NCA, an asymmetric analytical approach based on the principle that without X, Y cannot occur. This analysis examined whether credibility and PSRs constitute mandatory conditions for CBBE in both influencer and celebrity contexts. Credibility, PSR and CBBE scores were obtained from the PLS-SEM results.

Following [Dul et al. \(2023\)](#), the analysis began with the inspection of ceiling line charts for each endorsement context. Effect sizes were then evaluated, and statistical significance was assessed using a permutation procedure with 10,000 resamples. Effect sizes were interpreted as small when ranging from 0 to 0.10, medium when ranging from 0.10 to 0.30, large when ranging from 0.30 to 0.50, and very large when exceeding 0.50. The NCA package in R was used to conduct this analysis ([Dul, 2024](#)).

4. Results

4.1 Sample profile and demographics statistics

Women constituted the majority of the sample, accounting for 66.8% of respondents, whereas men represented 33.2%. The most represented age group was 25–34 years, comprising 51.3% of the sample, followed by 18–24 years (21.0%), 35–44 years (16.5%), 45–55 years (9.0%), and respondents older than 55 years (2.3%). The sample also reflects a well-educated segment of the Lithuanian population. Most respondents held a university or college degree (83.5%), while the remaining participants reported a high school diploma (8.7%), a vocational degree (6.1%), or another form of education (1.3%). Overall, the research sample can be considered broadly representative, providing a relatively accurate depiction of the Lithuanian social media user population in terms of gender and age distribution.

4.2 Scales validation

The measurement models were first evaluated to assess reliability and validity. Outer loadings exceeded the recommended threshold of 0.708 in most cases, with the exception of the items *Care* (0.600 and 0.681) within the PSR (PSR) construct in the celebrity context and *DiffRemb* (0.682) within the brand awareness dimension for the influencer context. These items were retained to preserve scale coherence and content validity. SmartPLS was used to compute PSR values. Credibility and CBBE were specified as multidimensional second-order constructs. As SmartPLS does not calculate these constructs automatically, they were estimated manually following established procedures.

[Table 2](#) reports the reliability and validity results for the measurement models.

4.3 Validity

Several forms of validity were addressed to ensure the rigor of the study. Content validity was ensured by adapting measurement items from well-established and widely validated scales in

Table 2. Measurement models reliability and validity

			Complete Loading	CR	AVE	Celebrity Loading	CR	AVE	Influencer Loading	CR	AVE							
Credibility	Attractiveness	Attract ← Attract	0.591	0.812	0.597	0.543	0.816	0.606	0.660	0.819	0.604							
		Beauty ← Attract	0.867									0.906	0.706	0.925	0.754	0.859	0.892	0.673
		Classy ← Attract	0.869													0.879		0.847
		Elegant ← Attract	0.784													0.910		0.768
			0.837													0.802		0.768
	Expertise		0.821	0.926	0.757	0.885	0.937	0.788	0.791	0.916	0.731							
		Experien ← Expert	0.853									0.871	0.836					
		Knowhow ← Expert	0.908									0.931	0.892					
		Qual ← Expert	0.846									0.846	0.838					
	Trust	Skilled ← Expert	0.873	0.945	0.811	0.901	0.930	0.769	0.852	0.951	0.828							
		Honest ← Trust	0.876									0.860	0.867					
		Reliable ← Trust	0.870									0.834	0.882					
		Sincere ← Trust	0.919									0.867	0.937					
		Trustwor ← Trust	0.883									0.888	0.886					
	PSR		0.929	0.884	0.606	0.915	0.863	0.562	0.934	0.897	0.637							
		Care ← PSR	0.703									0.600	0.755					
		Close ← PSR	0.857									0.830	0.875					
		Engaging ← PSR	0.819									0.808	0.830					
		Friend ← PSR	0.784									0.803	0.792					
LikeCont ← PSR		0.718	0.681									0.732						
CBBE	BrandW		0.829	0.817	0.599	0.804	0.812	0.591	0.844	0.818	0.600							
		Attribu ← BrandW	0.875									0.914	0.681	0.909	0.669	0.890	0.916	0.687
		Aware ← BrandW	0.836													0.863		0.819
		Character ← BrandW	0.864													0.872		0.859
		DiffRembR ← BrandW	0.709													0.751		0.682
		Distinct ← BrandW	0.833													0.748		0.875

(continued)

Table 2. Continued

		Complete Loading	CR	AVE	Celebrity Loading	CR	AVE	Influencer Loading	CR	AVE
Loyalty	FirstCh ← Loyal	0.781	0.900	0.750	0.803	0.898	0.746	0.761	0.899	0.749
	Loyal ← Loyal	0.886			0.866			0.895		
	NoAltr ← Loyal	0.820			0.809			0.827		
Quality		0.891	0.949	0.902	0.914	0.957	0.918	0.873	0.945	0.896
	HQ ← Quality	0.708			0.694			0.714		
	SatExp ← Quality	0.949			0.958			0.945		
		0.950			0.958			0.948		

Source(s): Authors' own work

the literature. Specifically, source credibility items were drawn from [Ohanian \(1990\)](#), PSR items from [Labrecque \(2014\)](#) based on [Rubin et al. \(1985\)](#), and CBBE items from [Yoo and Donthu \(2001\)](#) (see [Table 1](#)). Face validity was established through expert review and a pre-test to confirm the clarity and contextual appropriateness of the items for social media endorsement settings.

With respect to the measurement model, internal consistency was confirmed, as all CR values exceeded the recommended threshold of 0.70. Convergent validity was supported, as all AVE values were above 0.50 and item loadings exceeded 0.708. Discriminant validity was established through heterotrait–monotrait (HTMT) ratios below 0.85 (see [Table 2](#)). For the structural model, nomological validity was demonstrated by the alignment of the hypothesized relationships with established theory, particularly the credibility → PSR → CBBE pathway. In addition, the explanatory power of the model, reflected in R^2 values for PSR and CBBE, and the robustness of the bootstrapping results further supported the validity of the findings (see [Tables 3 and 4](#)). Collectively, these procedures indicate that the study meets the recommended validity standards for PLS-SEM research.

4.4 Structural model

To assess the explanatory power of the model, R^2 values were calculated for the complete sample as well as for the celebrity and influencer subsamples ([Table 4](#)). The results indicate moderate explanatory power for PSR and the dimensions of CBBE across all models.

Subsequently, the structural relationships were evaluated ([Table 2 and 3](#)). In the celebrity endorsement context, credibility was found to positively influence PSR. However, PSR did not have a significant effect on CBBE. In contrast, in the influencer endorsement context, credibility positively influenced PSR, and PSR, in turn, positively influenced CBBE. These results indicate that PSR mediates the relationship between credibility and CBBE for influencers. The indirect effect of credibility on CBBE through PSR in the influencer context was $\beta = 0.219$. No direct effect of credibility on CBBE was observed in the influencer model.

4.5 Necessary condition analysis

The NCA revealed substantial differences between the celebrity and influencer scenarios, as shown in [Table 5](#). In the celebrity endorsement context, credibility emerged as a necessary condition for CBBE, whereas PSRs did not constitute a necessary condition. In contrast, in the

Table 3. Direct effects (structural model)

Hypothesis	Structural relationship	Context	β	t-value	p-value	Supported
H1	Credibility → PSR	Complete	0.549	12.020	<0.001	Yes
		Celebrity	0.586	7.727	<0.001	Yes
		Influencer	0.541	9.697	<0.001	Yes
H2	PSR → CBBE	Complete	0.265	3.425	0.001	Yes
		Celebrity	0.069	0.534	0.594	No
		Influencer	0.404	4.551	<0.001	Yes
H3	Credibility → CBBE	Complete	0.100	1.430	0.153	No
		Celebrity	0.214	1.555	0.120	No
		Influencer	-0.004	0.052	0.959	No
H4	Structural differences between celebrity and influencer contexts	Multi-group analysis	—	—	—	Yes

Note(s): Path coefficients (β) and t-values obtained via bootstrapping (5,000 resamples). H4 is supported based on statistically meaningful differences in path significance patterns across endorsement contexts rather than on a single structural coefficient

Source(s): Authors' own work

Table 4. R^2 results to complete, celebrity and influencer models

	Complete		Celebrity		Influencer	
	R -square	R -square adjusted	R -square	R -square adjusted	R -square	R -square adjusted
Attract	0.349	0.347	0.294	0.289	0.435	0.432
BrandW	0.687	0.686	0.646	0.643	0.712	0.710
CBBE	0.109	0.103	0.068	0.053	0.161	0.152
Expert	0.673	0.672	0.739	0.737	0.626	0.624
Loyal	0.611	0.609	0.645	0.642	0.580	0.577
PSR	0.301	0.299	0.344	0.338	0.293	0.289
Quality	0.501	0.500	0.481	0.477	0.509	0.506
Trust	0.767	0.766	0.784	0.782	0.751	0.750

Source(s): Authors' own work

Table 5. NCA analysis

	Celebrity			Influencer		
	Original effect size	95.0%	Permutation p -value	Original effect size	95.0%	Permutation p -value
Credibility	0.438	0.360	0.022	0.113	0.114	0.055
PSR	0.011	0.144	0.927	0.170	0.154	0.023

Source(s): Authors' own work

influencer endorsement context, a minimum level of PSR was necessary for CBBE to occur, although the associated effect size was small. Credibility did not function as a necessary condition in the influencer context.

The complementary analysis presented in Table 6 synthesizes the findings from the symmetric and asymmetric approaches. For celebrities, credibility was not a significant predictor in the SEM analysis but emerged as a necessary condition in the NCA. PSRs were neither significant nor necessary in this context. For influencers, PSRs were both a significant predictor and a necessary condition, albeit with a small effect size, whereas credibility did not directly influence CBBE and was not necessary.

5. Discussion

This study clarifies how credibility and PSRs operate as distinct and contingent mechanisms through which social media endorsements shape CBBE. Rather than assuming uniform endorsement processes, the findings demonstrate that the effectiveness of credibility and PSRs depends fundamentally on opinion leader type. This distinction resolves persistent ambiguities

Table 6. Complementary analysis

	Celebrity SEM	NCA	Influencer SEM	NCA
	Credibility	Not significant	Necessary	Not direct
PSR	Not significant	Not necessary	Significant	Necessary (small)

Source(s): Authors' own work

in endorsement research and advances a mechanism-based understanding of brand equity formation in social media environments.

Across both celebrity and influencer contexts, credibility positively strengthens PSRs, supporting **H1**. This finding is consistent with prior research linking credibility to authenticity perceptions and message acceptance (Breves *et al.*, 2019; Lou and Yuan, 2019). Importantly, the results extend this literature by demonstrating that credibility functions as a relational enabler. Parasocial bonds emerge not only from affective resonance but also from evaluative judgments regarding trustworthiness and expertise. This supports Tukachinsky *et al.* (2020) and Aw and Labrecque (2020) by showing that PSR formation in social media contexts reflects an integrated cognitive–affective process.

Support for **H2** is conditional. PSRs positively influence CBBE only in influencer endorsement contexts, indicating that relational mechanisms are not universally transferable across opinion leader types. Influencers' sustained self-disclosure, interaction frequency and perceived similarity render PSRs a central pathway through which brand value is constructed. This extends Yuan *et al.* (2016, 2021) by demonstrating that parasocial bonds can translate into higher-order brand equity outcomes when relational proximity is structurally embedded. In contrast, the absence of a PSR–CBBE effect in celebrity contexts suggests that perceived closeness alone is insufficient to generate brand equity when symbolic distance remains salient.

The mediating role of PSRs further differentiates endorsement mechanisms. Credibility influences CBBE indirectly through PSRs only in influencer contexts, indicating that relational engagement is the primary conduit through which credibility is converted into brand-related value. This finding refines Spry *et al.* (2011) by showing that credibility effects on brand equity are conditional rather than inherent. In celebrity contexts, the absence of mediation suggests that endorsement effectiveness relies less on relational transfer and more on symbolic authority. Despite increased accessibility via social media, celebrity influence remains anchored in credibility-based heuristics rather than interpersonal attachment.

The lack of support for **H3** reinforces this interpretation. Credibility does not exert a direct net effect on CBBE, indicating that favorable credibility perceptions alone do not automatically aggregate into brand equity. While earlier studies linked credibility to specific brand equity antecedents (Chang, 2014; Dwivedi and Johnson, 2013), the present findings demonstrate that these evaluations require either relational amplification or threshold fulfillment to translate into overall CBBE. The NCA provides critical insight here. In celebrity endorsement contexts, credibility emerges as a necessary condition for CBBE, revealing a non-compensatory causal structure. Without sufficient credibility, brand equity gains cannot occur, regardless of other factors.

Finally, the combined SEM and NCA results provide robust support for **H4** by empirically demonstrating that celebrities and influencers activate distinct psychological pathways. For influencers, PSRs are both statistically significant and necessary, albeit with a small effect size, highlighting the relational foundation of influencer-driven brand equity (Connell *et al.*, 2025; Li *et al.*, 2025). For celebrities, credibility emerges as the critical bottleneck condition, consistent with research emphasizing symbolic capital and expertise-based influence (Schouten *et al.*, 2020; Lee and Chung, 2025). Collectively, these findings contribute to endorsement theory by showing that credibility and PSRs are not interchangeable mechanisms but structurally differentiated processes whose effectiveness depends on opinion leader type. In doing so, the study advances the literature from asking whether celebrities and influencers differ to explaining why their influence operates through fundamentally different routes.

5.1 Theoretical contributions

Following established guidelines on theory and theory development (Lim, 2026), this study makes several incremental theoretical contributions that can be classified as theoretical extensions and theoretical modifications, while delivering theoretical value in terms of

noteworthiness and qualified counterintuitivity. Collectively, these contributions extend endorsement theory, PSR theory, and CBBE research beyond micro-level relational effects toward a macro-level understanding of how influence mechanisms operate in digitally mediated brand ecosystems.

First, the study advances endorsement theory through an incremental theoretical extension by moving beyond additive and universal models of endorsement effectiveness and demonstrating that credibility and PSRs operate according to asymmetric and non-compensatory causal logics across endorsement categories. Prior research has often assumed that the rise of social media has relationalized all forms of endorsement, implying that celebrities and influencers increasingly rely on similar parasocial processes (Aw and Labrecque, 2020; Chung and Cho, 2017). The present findings challenge this convergence assumption in a theoretically noteworthy manner by empirically demonstrating that endorsement effectiveness remains structurally segmented. Influencers primarily create brand value through relational pathways grounded in parasocial bonds, whereas celebrities rely on credibility-based mechanisms that function independently of relational closeness. This distinction shifts the analytical focus from assessing relative effectiveness to explaining how different categories of endorsers generate brand value through qualitatively distinct causal architectures (Schouten *et al.*, 2020; Lee *et al.*, 2024).

Second, the study contributes to PSR theory through an incremental theoretical modification that introduces a qualified counterintuitive insight. While prior research has established PSRs as powerful drivers of persuasion and engagement (Yuan *et al.*, 2016; Tukachinsky *et al.*, 2020), their role has often been implicitly assumed to generalize across media figures. The present findings refine PSR theory by demonstrating that parasocial bonds do not operate as a universal explanatory mechanism for brand equity formation. Instead, PSRs function as contingent processes whose effectiveness depends on the structural proximity, interaction frequency and perceived similarity inherent in influencer–follower relationships (Connell *et al.*, 2025; Conde and Casais, 2023). By showing that PSRs fail to translate into CBBE in celebrity contexts, the study extends Horton and Wohl’s (1956) original conceptualization into digital environments and clarifies that mediated intimacy alone is insufficient when symbolic distance remains salient.

Third, the study advances CBBE research through an incremental theoretical extension that refines theoretical boundary conditions by integrating relational and threshold-based mechanisms into the CBBE formation process. Traditional CBBE models emphasize cognitive brand knowledge structures such as awareness, associations, perceived quality and loyalty (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001). While prior endorsement research has linked credibility to selected brand equity antecedents (Chang, 2014; Dwivedi and Johnson, 2013), the present findings demonstrate that neither credibility nor PSRs automatically aggregate into overall brand equity. Instead, CBBE emerges through different macro-level logics depending on endorser type. For influencers, credibility is converted into brand equity through parasocial bonds that foster emotional attachment and loyalty. For celebrities, credibility operates as a non-compensatory condition, such that without sufficient credibility, brand equity cannot materialize regardless of relational cues. This extends Spry *et al.* (2011) by showing that credibility effects may be structurally necessary rather than merely indirect.

Fourth, the study offers a further incremental theoretical extension by demonstrating that endorsement mechanisms should not be understood solely through symmetric net-effect logics. By combining PLS-SEM with NCA, the findings demonstrate that endorsement mechanisms cannot be fully understood through symmetric net-effect logic alone. Identifying credibility as a necessary condition for celebrity-driven CBBE and PSRs as a necessary, albeit weak, condition for influencer-driven CBBE reveals causal bottlenecks that remain invisible in conventional modeling approaches (Dul *et al.*, 2023; Richter *et al.*, 2020). This contribution responds directly to calls for integrating sufficiency- and necessity-based explanations when examining complex consumer phenomena (Rasoolimanesh *et al.*, 2021).

Finally, the study contributes to the macro-theoretical development of endorsement research through an incremental theoretical extension via contextual boundary specification. Consistent with [Homer and Lim \(2024\)](#), the findings show that in a digitally mature yet structurally compact market such as Lithuania, influencers operate in closer symbolic proximity to consumers, amplifying relational mechanisms, whereas celebrities retain influence primarily through credibility-based authority. By theorizing how market structure shapes the dominance of relational versus credibility-based pathways, the study strengthens the external validity of endorsement and brand equity theories and positions context as an explanatory factor rather than a mere control variable.

Taken together, these incremental yet theory-advancing contributions refine causal assumptions, clarify boundary conditions and integrate endorsement, parasocial, and brand equity theories into a more comprehensive framework explaining how different opinion leaders shape CBBE in social media environments.

5.2 Managerial implications

The findings demonstrate that celebrities and influencers are not interchangeable endorsement sources and should be deployed according to the mechanisms through which CBBE is created. Endorsement effectiveness depends on aligning opinion leader type with the dominant brand-building pathway rather than maximizing visibility.

When the objective is to build long-term brand equity through emotional attachment and loyalty, influencers are the more effective option. Influencer-driven CBBE is primarily generated through PSRs. Managers should therefore prioritize influencers who sustain audience interaction, narrative continuity and consistent self-disclosure. Long-term collaborations are critical, as parasocial bonds require repeated exposure to function as conduits through which credibility translates into brand value. Selection criteria should emphasize relational engagement rather than reach-based indicators alone.

Celebrity endorsements require a different managerial logic. The results show that credibility functions as a necessary condition for celebrities to generate CBBE. Credibility should therefore be treated as a non-negotiable threshold rather than as a compensatory attribute. Managers should conduct rigorous reputational screening focused on expertise relevance, coherence of public image and alignment with brand values. Without sufficient credibility, celebrity endorsements are unlikely to produce brand equity gains, regardless of visibility or popularity.

Campaign execution and evaluation should reflect these differences. Influencer campaigns benefit from continuity and creative autonomy that allow PSRs to develop organically. Celebrity campaigns should emphasize credibility signaling through symbolic fit and expertise cues rather than attempts to simulate relational closeness. Performance assessment should be mechanism-consistent, relying on relational indicators for influencers and credibility-based brand metrics for celebrities.

5.2.1 Policy recommendations. Beyond firm-level decision-making, the findings have implications for policymakers and regulatory bodies overseeing digital endorsement practices. Because both influencer and celebrity endorsements rely on credibility and trust-based mechanisms, safeguarding these processes is essential for consumer protection and the long-term viability of digital marketing ecosystems.

Clear and standardized disclosure requirements for sponsored content are particularly critical. Transparent disclosures help preserve opinion leader credibility and reduce perceptions of deception, especially in influencer contexts where PSRs intensify persuasive effects. Strengthening disclosure enforcement therefore protects consumers while supporting ethical and sustainable endorsement practices.

Finally, policymakers aiming to support domestic creative and digital industries may use these insights to professionalize influencer marketing. Certification schemes, ethical standards, or best-practice guidelines can help emerging influencers build and signal

credibility responsibly, thereby enhancing consumer trust and reinforcing the sustainability of influencer-based business models.

5.3 Limitations and directions for future research

Several limitations should be acknowledged. First, the empirical setting is limited to Lithuania, which may constrain the generalizability of the findings to markets with different cultural characteristics, media systems, or social media usage patterns. Second, the study employs a cross-sectional research design. Although appropriate for examining structural relationships at a given point in time, this design does not capture the dynamic and evolving nature of PSRs.

Future research should extend the model across multiple countries to assess contextual robustness and explore how cultural or market-level factors moderate endorsement mechanisms. In addition, examining demographic heterogeneity, such as age, gender, or socioeconomic status, would offer more granular insight into how different consumer segments respond to celebrity and influencer endorsements. Such extensions would further refine theoretical boundary conditions and enhance the managerial relevance of endorsement research.

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Corresponding author

Ricardo Correia can be contacted at: ricardocorreia@ipb.pt