

How Does Quality Content Translate into Brand Equity? The Serial Mediating Role of Perceived Credibility and Parasocial Relationships in the Instagram Influencer Context

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Abstract

The present research investigates the pathway through which the quality of content produced by Instagram influencers is converted into overall brand equity, focusing on a serial mediation chain formed by perceived credibility and parasocial relationships. Anchored in the Stimulus-Organism-Response (S-O-R) perspective, the model positions content quality as the environmental stimulus, assigns perceived credibility and parasocial relationships to the organism stage, and locates overall brand equity at the response stage. An online questionnaire yielded usable responses from 515 Instagram users, each of whom follows a minimum of one influencer on a regular basis; structural equation modeling served to estimate the hypothesized paths, and bias-corrected bootstrapping with 5,000 resamples was applied to evaluate the single and serial mediation effects. According to the estimates, content quality exerts significant positive influence on perceived credibility, on parasocial relationships, and on overall brand equity, and parasocial relationships are significantly predicted by content quality as well as by perceived credibility. Perceived credibility, by contrast, neither influences overall brand equity directly nor carries the effect of content quality on brand equity when considered as a stand-alone mediator. The parasocial relationship, on the other hand, functions as a powerful individual mediator, and the sequential chain that moves from content quality through perceived credibility and the parasocial relationship toward overall brand equity reaches significance, a pattern that corresponds to complementary mediation. Taken together, the evidence points to a multistage mechanism in which the cognitive appraisal of credibility and the affective attachment embodied in the parasocial bond work in sequence rather than in isolation, and it implies that follower counts alone are a poor guide for brands, which would be better served by investing in content quality and in the deliberate cultivation of parasocial ties.

1. INTRODUCTION

Digital technologies have reshaped how consumers communicate, and with this shift the manner in which brands connect with their audiences has been altered at its foundations; the largely one-directional, tightly managed flow that characterized traditional mass media has been replaced by a communication order that runs in multiple directions and in which consumers themselves take an active part in producing and circulating content (Appel et al., 2020). Among the clearest expressions of this shift is influencer marketing, a practice that arose on social media platforms and has grown steadily more professional; today, having brands promoted through material created by individuals who have accumulated an audience in a given field sits at the heart of present-day marketing communication practice (De Veirman et al., 2017; Appel et al., 2020). What sets influencers apart from conventional celebrity endorsers is twofold: the comparatively close and ongoing bond they maintain with their audiences, and the genuine, day-to-day texture of what they post; owing to these characteristics, consumers tend to find influencer messages easier to relate to and more persuasive (Lou & Yuan, 2019; Sokolova & Kefi, 2020). The rising economic significance of the field, together with the growing budgets brands devote to it, indeed calls for a systematic treatment of the topic on theoretical as well as practical grounds (Appel et al., 2020). Within this landscape, Instagram occupies a prominent position among the platforms where influencer material circulates most heavily, a position it owes to its emphasis on

visuals, its strong potential for interaction, and an architecture organized around the sharing of content (Casaló et al., 2020; De Veirman et al., 2017). Because the platform affords rich visual and narrative possibilities, influencers can weave products and services into the fabric of their ordinary lives, so that promotional material comes across less as overt advertising and more as a natural continuation of content the follower already enjoys (Casaló et al., 2020). This content-centered architecture also means that the caliber of what an influencer produces becomes a decisive element of the follower bond and, through it, of how the brand is perceived, since engagement on the platform depends heavily on how appealing, informative, and consistent the shared material is (Casaló et al., 2020; Onofrei et al., 2022). Seen from this angle, no account of influencer marketing effectiveness can afford to ignore the quality of the content involved. In the literature, content quality is conceived as a multidimensional notion resting chiefly on cognitive appraisal; it covers properties such as how informative, up-to-date, and internally consistent an influencer's posts are, along with how well they match what followers need (Onofrei et al., 2022). When followers judge an influencer and the brands promoted through that influencer, the caliber of the content stands among the main cues they rely on; well-crafted material simultaneously reinforces inferences about the influencer's expertise and honesty and fosters more favorable dispositions toward the endorsed brand (Lou & Yuan, 2019; Sokolova & Kefi, 2020). A body of work has already documented that content quality benefits a range of consumer outcomes (Onofrei et al., 2022; Ki et al., 2020); what remains comparatively opaque, however, is the set of intervening mechanisms by which this benefit is carried into a broader outcome such as brand equity. Treating the link between content quality and brand equity as nothing more than a direct association leaves the underlying cognitive and relational processes unexplained, and a finer-grained analysis of how influencer content feeds into brand equity is therefore required. That requirement follows closely from the recognition that the impact of influencer content resists any one-dimensional reading. The influence of content quality on brand equity may travel along two distinct routes: one route runs through perceived credibility, a cognitive judgment directed at the influencer and the material they produce, and the other runs through the parasocial relationship, the affective and relational tie a follower develops toward the influencer. Perceived credibility captures a cognitive assessment of how accurate and honest the information supplied by the influencer is (Ohanian, 1990); the parasocial relationship, in turn, describes a socio-emotional bond that, while one-sided, is experienced by the follower as close and personal (Horton & Wohl, 1956; Liu et al., 2019). Examining these two constructs jointly accords with the holistic position that influencer marketing derives its force from rational evaluation and emotional proximity alike. Even so, prior research has tended to model credibility and parasocial relationships as parallel, independent mediators (Sokolova & Kefi, 2020), and work probing whether the two processes unfold in a particular order remains scarce. It is nonetheless reasonable to suppose that trust operates as a cognitive precursor to the growth of the emotional bond, which in turn implies that the route from content quality to brand equity has a layered, multistage character. Motivated by this gap, the current study investigates how the quality of Instagram influencer content affects overall brand equity through the serial mediating operation of perceived credibility and parasocial relationships. Beyond the direct association between content quality and brand equity, the proposed model traces a stepwise sequence in which quality content first raises perceived credibility, heightened credibility then deepens the parasocial bond, and the strengthened bond finally

lifts brand equity. The study thereby examines whether cognitive appraisal (trust) and emotional-relational bonding (the parasocial relationship) operate together in an ordered sequence within influencer marketing. Two core research questions guide the inquiry: how much of the influence of content quality on overall brand equity is direct as opposed to indirect, and what part do perceived credibility and the parasocial relationship each play in transmitting that influence. Several contributions are anticipated. On the theoretical side, instead of collapsing the content quality-brand equity link into a single direct path, the study brings the cognitive and emotional processes beneath that link together within one model, thereby providing a more articulated picture of how influencer marketing does its work. Placing credibility and the parasocial relationship inside an ordered serial mediation chain, rather than treating them as unconnected mediators, opens up a process that the literature has so far examined only sparingly. On the practical side, the results suggest that when brands choose influencers and design content strategies, quantitative indicators such as reach and follower numbers should be weighed alongside the quality of the content, the credibility it inspires, and the emotional bond formed with followers. The remainder of the paper proceeds as follows: the theoretical background is presented and the hypotheses are derived, after which the method and findings are reported and the theoretical and managerial implications are discussed.

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Content quality is conceptualized as a multidimensional notion grounded primarily in cognitive appraisal; it embraces properties such as the informative value, timeliness, and internal consistency of an influencer's posts, together with the degree to which those posts answer follower needs (Onofrei et al., 2022). In social media settings, the caliber of content operates as a core cue that followers consult when forming judgments about an influencer and the messages that influencer conveys; how accurate, deep, and professional the material is feeds directly into the competence and honesty attributed to its creator. The source credibility tradition treats the quality of the information a communicator supplies as one of the chief determinants of the trust extended to that communicator, and it holds that consistent, well-crafted, expertise-laden material prepares the ground for the source to be regarded as a dependable informational authority (Ohanian, 1990). Evidence gathered in influencer settings points in the same direction: as the informational richness and professionalism of an influencer's output grow, so does follower trust, and content quality accordingly emerges as a meaningful antecedent of credibility judgments (Lou & Yuan, 2019; Sokolova & Kefi, 2020). In a related vein, Ki and Kim (2019) report that posts carrying informative and expertise-signaling qualities significantly improve how favorably followers evaluate the influencer behind them. On these grounds, the caliber of an influencer's content should shape that influencer's perceived credibility in a positive direction.

H1: Instagram influencer content quality positively affects perceived credibility.

The parasocial relationship denotes a socio-emotional tie that a follower develops toward an influencer; although the tie runs in one direction only, the follower subjectively experiences it as mutual and intimate (Horton & Wohl, 1956; Liu et al., 2019). For such a bond to take root, trust functions as a pivotal

precondition, since a follower's confidence in the influencer supplies the predictability and secure closeness on which the continuation of the relationship depends. Relationship marketing scholarship likewise holds that trust, by consolidating each party's positive expectations of the other, paves the way for deeper, steadier, and longer-lasting bonds, allowing what begins as surface-level interaction to mature into emotional closeness (Morgan & Hunt, 1994). Consistent with this reasoning, influencers who are judged trustworthy are said to build firmer parasocial ties with their audiences, trust being decisive in turning a one-sided act of following into genuine emotional attachment (Tukachinsky, 2011). Research that examines credibility and parasocial interaction side by side confirms, moreover, that trust serves as a functional precursor to the emergence and deepening of the parasocial bond (Sokolova & Kefi, 2020). Credibility, understood as a cognitive appraisal, is therefore expected to come before the emotional-relational unfolding of the parasocial relationship.

H2: Perceived credibility positively affects the parasocial relationship.

Content quality may nurture the parasocial relationship not only via the indirect channel of trust but also along a direct route; material that is original, absorbing, and value-adding invites followers to watch the influencer habitually and to sustain an ongoing exchange with them. Higher-quality output lengthens the time followers devote to the content and intensifies their engagement with it, and this recurring, gratifying experience of interaction cultivates feelings of familiarity, acquaintance, and closeness between the two sides (De Veirman et al., 2017; Ki et al., 2020). As Casaló et al. (2020) show, the originality and distinctiveness of content are decisive for the influencer's standing as a reference figure in followers' eyes, and that standing in turn heightens followers' willingness to engage with the influencer and to keep following them. Viewed in this light, content quality serves not merely as the object of a cognitive judgment but as a wellspring from which the emotional bond draws nourishment. High-caliber content is accordingly expected to reinforce the parasocial relationship directly.

H3: Instagram influencer content quality positively affects the parasocial relationship.

Overall brand equity is defined as a multidimensional construct capturing consumers' general sense of a brand's worth, one that spans judgments such as preference for the brand, its perceived quality, and loyalty toward it (Yoo & Donthu, 2001). Conceptually, brand equity is viewed as the product of the associations a brand accumulates in consumer memory and of the differential consumer response those associations elicit; associations that are favorable, strong, and distinctive are held to raise brand equity (Keller, 1993). For brands promoted via influencers, the parasocial relationship weighs heavily in how this sense of value takes shape: the affective tie a follower maintains with the influencer spills over onto the brands that influencer endorses, reinforcing positive associations with, and attitudes toward, those brands. A range of studies documents that parasocial interaction in social media settings feeds consumer-brand relationships and shapes brand perceptions in decisive ways (Labrecque, 2014; Jin & Phua, 2014). The closeness felt toward the influencer indeed comes to serve as an emotional anchor for trusting and attaching to the brand; once the follower carries their warm feelings for the influencer over

to the brand that influencer represents, brand equity climbs. The parasocial relationship is therefore expected to influence overall brand equity positively.

H4: The parasocial relationship positively affects overall brand equity.

Content quality may also feed brand equity directly, without the involvement of intervening mechanisms; well-crafted material expands what audiences know about the endorsed brand, prepares the ground for favorable inferences about its perceived quality, and strengthens the impression that the brand is being represented professionally. Because the informative and consistent character of the posts ranks among the principal cues followers use when appraising the brand, content quality can register in brand equity directly, through the enrichment of brand knowledge and the consolidation of positive brand associations (Onofrei et al., 2022; Lou & Yuan, 2019; Keller, 1993). Casaló et al. (2020) similarly find that the caliber of content molds not only judgments about the influencer but also attitudes and behavioral leanings toward the brand that influencer recommends. It is nonetheless plausible that this direct route accounts for only a fraction of the total influence of content quality on brand equity, with a sizable share traveling along intervening channels, trust and the parasocial bond among them. A direct effect of content quality on brand equity is accordingly also anticipated.

H5: Instagram influencer content quality positively affects overall brand equity.

The influence of content quality on brand equity is expected to extend beyond the direct association and to travel indirectly through cognitive and emotional-relational channels. Two distinct mediation routes are considered here. Along the first, content quality reaches brand equity by way of perceived credibility, a route dominated by cognitive appraisal; the relational perspective, however, maintains that trust typically acts on outcome variables not head-on but through relational processes (Morgan & Hunt, 1994), which is why the mediating capacity of perceived credibility taken alone is expected to stay limited. Along the second route, content quality reaches brand equity by way of the parasocial relationship, a channel that is markedly more relational and affective in nature; the emotional tie linking follower and influencer serves as the central conduit through which content quality is converted into brand equity (Labrecque, 2014; Jin & Phua, 2014). Over and above these two routes, a stepwise serial mediation process is envisaged: quality content first lifts perceived credibility, credibility then fortifies the parasocial bond, and the strengthened bond ultimately raises brand equity. Such a sequence fits the view that influencer impact does not materialize in a single stroke but accumulates across successive cognitive and emotional stages; it has indeed been argued that influencer effects unfold through a multistage mechanism that starts with cognitive appraisal and stretches out to affective attachment and, further, to behavioral responses (Ki & Kim, 2019; Lou & Yuan, 2019; Sokolova & Kefi, 2020). The following hypotheses are therefore advanced to test the individual mediation paths together with the serial structure that ties the cognitive and emotional processes to one another.

H6: Perceived credibility mediates the relationship between content quality and overall brand equity.

H7: The parasocial relationship mediates the relationship between content quality and overall brand equity.

H8: Perceived credibility and the parasocial relationship serially mediate the relationship between content quality and overall brand equity.

3. METHOD

The present research addresses how the quality of Instagram influencer content bears on overall brand equity, with perceived credibility and the parasocial relationship modeled as serial mediators of that link. The hypothesized paths were estimated with Structural Equation Modeling (SEM), a technique chosen because it permits relationships among latent variables to be examined simultaneously, allows direct and indirect effects to be appraised side by side, and accommodates the testing of mediating mechanisms within a single analytical frame (Hair et al., 2019; Byrne, 2016). Since consumer behavior involves perceptual as well as relational dimensions, a method that evaluates the measurement and structural models jointly was judged well suited to the aims of the study. Theoretically, the research rests on the Stimulus-Organism-Response (S-O-R) framework (Mehrabian & Russell, 1974): content quality occupies the position of the external stimulus, perceived credibility and the parasocial relationship represent the organism-level processes through which that stimulus is worked over, and overall brand equity constitutes the ensuing response. This architecture aligns with the position that consumers do not react to external stimuli directly but through cognitive and emotional processing; the research model, accordingly, seeks to account not only for the direct influence of content quality on overall brand equity but also for the way that influence is molded by perceived credibility and the parasocial relationship, asking in particular whether the impact of influencer content on brand equity extends beyond the cognitive dimension of trust and gains force through the parasocial bond formed with followers. A quantitative design was adopted and the data were gathered by means of an online questionnaire; the online survey format enjoys wide use in marketing and consumer behavior research because it reaches large and varied samples, lends flexibility to the fieldwork, and keeps costs low (Malhotra, 2019).

3.1. Research Model

This study probes how the caliber of Instagram influencer content shapes overall brand equity and asks what part perceived credibility and the parasocial relationship play in mediating that effect; the proposed model rests on the premise that content quality does not act on brand equity through a direct path alone but also operates indirectly, by way of perceived credibility and the parasocial bond. Under this framework, quality content is expected to raise the influencer's perceived credibility, the rise in credibility is expected to help a firmer parasocial relationship take shape between followers and the influencer, and the firming of that relationship is expected to prepare the ground, through emotional and social ties, for higher brand equity. The theoretical footing of the model is the Stimulus-Organism-Response framework (Mehrabian & Russell, 1974): the external stimulus corresponds to content quality, the organism processes correspond to perceived credibility and the parasocial relationship, and the response variable corresponds to overall brand equity, so that the model accounts for how consumers' reactions to external stimuli pass through cognitive and emotional processing. Two basic mechanisms therefore underpin the model; the first rests on a cognitive appraisal process along which perceived credibility

carries content quality toward brand equity, while the second describes a more relational and affective process in which the influence of content quality on brand equity travels through the parasocial relationship. The parasocial relationship is thus handled as a pivotal construct that captures how the bond between influencer and follower is mirrored in brand perception.

3.2 Population and Sample

Instead of being assigned a particular brand or influencer, respondents in this study were instructed to bring to mind an Instagram influencer they follow on a regular basis; the scale items were framed to capture their general experiences with influencers and their perceptions of the brands that influencer promotes, which allowed respondents to answer on the basis of experiences they had actually lived through. Convenience sampling guided the fieldwork; while this technique offers ready access to respondents along with speed and flexibility, it may constrain how well the sample mirrors the population, so the findings should be generalized with due caution (Malhotra, 2019). The data were gathered via an online questionnaire circulated through social media channels, chiefly Instagram and WhatsApp groups; participation was voluntary, and anonymity was preserved at every point of the fieldwork. Respondents needed prior experience with following influencers and answered the questions with that experience in mind; in total, 515 usable questionnaires were secured. Whether this sample was large enough was judged against the requirements of Structural Equation Modeling: Hair et al. (2019) advise that SEM samples run to at least 5 to 10 observations per observed variable, and given how many variables the study employs, that minimum was comfortably cleared. The literature further notes that when maximum likelihood estimation is used in SEM, samples of 200 or more are regarded as adequate while samples of 400 or more deliver steadier and more dependable estimates (Byrne, 2016; Hair et al., 2019); on this basis, the 515 respondents were judged sufficient for the purposes at hand.

Table 1 sets out the demographic profile of the respondents. Women make up 53.0% of the sample and men 47.0%; with respect to age, the bulk of respondents cluster in the 25–34 (43.3%) and 35–44 (41.4%) brackets, so the sample leans heavily toward young and middle-aged adults. On the education side, holders of a bachelor's degree account for 56.3% of respondents and holders of a graduate degree for 22.3%, while the income breakdown places the clear majority (72.0%) in the middle-income band. Daily time spent on Instagram is likewise telling: sizable shares of the sample report 1–2 hours (33.8%) or upward of 2 hours (28.3%) of use per day, marking the respondents as active social media users. Among the content categories followed, fashion/beauty leads at 27.6%, ahead of other categories (23.5%) and travel (15.3%); as for audience size, respondents most often follow macro-level (100K-1M) influencers (39.0%) and micro-level (10K-100K) influencers (22.5%). In sum, the sample portrays active Instagram users who are young to middle-aged, well educated, and situated in the middle-income band.

Table 1
Demographic Characteristics of the Participants

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	242	47.0
	Female	273	53.0
Age	18–24	21	4.1
	25–34	223	43.3
	35–44	213	41.4
	45–54	49	9.5
	55 and above	9	1.7
Education	High school	51	9.9
	Associate degree	59	11.5
	Bachelor's degree	290	56.3
	Graduate degree	115	22.3
Income	Low	45	8.7
	Middle	371	72.0
	High	99	19.2
Instagram use	Less than 30 min	77	15.0
	30 min–1 hour	118	22.9
	1–2 hours	174	33.8
	More than 2 hours	146	28.3
Content category	Fashion/Beauty	142	27.6
	Other	121	23.5
	Travel	79	15.3
	Food/Lifestyle	79	15.3
	Sports/Fitness	69	13.4
	Technology/Gaming	25	4.9
Follower count	Nano (< 10K)	86	16.7
	Micro (10K–100K)	116	22.5
(2001), each set being tailored to the Instagram setting.			

Variable	Category	Frequency (n)	Percentage (%)
	Macro (100K–1M)	201	39.0
	Mega (1M+)	112	21.7
Total		515	100.0
(2001), each set being tailored to the Instagram setting.			

Table 2
Scales Used in the Study

Variable	Source	Number of Items	Scale
Content Quality (ICQ)	Onofrei et al. (2022)	4	5-point Likert
Perceived Credibility (PC)	Ohanian (1990)	5	5-point Likert
Parasocial Relationship (PR)	Liu et al. (2019)	7	5-point Likert
Overall Brand Equity (OBE)	Yoo & Donthu (2001)	4	5-point Likert
Total		20	

3.3. Data Collection Instruments

Data were gathered with a structured questionnaire assembled from scales whose validity and reliability are well documented in the literature; the form was constructed so that respondents would keep in mind a product- or service-promoting influencer whom they follow regularly on Instagram while answering, and every scale item was rated on a 5-point Likert continuum anchored at 1 (Strongly disagree) and 5 (Strongly agree). The research covered four focal constructs: the content quality items were adapted from Onofrei et al. (2022), the perceived credibility items from Ohanian (1990), the parasocial relationship items from Liu et al. (2019), and the overall brand equity items from Yoo and Donthu

Note

The parasocial relationship (PR) scale entered the field with 7 items; in light of the confirmatory factor analysis results, however, two items were dropped for low factor loadings, and the analyses proceeded with the remaining 5 items.

Content Quality (ICQ) captured how informative, current, and need-relevant the influencer's posts are; it is a focal construct mirroring individuals' cognitive appraisals of influencer content and carries considerable weight in the consumer decision process. Perceived Credibility (PC) gauged how honest and trustworthy the influencer is perceived to be and how accurate the information coming from them is judged; it conveys the confidence consumers place in the content and is viewed as a key uncertainty-reducing mechanism. In this study, only the trustworthiness facet was retained from Ohanian's (1990) multidimensional source credibility instrument, the expertise and attractiveness facets being set aside,

both because the research centers on trust perceptions aimed at influencer content and because modeling credibility as a single-dimension construct was judged theoretically sounder. The Parasocial Relationship (PR) measured the one-directional social and emotional ties followers form with the influencer; the construct spans elements such as feeling close to the influencer, developing a bond with them, and believing that a social relationship has taken shape, and it thereby embodies the affective side of consumer-influencer interaction. Overall Brand Equity (OBE), finally, captured the general sense of value attached to the brand the influencer promotes; the construct spans consumer judgments including preference toward the brand, its perceived quality, and loyalty, and it is regarded as a telling barometer of brand performance. The scales were fielded without alteration during data collection; at the analysis stage, however, the confirmatory factor analysis flagged certain items with low factor loadings, and those items were removed so as to improve the fit of the measurement model and secure more dependable results.

3.4. Data Analyses

The soundness of the measurement model was appraised through Confirmatory Factor Analysis (CFA); the appraisal drew on the factor loadings together with the Composite Reliability (CR) and Average Variance Extracted (AVE) indices, with loadings above .50, CR figures above .70, and AVE figures above .50 taken as adequate evidence of convergent validity (Fornell & Larcker, 1981; Hair et al., 2019). Discriminant validity was checked against two benchmarks, the Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) ratio: under the former, the square root of each construct's AVE was required to surpass that construct's correlations with the others, while under the latter, HTMT figures were required to stay under the .90 mark. Normality was probed through skewness and kurtosis: skewness ran from -1.08 to 0.11 and kurtosis from -1.37 to 0.51, comfortably inside the advised limits (± 2 for skewness, ± 7 for kurtosis), so the data were treated as meeting the normality assumption and Maximum Likelihood (ML) estimation was deemed appropriate (Hair et al., 2019; Kline, 2016). All computations were carried out in the Jamovi statistical package together with its integrated SEMLj module; before analysis, the dataset was screened for missing values and outliers, and nothing surfaced that might compromise the results. Once the measurement model had been validated, the hypotheses embedded in the research model were tested with Structural Equation Modeling (SEM); direct and indirect effects were estimated within the model at the same time, the mediating roles of perceived credibility and the parasocial relationship were examined, and the significance of the direct paths was judged on the basis of standard errors and z statistics. Multicollinearity was screened via Variance Inflation Factor (VIF) and tolerance figures, and since every VIF stayed under the critical mark of 5, no multicollinearity problem was present in the model. Common Method Bias (CMB) was probed with Harman's single-factor test, which showed that no single factor explained the bulk of the total variance, the figure obtained staying under the 50% mark (Podsakoff et al., 2003); the VIF figures inspected under the full collinearity approach likewise stayed under the critical limits for every variable, reinforcing the conclusion that common method bias did not meaningfully distort the model (Kock, 2015). Lastly, the significance of the direct effects, the indirect effects, and the serial mediation effect was assessed with the nonparametric bias-corrected bootstrap procedure: 5,000 resamples were drawn, 95% confidence

intervals were computed, and an interval that did not span zero was read as evidence of a statistically significant indirect effect (Preacher & Hayes, 2008; Hair et al., 2019).

4. FINDINGS

4.1. Validity and Reliability

Construct validity of the measurement model was examined through Confirmatory Factor Analysis (CFA); the standardized factor loadings alongside the Composite Reliability (CR), Average Variance Extracted (AVE), and Cronbach's α figures served as the basis for judging the model's reliability and validity. The results reveal that every factor loading is statistically significant ($p < .001$) and sits within acceptable bounds; the CR and AVE figures for all constructs likewise clear the recommended cutoffs, so the measurement model can be said to deliver reliability and convergent validity at an adequate level (Fornell & Larcker, 1981; Hair et al., 2019).

Note

CR = Composite Reliability; AVE = Average Variance Extracted; $\sqrt{\text{AVE}}$ = square root of the AVE.

When the fit statistics of the four-factor integrated measurement model are reviewed, the model displays an acceptable correspondence with the data ($\chi^2 = 525$, $df = 129$, $p < .001$; CFI = 0.961; TLI = 0.954; RMSEA = 0.077 [90% CI: 0.070–0.084]; SRMR = 0.035); on the strength of these figures, the measurement model can be described as fitting well overall, and the associations among the constructs can be analyzed with confidence (Hair et al., 2019; Kline, 2016). Evaluation of the measurement model proceeded in two steps: first, each construct was subjected to its own confirmatory factor analysis (the first four rows of Table 3), and second, all four factors were estimated together in one model. Within the separate analyses, a small number of error covariances between theoretically connected items were introduced, guided by the modification indices, to raise model fit; this adjustment applied chiefly to the perceived credibility (PC) construct, and comparably limited adjustments were made for the content quality (ICQ) and overall brand equity (OBE) constructs on account of their low degrees of freedom ($df = 1$) (Byrne, 2016). The four-factor integrated measurement model, in contrast, was tested in its unmodified form, with no error covariances specified. One caveat deserves mention here: the perfect fit figures that arise in models with low degrees of freedom (e.g., CFI = 1.000; RMSEA = 0.000) reflect the model's proximity to a saturated structure and ought not to be read as independent evidence of fit (Kenny et al., 2015); the fit statistics of the integrated measurement model were therefore adopted as the primary yardstick for evaluating the model. For the content quality (ICQ) construct, factor loadings run from .671 to .867 and every loading is statistically significant ($p < .001$); the CR (0.86) and AVE (0.61) figures show that the construct attains adequate reliability and convergent validity, and the Cronbach's α of 0.876 attests to the scale's high internal consistency. For perceived credibility (PC), loadings run from .856 to .947 and all are significant ($p < .001$); the CR (0.95) and AVE (0.78) figures signal reliability and convergent validity at a high level, and the Cronbach's α of 0.965 marks internal consistency as very high.

The parasocial relationship (PR) construct began with seven items; two were dropped because their factor loadings were low and they failed to represent the construct adequately, and in the five-item version of the scale the loadings of the retained items span .808 to .942, all significant ($p < .001$). The PR construct's CR (0.93) and AVE (0.73) figures indicate strong convergent validity, and its Cronbach's α of 0.944 indicates high reliability; discarding items with weak loadings is a widely endorsed practice that raises the quality of the measurement model (Hair et al., 2019; Byrne, 2016). For overall brand equity (OBE), finally, loadings span .801 to .905 and all are significant ($p < .001$); the CR (0.92) and AVE (0.74) figures confirm that reliability and convergent validity are secured at a high level, and the Cronbach's α of 0.928 shows the scale's internal consistency to be strong. Discriminant validity was appraised against the Fornell-Larcker criterion, with the results reported in Table 4.

Table 3
Measurement Model: Separate CFA and Integrated CFA Results

Construct	Item	Faktor Loadings (Min-Max)	CR	AVE	√AVE	χ^2	df	CFI	TLI	RMSEA
ICQ	4	0.671–0.867	0.86	0.61	0.78	0.832	1	1.000	1.000	0.000
PC	5	0.856–0.947	0.95	0.78	0.88	19.60	4	0.995	0.988	0.087
PR	5	0.808–0.942	0.93	0.73	0.85	20.00	4	0.994	0.984	0.088
OBE	4	0.801–0.905	0.92	0.74	0.86	0.048	1	1.000	1.000	0.000
Integrated Model (Four-Factor CFA)	18	—	—	—	—	525	129	0.961	0.954	0.077

Table 4
Discriminant Validity (Fornell-Larcker Criterion)

Construct	ICQ	PC	PR	OBE
ICQ	0.79			
PC	0.85	0.88		
PR	0.73	0.76	0.85	
OBE	0.74	0.73	0.88	0.86

Note

Bold values on the diagonal represent the square root of the AVE.

Inspection of Table 4 reveals that the ICQ-PC correlation ($r = 0.85$) is larger than the $\sqrt{\text{AVE}}$ of the ICQ construct (0.78), so the Fornell-Larcker criterion fails for that pair; the PR-OBE correlation ($r = 0.88$) likewise surpasses the $\sqrt{\text{AVE}}$ figures of both constructs (0.85 and 0.86, respectively), leaving the criterion unmet for that pair as well. The heterotrait-monotrait (HTMT) ratios, on the other hand, come to 0.848 for ICQ-PC and 0.884 for PR-OBE, both under the 0.90 mark (Hair et al., 2019); these figures suggest that, despite the marginal breach of the Fornell-Larcker criterion for the pairs concerned, discriminant validity is secured at an acceptable level under the HTMT benchmark. The elevated ICQ-PC correlation traces back to the close conceptual kinship of the two constructs; content quality, after all, counts among the primary drivers of credibility judgments through attributes such as informational value, consistency, and professionalism (Lou & Yuan, 2019), so the overlap observed can be read as theoretically anticipated proximity rather than as measurement error. The strong PR-OBE correlation admits a parallel explanation: the emotional tie forged with the influencer feeds the perception of brand equity directly, and this conceptual nearness should be kept in view when interpreting the sizable coefficient on the PR→OBE path ($\beta = 0.724$). All told, even though the Fornell-Larcker criterion falls marginally short for two construct pairs, the HTMT results and the theoretical account jointly support the conclusion that the model attains discriminant validity at an acceptable level.

Review of the Variance Inflation Factor (VIF) figures in Table 5 shows that, for content quality (ICQ), perceived credibility (PC), and the parasocial relationship (PR) as predictors of overall brand equity, every value sits comfortably under the cutoff of 5; on this evidence, the model is free of multicollinearity problems (Hair et al., 2019).

Table 5
Multicollinearity
(VIF) Results in the
Structural Model

Variable	VIF
ICQ	2.73
PC	3.29
PR	2.33

Table 6
Direct Effects and Hypothesis Testing Results

H	Path	B	SE	95% GA	β	z	p	Result
H1	ICQ → PC	0.899	0.046	[0.809, 0.990]	0.852	19.58	< .001	Supported
H2	PC → PR	0.556	0.079	[0.401, 0.712]	0.505	7.03	< .001	Supported
H3	ICQ → PR	0.352	0.085	[0.186, 0.519]	0.303	4.15	< .001	Supported
H4	PR → OBE	0.733	0.049	[0.636, 0.829]	0.724	14.89	< .001	Supported
H5	ICQ → OBE	0.260	0.072	[0.119, 0.401]	0.221	3.62	< .001	Supported

Table 7
Indirect Effects and Hypothesis Testing Results

H	Path	B	SE	95% GA	β	z	p	Result
H6	ICQ → PC → OBE	-0.011	0.060	[-0.129, 0.107]	-0.009	-0.179	.858	Not Supported
H7	ICQ → PR → OBE	0.258	0.063	[0.135, 0.381]	0.219	4.117	< .001	Supported
H8	ICQ → PC → PR → OBE	0.367	0.058	[0.252, 0.481]	0.311	6.278	< .001	Supported

4.2. Structural Model and Hypothesis Testing

The research hypotheses were tested with Structural Equation Modeling (SEM); following the two-step logic of Anderson and Gerbing (1988), the measurement model was appraised first via confirmatory factor analysis (CFA) and the structural model was estimated afterward. Associations among the latent variables were analyzed with measurement error taken into account, parameters being estimated by the Maximum Likelihood (ML) method (Byrne, 2016; Hair et al., 2019); the structural model was judged against four indices: CFI (Comparative Fit Index), TLI (Tucker-Lewis Index), RMSEA (Root Mean Square Error of Approximation), and SRMR (Standardized Root Mean Square Residual).

The fit statistics of the structural model point to a generally acceptable correspondence with the data (CFI = 0.961, TLI = 0.954, RMSEA = 0.077, SRMR = 0.035); the RMSEA, though close to the .08 border, remains inside the acceptable band, and the CFI, TLI, and SRMR figures back the judgment that the model fits well (Hair et al., 2019; Kline, 2016). Turning to the direct paths, content quality bears strongly and positively on perceived credibility ($\beta = 0.852, p < .001$), a result that positions the caliber of influencer content among the chief drivers of the trust consumers place in the influencer. Content quality likewise carries a significant positive effect on the parasocial relationship ($\beta = 0.303, p < .001$), showing that well-crafted material helps an emotional tie form between followers and the influencer. Perceived credibility, in turn, influences the parasocial relationship positively and significantly ($\beta = 0.505, p < .001$), which confirms that influencers judged trustworthy build firmer parasocial bonds with their audiences. The

direct path from perceived credibility to overall brand equity, by contrast, failed to reach statistical significance ($\beta = -0.011, p = .858$); on this evidence, the influence of credibility on brand equity appears to travel through indirect channels rather than head-on. The parasocial relationship exerts a strong, positive, and significant effect on overall brand equity ($\beta = 0.724, p < .001$), demonstrating that the emotional and psychological tie formed with the influencer lifts consumers' brand perceptions and value judgments considerably; content quality, in addition, was found to influence overall brand equity directly and significantly ($\beta = 0.221, p < .001$). Among the indirect paths, no significance attaches to the route from content quality to brand equity that runs through perceived credibility alone ($\beta = -0.009, p = .858$), whereas the serial route through perceived credibility and the parasocial relationship together is significant ($\beta = 0.311, p < .001$); content quality, in other words, raises brand equity by first building credibility and then reinforcing the parasocial bond. The indirect route through the parasocial relationship alone also proved significant ($\beta = 0.219, p < .001$), establishing the parasocial relationship as the model's pivotal construct and as a critical mediator in the making of brand equity. As for the total effect, content quality bears on overall brand equity strongly and significantly ($\beta = 0.743, p < .001$); considered together, the results indicate that content quality influences brand equity directly, yet the greater part of that influence travels through the parasocial relationship, with perceived credibility contributing indirectly, by fortifying the parasocial bond, rather than through a direct path of its own.

4.3. Direct Effects

Hypothesis H1 (ICQ $\rightarrow$ PC) received support: content quality bears strongly and positively on perceived credibility ($\beta = 0.852, z = 19.58, p < .001$). The result indicates that well-crafted content fosters trust by elevating perceptions of informational value, consistency, and professionalism, in line with earlier work identifying content quality among the chief drivers of trust judgments (Lou & Yuan, 2019; Sokolova & Kefi, 2020).

Note

β = standardized coefficient; SE = standard error; CI = confidence interval; ML = Maximum Likelihood; N = 515.

Hypothesis H2 (PC $\rightarrow$ PR) received support: perceived credibility influences the parasocial relationship positively and significantly ($\beta = 0.505, z = 7.03, p < .001$). Influencers judged trustworthy, in other words, forge firmer psychological and emotional ties with their audiences, a pattern echoing the literature that singles out trust as a critical precursor to the formation of parasocial interaction (Horton & Wohl, 1956; Tukachinsky, 2011).

Hypothesis H3 (ICQ $\rightarrow$ PR) received support: content quality influences the parasocial relationship directly and significantly ($\beta = 0.303, z = 4.15, p < .001$). Absorbing, original, value-adding material thus fosters parasocial bonding by intensifying the exchange between followers and the influencer, in keeping with research showing that content characteristics amplify social media interaction and attachment (De Veirman et al., 2017; Ki et al., 2020).

Hypothesis H4 (PR → OBE) received support: the parasocial relationship bears strongly and positively on overall brand equity ($\beta = 0.724, z = 14.89, p < .001$). The emotional tie forged with the influencer, then, weighs heavily in consumers' brand perceptions and value judgments, a result that accords with earlier studies underlining the imprint parasocial relationships leave on consumer attitudes and on how brands are perceived (Labrecque, 2014; Jin & Phua, 2014).

The direct path from perceived credibility to overall brand equity, however, did not attain statistical significance ($\beta = -0.011, z = -0.179, p = .858$); credibility, it appears, acts on brand equity not head-on but by way of mediating mechanisms such as the parasocial relationship, and the literature indeed observes that trust tends to work through relational processes rather than bearing directly on outcome variables (Morgan & Hunt, 1994).

Hypothesis H5 (ICQ → OBE) received support: content quality influences overall brand equity positively and significantly ($\beta = 0.221, z = 3.62, p < .001$). While this confirms a direct role for content quality in brand perception, the results make clear that the influence runs along indirect routes as well as the direct one. It is also worth keeping in mind that the result concerning the direct effect of perceived credibility need not rest on theory alone; it may partly reflect an overlap arising from the strong association between content quality and perceived credibility ($\beta = 0.852$). Substantial shared variance among predictors can, after all, erode each predictor's unique contribution to the model and leave certain paths looking statistically nonsignificant (Hair et al., 2019); it can therefore be maintained that perceived credibility acts on brand equity chiefly along the indirect route through the parasocial relationship.

4.4. Indirect Effects and Mediation Analysis

Hypothesis H6 did not receive support: taken on its own, perceived credibility plays no significant mediating part in the link between content quality and overall brand equity ($\beta = -0.009, p = .858$). Credibility's influence on brand equity, then, does not materialize directly but surfaces through other psychological mechanisms, and the literature similarly stresses that trust tends to work through relational processes rather than bearing directly on outcome variables (Morgan & Hunt, 1994).

Note

B = unstandardized coefficient; β = standardized coefficient; SE = standard error; CI = bootstrap 95% confidence interval (bias-corrected, 5,000 resamples).

Hypothesis H7 received support: the parasocial relationship carries a significant mediating role in the link between content quality and overall brand equity ($\beta = 0.219, p < .001$). The emotional tie forged with the influencer thus stands as a critical mechanism in the conversion of content quality into brand equity, consistent with research documenting how parasocial relationships steer consumer behavior and the way brands are perceived (Labrecque, 2014; Jin & Phua, 2014).

Hypothesis H8 received support: perceived credibility and the parasocial relationship together carry the link between content quality and overall brand equity in serial fashion ($\beta = 0.311, p < .001$). Content

quality, in other words, first builds credibility, that trust then deepens the parasocial bond, and the bond is finally converted into brand equity; this staged pattern of influence attests that cognitive (trust) and emotional (parasocial bond) processes work hand in hand in influencer marketing (Sokolova & Kefi, 2020; Lou & Yuan, 2019).

Viewed as a whole, the parasocial relationship occupies the model's center, with perceived credibility acting as an antecedent that feeds this process. Against the mediation typology of Zhao et al. (2010), the model displays a complementary mediation pattern, given that both the direct route and the indirect routes from content quality to overall brand equity attain significance and share the same sign; content quality thus acts on brand equity along the direct route as well as indirectly, via the parasocial relationship and the serial mediation mechanism.

5. DISCUSSION AND CONCLUSION

This research explored how the quality of Instagram influencer content bears on overall brand equity, with perceived credibility and the parasocial relationship built into the analysis. What the evidence shows is that content quality reaches brand equity along direct and indirect routes alike, and that its influence takes the form of a staged mechanism that passes through perceived credibility and the parasocial bond on its way to brand equity. To begin with, the strong positive path from content quality to perceived credibility sits comfortably alongside earlier work. Lou and Yuan (2019) and Sokolova and Kefi (2020) report that the informational value and professionalism of influencer material lift trust perceptions, and in the present data, too, consumers judge high-caliber content as more trustworthy. Content quality thereby stands confirmed as one of the chief drivers of trust formation in influencer marketing. The path from perceived credibility to the parasocial relationship also proved significant, a result in harmony with the parasocial interaction theory of Horton and Wohl (1956); Tukachinsky (2011) similarly underlines the critical part trust plays as parasocial bonds take shape. Influencers who inspire trust, it can be argued, forge firmer emotional and psychological ties with their audiences. The direct path from content quality to the parasocial relationship deserves attention as well, lending weight to the work of De Veirman et al. (2017) and Ki et al. (2020); original, absorbing material evidently reinforces the parasocial bond by drawing followers into more frequent interaction. Content quality, then, is not merely something followers appraise cognitively but a basic ingredient in the making of emotional attachment. Among the study's most consequential results is the powerful path from the parasocial relationship to overall brand equity, which converges with the evidence of Labrecque (2014) and Jin and Phua (2014); the emotional tie formed with the influencer visibly molds consumers' brand perceptions, which means that in influencer marketing the relationship built matters no less than the message delivered. The nonsignificant direct path from perceived credibility to overall brand equity, on the other hand, is a result worth pausing over. One reading follows Morgan and Hunt (1994), who hold that trust tends to steer relational processes rather than acting on outcome variables head-on. The explanation need not stop at theory, however. The tight association between content quality and perceived credibility ($\beta = 0.852$; $r = 0.85$) signals substantial overlap between the two constructs, and when both enter the structural model as simultaneous predictors of overall brand equity, the unique statistical contribution of perceived

credibility can be squeezed; the literature treats situations of this kind under the headings of multicollinearity and suppression effects (Hair et al., 2019). The nonsignificance of credibility's direct path thus admits a theoretical and a statistical account at once. The mediation results showed that perceived credibility carries no significant mediating weight on its own, whereas the parasocial relationship operates as a powerful mediator; beyond that, the significance of the serial chain running content quality → credibility → parasocial relationship → brand equity ranks among the model's foremost contributions, attesting that cognitive and emotional processes work in tandem in influencer marketing. Set against the mediation typology of Zhao et al. (2010), the model displays a complementary mediation pattern: both the direct route and the indirect routes from content quality to brand equity attain significance and share the same sign, so the variable operates through a multidimensional mechanism of influence. Taken as a whole, the study adds to the influencer marketing literature in several respects. It establishes, first of all, that content quality molds brand equity through a staged mechanism of influence, and it lays bare the decisive part the parasocial relationship plays in brand equity; both results underscore the strategic weight of the emotional bond in influencer marketing. For practitioners, the message is that influencer selection should rest not on follower numbers alone but equally on content quality and on the credibility the influencer inspires; it is just as vital that brands craft strategies which help an emotional bond grow between influencer and followers, since the evidence shows brand equity to be built largely on the parasocial relationship. Certain limitations attach to the study. The data come from a single country and were gathered through convenience sampling, which may curb the generalizability of the results; because the measures are self-reported, moreover, the risk of common method bias cannot be ruled out entirely, even though statistical checks were applied to contain it. The cross-sectional design, in addition, permits only guarded causal interpretation. Future research would do well to test comparable models in other cultural settings; comparing different social media platforms, probing the effects of influencer tiers (nano, micro, macro), and mounting longitudinal designs would likewise enrich the literature, as would folding further variables such as trust, authenticity, and sincerity into the model, all of which would deepen the field's grasp of influencer marketing.

Declarations

Author Contribution

YSG, AK and EK determined the research topic. YSG and EK designed the methodology. All authors contributed to writing, reviewing and editing the manuscript. HY managed the journal submission process.

Data Availability

Data Availability Statement The dataset generated and analysed during the current study is included in the Supplementary Information files submitted with this article. The data are anonymised and contain no personally identifiable information.

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Figures

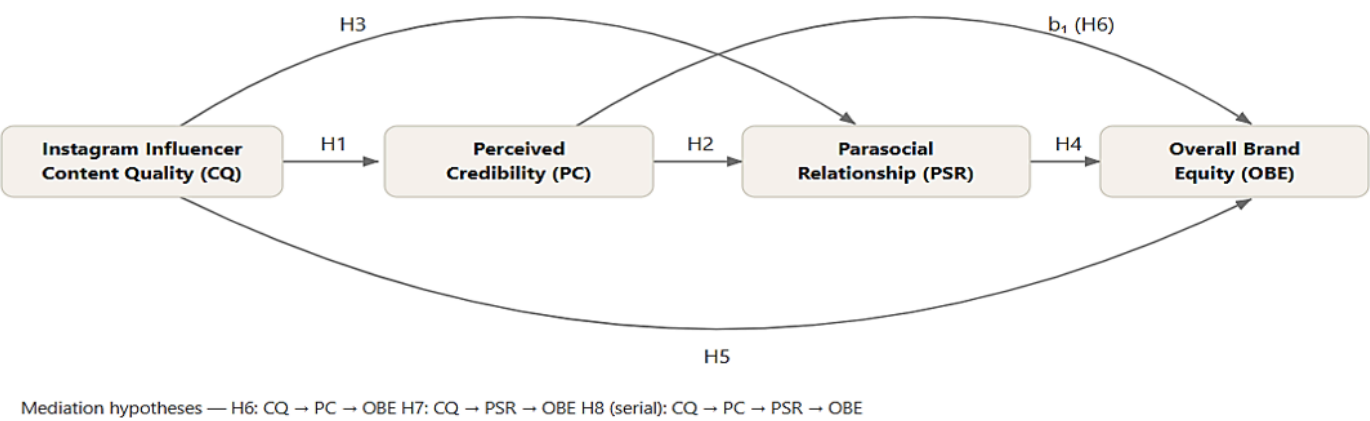


Figure 1

Research Model

Note. For clarity and consistency across the analyses, the variables are referred to by abbreviations: ICQ for content quality, PC for perceived credibility, PR for the parasocial relationship, and OBE for overall brand equity.

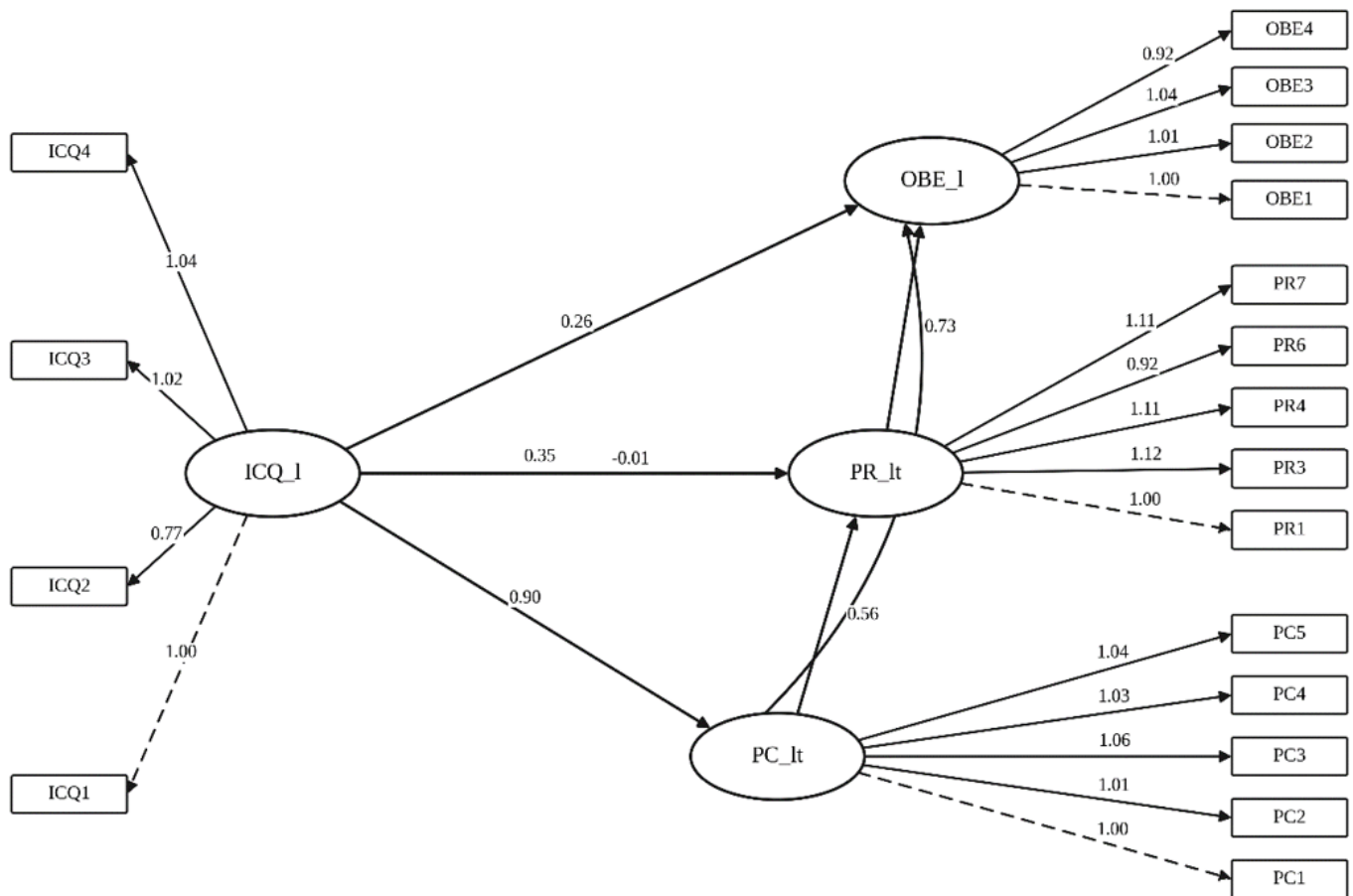


Figure 2

Structural Equation Model

Supplementary Files

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