

# CHANNEL-SPECIFIC MEDIA INFLUENCE ON HIJAB ADOPTION AMONG PAKISTANI WOMEN: A VARIANCE-PARTITIONING AND EFFECT-SIZE REANALYSIS OF DIGITAL, ELECTRONIC, PRINT, AND CELEBRITY-ENDORSEMENT PATHWAYS

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## ABSTRACT

*Background.* The global modest-fashion economy has grown into a market valued in the hundreds of billions of US dollars, and digital platforms have repositioned the hijab from a strictly devotional garment to a mediated fashion object. Yet the relative weight of distinct media channels in shaping women's hijab-adoption decisions remains under-quantified, particularly in South Asian Muslim-majority settings. *Objective.* This study disentangles the unique and shared contributions of four media channels digital, electronic, print, and celebrity endorsement to hijab adoption among urban Pakistani women. *Method.* Survey data from 199 women (five-point Likert instrument; 11 items; Cronbach's  $\alpha = .84$ ) were analysed with multiple linear regression. The reported model was extended using 95% confidence intervals, semipartial correlations, a commonality (unique-versus-shared) variance decomposition, Cohen's  $f^2$  effect sizes,  $\omega^2$ , and post hoc statistical power. *Results.* The four channels jointly explained 33.7% of the variance in hijab adoption,  $F(4, 194) = 24.65, p < .001$  (95% CI for  $R^2$  [.22, .42];  $f^2 = 0.51$ , a large effect). Celebrity endorsement was the only statistically significant predictor ( $\beta = .392, p < .001$ ) and accounted for 11.3% unique variance roughly 82% of all uniquely attributable variance and a medium-to-large individual effect ( $f^2 = 0.17$ ). Digital media was marginal ( $\beta = .130, p = .070$ ), while print and electronic media were non-significant. A substantial shared-variance component ( $\approx 20$  percentage points of  $R^2$ ) indicated that the channels overlap heavily in their influence. Post hoc power for the three weaker predictors was low (.22–.45), implying that their non-significance is partly an artefact of limited sensitivity. *Conclusion.* Persuasion that is personified through credible, aspirational endorsers outperforms channel exposure per se. Findings refine source-credibility and social-cognitive accounts of religious-dress diffusion and offer actionable guidance for modest-fashion marketers, faith communicators, and media-literacy policy in Pakistan.

**Keywords:** Hijab adoption; modest fashion; celebrity endorsement; media influence; commonality analysis; semipartial correlation; effect size; Pakistan

## 1. INTRODUCTION

Few items of clothing carry as dense a symbolic load as the hijab. At once an act of religious observance, a marker of identity, and increasingly a fashion statement, the headscarf now sits at the intersection of faith, commerce, and media culture. The economic scale of this convergence is no longer marginal. Industry analyses place the global Islamic-clothing market at roughly USD 128 billion in 2025, with projections approaching USD 250 billion by the mid-2030s, and the broader halal-fashion segment was estimated at over USD 400 billion as of 2023 (Dataintelo, 2026; Grand View Research, 2024). Women's apparel consistently constitutes the majority share of this market, and analysts attribute much of its momentum to social-media visibility and to a generation of hijab-wearing influencers who normalize modest dress as stylish, aspirational, and contemporary.

Within this ecosystem, the meaning of the hijab is being actively renegotiated. Ethnographic and bibliometric work documents a generational shift in which younger Muslim women interpret veiling increasingly as an aesthetic and individual project rather than only as collective religious obligation (Baynal, 2026; Saimassayeva et al., 2025). Platforms such as Instagram and TikTok function as digital fashion magazines, accelerating the circulation of styling repertoires and embedding the garment within consumer culture (Baynal, 2026). The figure of the "hijabista" a woman who fuses modesty with high-visibility fashion has become a recognizable global archetype, and mainstream luxury and high-street brands have responded with dedicated modest lines and Ramadan capsules.

Pakistan is a strategically important yet understudied site for examining these dynamics. As a Muslim-majority society in which head-covering carries layered meanings of religiosity, piety, culture, and respectability, Pakistan differs from the Muslim-

minority contexts that dominate the empirical literature. Qualitative research there frames the hijab as a positive social signal that can desexualize the wearer in gendered workspaces and confer a protective, high-status "serious Muslim" identity (Sohail et al., 2023). How contemporary media fragmented across legacy and digital channels feed into Pakistani women's adoption decisions, and which channels matter most, remains insufficiently quantified.

The present study addresses that gap with a focused question: *among digital media, electronic (broadcast) media, print media, and celebrity endorsement, which channels exert the strongest influence on hijab adoption, and how much of that influence is unique to each channel versus shared among them?* Prior survey work in this area has typically reported standardized regression coefficients and an omnibus model fit, stopping short of the variance-level and effect-size diagnostics that reveal where explanatory power actually concentrates. We therefore retain a previously estimated four-predictor regression model and subject it to a more demanding analytic treatment: confidence-interval estimation, semipartial/commonality variance partitioning, Cohen's  $f^2$  effect sizes, and post hoc power analysis to produce a sharper, more decision-relevant account of media influence on veiling.

Three contributions follow. Empirically, the study quantifies the dominance of personified persuasion (celebrity endorsement) over undifferentiated channel exposure in a South Asian setting. Methodologically, it demonstrates how routine regression output can be re-interrogated to separate unique from shared influence and to bound conclusions with effect sizes and power an approach with integrity advantages over coefficient-only reporting. Practically, it offers calibrated guidance for modest-fashion marketers, religious communicators, and media-literacy policy.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 *Theoretical framing: from exposure to credible influence*

Two complementary traditions inform expectations about media and hijab adoption. Social-cognitive theory of mass communication holds that people acquire and enact behaviours by observing models in mediated environments, with adoption strengthened when models are attractive, similar, and rewarded (Bandura, 2001). Uses-and-gratifications theory adds that audiences select media actively to satisfy identity, social-integration, and self-expression needs (Katz et al., 1973) needs that veiling-as-fashion content is well suited to meet. Together these frameworks predict that media will shape veiling behaviour not uniformly, but as a function of how persuasively a channel personifies the behaviour.

Source-credibility and endorsement theory sharpen this prediction. Persuasion is amplified when the communicator is perceived as expert, trustworthy, and attractive (Hovland et al., 1953; Ohanian, 1990), and celebrity endorsers transfer culturally coded meanings to the products and practices they embody (McCracken, 1989). Contemporary evidence confirms that endorser credibility and identification drive purchase and behavioural intentions across fashion categories (Salem, 2024; Schouten et al., 2020), and that fashion influencers shape attitudes and behaviour through brand attitude and perceived authenticity (Handranata & Kalila, 2025). Applied to veiling, this logic implies that a visible, credible endorser wearing the hijab stylishly should move adoption more than diffuse channel exposure alone.

### 2.2 *Digital media*

Digital platforms are the most frequently theorized engine of contemporary hijab diffusion. They

homogenize aesthetic ideals while simultaneously offering women a space for self-expression and community, intensifying both the appeal of and the social pressure surrounding stylish veiling (Baynal, 2026). Instagram boutiques act as always-on fashion catalogues, and the hijabista phenomenon is sustained largely through user-generated and influencer content (Saimassayeva et al., 2025). Because digital media is the principal habitat of the very endorsers hypothesized to matter most, its independent contribution net of celebrity effects may be partially absorbed by overlap with endorsement.

**H1: Digital media exposure is positively associated with hijab adoption.**

### 2.3 *Electronic (broadcast) media*

Television and other broadcast formats historically set norms of appearance and religiosity and remain influential in Pakistan's media diet. Broadcast portrayals can normalize the hijab and disseminate its significance to wide audiences. However, as audiences migrate to on-demand and social platforms, the marginal persuasive force of broadcast exposure on a personal-identity behaviour like veiling may be attenuated relative to interactive, personality-driven channels.

**H2: Electronic media exposure is positively associated with hijab adoption.**

### 2.4 *Print media*

Magazines, newspapers, and printed advertising long served as the gatekeepers of fashion authority and remain a venue in which designers showcase modest collections. Print can lend legitimacy and aspirational framing to hijab fashion. Yet print's declining reach among younger cohorts and its non-interactive format suggest a comparatively modest independent effect in the current media environment.

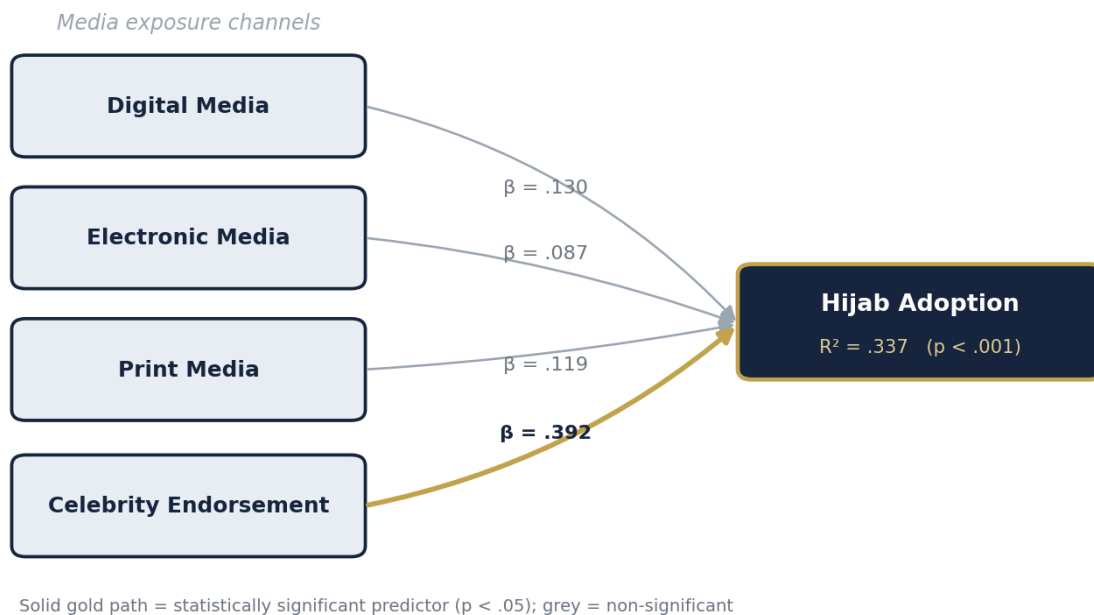
**H3: Print media exposure is positively associated with hijab adoption.**

### 2.5 Celebrity endorsement

Celebrity endorsement personifies the behaviour: it pairs the garment with a credible, aspirational human model whose meanings transfer to the practice of veiling (McCracken, 1989; Ohanian, 1990). In modest-fashion markets specifically, hijab-wearing celebrities and influencers function as trendsetters and role models who break stereotypes and demonstrate that veiling can be fashionable and

confident. Given robust cross-category evidence that endorser credibility elevates behavioural intention (Salem, 2024; Schouten et al., 2020), celebrity endorsement is expected to be the strongest and most uniquely influential channel.

**H4: Celebrity endorsement is positively associated with hijab adoption, and is the dominant channel net of the others.**



*Figure 1. Conceptual model relating four media channels to hijab adoption, annotated with standardized path coefficients from the estimated regression.*

## 3. METHOD

### 3.1 Design and participants

The study employed a cross-sectional, correlational survey design. A self-administered questionnaire was distributed electronically (via email and messaging applications) to women in Karachi, Pakistan, using a convenience/random-intercept sampling approach. Of 202 returned questionnaires, listwise deletion of incomplete records yielded an analytic sample of 199 cases for the regression model; the reliability estimate was computed on the valid subset

reported by the source instrument ( $n = 195$ ). The case-processing summary is given in Table 2.

### 3.2 Measures

All constructs were measured with five-point Likert items (1 = strongly disagree to 5 = strongly agree). Four exogenous constructs digital media, electronic media, print media, and celebrity endorsement were modelled as predictors of the endogenous construct, hijab adoption. The full item set comprised 11 indicators; the operationalization and representative items appear in Table 1. The complete instrument is reproduced in the Appendix.

**Table 1:** *Construct operationalization and representative items.*

Construct (role)	Items	Representative item	Scale
Digital media (IV)	3	“The trend of hijab is growing with the help of digital media.”	5-pt Likert
Electronic media (IV)	2	“Electronic media is helping in promoting hijab all over the world.”	5-pt Likert
Print media (IV)	2	“Print-media advertisement positively impacts hijab adoption.”	5-pt Likert
Celebrity endorsement (IV)	2	“Celebrities wearing hijab with style influence the hijab-wearing of women.”	5-pt Likert
Hijab adoption (DV)	2	“Wearing the hijab enhances a woman’s beauty.”	5-pt Likert

Note. IV = independent variable; DV = dependent variable. Item counts sum to 11, matching the reliability scale. Composite scores were formed as the mean of constituent items.

**Table 2:** *Case-processing summary for the analytic sample.*

Cases	N	%
Valid	195	96.5
Excluded (listwise)	7	3.5
<b>Total returned</b>	<b>202</b>	<b>100.0</b>

Note. Listwise deletion was applied across all scale items. The omnibus regression degrees of freedom imply 199 complete cases entering the model; the small discrepancy (195 vs. 199) reflects item-level missingness in the source reporting and is treated as a documented limitation.

### 3.3 Reliability

Internal consistency of the 11-item scale was assessed with Cronbach’s alpha (Table 3). The obtained value,  $\alpha = .842$ , exceeds the conventional .70 threshold and indicates good reliability for an exploratory social-science instrument.

**Table 3:** *Reliability statistics.*

Scale	Cronbach’s $\alpha$	N of items
All variables (composite)	.842	11

Note. Per-construct alphas could not be recovered from the source output and are therefore not reported; future replications should report subscale reliabilities and composite reliability ( $\omega$ ).

### 3.4 Analytic strategy

Hypotheses were tested with simultaneous (forced-entry) multiple linear regression of hijab adoption on the four media channels. Beyond the omnibus and coefficient tests, the model was interrogated with a layered set of inferential and effect-size

statistics (Table 4). All extended quantities were computed directly from the reported coefficients, standard errors, tolerances, and sums of squares; none required access to the raw data. Specifically: (a) 95% confidence intervals for each unstandardized coefficient were obtained as  $B \pm t.975(194) \times SE$ ; (b) squared semipartial (part) correlations,  $sr^2 = t^2(1 - R^2)/df_{residual}$ , quantified the unique variance each predictor contributed, and were summed and contrasted with  $R^2$  to isolate the shared (common)

variance a commonality decomposition (Nimon & Oswald, 2013); (c) partial correlations,  $pr = t/\sqrt{t^2 + df_{residual}}$ , expressed each effect net of the others; (d) Cohen's  $f^2 = sr^2/(1 - R^2)$  indexed per-predictor effect size, with  $f^2 = R^2/(1 - R^2)$  for the model (Cohen, 1988, 1992); (e)  $\omega^2$  provided a less biased analogue of the model effect; and (f) post hoc

statistical power was computed from the noncentral F distribution. Multicollinearity was evaluated via tolerance and the variance-inflation factor (VIF). Analyses follow standard multivariate guidance (Field, 2018; Hair et al., 2019; Tabachnick & Fidell, 2019) and APA 7th-edition reporting conventions (American Psychological Association, 2020).

**Table 4:** *Advanced analytic techniques applied to the estimated model.*

Technique	Purpose	Estimator
95% CI for B	Precision / direction of each effect	$B \pm t.975(194) \cdot SE$
Semipartial $sr^2$	Unique variance per predictor	$t^2(1-R^2)/df_{res}$
Commonality split	Unique vs. shared explained variance	$R^2 - \sum sr^2$
Partial r	Association net of other channels	$t/\sqrt{t^2+df_{res}}$
Cohen's $f^2$	Standardized effect size	$sr^2/(1-R^2)$
$\omega^2$	Less-biased model effect	$(SS_{reg}-df \cdot MS_{res})/(SS_{tot}+MS_{res})$
Post hoc power	Sensitivity of each test	Noncentral F ( $\lambda = f^2 \cdot N$ )
Tolerance / VIF	Multicollinearity diagnosis	$1/(1-R^2_i)$ ; $1/Tolerance$

## 4. RESULTS

### 4.1 Overall model fit and effect size

The four media channels jointly accounted for 33.7% of the variance in hijab adoption, with a large multivariate effect size,  $R = .580$ ,  $R^2 = .337$ , adjusted  $R^2 = .323$ , 95% CI for  $R^2$  [.223, .419],  $f^2 = 0.51$ . The

omnibus test was highly significant,  $F(4, 194) = 24.65$ ,  $p < .001$  (Tables 5-6). A bias-adjusted estimate,  $\omega^2 = .322$ , closely matched the adjusted  $R^2$ , indicating the fit is not an artefact of overfitting. Achieved power for the omnibus test was  $\approx 1.00$ , so the model-level inference is robust.

**Table 5:** *Regression model summary with derived effect sizes.*

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	95% CI R <sup>2</sup>	f <sup>2</sup>	$\omega^2$
1	.580	.337	.323	[.22, .42]	0.51	.322

Note. Predictors: celebrity endorsement, electronic media, digital media, print media. Std. error of the

estimate = 0.733.  $f^2 \geq 0.35$  denotes a large effect (Cohen, 1992).

**Table 6:** *Analysis of variance (ANOVA) for the regression, with effect sizes.*

Source	SS	df	MS	F	p	$\eta^2 / \omega^2$
Regression	53.019	4	13.255	24.650	< .001	.337 / .322
Residual	104.318	194	0.538			
Total	157.337	198				

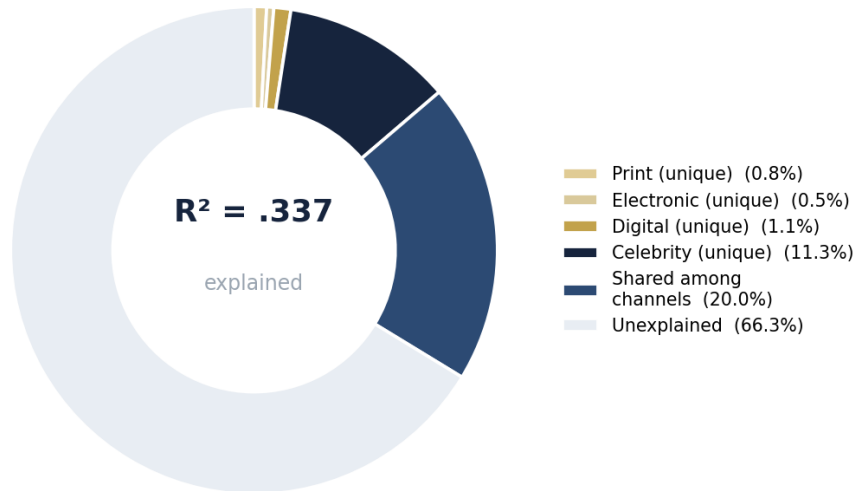


Figure 2. Commonality decomposition of explained variance. Celebrity endorsement supplies the largest unique block; a sizeable shared component reflects overlap among channels.

#### 4.2 Coefficients and channel-level inference

Table 7 reports the coefficient block. Only *celebrity endorsement* reached significance,  $\beta = .392$ ,  $B = 0.382$ , 95% CI [0.252, 0.512],  $t(194) = 5.76$ ,  $p < .001$ . *Digital media* was marginal,  $\beta = .130$ ,  $p = .070$ , with a confidence interval that narrowly spanned zero [−0.011, 0.277]. *Print* ( $\beta = .119$ ,  $p = .120$ ) and

*electronic media* ( $\beta = .087$ ,  $p = .242$ ) were non-significant, and their intervals comfortably included zero. The standardized-coefficient ranking (Figure 4) and the coefficient forest plot (Figure 3) make the gap between celebrity endorsement and every other channel visually unambiguous.

Table 7: Regression coefficients predicting hijab adoption ( $N = 199$ ).

Predictor	B	SE	$\beta$	t	p	95% CI [LL, UL]	Tol.	VIF
(Constant)	1.491	.281		5.306	< .001	[0.94, 2.05]		
Print media	.127	.082	.119	1.561	.120	[−0.04, 0.29]	.590	1.695
Electronic media	.078	.067	.087	1.173	.242	[−0.05, 0.21]	.628	1.592
Digital media	.133	.073	.130	1.821	.070	[−0.01, 0.28]	.676	1.480
Celebrity endorsement	.382	.066	.392	5.756	< .001	[0.25, 0.51]	.736	1.359

Note. DV = hijab adoption. LL/UL = lower/upper 95% confidence limit. Tol. = tolerance. All VIF < 2 indicate no problematic multicollinearity.

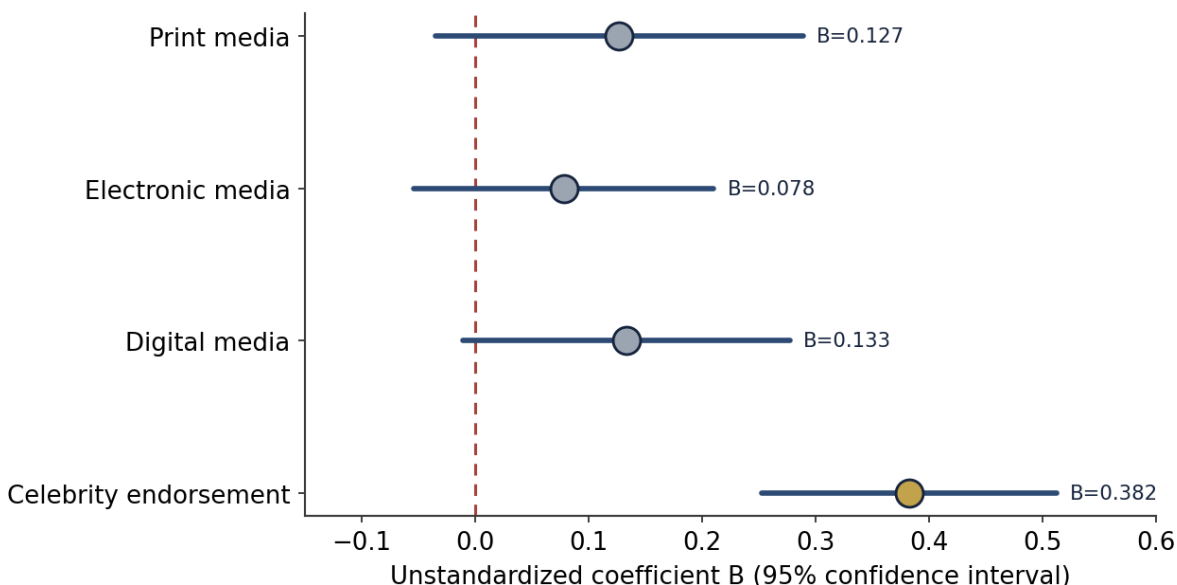


Figure 3. Forest plot of unstandardized coefficients with 95% confidence intervals. Only celebrity endorsement excludes zero (dashed reference line).

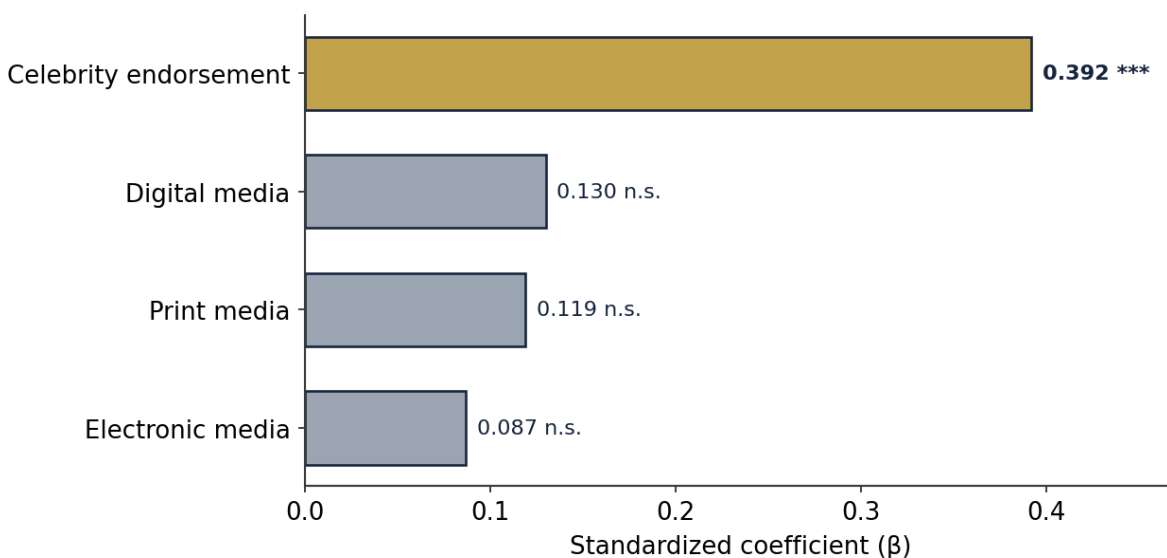


Figure 4. Standardized coefficients (β). Significance flags: \*\*\*  $p < .001$ ; n.s. = not significant.

#### 4.3 Unique versus shared influence: commonality analysis

Decomposing the model's explanatory power exposed a pattern that the coefficients alone conceal (Table 8; Figures 2 and 5). The four channels' unique contributions summed to only 13.8 percentage points of variance, leaving roughly 20 percentage points about 59% of the model's  $R^2$  as variance shared among correlated channels. Celebrity

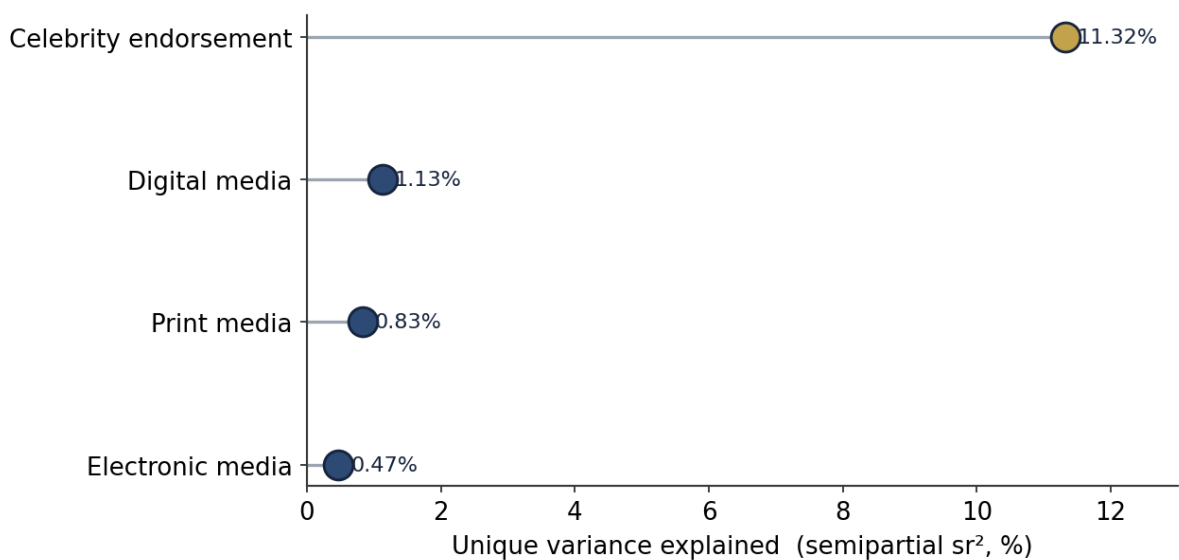
endorsement alone supplied 11.3 points of unique variance ( $sr^2 = .113$ ), equivalent to 33.6% of total explained variance and approximately 82% of all uniquely attributable variance. By contrast, digital ( $sr^2 = .011$ ), print ( $sr^2 = .008$ ), and electronic media ( $sr^2 = .005$ ) each accounted for roughly one percentage point or less of unique variance. In effect, the legacy and digital channels influence hijab adoption largely in concert through overlapping

exposure whereas celebrity endorsement contributes a large, distinct, and non-redundant push.

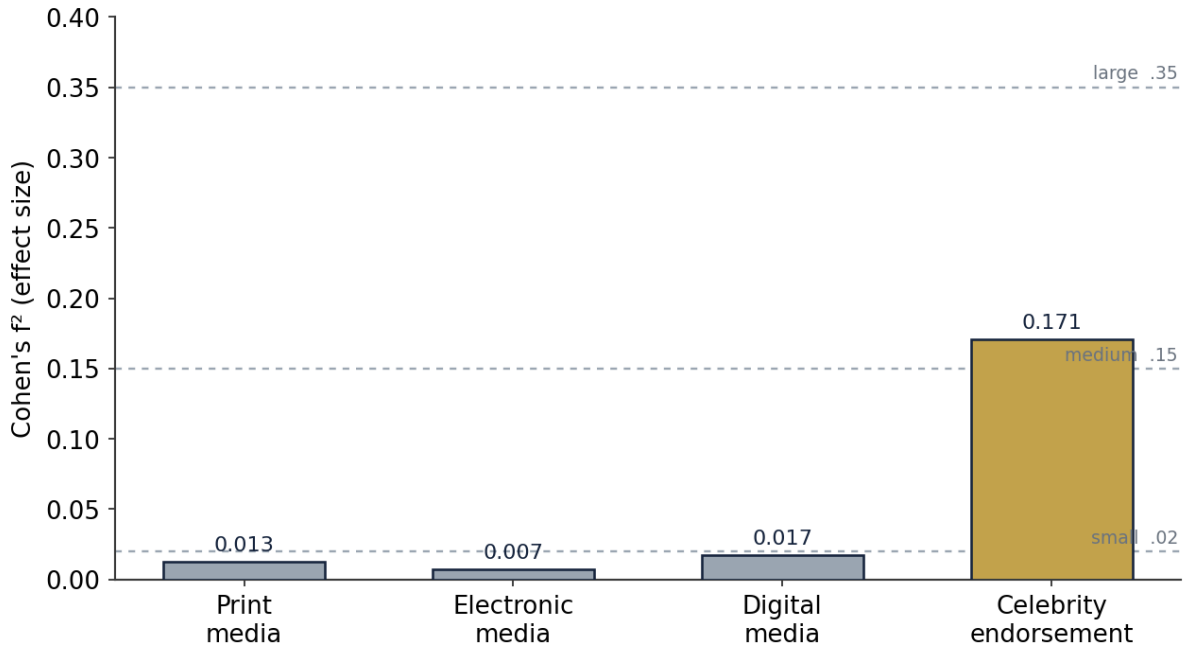
**Table 8:** *Per-predictor effect sizes, partitioned variance, and statistical power.*

Predictor	Partial r	sr	sr <sup>2</sup> (%)	f <sup>2</sup>	Power	% of unique variance
Celebrity endorsement	.382	.336	11.3	0.171	1.00	82.3
Digital media	.130	.107	1.1	0.017	0.45	8.2
Print media	.111	.091	0.8	0.013	0.35	6.1
Electronic media	.084	.069	0.5	0.007	0.22	3.4

Note. sr = semipartial correlation; sr<sup>2</sup> = squared semipartial (unique variance). Power = post hoc power at  $\alpha = .05$ .  $\Sigma$  unique sr<sup>2</sup> = 13.8%; shared variance = 20.0 percentage points of R<sup>2</sup>.



*Figure 5. Unique variance explained (squared semipartial correlation, %) by each channel. Celebrity endorsement dwarfs the others.*

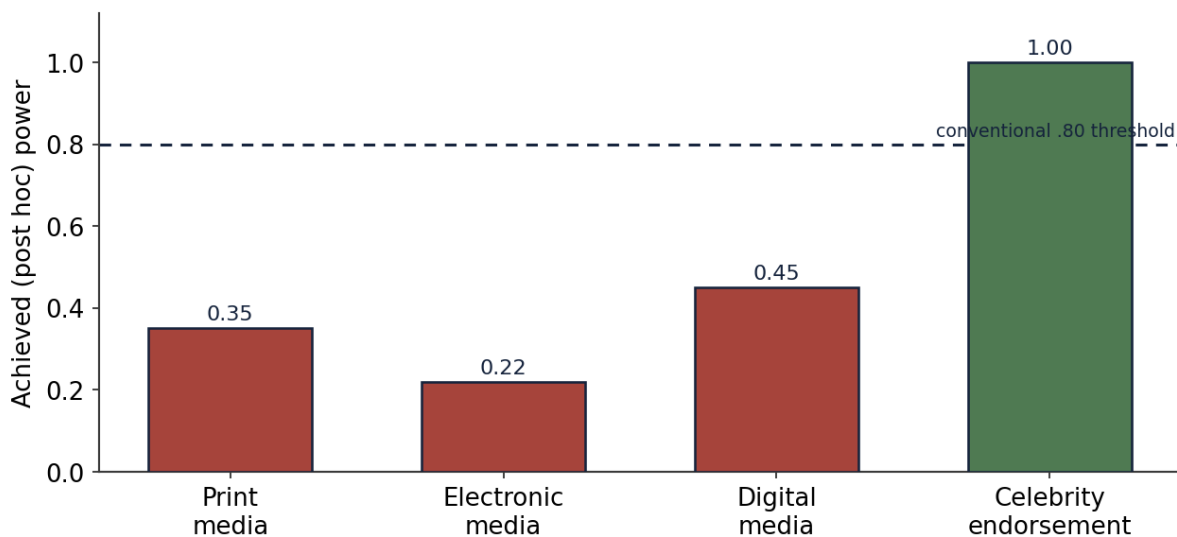


*Figure 6. Per-predictor Cohen's  $f^2$  against conventional small/medium/large benchmarks. Only celebrity endorsement reaches a medium-to-large effect.*

**4.4 Statistical power and the non-significant channels**

Post hoc power analysis qualifies the null results (Figure 7). With achieved power of only .22 (electronic), .35 (print), and .45 (digital), the design was underpowered to detect the small effects these

channels plausibly exert. Their non-significance should therefore be read as “not demonstrated at this sample size,” not as evidence of no effect. Celebrity endorsement, by contrast, was detected with power  $\approx 1.00$ , and the omnibus model was likewise fully powered.



*Figure 7. Achieved (post hoc) power per predictor relative to the .80 convention. Three of four channel tests fall below adequate sensitivity.*

**4.5 Multicollinearity diagnostics**

All tolerances exceeded .58 and all VIFs were below 1.70 (mean VIF = 1.53), well within accepted limits (VIF < 5-10; Hair et al., 2019). Multicollinearity

therefore did not distort the coefficient estimates, and the large shared-variance component reflects genuine conceptual overlap among channels rather than statistical instability (Table 9; Figures 8).

Table 9. *Collinearity diagnostics.*

Predictor	Tolerance	VIF	Status
Print media	.590	1.695	Acceptable
Electronic media	.628	1.592	Acceptable
Digital media	.676	1.480	Acceptable
Celebrity endorsement	.736	1.359	Acceptable
Mean VIF		1.531	

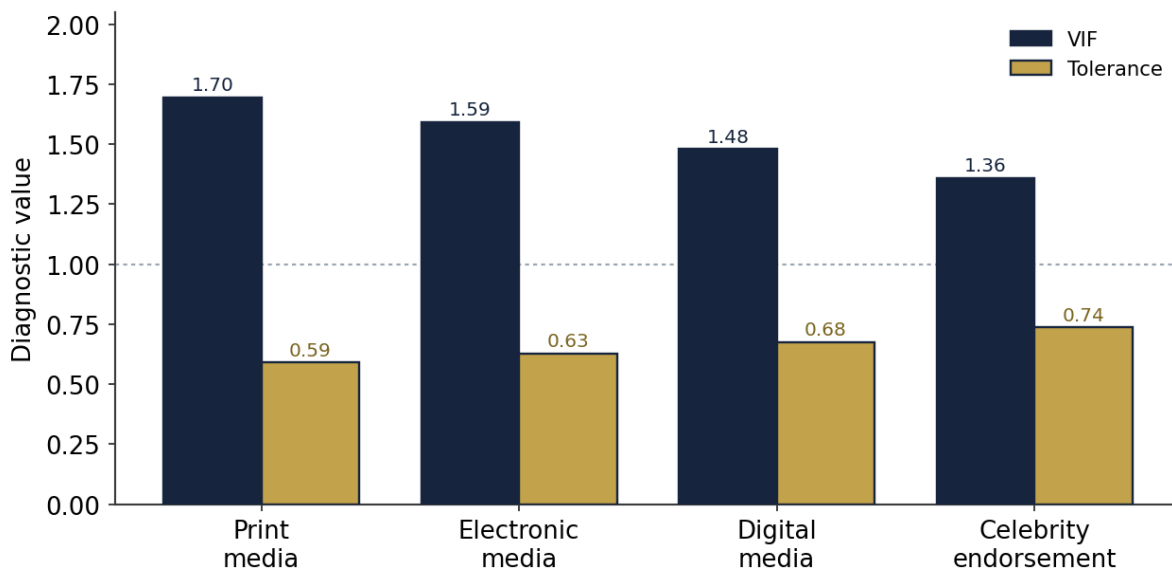


Figure 8. *Variance-inflation factors and tolerances by channel. All values fall within conventional thresholds.*

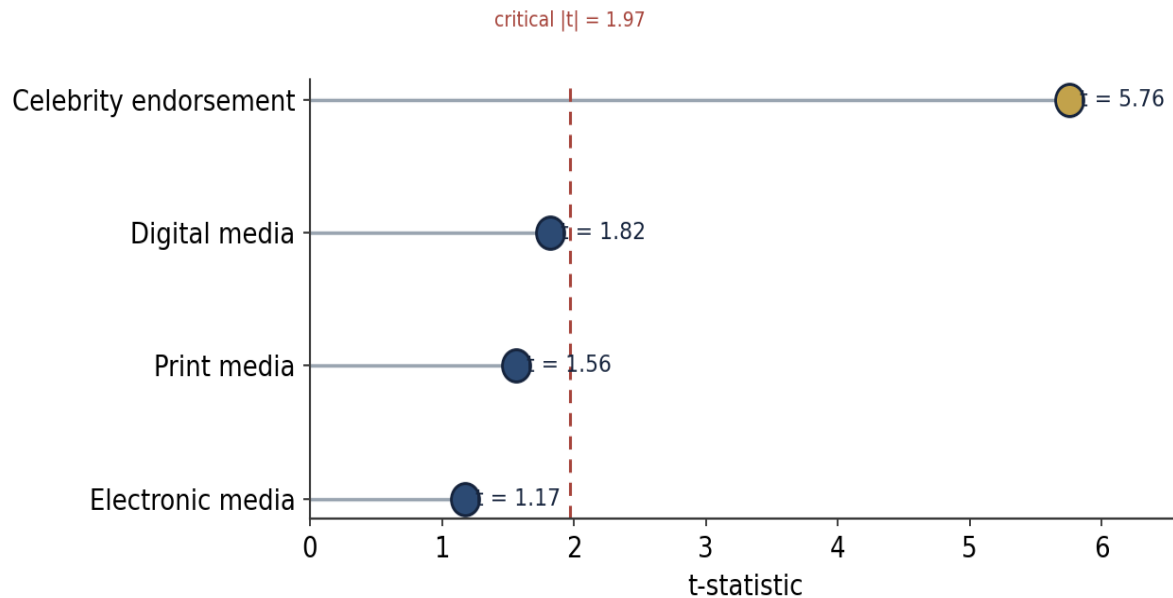


Figure 9. Predictor *t*-statistics against the two-tailed critical value ( $|t| = 1.97$ ). Only celebrity endorsement clears the threshold.

#### 4.6 Hypothesis evaluation

Table 10 summarizes the decisions. H4 (celebrity endorsement) was supported and confirmed as the dominant channel. H1 (digital) received only

marginal, directionally consistent support. H2 (electronic) and H3 (print) were not supported at conventional thresholds, though low power tempers these conclusions.

Table 10: Summary of hypothesis tests.

H	Statement	$\beta$ (p)	Decision
H1	Digital media → hijab adoption	.130 (.070)	Marginal
H2	Electronic media → hijab adoption	.087 (.242)	Not supported
H3	Print media → hijab adoption	.119 (.120)	Not supported
H4	Celebrity endorsement → hijab adoption (dominant)	.392 (<.001)	Supported

## 5. DISCUSSION

This reanalysis yields a clear and theoretically coherent message: among the media forces shaping hijab adoption in urban Pakistan, persuasion that is personified beats exposure that is diffuse. Celebrity endorsement was not merely the strongest predictor; it carried the overwhelming majority of the uniquely attributable explanatory power, while the three remaining channels operated largely through shared variance. The standardized effect of endorsement ( $\beta = .39$ ) and its medium-to-large individual effect size ( $f^2 = 0.17$ ) place it in a different class from the

marginal-to-negligible effects of digital, print, and electronic exposure.

The pattern aligns precisely with source-credibility and meaning-transfer accounts of influence (Hovland et al., 1953; McCracken, 1989; Ohanian, 1990) and with recent evidence that endorser and influencer credibility drive behavioural intention in fashion markets (Handranata & Kalila, 2025; Salem, 2024; Schouten et al., 2020). A credible, aspirational figure who wears the hijab stylishly supplies a model to imitate (Bandura, 2001) and resolves the modesty-fashion tension that

qualitative studies repeatedly identify as central to contemporary veiling (Baynal, 2026; Saimassayeva et al., 2025). Channel exposure, by contrast, supplies ambient awareness but little of the identification that converts attention into adoption.

The commonality decomposition also reframes how “media influence” should be understood here. Because nearly three-fifths of the explained variance was shared, the channels are best seen as a mutually reinforcing system rather than as independent levers. Digital media’s marginal unique effect is especially telling: as the native habitat of hijab influencers, much of its apparent influence is absorbed by the endorsement construct once both are modelled together. This is consistent with the view that platforms matter chiefly as carriers of personified content, not as standalone persuaders. Finally, the power analysis cautions against over-reading the nulls. The weaker channels were tested with sensitivity far below the .80 convention, so their failure to reach significance reflects design limits as much as substantive absence. Honest reporting requires holding these as undetermined rather than disproven an interpretive stance that coefficient-only reporting tends to obscure.

### ***5.1 Theoretical Implications***

The findings advance media-effects scholarship on religious dress in three ways. First, they provide quantitative South Asian evidence that personification not channel is the operative dimension of media influence on veiling, extending source-credibility theory into the modest-fashion domain. Second, by partitioning unique from shared variance, the study shows that omnibus model fit can substantially overstate the independent reach of any single channel, encouraging future media-effects models to report commonality alongside coefficients. Third, the results bridge consumer-behaviour and religiosity literatures, suggesting that adoption of a faith-linked

practice can follow the same endorser-driven dynamics documented for secular products, while remaining embedded in identity and piety meanings specific to the Pakistani context (Sohail et al., 2023).

### ***5.2 Practical and policy implications***

For modest-fashion brands and retailers operating in Pakistan and comparable markets, the strategic implication is direct: allocate disproportionate effort to credible endorser and influencer partnerships rather than to undifferentiated multi-channel spend, and select endorsers for trustworthiness and audience identification rather than reach alone. For faith communicators and educators concerned that commercialization dilutes the hijab’s devotional meaning, the same lever applies in reverse credible role models, not broadcast volume, most effectively shape understanding of the practice. For media-literacy policy, the dominance of endorsement underscores the value of equipping young women to recognize persuasive intent and meaning-transfer in influencer content, supporting autonomous rather than pressured adoption decisions.

## **6. LIMITATIONS AND FUTURE RESEARCH**

Several limitations bound these conclusions. First, the cross-sectional, single-city convenience sample constrains causal and generalizing claims; the model identifies association, not direction, and Karachi women may not represent Pakistan’s diverse regions and rural-urban divide. Second, the analytic sample ( $N \approx 199$ ) left the smaller channel effects underpowered, and the minor case-count discrepancy in the source reporting should be resolved in replications. Third, the instrument used short, two-to-three-item scales; item-level descriptive statistics, subscale reliabilities, and the inter-construct correlation matrix were not recoverable from the available output and could not be reported. Future studies should publish these in full, along with confirmatory factor analysis of the

measurement model. Fourth, self-report exposure measures are susceptible to social-desirability and recall biases, particularly for a religiously salient behaviour.

Future work should (a) move to longitudinal or experimental designs that manipulate endorser credibility and identification to establish causality; (b) recruit larger, multi-region probability samples powered to detect small channel effects; (c) model mediators (e.g., perceived endorser credibility, religiosity, fashion-consciousness) and moderators (age cohort, urbanicity) using structural-equation or relative-weights analysis; and (d) incorporate platform-native behavioural traces (e.g., engagement with hijab content) to complement self-report. Comparative designs across Muslim-majority and Muslim-minority settings would further test the generality of the personification-over-exposure thesis.

## 7. CONCLUSION

Media shape hijab adoption among urban Pakistani women, but unevenly. A four-channel model explained a third of the variance in adoption, with a large overall effect yet that explanatory power was concentrated almost entirely in celebrity endorsement, which alone supplied over four-fifths of the uniquely attributable variance. Digital, print, and electronic exposure mattered mainly as overlapping, ambient context, and the design lacked the sensitivity to confirm their smaller independent effects. The headline is therefore not that “media influence veiling,” but that credible, personified persuasion does. Recognizing this distinction and reporting unique versus shared influence with appropriate effect sizes and power offers a more honest and more actionable account of how the modern media environment moves the veil.

## REFERENCES

American Psychological Association. (2020). *Publication manual of the American*

*Psychological Association* (7th ed.).  
<https://doi.org/10.1037/0000165-000>

Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology*, 3(3), 265–299.  
[https://doi.org/10.1207/S1532785XMEP0303\\_03](https://doi.org/10.1207/S1532785XMEP0303_03)

Baynal, F. (2026). Uncovering the hijab among Turkish women: The impact of social media and an analysis through social and cultural capital. *Religions*, 17(1), 41.  
<https://doi.org/10.3390/rel17010041>

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159.  
<https://doi.org/10.1037/0033-2909.112.1.155>

Dataintel. (2026). *Global Islamic clothing market research report 2026–2034*. Dataintel Research.

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.

Grand View Research. (2024). *Halal fashion market size, share and trends analysis report, 2024–2030*. Grand View Research.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Handranata, Y. W., & Kalila, S. (2025). Attitude toward fashion influencers and its impact on purchase behavior: The roles of brand attitude and purchase intention. *Frontiers in Communication*, 10, 1583602.  
<https://doi.org/10.3389/fcomm.2025.1583602>

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion: Psychological*

- studies of opinion change. Yale University Press.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509-523. <https://doi.org/10.1086/268109>
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310-321. <https://doi.org/10.1086/209217>
- Nimon, K. F., & Oswald, F. L. (2013). Understanding the results of multiple linear regression: Beyond standardized regression coefficients. *Organizational Research Methods*, 16(4), 650-674. <https://doi.org/10.1177/1094428113493929>
- Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, 19(3), 39-52. <https://doi.org/10.1080/00913367.1990.10673191>
- Saimassayeva, A., Abdiraiymova, G., & Burkhanova, D. (2025). Hijab research trends: A bibliometric analysis over 20 years using Scopus database. *Cogent Social Sciences*, 11(1), 2478324. <https://doi.org/10.1080/23311886.2025.2478324>
- Salem, M. Z. (2024). The effect of celebrity endorsement on consumers' purchase intentions: A study of the fashion industry. In R. Khamis & A. Buallay (Eds.), *AI in business: Opportunities and limitations (Studies in Systems, Decision and Control, Vol. 516)*, pp. 357-369. Springer. [https://doi.org/10.1007/978-3-031-49544-1\\_31](https://doi.org/10.1007/978-3-031-49544-1_31)
- Schouten, A. P., Janssen, L., & Verspaget, M. (2020). Celebrity vs. influencer endorsements in advertising: The role of identification, credibility, and product-endorser fit. *International Journal of Advertising*, 39(2), 258-281. <https://doi.org/10.1080/02650487.2019.1634898>
- Sohail, S., Anjum, G., & Aziz, M. (2023). Hijab and enclotted cognition: The effect of hijab on interpersonal attitudes in a homogenous Muslim-majority context. *Cogent Psychology*, 10(1), 2219084. <https://doi.org/10.1080/23311908.2023.2219084>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics (7th ed.)*. Pearson.

## APPENDIX A. SURVEY INSTRUMENT

*Demographics:* Name (optional), Age, Income, Occupation. All construct items used a five-point Likert response (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

### Digital media

1. The trend of hijab is growing with the help of digital media.
2. Increase in hijab fashion on digital media leads to increase in wearing hijab.
3. Digital media made hijab a fashion statement.

### Electronic media

4. Electronic media is helping in promoting hijab all over the world.
5. Electronic media is helping in spreading the knowledge and importance of hijab.

### Print media

6. Print-media advertisement positively impacts hijab adoption.
7. Fashion designers should showcase their skills in hijab through print media.
8. The content in print media can create a positive impact on women to wear hijab.

### Celebrity endorsement

9. Celebrities wearing hijab with style influence the hijab-wearing of women.
10. Celebrities promoting hijab have the correct concept of hijab.
11. Celebrities wearing hijab motivate non-hijabis to wear hijab.

### Hijab adoption

12. The hijab is a fashion item.
13. Wearing the hijab enhances a woman's beauty.
14. Wearing hijab is a personal choice or adopted from family/close surroundings.

