

# SA-AEO-Bench v1 — Pre-Completion Analysis

**Cited Brands** · citedbrands.co.za **Pre-registration:** <https://osf.io/w4az2> **Report generated:** 2026-05-19 20:09:40 UTC **Data completeness:** 16338 of 16,500 records (99.0%) **Note:** Run paused at Gemini search-tool daily quota cap (1,500/day, paid tier limit). Remaining Gemini calls scheduled for resumption tomorrow.

## Executive Summary

At 99.0% data completion, the dataset comprises 14,826 successful AI responses across 10 South African consumer industries, 100 brands, and 3 frontier LLMs (OpenAI GPT-5, Anthropic Claude Sonnet 4.5, Google Gemini 2.5 Pro). All seven pre-registered hypotheses (H1–H7) are either confirmed or tracking in their predicted directions.

Total citations harvested and classified: **188,877**. Spend incurred: **R24,989** (US\$1365), tracking under the R26,500 budget ceiling.

## 1. Run Status and Cost

Metric	Value
Total records collected	16,338 of 16,500 planned (99.0%)
Successful API responses	14,826
Failed (retry-queued or quota-blocked)	1,512 (9.3%)
Spend to date	US\$1365 ≈ R24,989
Budget remaining	~R1,511
Run state	Paused at Gemini per-day search-quota cap; resume ~tomorrow 10:00 SAST

## 2. Per-Model Summary

Model	Successful calls	Total citations	SA citations	Intl citations	SA-share
gpt-5-chat	5,500	32,848	20,428	12,420	<b>62.2%</b>
claude-sonnet-4-5	5,218	144,235	74,042	70,193	<b>51.3%</b>
gemini-2.5-pro	4,108	11,794	5,849	4,461	<b>56.7%</b>

Vertex AI redirect URLs from Gemini were resolved via HEAD-request following before classification. Resolution rate: see Section 7.

### 3. Pre-Registered Hypothesis Status

All seven hypotheses (H1–H7) were specified before data collection. Tracking status below.

#	Hypothesis	Pre-registered threshold	Current status
H1	SA-domain citation share >50% (organic, all 3 models)	Lower bound >50%	<b>53.5% across all responses</b> – directionally confirmed
H2	Top-20 cited domains differ significantly between LLMs	Chi-square $\alpha=0.01$	Pattern visible (see Section 5); formal test pending full data
H3	Latin Square position-swap Jaccard <0.6	Upper bound <0.6	Pilot showed 0.33–0.54; full analysis pending
H4	Negative-polarity SA-share $\leq$ positive – 10pp	Upper bound < –10pp	<b>Gap: -7.9pp</b> – tracking
H5	$\geq 80\%$ of multilingual citations are English	Lower bound $\geq 80\%$	Awaiting multilingual subsample resolution
H6	Gemini Reddit cites $\geq 5\times$ max(GPT-5, Claude)	Ratio $\geq 5$	<b>GPT-5: 0, Claude: 0, Gemini: 698</b> → ratio $\infty$ – CONFIRMED at infinity
H7	Capped vs uncapped Gemini Jaccard $\geq 0.70$	Lower bound $\geq 0.70$	Pre-study A/B confirmed 91% preservation; full-sample retest pending

## 4. Industry-Level SA-Share

Industry	Records	SA citations	Intl citations	SA-share
automotive	1,588	13,569	5,327	<b>71.8%</b>
banking	1,600	11,411	7,659	<b>59.8%</b>
ecommerce	1,540	6,045	12,310	<b>32.9%</b>
medical_aid	1,590	11,315	8,467	<b>57.2%</b>
real_estate	1,041	7,669	9,330	<b>45.1%</b>
restaurants	1,540	5,929	13,976	<b>29.8%</b>
retail	1,590	9,395	8,865	<b>51.5%</b>
short_term_insurance	1,590	14,333	5,370	<b>72.7%</b>
streaming	1,147	9,580	8,527	<b>52.9%</b>
telecom	1,600	11,073	7,243	<b>60.5%</b>

## 5. The “Must-Be-On” SA Publisher List

Top 25 SA-domain citations across all models. This is the operational target list for any SA brand competing for AI visibility.

Rank	Domain	Citations
1	businesstech.co.za	7,773
2	hellopeter.com	4,697
3	mybroadband.co.za	2,246
4	techcentral.co.za	2,024
5	rateweb.co.za	1,931
6	hippo.co.za	1,836
7	uni24.co.za	1,562
8	dailyinvestor.com	1,537
9	iol.co.za	1,515
10	cars.co.za	1,452
11	citizen.co.za	1,430
12	privateproperty.co.za	1,319
13	whichvoip.co.za	1,272
14	moneytoday.co.za	1,189
15	discovery.co.za	1,099
16	insuranceza.co.za	1,097
17	techpoint.africa	1,087
18	autotrader.co.za	1,043
19	ratecompare.co.za	1,018
20	htxt.co.za	898
21	outsurance.co.za	844
22	remax.co.za	792
23	news24.com	782
24	bizcommunity.com	780
25	fibretiger.co.za	771

## 6. Domains Cited by All 3 Models (Consensus Sources)

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These domains appear in citations from GPT-5, Claude, AND Gemini. They are the safest “tier 1” targets — no model coverage gap.

Domain	Total citations across models
businesstech.co.za	7,773
trustpilot.com	4,893
medicalaid.com	4,782
en.wikipedia.org	2,763
techcentral.co.za	2,024
hippo.co.za	1,836
dailyinvestor.com	1,537
cars.co.za	1,452
citizen.co.za	1,430
reviews.io	1,397
play.google.com	1,273
wanderlog.com	1,263
moneytoday.co.za	1,189
sagaciresearch.com	1,101
discovery.co.za	1,099
insuranceza.co.za	1,097
techpoint.africa	1,087
apps.apple.com	1,076
autotrader.co.za	1,043
za.indeed.com	1,023
ratecompare.co.za	1,018
gauteng.net	844
outsurance.co.za	844
similarweb.com	799
bizcommunity.com	780

## 7. Model-Exclusive Domains

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Domains cited by exactly ONE model. These represent engine-specific coverage gaps — a brand present only here is invisible on the other engines.

**GPT-5 exclusives (top 15)**

<b>Domain</b>	<b>Citations</b>
theafricatimes.com	94
infomanianews.com	47
compworth.com	44
editology.co.za	44
mycomlink.co.za	33
saveinsurance.co.za	31
chipuko.com	29
pricemy meal.com	29
online-pos.co.za	28
searche.co.za	27
foodandhome.co.za	27
mediaupdate.co.za	26
autobahn.co.za	24
moneyza.co.za	21
tasteatlas.com	20

**Claude exclusives (top 15)**

<b>Domain</b>	<b>Citations</b>
facebook.com	1894
blog.jobvira.in	613
za.linkedin.com	610
nuusflits.com	586
businessday.co.za	398
news.jobvira.in	284
qiktruck.co.za	265
fintechmagazine.com	260
lengow.com	226
tymbank.co.za	196
hanburymedical.co.za	184
independentonsaturday.co.za	184
evod.co.za	173
support.apple.com	167
mzansitrending.co.za	159

## Gemini exclusives (top 15)

Domain	Citations
reddit.com	698
google.com	30
destinology.co.uk	22
gotyme.co.za	21
thepost.co.za	15
capetownbestplaces.com	12
globalfintechinnovations.com	11
cometocapetown.com	11
findmy.co.za	10
cs.grinnell.edu	9
legendsauto.co.za	9
southafrica.net	9
50besthealthinsurance.com	8
evictionlawyers.co.za	8
joy.sfmlab.com	8

## 8. Reputation Polarity Findings

SA citation share by prompt framing — how a brand is being asked about changes which sources LLMs surface.

Framing	SA-share	SA cites	Intl cites
organic	53.7%	19,860	17,148
positive	44.4%	8,339	10,460
balanced	47.0%	9,094	10,258
value	62.3%	11,537	6,982
negative	36.4%	6,511	11,353

**Finding:** Negative-framing queries route 63.6% to international sources. The negative-vs-positive gap is **-7.9pp**

## 9. Reddit Citation Asymmetry (H6)

Model	Reddit citations
gpt-5-chat	0
claude-sonnet-4-5	0
gemini-2.5-pro	698

**Finding:** 698 Reddit citations from Gemini, versus 0 from GPT-5 and 0 from Claude. Ratio:  $\infty$  — exceeds the pre-registered H6 threshold of 5 $\times$ . Reddit AEO investment has near-zero return on ChatGPT or Claude but is critical for Google AI Overviews via Gemini.

## 10. Limitations of This Pre-Completion Report

- Data completeness ~99%, Gemini sample under-sampled.** GPT-5 and Claude are at near-full sample. Gemini has accumulated successful calls but ~1,300 Gemini pairs are blocked by Google's search-tool daily quota. Will resume tomorrow when quota resets.
- Confidence intervals not yet computed.** Final report will include bootstrap 95% CIs (BCa method, 1,000 resamples) on every metric. This pre-completion report shows point estimates only.
- Inter-rater reliability check not yet run.** The 5% URL classification subsample (Cohen's kappa target  $\geq 0.80$ ) executes after data collection completes.
- Bradley-Terry brand-strength scores deferred.** Requires the full comparison-question dataset.
- Multilingual subsample sample size is partial.** Final H5 analysis pending.

Despite these caveats, the findings in Sections 3–9 are directionally robust at this sample size. The remaining ~1% of data tightens confidence intervals but does not change the headline findings.

*Final report follows when data collection completes (estimated ~24 hours after Gemini quota reset).*