

Why Method Matters: A Systematic Review and Meta-analysis of the Marketing Capability–Performance Relationship

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Supplementary Materials

Table S1. Database search strategy and filters.

Datab ase	Platform / Provider	Search date	Time window	Search string (as entered)	Fields searched	Filters applied	Records retrieved
Scopus	Elsevier Scopus	15 March 2025	2000– 2025	TITLE-ABS- KEY("marketing capability*" AND "performance")	Title, abstract, keywords	Subject area: Business, Management and Accounting; Document type: Article; Access type: All Open Access; Years: 2000–2025 Fields of Research (ANZSRC 2020): 35 Commerce, Management, Tourism and Services; Publication type: Article; Access type: Open Access; Years: 2007–2025	133
Dimen sions	Dimensio ns.ai	18 March 2025	2007– 2025	"marketing capability*" AND "performance"	All fields (default)		418

Table S2. Screening and selection log.

Stage	Description	Records (n)	Notes
Identification	Records identified through database searching (Scopus and Dimensions)	551	133 from Scopus, 418 from Dimensions
Deduplication	Duplicates removed	76	Based on title, authors, year, and DOI where available
Screening	Records screened by title and abstract	475	After removing duplicates
Exclusion at screening	Records excluded at title–abstract stage	346	Not marketing capability, no firm performance, conceptual pieces, or not empirical studies
Eligibility – retrieval	Full-text reports sought for retrieval	129	Full texts requested through institutional access or open sources
Not retrieved	Reports not retrievable	16	Full text unavailable or inaccessible
Eligibility – full-text assessment	Full-text reports assessed for eligibility	113	Based on predefined inclusion and exclusion criteria
Excluded at full-text stage	Reports excluded after full-text assessment	25	13 with no correlation or convertible statistic; 12 without a direct capability–performance effect
Included in synthesis	Studies included in the systematic review and meta-analysis	88	Each contributing at least one eligible effect size

Table S3. Overall and sensitivity models for the marketing capability–performance association.

Model specification	k (effects)	Estimator and test	Pooled effect (r)	95% CI (r)	Q(df)	I ² (%)	τ ²	95% prediction interval (r)	Notes
Primary random-effects model	88	DerSimonian– Laird, inverse- variance, z-test	0.439	[0.402, 0.475]	1064.7 0 (87)	91.83	0.043	[0.062, 0.707]	Primary model reported in Table 1

Model specification	k (effects)	Estimator and test	Pooled effect (r)	95% CI (r)	Q(df)	I ² (%)	τ^2	95% prediction interval (r)	Notes
Random-effects sensitivity model	88	REML, Hartung-Knapp adjustment	0.439	[0.402, 0.475]	1064.70 (87)	91.55	0.0415	Not separately reported	Confidence limits are slightly wider on the z scale but match at two decimal places on the r scale
Multilevel random-effects model	88	REML, random intercept for Study, z-test	0.486 (z scale)	[0.377, 0.595] (z scale)	1064.70 (87)	Not directly reported	0.0656 (study level)	Not reported	Accounts for clustering of effects within studies
Multilevel + robust variance estimation (CR2)	88	Multilevel rma.mv with CR2 robust standard errors	0.451	[0.354, 0.538]	1064.70 (87)	Not directly reported	0.0656 (study level)	Not reported	Cluster-robust 95% CI largely overlaps with the primary model; conclusions are unchanged

PRISMA 2020 Checklist

Table S4. PRISMA 2020 Checklist [36].

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Article Title
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 1
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Section 1, first three paragraphs
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Section 1, paragraphs starting “To address these issues, this study addresses three questions” and “Thus, the following four hypotheses were proposed”; Section 2.6 (H1–H4)
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Section 3.1, eligibility paragraphs; Section 3.4 for moderator groupings
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Section 3.1, paragraph describing Scopus and Dimensions searches and dates; Supplementary Table S1
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Section 3.1, search paragraph (core string and subdomains); Supplementary Table S1 (database-specific strings and filters)
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Section 3.1, paragraphs on screening and eligibility; statement that two reviewers screened independently; no automation tools used; Figure 1 PRISMA diagram
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Section 3.1, data extraction paragraph (variables coded, handling multiple effects, double-coding, $\kappa > 0.80$); statement that no automation tools were used
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Section 2.3 (performance outcomes); Section 3.1 (performance outcome requirements); Section 3.2 (effect size definition)
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Section 3.1 (capability specification, measurement model, market setting, CFA reporting); Section 3.4 (moderator families); note on treating non-overlapping samples as independent
Study risk of bias	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether	No formal tool applied; limitations and rationale explained in Section 5.3, first paragraph (discussion of why RoB tools for trials are not directly

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
assessment		they worked independently, and if applicable, details of automation tools used in the process.	applicable)
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Section 3.2 (Pearson correlations, Fisher-z transformation)
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Section 3.1 (eligibility and selection of primary capability–performance link per study); Section 3.4 (grouping rules for subgroups)
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Section 3.2 (conversion to Fisher’s z, handling correlations of ± 1 , combining multiple effects via Fisher-z averaging)
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Section 3.4 (subgroup summaries); Section 4 (Tables 1–5, Figures 1–4); Supplementary tables for search strings, screening log, and effect lists
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Section 3.3 (random-effects model with DerSimonian–Laird, Cochran’s Q , I^2 , τ^2 , prediction intervals, REML + Hartung–Knapp); Section 3.5 (multilevel model, robust variance estimation); implicit use of R/metafor and clubSandwich
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	Section 3.4 (subgroup analyses for construct specification, CFA reporting, market setting); Section 3.5 (small-study diagnostics, influence checks)
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Section 3.5 (leave-one-out, REML + Hartung–Knapp, multilevel + RVE, trim-and-fill)
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Section 3.5 (Egger regression, funnel plots, trim-and-fill, and their limitations)
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	No formal GRADE; narrative characterisation of certainty added in Section 5.3, first paragraph (“certainty of evidence can be characterised as moderate”)
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Section 3.1, paragraphs summarising counts at each stage; Figure 1 PRISMA flow diagram
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Section 3.1 (reasons for full-text exclusion); Supplementary Table S2 (screening log with reasons)
Study characteristics	17	Cite each included study and present its characteristics.	Section 3.1 (summary of settings and constructs); Supplementary table listing included studies and coded variables (as prepared earlier for S-tables)
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Not formally assessed; addressed narratively in Section 5.3, first paragraph

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Supplementary table with individual correlations and sample sizes (effect-size table); brief description in Section 4.1
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Section 4.1–4.4 summarise k, settings, and heterogeneity; Section 5.3 describes overall limitations and absence of formal RoB tool
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Section 4.1–4.4; Tables 1–4 (pooled r, 95% CI, Q, I ² , τ^2 , prediction intervals)
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Section 4.2–4.4 (construct specification, CFA reporting, market setting); Section 4.5 (influence diagnostics); Section 5.1 (interpretation)
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Section 4.1 (REML + Hartung–Knapp, multilevel + RVE); Section 4.5 (exclusion of influential studies; trim-and-fill findings)
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Section 4.5 (Egger test, trim-and-fill) and Section 5.3 (limitations of publication-bias tools under heterogeneity)
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Section 5.3, first paragraph (moderate certainty, caveats on causality and heterogeneity)
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Section 5.1 and 6.1, with references to related meta-analyses (market orientation, dynamic capabilities)
	23b	Discuss any limitations of the evidence included in the review.	Section 5.3, first and second paragraphs
	23c	Discuss any limitations of the review processes used.	Section 5.3, end of second paragraph (no formal RoB or outcome-type moderator; restriction to journals)
	23d	Discuss implications of the results for practice, policy, and future research.	Sections 5.2, 6.2, and 6.3
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Section 3.1, first paragraph (“not prospectively registered”)
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Section 3.1, first paragraph (protocol available from authors on request)
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Section 3.1, first paragraph (no deviations from protocol)
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Funding statement (“This research received no external funding”)
Competing	26	Declare any competing interests of review authors.	Conflicts of Interest statement (“no conflicts of interest”)



PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
interests			
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Data Availability Statement (“data available upon request”); analytic code not yet shared publicly