



# Transparency of reporting practices in quantitative field studies: The transparency sweet spot for article citations

Matthias Weiss<sup>a,\*</sup>, Lakshmi B. Nair<sup>b</sup>, Bareerah H. Hoorani<sup>a</sup>, Michael Gibbert<sup>c</sup>,  
Martin Hoegl<sup>d</sup>

<sup>a</sup> Nijmegen School of Management, Radboud University, Heyendaalseweg 141, 6525 AJ Nijmegen, the Netherlands

<sup>b</sup> Department of Business and Management, LUISS Guido Carli University, Viale Romania, 32, 00197 Roma, Italy

<sup>c</sup> Faculty of Communication, Culture and Society, University of Lugano, Via Buffi 13, 6900 Lugano, Switzerland

<sup>d</sup> Institute of Leadership and Organization, Ludwig-Maximilians-Universität München, Geschwister-Scholl-Platz 1, 80539 München, Germany

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## ABSTRACT

Intuitively, there would appear to be a direct positive link between the transparency with which research procedures get reported and their appreciation (and citation) within the academic community. It is therefore not surprising that several guidelines exist, which demand the reporting of specific features for ensuring transparency of quantitative field studies. Unfortunately, it is currently far from clear which of these features *do* get reported, and how this affects the articles' citations. To rectify this, we review 200 quantitative field studies published in five major journals from the field of management research over a period of 20 years (1997–2016). Our results reveal that there are significant gaps in the transparent reporting of even the most basic features. On the other hand, our results show that copious reporting of transparency is productive only up to a certain degree, after which more transparent articles get cited less, pointing to a 'transparency sweet spot' that can be achieved by reporting mindfully.

## 1. Introduction

Transparency, that is, the degree to which relevant information is shared with stakeholders (Pirson & Malhotra, 2011), matters in research methodology. In order to appreciate a study's results, and to successfully integrate them into the body of scholarly knowledge, they need to be transparently relayed (Aguinis et al., 2010; McGrath et al., 1982; Miguel et al., 2014). Transparency thereby constitutes a prerequisite for evaluating the rigor (i.e., the quality of research) and ethicality of research: without clarity about key characteristics of the sample, the data, the study design, and the applied methods of analysis, rigor parameters such as validity and replicability (e.g., Aguinis et al., 2018; Cook & Campbell, 1979), as well as ethical aspects such as code compliance and the fair treatment of study participants (Frechtling & Boo, 2012; Greenwood, 2016; Wallace & Sheldon, 2015), are difficult to assess. The lack of transparency is also linked to questionable research practices (Aguinis et al., 2017; Fanelli, 2013; Linder & Farahbakhsh, 2020), precisely because such a lack hinders an appraisal of a given study's rigor and replication (Banks et al., 2016; Köhler & Cortina, 2021; Miguel et al., 2014; Nosek et al., 2015).

While the rigor of research procedures has been studied for decades (Daft & Lewin, 2008; García et al., 2019), transparency has only recently received the required attention (Aguinis et al., 2018; Aguinis & Solarino, 2019). This lack of attention seems surprising, since transparency is a key element in the process of generating and integrating scholarly knowledge, which also includes the future

\* Corresponding author.

E-mail address: [matthias.weiss@ru.nl](mailto:matthias.weiss@ru.nl) (M. Weiss).

interpretation and appreciation of research findings. As emphasized recently by DeCelles et al. (2021, p. 1009), “this process can only work when authors are transparent about their research process—being open about how they completed their studies, how the research progressed and changed, and explain their analyses and results accurately”.

An empirical investigation of actual reporting practices pertaining to transparency is therefore much needed, as it would provide authors, reviewers, and editors with actionable and evidence-based recommendations for improving reporting practices and would meaningfully complement extant theoretical and normative work on the methodological features that scholars doing quantitative field studies are recommended to report (e.g., Aguinis et al., 2018; APA, 2008; Eby et al., 2020). Moreover, we currently do not know what the consequences of transparent reporting or its lack thereof are in terms of scholarly reception of published studies. In contrast to many other attributes of manuscripts and their relationship with the number of citations received (e.g., Adam, 2002; Antonakis et al., 2014; Stremersch et al., 2007), there is currently no understanding of the link between transparency and article citation counts. However, it is important to know about the consequences of transparent reporting and whether there is a potential link with the citation counts. The scholarly community deserves to know whether being transparent might represent an asset or a liability. The question here is - Do scholars tend to build their work on articles which are more transparent or less so? To tackle these research gaps, this study will focus on two key research questions, specifically, (1) how transparent are the reporting practices in empirical research and (2) what is the relationship between the transparent reporting of an empirical study and the extent to which a study is appreciated in the academic community as indicated by its article citations?

To address these research questions, we focused on quantitative field studies, which represent a substantial share of empirical research in many disciplines. We specifically chose the management discipline as our context, where quantitative field studies represent a dominant empirical methodology. We investigated a random sample of 200 articles published in five leading management journals over an extended period (1997–2016). We specifically focused on top-tier journals in management research since they supposedly showcase the *crème de la crème* of this discipline. The results of our study thus reveal what ‘passes’ reviewers’ and editors’ value systems in terms of reporting (and thus reflects *de facto* reporting standards). By doing so, we hold up a mirror to quantitative field researchers as well as journal reviewers and editors by identifying *actual* reporting practices and linking an article’s transparency to its recognition and appreciation in the academic community (in terms of the citations of the published article over time).

In the past, several antecedents of article citations, other than transparency, were examined, including clarity, coherence, structure, methodological rigor, readability, titles, authors and their affiliations, as well as the influence of the journal or type of issue in which it has been published (e.g., Ante, 2022; Conlon et al., 2006; Cui et al., 2021; Flickinger et al., 2013; Haslam et al., 2008; Hoorani et al., 2019; Nair & Gibbert, 2016; Xie et al., 2022). Understanding the relationship between transparency and article citation count is relevant for comprehending whether higher transparency is actually appreciated in the scholarly community, as would be reflected by higher citation counts. An important contribution that our article makes in this regard is therefore that, while transparency is crucial for garnering citations, the positive relationship between transparency and citations only holds to a certain threshold after which it becomes negative. This challenges the existing understanding that more transparency leads to more citations, which we call the ‘transparency sweet spot’.

## 2. Transparency in field studies

Regarding reporting practices in academic research, transparency can be specifically defined as “the degree of detail and disclosure about the specific steps, decisions, and judgment calls made during a scientific study” (Aguinis et al., 2018, p. 90). In our case, stakeholders are those involved in the decision to publish an article (i.e., reviewers, editors) as well as the readers of the published article (Aguinis et al., 2019, 2010; Northcraft & Tenbrunsel, 2011). These stakeholders usually depend on the author to report the relevant information regarding the procedures of empirical field and laboratory studies. Naturally, only what gets reported can be assessed, so transparency constitutes the fundamental prerequisite for assessing the quality (i.e., rigor) of a study (Banks et al., 2016). It is also important to note the power distance between two groups of stakeholders: those involved in the decision to publish an article (i.e., the reviewers and editors) could at least exert some influence on authors to provide (more) relevant information (Green et al., 2016; Nair & Ascani, 2022; Northcraft & Tenbrunsel, 2011; Zhang et al., 2022). The second group of stakeholders, the actual consumers of the published article, lack this option (Aguinis et al., 2010; Nair, 2020). Ultimately though, both groups of stakeholders depend upon the transparency of a given article to appropriately interpret, appreciate, and (perhaps) even approve of its results by integrating them into the existing body of scholarly research as reflected by citations (Cook & Campbell, 1979).

Note that transparency, as defined here, refers to *whether* certain methodological procedures are reported in an article, rather than *what* these procedures report (which lies in the realm of rigor). As such, transparently reporting methods and data properties constitutes a necessary prerequisite for allowing readers to evaluate the rigor of a specific field study, and thus the validity of its findings (Aguinis et al., 2018; Cook & Campbell, 1979; Finnegan et al., 2016). To illustrate, consider an article presenting the results of a quantitative field study: to operationalize transparency, we need to know whether the authors of this article report reliability coefficients for the variables used. Assessing rigor would then entail evaluating the reported levels of variable reliability, which is beyond the scope of this study. In the following section, we will outline important features which, in the interest of transparency, can be expected to be reported (AERA, 2006; Aguinis et al., 2018; Eby et al., 2020; Hancock & Mueller, 2010; Sterba et al., 2011; Turk et al., 2018; Wilkinson, 1999). These features were derived from the valuable and plentiful work mentioning and explaining key methodological features that are recommended for disclosing in field studies (see overview in Table 1). We want to emphasize that considering study features as being important to be reported is not imposing any prescriptive requirement as to how this feature should be designed (i.e., the *what* of reporting) and thereby does not compromise desirable methodological plurality and epistemological diversity (Symon et al., 2018). More standardized reporting criteria do not imply standardizing research methods as such and it should

**Table 1**  
Literature on transparency and reporting practices in quantitative field studies.

Author(s), Year	Title	Outlet
Aguinis et al. (2018)	What you see is what you get? Enhancing methodological transparency in management research	<i>Academy of Management Annals</i>
APA (2008)	Reporting standards for research in psychology: Why do we need them? What might they be?	<i>American Psychologist</i>
Eby et al. (2020)	Methodological checklists for improving research quality and reporting consistency	<i>Industrial and Organizational Psychology</i>
Green et al. (2016)	Getting through the gate: Statistical and methodological issues raised in the reviewing process	<i>Organizational Research Methods</i>
Hancock and Mueller (2010)	The reviewer's guide to quantitative methods in the social sciences	<i>Book</i>
Stone and Shiffman (2002)	Capturing momentary, self-report data: A proposal for reporting guidelines	<i>Annals of Behavioral Medicine</i>

be understood that in some specific situations or contexts further features might also gain such importance. In this case, we focused on a quite generic set of features that is likely to be relevant for most quantitative field studies and their interpretation, regardless of the peculiar context and topic of the study.

In quantitative field studies, the features which should be reported according to existing manuals and guidelines, can be grouped in three major categories: (1) setting as well as practices of data collection, (2) variable measurement and properties of the collected data, and (3) data analysis and its results for causal inference. For many features within these categories, we find certain quantifiable indicators, as well as predefined thresholds or rules of thumb. These thresholds are usually derived from statistical theory, or experience (or both), even though their use and specific values are not always consistent or well founded (Lance & Vandenberg, 2009; LeBreton & Senter, 2008). Regardless of such inconsistencies, the idea behind most of these features is to provide quantified information about the data collection, the dataset, and the data analysis, which can thereafter be compared to any predefined critical value to provide 'hard' indicators for the results' validity.

Reporting certain key features of the data collection process in quantitative field studies primarily serves the purpose of providing readers with information about the setting of the study (Wilkinson, 1999). This includes information on the business context in which the field study was conducted, such as the specific industry, geographical area, and time in which data was collected. Moreover, detailed information about the context in which the data were collected as well as the specific sample entities and respondents targeted in data collection, can be reported here (Aguinis et al., 2019). Ideally, information on the study setting is accompanied by the rationale behind its selection and any underlying theoretical considerations. Other features in this category correspond to the actual data collection process, namely the reporting of information concerning circumstances (e.g., the response rate) and the methods used to collect the data (Aguinis et al., 2019; Weigold et al., 2013).

Reporting features related to data properties allows the evaluation of the realized sample (Wilkinson, 1999). Besides the information about the setting of the study, additional information about the attributes of the selected cases can be included. For example, authors can mention the size and type of firms or teams, and the demographics of the respondents. This information is helpful in assessing the representativeness of the sample and allows for a better interpretation of the results. Furthermore, features that provide information about the general properties of the data are expected to be reported here (Wilkinson, 1999). Some examples include correlation tables showing interrelations between variables included in the study, descriptive data, information on the presence of outliers and missing data, as well as properties of the instruments used to measure the variables that allow the assessment of reliability and construct validity of the used measures (Aguinis et al., 2018; Berchtold, 2019; Gibbert et al., 2021).

The third category of features concerns information on data analysis and its results (APA, 2008; Sterba et al., 2011). This category includes all the information on the statistical analyses used to test hypotheses, which constitutes the foundation of the conclusions drawn in the article, and is therefore important for the assessment of the results' interpretation. It is particularly crucial to provide confidence that the analyses have been executed transparently so that appropriate conclusions can be drawn from these results (Cook & Campbell, 1979), which calls for features such as reporting information on error terms or the use of control variables (Aguinis et al., 2010; APA, 2008; Bernerth & Aguinis, 2016).

### 3. Methods

#### 3.1. Sample

To address the above-mentioned research gaps and to assess the state-of-the art of article transparency as well as its influence on article citations, we focus on the field of management studies. We chose management studies, given that quantitative field studies represent one of the most frequently applied empirical approaches in this field. Moreover, in this study, we focused on a set of five top-tier management journals that publish articles reporting field studies. This selection is based on previous work rating the impact of management journals (Gomez-Mejia & Balkin, 1992; Podsakoff et al., 2005; Tahai & Meyer, 1999), as well as on recent statistics of journal impact ratings from the SSCI Journal Citation Reports. The journals were *Academy of Management Journal*, *Administrative Science Quarterly*, *Journal of Management*, *Organization Science*, and *Strategic Management Journal*. Top-tier journals set the benchmark within a discipline, and it is widely accepted that articles published in these journals generally are of high quality and rigor. Since top-tier journals by definition are thus expected to publish high quality, rigorous studies, we focused on these journals to rule out

**Table 2**  
Sample description.

	Quantitative Field Studies
Academy of Management Journal	42
Administrative Science Quarterly	35
Strategic Management Journal	42
Organization Science	41
Journal of Management	40
Total	200

**Table 3**  
Codes for transparency of quantitative field studies.

Category	Transparency codes	Relevant literature
Data collection	1. Description of access to collected data provided 2. Rationale for data selection provided 3. Description of data collection approach provided 4. Information on study context provided 5. Voluntariness of participation mentioned 6. Response rate given 7. Formal definitions for all focal variables provided 8. All items used in the study provided 9. Source/development of scales and items mentioned	(AERA, 2006; Aguinis et al., 2018; APA, 2008; Church, 2001; Finnegan et al., 2016; Miller et al., 2013; Sterba et al., 2011; Stone & Shiffman, 2002; Weigold et al., 2013; Wilkinson, 1999)
Data properties	10. Information on sample provided 11. Presence/absence of missing data indicated 12. Rationale for all control variables provided 13. Information on interrater reliability/agreement given 14. Descriptive statistics provided 15. Correlations between study variables provided 16. Variable reliability indicated 17. Presence/absence of outliers indicated	(AERA, 2006; Aguinis et al., 2013, 2018; APA, 2008; Atinc et al., 2012; Bernerth & Aguinis, 2016; Bliese, 2000; Gibbert et al., 2021; Hinkin, 1995; Wilkinson, 1999)
Data analysis and results	18. Unit of analysis explicitly indicated 19. Standard errors or equivalent values given 20. One vs. two-tailed significance testing indicated	(AERA, 2006; Aguinis et al., 2018; APA, 2008; Cook & Campbell, 1979; Wilkinson, 1999)

systematic confounding effects of article quality and rigor on article citations. This is because ‘better’ and more rigorous articles might also be more likely to be transparent, and thus actually rigor and quality might drive citation counts. In the topflight journals chosen, we expect that (irrespective of some rare and random exceptions) all published articles undergo a rigorous review process, which results in a very high threshold of published articles in terms of quality and rigor, especially regarding their perceived quality and rigor.

As a next step, we manually searched through these journals for quantitative field studies. In this manual search, we looked through abstracts and full texts of the articles in the respective journal issues to identify quantitative field studies based on the empirical approach reported in the articles. We checked whether the collected data was quantitative in nature and whether samples were drawn from real world settings (vs. laboratory or fictitious settings). This search covered the period from 1997 to 2016, which on one hand represents a period long enough to provide the opportunity to control for or examine any time effects regarding the analyzed relationships. On the other hand, as per prior studies which suggested that a longer post-publication period allows for the accumulation of citations (Walters, 2011), our sample time period also allows for meaningful analyses of article citation counts.

Following related prior research (Judge et al., 2007) and to achieve sufficient power for our statistical analyses, we selected 200 articles reporting quantitative field studies, at an average of 40 per journal. For the sake of transparency of the research procedures employed in our analysis, we show a more detailed description of the sampled articles in Table 2.

### 3.2. Measures and data extraction

**Transparency.** To identify a meaningful set of features that are expected for reporting quantitative field studies, we looked through manuals, textbooks, and journal articles on quantitative research methodology (e.g., Aguinis et al., 2018; APA, 2008; Cook & Campbell, 1979; Hancock & Mueller, 2010; Nosek et al., 2015; Sterba et al., 2011). From these sources, we created a list of features recommended for reporting quantitative field studies. The complete set of features relevant for transparent reporting of quantitative field studies resulting from this two-stage approach is shown in Table 3.

To obtain the data on transparency, we extracted information about the features listed in Table 3. In line with our approach and definition of transparency, our primary concern in this regard was *whether* each of these features was reported transparently. Thus, we consciously abstained from coding *what* was reported (e.g., the specific values or rationales). Thus, all the codes relating to transparency represented dichotomous variables (yes/no), indicating whether the respective feature was reported or not. For example, the item “Was the presence/absence of outliers explicitly mentioned?” was assigned with a score of 1 if this information was reported, and 0 if the authors did not report it.

In addition to coding the single transparency features, we calculated an overall transparency score for each article in our sample. It is important to note that the individual transparency features are not universally applicable to all field studies; some are conditional on the studies' specific research designs. We therefore based the computation of the percentage of applicable features that were actually reported on each study's specific research design. For example, in studies using multiple respondents from the same unit of analysis, such as teams, it is relevant to report the level of agreement between these representatives of the same entity (LeBreton & Senter, 2008; Maynard et al., 2021), while this does not apply for studies gathering information on the study variables from single key informants or for studies using individuals as the focal units of analysis. For further robustness checks of our results, we created two separate indices to measure the transparency of an article. The mean index is a simple arithmetic mean of the relevant transparency features in each article. In contrast, the second index is a 'robust index', which we formulated via Item Response Theory (IRT; de Boeck & Wilson, 2004). IRT is a statistical analysis that has its roots in the field of psychology and education, the purpose of which is to measure latent features of the respondent via response items (Foster et al., 2017; Hambleton et al., 1991). In our research, we saw the transparency of a paper as a latent characteristic that can be measured by the codes generated on transparency (aka. transparency features), which were considered as items or observable indicators. By using, IRT, we predicted the probability that an article will report a certain transparency feature. To measure our latent variable transparency, we used the one parameter model (de Boeck & Wilson, 2004). We normalized the robust index by applying the min-max scaling to scale so that the values of the index fell between 0 and 1, where '0' represents absence of transparency and '1' represents full transparency.

**Article Citations.** Studying article citation counts represent an established and frequently used approach (Adam, 2002; Antonakis et al., 2014; Stremersch et al., 2007). To operationalize article citations, we used the number of citations that accumulated for each article until May 2020. We utilized the ISI Web of Knowledge for obtaining data on citation counts. All citation data were collected on the same day to avoid distortions due to the steady growth of citation counts.

**Control Variables.** We controlled for the journal in which the articles were published, by applying six dummy variables each representing a journal in our sample (with *Administrative Science Quarterly* as the reference group). Moreover, in our analyses regarding the relationship between article transparency and citations, we included the core author and article attributes as specified in previous studies on related topics (e.g., Judge et al., 2007) in all equations, since these attributes of authors and articles have also been shown to be directly related to article citations in prior studies (Conlon et al., 2006; Cui et al., 2021; Haslam et al., 2008; Stremersch et al., 2007; Xie et al., 2022). Specifically, we included the following author attributes that might have an influence on how transparent an article is: Number of authors, gender of first author (coded 0 for male and 1 for female), gender ratio within the author team, author prominence (highest H-Index among the authors of an article), top affiliation of at least one author (based on the internationally recognized Shanghai Ranking of world universities, coded 1 for affiliations representing the top 25 institutions in this list and coded 0 for no affiliation to these top 25 institutions), and geographical location of first author's affiliation using dummy codes for continents: North America, Europe, Asia, Oceania (with North America as reference group). With regard to the article attributes that might influence its transparency, we incorporated the following variables in our models: Article age (number of years since publication), article length (number of pages), publication in special issue versus publication in a regular issue (coded 0 for regular issue and 1 for special issue), article type: research note versus regular article (coded 0 for regular article and 1 for research note), article position in the issue (coded 1 for first article in the issue and 0 for the rest), and number of references indicated in the article. Finally, we included the quadratic term of article transparency to control for potential curvilinear effects that might otherwise bias the linear effects.

**Coding.** The articles in our sample were content analyzed and coded by multiple coders, two for each article. The coding procedure was as follows. First, a standardized coding scheme was developed. To facilitate intercoder agreement, we ensured that all coders agreed on the coding scheme and that any eventual disagreements were consensually resolved. To further ensure standardization and reliability of the coding approach, each pair of coders checked and calibrated the coding after each individual coder coded 10 articles. To estimate the reliability of the coding process, we checked the level of agreement between coders in each pair. Initial agreements were high, 92.8% of codes were coded identically by the two coders. Resulting disagreements were discussed among the coders and the first author until consensus was reached.

**Analytic Strategy.** Beyond the descriptive statistics provided to illustrate de facto reporting standards for each transparency feature, we regressed article citations on the transparency index, along with the aforementioned author and article characteristics we controlled for. Given that article citations are a discrete dependent variable and follows a left skewed distribution, it required a different modeling approach for which generalized linear models (GLMs) are more suited (Rönkkö et al., 2022). A poisson regression was possible, but it comes with a strict assumption of equidispersion where the variance and mean of the dependent variable must be equal (Blevins et al., 2015). Since this assumption was not satisfied, we had to address the presence of overdispersion in our data; which we did by running a negative binomial regression (Hilbe, 2011; Rönkkö et al., 2022). Negative binomial regression can be seen as a generalization of poisson regression, possessing an extra parameter to model overdispersion and therefore being more appropriate for distributions with overdispersion (Blevins et al., 2015; Rönkkö et al., 2022).

## 4. Results

### 4.1. Actual reporting practices

Table 4 shows the percentage frequency of each of the coded features in our sample. Identifying features that have been reported regularly versus features that are reported only rarely in the sample articles illustrate the actual reporting practices in top journals. The least frequently reported features are the explicit mentioning or discussion of the presence/absence of outliers, the unit of analysis, the

**Table 4**  
Reporting frequency of individual codes (percentages).

Transparency codes/ features	Yes
1. Variable reliability indicated	94.3
2. Descriptive statistics provided	91.0
3. Description of data collection approach provided	88.9
4. Correlations between study variables provided	88.0
5. Response rate given	86.5
6. Information on study context provided	85.5
7. Information on sample provided	72.0
8. Source/development of scales and items mentioned	69.7
9. Description of access to collected data provided	69.5
10. Information on interrater reliability/ agreement given	61.5
11. Formal definitions for all focal variables provided	61.0
12. All items used in the study provided	60.7
13. Rationale for all control variables provided	60.1
14. Standard errors or equivalent values given	58.8
15. Rationale for data selection provided	44.5
16. One vs. two tailed significance testing indicated	31.5
17. Presence/absence of missing data indicated	26.5
18. Voluntariness of participation mentioned	24.0
19. Unit of analysis explicitly indicated	20.5
20. Presence/absence of outliers indicated	6.0

**Table 5**  
Difficulty parameters for each transparency feature from IRT.

	Coefficient	Standard errors	P>z
Discrimination parameter	0.503**	0.061	0.000
Variable reliability indicator given	-5.805**	0.911	0.000
Descriptive statistics provided	-4.800**	0.741	0.000
Description of data collection approach provided	-4.338**	0.673	0.000
Correlations between study variables provided	-4.146**	0.646	0.000
Response rate given	-3.870**	0.608	0.000
Information on study context provided	-3.700**	0.586	0.000
Information on sample provided	-1.983**	0.396	0.000
Source/development of scales and items mentioned	-1.766**	0.379	0.000
Description of access to collected data provided	-1.731**	0.374	0.000
Formal definitions for all focal variables provided	-0.943**	0.322	0.003
All items used in the study provided	-0.927**	0.323	0.004
Information on interrater reliability/ agreement given	-0.856*	0.404	0.034
Rationale for all control variables provided	-0.817*	0.336	0.015
Standard errors or equivalent values given	-0.748*	0.314	0.017
Rationale for data selection provided	0.464	0.304	0.127
One vs. two tailed significance testing indicated	1.631**	0.367	0.000
Presence/absence of missing data indicated	2.140**	0.411	0.000
Voluntariness of participation mentioned	2.416**	0.438	0.000
Unit of analysis explicitly indicated	2.837**	0.482	0.000
Presence/absence of outliers indicated	5.691**	0.884	0.000

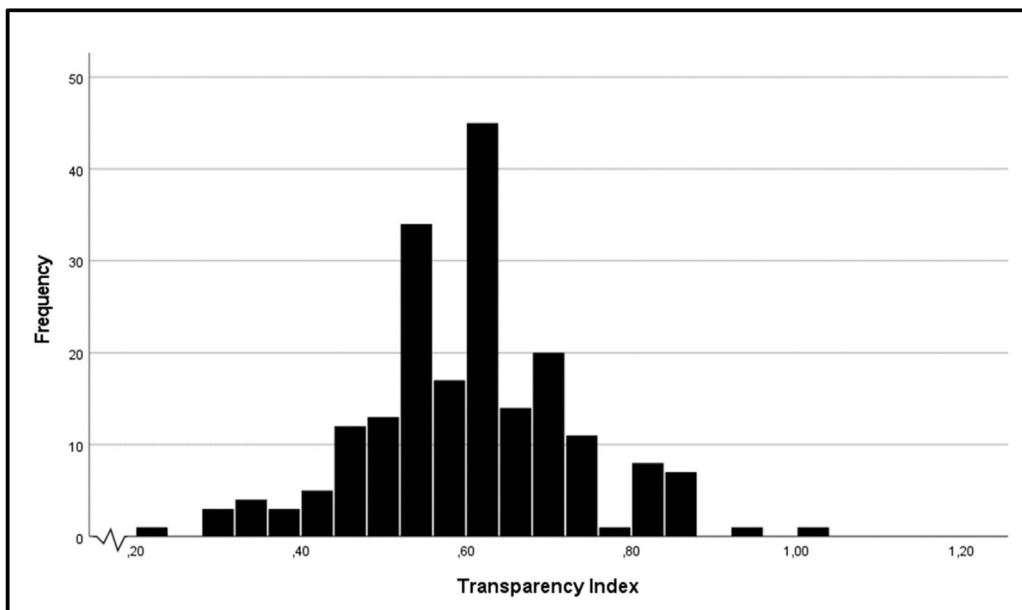
Note. Coefficient significant at \*\* $p < 0.01$ , \* $p < 0.05$ .

voluntariness of study participation, and the presence/absence of missing data. In contrast, six of our 20 codes have been mentioned in most articles (i.e., by more than 80%) and thus indeed seem to reflect common features for reporting. Specifically, these are the description of the data collection approach, the study context, the study's response rate, and the provision of descriptive statistics and correlations, as well as the variable reliability indicators.

For IRT, we report our difficulty parameters for each transparency feature as shown in Table 5. The difficulty parameters show which transparency feature was easier or harder to report. Negative parameters on a particular transparency feature are easier to report, while positive parameter coefficients are difficult (or harder) to report. These results are consistent and therefore robust with our findings on percentage frequencies calculated for each transparency feature (as shown in Table 4). Moreover, all our pre-defined transparency features, except one (rationale for data selection), are significant. We do not remove this feature to maintain consistency between features included in the mean index and robust index (created via IRT). However, to see if results hold without the non-significant feature, we created a second robust index without the 'rationale for data selection'. Our results do not change substantially.

**Table 6**  
Descriptive statistics, frequencies, and variable correlations ( $n = 200$ ).

	Mean	SD	Freq	1	2	3	4	5	6	7	8	9	10	11
1. Transparency Mean Index	0.598	0.123	-	1.000										
2. Transparency Robust Index	0.658	0.153	-	0.981	1.000									
3. ISI Citations	218	303	-	-0.159	-0.144	1.000								
4. Gender (First author Female=1)	-	-	67	-0.058	-0.056	-0.022	1.000							
5. Number of Authors	2.58	1.05	-	-0.035	-0.032	-0.068	-0.050	1.000						
6. Female Ratio	0.327	0.372	-	-0.055	-0.055	-0.042	0.795	-0.062	1.000					
7. Article Age	13.5	5.780	-	-0.412	-0.388	0.394	-0.047	-0.136	-0.023	1.000				
8. Article Length	20.29	6.97	-	0.038	0.031	-0.027	0.047	-0.016	0.069	-0.052	1.000			
9. Article Position	-	-	20	0.030	0.039	0.023	0.011	-0.073	-0.014	0.095	0.135	1.000		
10. Special Issue	-	-	12	-0.007	-0.011	0.070	0.044	-0.079	0.061	0.205	-0.026	-0.014	1.000	
11. Research Note	-	-	12	0.006	0.012	-0.028	-0.090	-0.099	-0.119	-0.037	-0.310	-0.084	0.025	1.000
12. References	79.24	28.97	-	0.2464	0.254	-0.091	0.076	0.073	0.078	-0.336	0.541	0.088	-0.063	-0.242



**Fig. 1.** Histogram of the distribution of the transparency index.

#### 4.2. Transparency and article citations

Finally, we examined the effect of article transparency on citations. The descriptive statistics and correlations of variables included in the regression models are provided in Table 6. A noteworthy observation among the correlations is the negative correlation between article age and article transparency, which points to a substantive tendency of increasing transparency over time.

The mean transparency scores of articles in our sample are 0.598 for mean index and 0.658 for robust index. Fig. 1 shows an illustration of the distribution of this transparency index across the articles in our sample. We report two models, one for each operationalization of the transparency index. The results of the negative binomial models for the effect of transparency mean index and transparency robust index are presented in Tables 7 and 8, respectively. We find that some control variables in the models showed a significant relationship with article citations (see Tables 7 & 8). Among the significant control variables were the number of authors of an article, the article length, and the publication of an article in a special issue all being negatively related to article citations; while article age, author prominence indicated by the maximum H-Index of article authors, and the number of references of an article were all positively related to article citations.

Most importantly, the results of these models indicate that the number of citations an article received is directly proportional to its transparency. Apart from minor differences, analyses based on the differently operationalized transparency index yielded similar results. However, we also find that the quadratic term of transparency shares a significant negative relationship with citation counts. This means that with increasing transparency, citations also increase at a decreasing rate, but only up to a certain threshold. Our findings show that beyond this threshold, the number of citations an article received is inversely proportional to its transparency. This built our case for the transparency sweet spot, which we elaborate further in the subsequent section.

**Table 7**  
Negative binomial regression results using mean index of transparency.

Article Citation (ISI)	Coefficient	Robust Std. Errors	$P > z$
Constant	1.964**	0.737	0.008
Control Variables			
Gender (first author female=1)	-0.061	0.151	0.685
Europe (first author from Europe=1)	0.066	0.107	0.538
Asia (first author from Asia=1)	-0.054	0.216	0.803
Oceania (first author from Oceania=1)	-0.276	0.213	0.196
Number of authors	-0.126 <sup>+</sup>	0.065	0.053
Female ratio	-0.152	0.111	0.171
Article Age	0.124**	0.014	0.000
Article Length	-0.022*	0.009	0.011
Article Position	-0.235	0.182	0.198
Special Issue	-0.174**	0.037	0.000
Research Note	0.205	0.261	0.431
Top Affiliation	0.100	0.152	0.510
Maximum H-index Author	0.019*	0.008	0.012
Number of References	0.005**	0.002	0.006
Transparency Index (arithmetic mean)	4.394*	2.235	0.049
Transparency Index <sup>2</sup> (arithmetic mean)	-3.288 <sup>+</sup>	1.856	0.076

Note. Coefficient significant at \*\* $p < 0.01$ , \* $p < 0.05$ , <sup>+</sup> $p < 0.10$ .

**Table 8**  
Robustness check of negative binomial regression results using robust transparency index.

Article citations (ISI)	Coefficient	Robust Std. Error	$P > z$
Constant	2.210**	0.616	0.000
Control Variables			
Gender (First author Female=1)	-0.061	0.145	0.673
Europe (first author from Europe=1)	0.060	0.103	0.563
Asia (first author from Asia=1)	-0.043	0.214	0.841
Oceania (first author from Oceania=1)	-0.294	0.220	0.182
Number Authors	-0.131*	0.064	0.042
Female Ratio	-0.147	0.108	0.174
Article Age	0.122**	0.014	0.000
Article Length	-0.021*	0.009	0.019
Article Position	-0.239	0.186	0.200
Special Issue	-0.175**	0.041	0.000
Research Note	0.192	0.259	0.458
Top Affiliation	0.086	0.138	0.533
Maximum H-index Author	0.020*	0.008	0.010
Number of References	0.005*	0.002	0.015
Robust Transparency Index (IRT)	3.744**	1.365	0.006
Robust Transparency Index <sup>2</sup> (IRT)	-2.755*	1.212	0.023

Note. Coefficient significant at \*\* $p < 0.01$ , \* $p < 0.05$ .

## 5. Discussion and conclusion

Transparency is a crucial aspect to consider while preparing, reviewing, and publishing research articles. Transparency helps the audience of an article to evaluate the soundness of results being reported in a given study. At the same time, it is important to prevent and detect questionable research practices (Aguinis et al., 2017; Fanelli, 2013; Linder & Farahbakhsh, 2020). The intention of this article is to contribute to the stream of literature on reporting standards in quantitative field studies, and ultimately increasing the quality and integrity of field studies. Our article serves as a catalyst, by offering a starting point for discussions on mindful, transparent reporting. In this regard, we discuss some emerging insights and implications of our study. We first begin by discussing the 'de facto reporting practices'. Subsequently we put forth that transparency matters for the readers of the articles, as evidenced by the fact that the transparent articles in our sample were cited more frequently than the less transparent articles. On the other hand, we also find that this positive relationship between transparency and article citations only holds up to a certain degree, which points to a transparency sweet spot.

### 5.1. De facto reporting practices

In this study, we scrutinized the transparency of research procedures reported in 200 quantitative field studies published in leading management journals. Our results point to considerable heterogeneity in terms of the reported features. We find that several features,

such as variable reliability metrics, response rates, correlations between study variables, and descriptive statistics, are reported nearly by default. However, other features that are potentially important for assessing the rigor of a quantitative field study and its analysis tend to be largely absent, such as the indication of presence/absence of missing data or outliers. Surprisingly, we found that some basic features that one would expect to be reported in articles published in top journals, were actually missing in our sample. For instance, more than ten percent of the examined articles did not report the response rate of the field studies and the correlations between study variables. Clearly, the absence of these de facto standard features makes it difficult to appropriately interpret the empirical results.

The present study makes a step towards the clarification of transparency standards for field studies by portraying the actual reporting practices. A substantial volume of work has stressed the importance of offering a degree of transparency that allows for replicating a field study (Köhler & Cortina, 2021; Nosek et al., 2015; O'Boyle et al., 2017). However, it is important to note that the intention of our research is to mirror what 'passes' as a transparent field study, i.e., to showcase *actual* practices in quantitative field studies, and as such are not intended to be prescriptive or judgmental. We acknowledge that there are factors affecting transparency that are beyond the control of the authors of an article. For instance, the journals have space constraints, which in turn put natural limits to an article's capacity to be overly transparent. However, academic journals are now increasingly providing authors the opportunity to include additional statistics and other relevant study information extensively through online web appendices. Therefore, the space constraints will be alleviated or at least considerably reduced in the near future, providing the authors more possibilities for transparent reporting without being weighed down by space constraints.

We hope our study will encourage scholars to be transparent and mindful in their research reporting of field studies. Relatedly, we acknowledge that too much transparency could also have consequences regarding citation counts. Being transparent for the sake of amassing citation counts hence might result in unnecessary overelaboration of methodological procedures. Accordingly, our study intends to provide an evidence-based foundation for a much-needed discussion about a desirable level of transparency, rather than a rigid checklist for reporting quantitative field research.

### 5.2. Transparency drives citations (up to a certain point)

Our study contributes to the literature by suggesting how transparency of an article is a feature which has been missing from the literature on article citations so far (e.g., Ante, 2022; Conlon et al., 2006; Cui et al., 2021; Flickinger et al., 2013; Haslam et al., 2008; Hoorani et al., 2019; Nair & Gibbert, 2016; Xie et al., 2022). Our results are particularly revealing, given that our sample exclusively consisted of articles published in top-tier journals, which have lower acceptance rates and are supposed to be of higher quality than the other journals. One would expect such high quality, top-tier journals to publish only transparent articles. However, despite this potentially high level of general transparency in the top-tier journals that we sampled, we were still able to detect substantial effects. Specifically, we found direct effects of transparency on citation counts that point to the importance of transparency in the reception of the corresponding articles by the academic community and the subsequent citation decisions. As such, knowing this role of transparency in amassing citation counts might be an incentive for authors to disclose relevant aspects of their methodology and analysis. This might be particularly important for researchers and doctoral students who might perceive the pressure to complete and publish their work expeditiously (Hutchings & Michailova, 2022; Wallace & Sheldon, 2015) as a reason for being less transparent. Our data shows that not paying attention to transparency while authoring or revising articles might be a myopic strategy.

One explanation for the direct effect of transparency on citation count might be that a higher degree of transparency allows today's scholars to better evaluate whether the applied methods in older articles still comply with current standards of rigor. An elevated level of transparency might cause higher trust in the findings (Bråten et al., 2011; Nicolaou & McKnight, 2006), especially when one is not sure about past standards of rigor. An alternative interpretation of this finding, however, could be that authors who are able to design field studies that are cited very frequently are not only able to offer important contributions that advance the theoretical state of the art, but also tend to go beyond contemporary methodological standards and offer an elevated degree of transparency in their research reports. This might matter even more, given that our data suggest a trend of increasing transparency over the examined period that materialized in a negative effect of article age on article transparency, which implies that articles being more transparent in times characterized by lower levels of transparency might stand out more visibly in a crowd of publications. Thus, we can conclude that article transparency benefits citation count. This knowledge also provides an incentive to journal editors and reviewers to ensure high levels of transparency in field study articles and thereby could help them in implementing appropriate procedures to guarantee these high transparency levels (Nosek et al., 2015). At this point, we would like to repeat the notion that more transparency and potentially more consistent reporting criteria should not be confounded with a desire for standardizing research methods. Researchers should embrace methodological plurality and epistemological diversity, as this allows for constructive replication, triangulation, and leveraging the different strengths of methodological approaches (Finnegan et al., 2016; Symon et al., 2018). However, these diverse methodological approaches still need to be transparently reported to allow the readers (i.e., the consumers of research) to appropriately interpret the findings.

### 5.3. Finding the transparency sweet spot

While our results show that transparency matters, it only matters to a certain level, after which a more transparent article can have fewer citations than a less transparent article. This finding helps better elucidate a more nuanced understanding of transparency, which was missing in previous discussions on transparency, where the consensus was that a more transparent article will be cited

more (Aguinis et al., 2018; Aguinis & Solarino, 2019). As evidenced in our analyses, this is not necessarily the case. We argue that this is due to the somewhat contradictory consequences of transparency, which we explain below.

We agree that being more transparent can help authors in explaining their research process to their key stakeholders. However, by being overly transparent, authors risk engaging themselves in mindless reporting. For instance, the indiscriminate application of ‘reporting templates’, that has gained traction in academia (Harley & Cornelissen, 2020; Pratt et al., 2020). can cast doubts on the credibility of the research. Therefore, in overly transparent articles, such malpractices are noticed by the readers, which results in less appreciation of the mindless reporting.

Moreover, while there might be agreement on some reporting practices, there could be legitimate disagreements on certain other reporting criteria. This leads to the possibility that the readers might unfairly penalize an overly transparent, legitimate article, by mistaking it to be illegitimate. The issue with transparency also extends to less transparent articles. On one hand, lower transparency might signal intentional withholding of information, oversight, negligence, or ignorance, which may cast doubts on the credibility of research. However, lower levels of transparency may not necessarily be an intentional act of withholding information by authors. In fact, one could also argue that lower levels of transparency in manuscripts might root in ‘mindful’ reporting practices, in which only those reporting criteria that are considered relevant to the study are discussed. Hence, the dividing line between academic misconduct, i.e., questionable research practices, and ‘best’ research practices is not clear (Linder & Farahbakhsh, 2020; Sterba, 2006). In this twilight zone, mindful transparency plays a key role, as the reader can only make an informed evaluation if the necessary information is provided by the authors, disclosing the very conditions and the rationale that led them to their research practices (Simmons et al., 2011). Therefore, it is easily understandable why transparent reporting practices have been frequently called for to prevent questionable research practices (Miguel et al., 2014; Nosek et al., 2015; O’Boyle et al., 2017).

However, at the same time our study also suggests that being overly, and mindlessly, transparent can defeat the very purpose that transparency seeks to achieve in the first place. This is not only a cautionary tale for authors but for reviewers as well. Reviewers can also advocate mindless transparency while neglecting the specificity and peculiarities of the specific study under review (Green et al., 2016; Northcraft & Tenbrunsel, 2011; Zhang et al., 2022). In the worst case, overly extensive reporting might even blur methodological problems or inconvenient properties of a study, which might then get lost in an overload of information provided by authors, sometimes following the requests of reviewers or editors (DeCelles et al., 2021). In this regard, reviewers’ personal decision frames influence their behavior and requests during the review process, with obviously diverging outcomes (Northcraft & Tenbrunsel, 2011). Similar to how higher transparency is not a sufficient condition for good academic conduct, lower transparency cannot be considered as a failsafe indicator of academic misconduct. We call for mindful transparent reporting, which advocates neither more nor less transparency, but suggests that authors should report criteria that are relevant to their research – and reviewers and editors should encourage them to do so.

Mindful reporting acknowledges that while certain research practices may sometimes be questionable, the same research practices might turn out to be sound and valid depending on the specific conditions underlying the judgment calls for their application (Banks et al., 2016). This is in line with what Zyphur and Pierides (2020) advocate in their call to motivate quantitative researchers to engage in more thorough and reflective reasoning about the ethics and relevance of their methodological choices and approaches. Reasoning, not only regarding what is done but also regarding what is reported, would advance research practice and progress. Our analyses, revealing the de facto reporting standards for quantitative field studies, are therefore intended to assist a process whereby individual researchers, and academia as a whole, can be more mindful and flexible in their reporting practices.

#### 5.4. Limitations and future research

The analyses in this study bear several limitations that might stimulate future research. First, we examined articles from five top management journals published over two decades (1997–2016). While this represents a substantial period to study developments over time, even longer time periods might be desirable to test for even more longitudinal effects and to get a more complete picture of the evolution of transparency in field studies.

Secondly, we focused on journals that have been consistently considered as top-tier outlets in management, particularly for the period under study (Harzing, 2007; Podsakoff et al., 2005). Future researcher can replicate this study with other sets of top, middle, and lower tier journals in management or other disciplines, to check whether our results would change depending on the specific sample journals. To minimize any such sample-specific biases in our results, we had controlled for the journals in all our regression models, recognizing that we cannot completely rule out sample-specific findings.

Thirdly, our analyses pertain to quantitative field studies in management, which limits the generalizability of our findings to that domain. As such, it would be worthwhile to replicate our endeavor with foci on other research approaches (such as controlled laboratory studies) or other fields. In this regard, it is also important to mention that certain circumstances may call for additional or other methodological features to be reported, depending on the specific research domain or context (Symon et al., 2018). Future research may consider such features in a more detailed, topic- or context-focused analysis of reporting practices.

Fourth, our analyses could not account for the role that the review process plays on the transparency of an article (Green et al., 2016; Northcraft & Tenbrunsel, 2011). We acknowledge that this issue is more nuanced, as the level of transparency for a published article is strongly affected by the review process. Therefore, future studies can investigate this by interviewing the authors of the articles as well as the reviewers and editors of the focal journals.

Fifth, in order to provide the first step in examining the relationship between article transparency and article citations, we constructed a transparency index. This index reflects an article’s overall level of transparency. To provide further and more detailed insights about the role of transparency in amassing article citations, taking a more fine-grained look at the relationships between

individual transparency items and article citations would be a logical next step for future studies. Similarly, considering different configurations of the transparency items and the impact thereof on article citations would further enrich our knowledge about article transparency's consequences.

Finally, we used citation count as an indicator of the scientific impact of the published articles (Adam, 2002). However, scientific impact is a broader concept that covers more aspects than just citations of academic articles by other articles (Aguinis et al., 2010; Bornmann, 2013, 2014; Mao et al., 2020; Shema et al., 2014). To give some examples, impact also comprises the extent to which an article influences the direction of a field by encouraging the focus of other researchers on a specific topic area (who might not necessarily cite that specific article), the extent to which an article might influence thinking in other research fields, and the extent to which the inputs and findings from the article are used for educational purposes or are implemented by policy makers and practitioners. Therefore, future research on the consequences of varying levels of transparent reporting might also consider other aspects of impact to complement our results. It is for this reason that we encourage future scholars to broaden the list of possible items that can measure the transparency of quantitative articles, with the aim of strengthening the reliability of the results around transparency.

## 5.5. Conclusion

In summary, our article substantially adds on to prior studies which discuss transparency or reporting practices from a methodological or an ethical perspective. Specifically, we discuss how article transparency is related to article citations and therefore should be included as an additional meaningful explanatory variable in studies on article citations. Our analyses provide an evidence-based starting point for developing appropriate reporting standards for quantitative field research and for stimulating constructive discussions on what these standards should be. However, our article is not a call for boilerplate reporting parameters. To this end, we reveal how being overly transparent for the sake of amassing citations or replicating a template might be counter effective and how this tendency points to a transparency sweet spot. Hence, our article is a call for transparent yet mindful reporting as a way to ensure high quality and credible scholarship.

## Declarations of Competing Interest

None.

## References

- Adam, D. (2002). Citation analysis: The counting house. *Nature*, 415(6873), 726–729. <http://dx.doi.org/10.1038/415726a>.
- AERA. (2006). Standards for reporting on empirical social science research in aera publications: American educational research association. *Educational Researcher*, 35(6), 33–40. [10.2307/3876756](https://doi.org/10.2307/3876756).
- Aguinis, H., Cascio, W. F., & Ramani, R. S. (2017). Science's reproducibility and replicability crisis: International business is not immune. *Journal of International Business Studies*, 48(6), 653–663. [10.1057/s41267-017-0081-0](https://doi.org/10.1057/s41267-017-0081-0).
- Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, 16(2), 270–301. [10.1177/1094428112470848](https://doi.org/10.1177/1094428112470848).
- Aguinis, H., Hill, N. S., & Bailey, J. R. (2019). Best practices in data collection and preparation: Recommendations for reviewers, editors, and authors. *Organizational Research Methods*. [10.1177/1094428119836485](https://doi.org/10.1177/1094428119836485).
- Aguinis, H., Ramani, R. S., & Alabduljader, N. (2018). What you see is what you get? Enhancing methodological transparency in management research. *Academy of Management Annals*, 12(1), 83–110. [10.5465/annals.2016.0011](https://doi.org/10.5465/annals.2016.0011).
- Aguinis, H., & Solarino, A. M. (2019). Transparency and replicability in qualitative research: The case of interviews with elite informants. *Strategic Management Journal in press*. [10.1002/smj.3015](https://doi.org/10.1002/smj.3015).
- Aguinis, H., Werner, S., Lanza Abbott, J., Angert, C., Joon Hyung, Park, & Kohlhausen, D (2010). Customer-centric science: Reporting significant research results with rigor, relevance, and practical impact in mind. *Organizational Research Methods*, 13(3), 515–539. [10.1177/1094428109333339](https://doi.org/10.1177/1094428109333339).
- Ante, L. (2022). The relationship between readability and scientific impact: Evidence from emerging technology discourses. *Journal of Informetrics*, 16(1), Article 101252. [10.1016/j.joi.2022.101252](https://doi.org/10.1016/j.joi.2022.101252).
- Antonakis, J., Bastardo, N., Liu, Y., & Schriesheim, C. A. (2014). What makes articles highly cited? *The Leadership Quarterly*, 25(1), 152–179. [10.1016/j.leaqua.2013.10.014](https://doi.org/10.1016/j.leaqua.2013.10.014).
- APA. (2008). Reporting standards for research in psychology: Why do we need them? What might they be? *American Psychologist*, 63(9), 839–851. [10.1037/0003-066x.63.9.839](https://doi.org/10.1037/0003-066x.63.9.839).
- Atinc, G., Simmering, M. J., & Kroll, M. J. (2012). Control variable use and reporting in macro and micro management research. *Organizational Research Methods*, 15(1), 57–74. [10.1177/1094428110397773](https://doi.org/10.1177/1094428110397773).
- Banks, G. C., O'Boyle, E. H., Pollack, J. M., White, C. D., Batchelor, J. H., Whelpley, C. E., et al. (2016). Questions about questionable research practices in the field of management: A guest commentary. *Journal of Management*, 42(1), 5–20. [10.1177/0149206315619011](https://doi.org/10.1177/0149206315619011).
- Berchtold, A. (2019). Treatment and reporting of item-level missing data in social science research. *International Journal of Social Research Methodology*, 22(5), 431–439. [10.1080/13645579.2018.1563978](https://doi.org/10.1080/13645579.2018.1563978).
- Bernerth, J. B., & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology*, 69(1), 229–283. [10.1111/peps.12103](https://doi.org/10.1111/peps.12103).
- Blevins, D. P., Tsang, E. W. K., & Spain, S. M. (2015). Count-based research in management: Suggestions for improvement. *Organizational Research Methods*, 18(1), 47–69. [10.1177/1094428114549601](https://doi.org/10.1177/1094428114549601).
- Bliese, P. D (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In S. W. J. Kozlowski, & K. J. Klein (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349–382). Jossey-Bass.
- Bornmann, L. (2013). What is societal impact of research and how can it be assessed? A literature survey. *Journal of the American Society for Information Science and Technology*, 64(2), 217–233. [10.1002/asi.22803](https://doi.org/10.1002/asi.22803).
- Bornmann, L. (2014). Do altmetrics point to the broader impact of research? An overview of benefits and disadvantages of altmetrics. *Journal of Informetrics*, 8(4), 895–903. [10.1016/j.joi.2014.09.005](https://doi.org/10.1016/j.joi.2014.09.005).
- Bråten, I., Strømso, H. I., & Salmerón, L. (2011). Trust and mistrust when students read multiple information sources about climate change. *Learning and Instruction*, 21(2), 180–192. [10.1016/j.learninstruc.2010.02.002](https://doi.org/10.1016/j.learninstruc.2010.02.002).

- Church, A. H. (2001). Is there a method to our madness? The impact of data collection methodology on organizational survey results. *Personnel Psychology*, 54(4), 937–969. [10.1111/j.1744-6570.2001.tb00238.x](https://doi.org/10.1111/j.1744-6570.2001.tb00238.x).
- Conlon, D. E., Morgeson, F. P., McNamara, G., Wiseman, R. M., & Skilton, P. F. (2006). Examining the impact and role of special issue and regular journal articles in the field of management. *Academy of Management Journal*, 49(5), 857–872. [10.5465/amj.2006.22798160](https://doi.org/10.5465/amj.2006.22798160).
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimental design: Design and analysis issues for field settings*. Rand McNally.
- Cui, H., Zeng, A., Fan, Y., & Di, Z. (2021). Quantifying the impact of a teamwork publication. *Journal of Informetrics*, 15(4), Article 101217. [10.1016/j.joi.2021.101217](https://doi.org/10.1016/j.joi.2021.101217).
- Daft, R. L., & Lewin, A. Y. (2008). Rigor and relevance in organization studies: Idea migration and academic journal evolution. *Organization Science*, 19(1), 177–183. <http://www.scopus.com/inward/record.url?eid=2-s2.0-53549084500&partnerID=40&md5=4298b2fca3511a4b19b5faff75b2a34>.
- de Boeck, P., & Wilson, M. (2004). *Explanatory item response models: A generalized linear and nonlinear approach*. Springer.
- DeCelles, K. A., Howard-Grenville, J., & Tihanyi, L. (2021). Improving the transparency of empirical research published in *amj*. *Academy of Management Journal*, 64(4), 1009–1015. [10.5465/amj.2021.4004](https://doi.org/10.5465/amj.2021.4004).
- Eby, L. T., Shockley, K. M., Bauer, T. N., Edwards, B., Homan, A. C., Johnson, R., et al. (2020). Methodological checklists for improving research quality and reporting consistency. *Industrial and Organizational Psychology*, 13(1), 76–83. [10.1017/iop.2020.14](https://doi.org/10.1017/iop.2020.14).
- Fanelli, D. (2013). Redefine misconduct as distorted reporting. *Nature*, 494(7436), 149. [10.1038/494149a](https://doi.org/10.1038/494149a).
- Finnegan, C., Runyan, R. C., Gonzalez-Padron, T., & Hyun, J. (2016). Diversity and rigor trends in retailing research: Assessment and guidelines. *International Journal of Management Reviews*, 18(1), 51–68. [10.1111/ijmr.12059](https://doi.org/10.1111/ijmr.12059).
- Flickinger, M., Tuschke, A., Gruber-Muecke, T., & Fiedler, M. (2013). In search of rigor, relevance, and legitimacy: What drives the impact of publications? *Journal of Business Economics*, 1–30. [10.1007/s11573-013-0692-2](https://doi.org/10.1007/s11573-013-0692-2).
- Foster, G. C., Min, H., & Zickar, M. J. (2017). Review of item response theory practices in organizational research: Lessons learned and paths forward. *Organizational Research Methods*, 20(3), 465–486. [10.1177/1094428116689708](https://doi.org/10.1177/1094428116689708).
- Frechtling, D. C., & Boo, S. (2012). On the ethics of management research: An exploratory investigation. *Journal of Business Ethics*, 106(2), 149–160. [10.1007/s10551-011-0986-7](https://doi.org/10.1007/s10551-011-0986-7).
- García, J. A., Rodríguez-Sánchez, R., & Fdez-Valdivia, J. (2019). Do the best papers have the highest probability of being cited? *Scientometrics*, 118(3), 885–890. [10.1007/s11192-019-03008-z](https://doi.org/10.1007/s11192-019-03008-z).
- Gibbert, M., Nair, L. B., Weiss, M., & Hoegl, M. (2021). Using outliers for theory building. *Organizational Research Methods*, 24(1), 172–181. [10.1177/1094428119898877](https://doi.org/10.1177/1094428119898877).
- Gomez-Mejia, L. R., & Balkin, D. B. (1992). Determinants of faculty pay: An agency theory perspective. *Academy of Management Journal*, 35(5), 921–955. [10.5465/256535](https://doi.org/10.5465/256535).
- Green, J. P., Tonidandel, S., & Cortina, J. M. (2016). Getting through the gate: Statistical and methodological issues raised in the reviewing process. *Organizational Research Methods*, 19(3), 402–432. [10.1177/1094428116631417](https://doi.org/10.1177/1094428116631417).
- Greenwood, M. (2016). Approving or improving research ethics in management journals. *Journal of Business Ethics*, 137(3), 507–520. [10.1007/s10551-015-2564-x](https://doi.org/10.1007/s10551-015-2564-x).
- Hambleton, R. K., Swaminathan, H., & Rogers, H. J. (1991). *Fundamentals of item response theory*. Sage.
- Hancock, G. R., & Mueller, R. O. (2010). *The reviewer's guide to quantitative methods in the social sciences*. Taylor & Francis.
- Harley, B., & Cornelissen, J. (2020). Rigor with or without templates? The pursuit of methodological rigor in qualitative research. *Organizational Research Methods*. [10.1177/1094428120937786](https://doi.org/10.1177/1094428120937786).
- Harzing, A.W. (2007). *Publish or perish*. Available from <https://harzing.com/resources/publish-or-perish>.
- Haslam, N., Ban, L., Kaufmann, L., Loughnan, S., Peters, K., Whelan, J., et al. (2008). What makes an article influential? Predicting impact in social and personality psychology. *Scientometrics*, 76(1), 169–185. [10.1007/s11192-007-1892-8](https://doi.org/10.1007/s11192-007-1892-8).
- Hilbe, J. M. (2011). *Negative Binomial Regression* (2nd Ed.). Cambridge University Press.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967–988. [10.1177/014920639502100509](https://doi.org/10.1177/014920639502100509).
- Hoorani, B. H., Nair, L. B., & Gibbert, M. (2019). Designing for impact: The effect of rigor and case study design on citations of qualitative case studies in management. *Scientometrics*, 121(1), 285–306. [10.1007/s11192-019-03178-w](https://doi.org/10.1007/s11192-019-03178-w).
- Hutchings, K., & Michailova, S. (2022). Sleepless nights while our doctoral students are in the field: Supervisor reflections on ethical challenges. *Journal of Management Inquiry*, 31(1), 97–112. [10.1177/10564926211033910](https://doi.org/10.1177/10564926211033910).
- Judge, T. A., Cable, D. M., Colbert, A. E., & Rynes, S. L. (2007). What causes a management article to be cited-article author, or journal? *Academy of Management Journal*, 50(3), 491–506. [10.5465/amj.2007.25525577](https://doi.org/10.5465/amj.2007.25525577).
- Köhler, T., & Cortina, J. M. (2021). Play it again, sam! An analysis of constructive replication in the organizational sciences. *Journal of Management*, 47(2), 488–518. [10.1177/0149206319843985](https://doi.org/10.1177/0149206319843985).
- Lance, C. E., & Vandenberg, R. J. (2009). *Statistical and methodological myths and urban legends*. Routledge.
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11(4), 815–852. [10.1177/1094428106296642](https://doi.org/10.1177/1094428106296642).
- Linder, C., & Farahbakhsh, S. (2020). Unfolding the black box of questionable research practices: Where is the line between acceptable and unacceptable practices? *Business Ethics Quarterly*, 30(3), 335–360. [10.1017/beq.2019.52](https://doi.org/10.1017/beq.2019.52).
- Mao, J., Liang, Z., Cao, Y., & Li, G. (2020). Quantifying cross-disciplinary knowledge flow from the perspective of content: Introducing an approach based on knowledge memes. *Journal of Informetrics*, 14(4) Article 101092. [10.1016/j.joi.2020.101092](https://doi.org/10.1016/j.joi.2020.101092).
- Maynard, M. T., Conroy, S., Lacerenza, C. N., & Barnes, L. Y. (2021). Teams in the wild are not extinct, but challenging to research: A guide for conducting impactful team field research with 10 recommendations and 10 best practices. *Organizational Psychology Review*. [10.1177/2041386620986597](https://doi.org/10.1177/2041386620986597).
- McGrath, J. E., Martin, J., & Kulka, R. A. (1982). *Judgment calls in research*. Sage Publications.
- Miguel, E., Camerer, C., Casey, K., Cohen, J., Esterling, K. M., Gerber, A., et al. (2014). Promoting transparency in social science research. *Science*, 343(6166), 30–31. [10.1126/science.1245317](https://doi.org/10.1126/science.1245317).
- Miller, C. C., Washburn, N. T., & Glick, W. H. (2013). The myth of firm performance. *Organization Science*, 24(3), 948–964. [10.1287/orsc.1120.0762](https://doi.org/10.1287/orsc.1120.0762).
- Nair, L. B. (2020). From 'whodunit' to 'how': Detective stories and auditability in qualitative business ethics research. *Journal of Business Ethics*. [10.1007/s10551-020-04479-4](https://doi.org/10.1007/s10551-020-04479-4).
- Nair, L. B., & Ascani, A. (2022). Addressing low-profile misconduct in management academia through theoretical triangulation and transformative ethics education. *The International Journal of Management Education*, 20(3), Article 100728. [10.1016/j.ijme.2022.100728](https://doi.org/10.1016/j.ijme.2022.100728).
- Nair, L. B., & Gibbert, M. (2016). What makes a 'good' title and (how) does it matter for citations? A review and general model of article title attributes in management science. *Scientometrics*, 107(3), 1331–1359. [10.1007/s11192-016-1937-y](https://doi.org/10.1007/s11192-016-1937-y).
- Nicolaou, A. I., & McKnight, D. H. (2006). Perceived information quality in data exchanges: Effects on risk, trust, and intention to use. *Information Systems Research*, 17(4), 332–351. [10.1287/isre.1060.0103](https://doi.org/10.1287/isre.1060.0103).
- Northcraft, G. B., & Tenbrunsel, A. E. (2011). Effective matrices, decision frames, and cooperation in volunteer dilemmas: A theoretical perspective on academic peer review. *Organization Science*, 22(5), 1277–1285. [10.1287/orsc.1100.0607](https://doi.org/10.1287/orsc.1100.0607).
- Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., et al. (2015). Promoting an open research culture. *Science*, 348(6242), 1422–1425. [10.1126/science.aab2374](https://doi.org/10.1126/science.aab2374).
- O'Boyle, E. H., Banks, G. C., & Gonzalez-Mulé, E. (2017). The chrysalis effect: How ugly initial results metamorphosize into beautiful articles. *Journal of Management*, 43(2), 376–399. [10.1177/0149206314527133](https://doi.org/10.1177/0149206314527133).
- Pirson, M., & Malhotra, D. (2011). Foundations of organizational trust: What matters to different stakeholders? *Organization Science*, 22(4), 1087–1104. [10.1287/orsc.1100.0581](https://doi.org/10.1287/orsc.1100.0581).

- Podsakoff, P. M., Mackenzie, S. B., Bachrach, D. G., & Podsakoff, N. P. (2005). The influence of management journals in the 1980s and 1990s. *Strategic Management Journal*, 26(5), 473–488. [10.1002/smj.454](https://doi.org/10.1002/smj.454).
- Pratt, M. G., Sonenshein, S., & Feldman, M. S. (2020). Moving beyond templates: A bricolage approach to conducting trustworthy qualitative research. *Organizational Research Methods*. [10.1177/1094428120927466](https://doi.org/10.1177/1094428120927466).
- Rönkkö, M., Aalto, E., Tenhunen, H., & Aguirre-Urreta, M. I. (2022). Eight simple guidelines for improved understanding of transformations and nonlinear effects. *Organizational Research Methods*, 25(1), 48–87. [10.1177/1094428121991907](https://doi.org/10.1177/1094428121991907).
- Shema, H., Bar-Ilan, J., & Thelwall, M. (2014). Do blog citations correlate with a higher number of future citations? Research blogs as a potential source for alternative metrics. *Journal of the Association for Information Science and Technology*, 65(5), 1018–1027. [10.1002/asi.23037](https://doi.org/10.1002/asi.23037).
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22(11), 1359–1366. [10.1177/0956797611417632](https://doi.org/10.1177/0956797611417632).
- Sterba, S. K. (2006). Misconduct in the analysis and reporting of data: Bridging methodological and ethical agendas for change. *Ethics and Behavior*, 16(4), 305–318. [10.1207/s15327019eb1604\\_3](https://doi.org/10.1207/s15327019eb1604_3).
- Sterba, S.K., Christ, S.L., Prinstein, M.J., & Nock, M.K. (2011). Beyond treating complex sampling designs as simple random samples: Data analysis and reporting. In A. T. Panter & S. K. Sterba (Eds.), *Handbook of ethics in quantitative methodology*. Routledge.
- Stone, A., & Shiffman, S. (2002). Capturing momentary, self-report data: A proposal for reporting guidelines. *Annals of Behavioral Medicine*, 24(3), 236–243. [10.1207/S15324796ABM2403\\_09](https://doi.org/10.1207/S15324796ABM2403_09).
- Stremersch, S., Verniers, I., & Verhoef, P. C. (2007). The quest for citations: Drivers of article impact. *Journal of Marketing*, 71(3), 171–193. [10.1509/jmkg.71.3.171](https://doi.org/10.1509/jmkg.71.3.171).
- Symon, G., Cassell, C., & Johnson, P. (2018). Evaluative practices in qualitative management research: A critical review. *International Journal of Management Reviews*, 20(1), 134–154. [10.1111/ijmr.12120](https://doi.org/10.1111/ijmr.12120).
- Tahai, A., & Meyer, M. J. (1999). A revealed preference study of management journals' direct influences. *Strategic Management Journal*, 20(3), 279–296. [10.1002/\(SICI\)1097-0266\(199903\)20:3<279::AID-SMJ33>3.0.CO;2-2](https://doi.org/10.1002/(SICI)1097-0266(199903)20:3<279::AID-SMJ33>3.0.CO;2-2).
- Turk, T., Elhady, M. T., Rashed, S., Abdelkhalek, M., Nasef, S. A., Khallaf, A. M., et al. (2018). Quality of reporting web-based and non-web-based survey studies: What authors, reviewers and consumers should consider. *PloS one*, 13(6) Article e0194239. [10.1371/journal.pone.0194239](https://doi.org/10.1371/journal.pone.0194239).
- Wallace, M., & Sheldon, N. (2015). Business research ethics: Participant observer perspectives. *Journal of Business Ethics*, 128(2), 267–277. [10.1007/s10551-014-2102-2](https://doi.org/10.1007/s10551-014-2102-2).
- Weigold, A., Weigold, I. K., & Russell, E. J. (2013). Examination of the equivalence of self-report survey-based paper-and-pencil and internet data collection methods. *Psychological Methods*, 18(1), 53–70. [10.1037/a0031607](https://doi.org/10.1037/a0031607).
- Wilkinson, L. (1999). Statistical methods in psychology journals: Guidelines and explanations. *American Psychologist*, 54(8), 594–604. [10.1037/0003-066x.54.8.594](https://doi.org/10.1037/0003-066x.54.8.594).
- Xie, Q., Zhang, X., Kim, G., & Song, M. (2022). Exploring the influence of coauthorship with top scientists on researchers' affiliation, research topic, productivity, and impact. *Journal of Informetrics*, 16(3), Article 101314 Article. [10.1016/j.joi.2022.101314](https://doi.org/10.1016/j.joi.2022.101314).
- Zhang, G., Xu, S., Sun, Y., Jiang, C., & Wang, X. (2022). Understanding the peer review endeavor in scientific publishing. *Journal of Informetrics*, 16(2), Article 101264 Article. [10.1016/j.joi.2022.101264](https://doi.org/10.1016/j.joi.2022.101264).
- Zyphur, M. J., & Pierides, D. C. (2020). Statistics and probability have always been value-laden: An historical ontology of quantitative research methods. *Journal of Business Ethics*, 167(1), 1–18. [10.1007/s10551-019-04187-8](https://doi.org/10.1007/s10551-019-04187-8).