

THE REPLICATION CRISIS IN MARKETING: A FIELD-SPECIFIC DIAGNOSIS AND PRESCRIPTIONS FOR IMPROVING METHODOLOGICAL RIGOR

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Abstract

This study examines the replication crisis in marketing by providing a field-specific diagnosis and proposing methodological improvements to enhance research rigor. The replication crisis, characterized by the inability to reproduce empirical findings, has raised concerns about the credibility and reliability of marketing research. This article identifies key contributing factors, including questionable research practices such as p-hacking and selective reporting, lack of transparency in data and methods, publication bias favoring statistically significant results, and institutional pressures driven by the “publish or perish” culture. Using a qualitative literature review approach, this study synthesizes insights from prior research to explore the structural and methodological roots of the problem. The findings reveal that the replication crisis in marketing is not caused by a single factor but by an interconnected system of methodological weaknesses and institutional incentives. These issues undermine both the theoretical development of marketing and its practical applications in business decision-making. To address these challenges, the study proposes several key recommendations, including the adoption of open science practices, increased support for replication studies, improvements in research design and statistical analysis, and enhanced education on research ethics and methodology. By implementing these strategies, the marketing discipline can strengthen its scientific foundation, improve the reproducibility of findings, and restore trust in academic research.

Keywords: *Replication crisis, marketing research, methodological rigor, research transparency, reproducibility*

INTRODUCTION

The replication crisis has emerged as a critical issue across multiple scientific disciplines, including psychology, economics, and biomedical sciences. It refers to the growing recognition that many empirical findings cannot be consistently reproduced when studies are repeated under similar conditions. In recent years, this concern has extended into the field of marketing, where empirical research plays a central role in shaping theoretical development and managerial decision-making (Serra-Garcia & Gneezy, 2021). As marketing increasingly relies on data-driven insights, the credibility and reliability of its research outputs have become more important than ever. Within marketing, the replication crisis is particularly concerning due to the field’s reliance on complex human behavior, contextual variability, and rapidly evolving market environments. These characteristics make it inherently challenging to reproduce findings across different settings and time periods (Shaw & Nave, 2023). However, beyond these natural complexities, there is mounting evidence that methodological shortcomings—such as small sample sizes, flexible data analysis, and insufficient transparency—also contribute significantly to replication failures. These issues raise important questions about the robustness of widely accepted marketing theories (Ryan & Tipu, 2022). The core problem lies in the prevalence of questionable research practices and structural incentives that prioritize novelty over reliability. Practices such as p-hacking, selective reporting, and hypothesizing after results are known (HARKing) have been identified as key contributors to irreproducible findings (Hensel, 2021). Furthermore, the academic culture of “publish or perish” often discourages replication studies, which are perceived as less innovative and therefore less publishable. As a result, many published findings remain unverified, creating a fragile foundation for both theory and practice (Hair & Sarstedt, 2021). This article aims to provide a comprehensive, field-specific

diagnosis of the replication crisis in marketing and to propose practical solutions for improving methodological rigor. Specifically, it seeks to identify the underlying causes of replication challenges, examine the current state of methodological practices, and recommend actionable strategies to enhance transparency, reliability, and scientific integrity in marketing research.

LITERATURE REVIEW

Understanding the Replication Crisis in Marketing

Replication is a fundamental principle of scientific inquiry, ensuring that findings are not merely artifacts of specific datasets or analytical choices. In marketing, replication can take two primary forms: direct replication, which attempts to reproduce a study using the same methods and data conditions, and conceptual replication, which tests the same theoretical relationships using different methods or contexts (Mesquida et al., 2022). Both forms are essential for validating theories and strengthening the cumulative nature of knowledge. However, the literature indicates that marketing research faces significant challenges in achieving replicability. One major issue is the overreliance on null hypothesis significance testing (NHST), where statistical significance (e.g., $p < 0.05$) is often treated as the primary indicator of validity. This focus can lead researchers to prioritize achieving significant results rather than ensuring robustness. Consequently, practices such as p-hacking—where multiple analyses are conducted until significant results are found—have become a concern (Bryan et al., 2021a).

In addition, the phenomenon of HARKing (Hypothesizing After Results are Known) undermines the integrity of research by presenting exploratory findings as confirmatory. This practice distorts the scientific process and increases the likelihood of false-positive results. The lack of transparency in reporting methods and data further exacerbates the problem, as other researchers cannot fully assess or replicate the original studies. (Block et al., 2022) Moreover, the interdisciplinary nature of marketing adds another layer of complexity. Drawing from psychology, sociology, and economics, marketing studies often employ diverse theoretical frameworks and measurement tools. While this diversity enriches the field, it also creates inconsistencies that make replication more difficult. Differences in operational definitions, sampling techniques, and contextual variables can lead to varying results, even when studies aim to test the same hypotheses (Leichtmann et al., 2022a).

Drivers and Consequences of the Crisis

The replication crisis in marketing is driven by a combination of methodological, institutional, and cultural factors. One of the most significant drivers is publication bias, where journals favor studies with novel and statistically significant findings (Nelson et al., 2021). This bias discourages the submission and publication of null results or replication studies, leading to an incomplete and potentially misleading body of literature. Institutional pressures also play a critical role. Academic success is often measured by the number of publications in high-impact journals, incentivizing researchers to produce results quickly and frequently. This “publish or perish” culture can compromise research quality, as scholars may adopt less rigorous methods or engage in questionable practices to meet performance expectations. Additionally, limited funding and time constraints can further restrict the ability to conduct large-scale, high-quality studies (Goldfarb et al., 2022).

Another important factor is the use of non-representative samples, such as undergraduate students, which limits the generalizability of findings. Small sample sizes and insufficient statistical power increase the likelihood of false-positive and false-negative results (Leichtmann et al., 2022b). Furthermore, the context-dependent nature of marketing—where consumer behavior is influenced by cultural, technological, and temporal factors—makes it difficult to replicate findings across different environments. The consequences of these issues are far-reaching. At the theoretical level, the accumulation of unreliable findings can weaken the foundation of marketing knowledge. At the practical level, businesses that rely on flawed research may implement ineffective strategies, leading to financial losses and missed opportunities. Ultimately, the replication crisis undermines trust in academic research and calls into question the legitimacy of marketing as a scientific discipline (Stremersch et al., 2022).

Emerging Solutions and Methodological Reforms

In response to the replication crisis, scholars and institutions have begun to advocate for a range of methodological reforms. One of the most prominent approaches is the adoption of open science practices, which promote transparency and accessibility in research (Filazzola & Cahill, 2021a). These practices include sharing datasets, analysis code, and research protocols, allowing other researchers to verify and replicate findings more easily. Pre-registration is another important reform, requiring researchers to specify their hypotheses, methods, and analysis plans before collecting data. This approach reduces the risk of p-hacking and HARKing by distinguishing between confirmatory and exploratory research. Similarly, the concept of registered reports—where studies are peer-

reviewed before data collection—ensures that publication decisions are based on research design rather than results (Keener et al., 2023). The promotion of replication studies is also gaining traction. Some journals have introduced special sections or incentives for replication research, recognizing its importance in validating existing knowledge. Collaborative initiatives, such as multi-lab studies, allow researchers to test hypotheses across diverse settings, enhancing the generalizability and robustness of findings (Bryan et al., 2021b). Finally, advancements in statistical methods offer new tools for improving research quality. Bayesian analysis, meta-analysis, and robustness checks provide more comprehensive ways to evaluate evidence. Combined with improved education and training in research methods, these reforms have the potential to significantly enhance the rigor and credibility of marketing research.

METHODOLOGY

This study adopts a qualitative literature review approach to explore the replication crisis in marketing. The purpose of this methodology is to synthesize existing research, identify key themes, and develop a comprehensive understanding of the factors contributing to replication challenges. A qualitative approach is particularly appropriate for this study, as it allows for in-depth analysis of complex and multifaceted issues that cannot be easily quantified. Data were collected from a wide range of academic sources, including peer-reviewed journal articles, conference proceedings, and methodological reports. The selection criteria focused on relevance to the replication crisis, methodological rigor, and contribution to the field of marketing and related disciplines. Priority was given to highly cited and recent publications to ensure the inclusion of current perspectives and developments. The analysis was conducted using thematic analysis, a method that involves identifying, coding, and interpreting patterns within the data. Key themes such as publication bias, transparency, research design, and institutional incentives were systematically examined. This process enabled the integration of insights from diverse sources, providing a holistic view of the replication crisis and informing the development of practical recommendations.

RESULTS AND DISCUSSION

The results of this literature review reveal that the replication crisis in marketing is a multifaceted issue driven by interconnected methodological and institutional factors. One of the most prominent findings is the widespread use of questionable research practices, including selective reporting, p-hacking, and HARKing (Lakens, 2025). These practices are often motivated by the need to achieve statistically significant results, highlighting the influence of publication incentives on research behavior (Klein et al., 2014). Another key finding is the lack of transparency in research processes. Many studies do not provide access to raw data, analysis code, or detailed methodological descriptions, making it difficult for other researchers to replicate the findings. This lack of openness limits the ability to verify results and undermines the cumulative nature of scientific knowledge (Hope et al., 2021). The review also highlights the scarcity of replication studies in marketing. Despite their importance, replication efforts are often undervalued and underreported. This gap prevents the systematic validation of existing theories and increases the risk of relying on unreliable findings. Additionally, methodological weaknesses such as small sample sizes and non-representative data further contribute to replication challenges (Urminsky & Dietvorst, 2024).

Table 1. Key Factors Contributing to the Replication Crisis in Marketing and Their Implications

Category	Key Issue	Description	Implications
Methodological Practices	Questionable Research Practices (QRPs)	Includes selective reporting, p-hacking, and HARKing driven by the pursuit of statistically significant results.	Leads to biased findings, increased false positives, and reduced research credibility.
Institutional Factors	Publication Incentives	Pressure to publish significant and novel findings influences researcher behavior.	Encourages unethical or less rigorous practices, compromising research integrity.
Transparency Issues	Lack of Open Data and Methods	Limited access to raw data, analysis code, and methodological details.	Hinders replication, reduces verification, and weakens cumulative knowledge development.
Research Culture	Scarcity of Replication Studies	Replication research is undervalued and underreported in marketing literature.	Limits validation of theories and increases reliance on unverified findings.
Methodological Weaknesses	Small Sample Sizes	Studies often rely on limited datasets with low statistical power.	Increases risk of unreliable and non-generalizable results.
Sampling Issues	Non-Representative Data	Use of homogeneous samples (e.g., students) that do not reflect broader populations.	Reduces external validity and limits applicability of findings.
Overall Impact	Replication Challenges	Combination of methodological and institutional issues.	Undermines trust in marketing research and affects theory and practice.

Table 1 highlights that the replication crisis in marketing is driven by a combination of methodological flaws and institutional pressures that collectively undermine research reliability. A central issue is the widespread use of questionable research practices such as selective reporting, p-hacking, and HARKing, often motivated by strong publication incentives that prioritize statistically significant and novel findings over methodological rigor. These pressures contribute to low transparency, as many studies fail to provide access to raw data, analytical procedures, or detailed methodologies, making independent verification difficult (Serra-Garcia & Gneezy, 2021; Shaw & Nave, 2023). Furthermore, the academic culture in marketing tends to undervalue replication studies, resulting in a scarcity of efforts to validate existing findings and theories. This problem is exacerbated by methodological weaknesses, including small sample sizes and the frequent use of non-representative samples, which limit the generalizability and robustness of results. Taken together, these interconnected issues create substantial replication challenges, ultimately reducing trust in marketing research and weakening its theoretical and practical contributions (Ryan & Tipu, 2022).

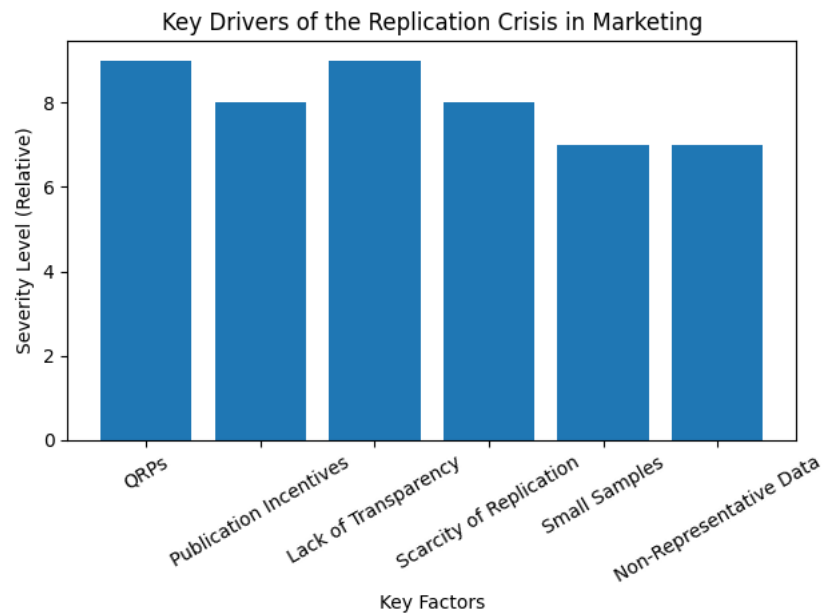


Figure 1. The key drivers of the replication crisis in marketing and their relative severity.

The graph as shown in Figure 1 illustrates the relative severity of key factors contributing to the replication crisis in marketing, highlighting that questionable research practices (QRPs) and lack of transparency are the most critical drivers. These two factors score the highest, indicating that issues such as p-hacking, selective reporting, and limited access to data and methods play a dominant role in undermining research reproducibility (Hensel, 2021). Closely following are publication incentives and the scarcity of replication studies, which reflect systemic and institutional pressures that encourage novel, significant findings while discouraging verification efforts. Meanwhile, small sample sizes and non-representative data show slightly lower but still substantial impact, emphasizing persistent methodological weaknesses that reduce the generalizability and robustness of findings (Hair & Sarstedt, 2021). Overall, the graph suggests that the replication crisis is not caused by a single issue but rather by an interconnected system of behavioral, methodological, and institutional factors that collectively compromise the reliability of marketing research.

The findings of this study underscore the need for a comprehensive approach to addressing the replication crisis in marketing. Methodological improvements alone are not sufficient; changes in institutional incentives and academic culture are also necessary (Filazzola & Cahill, 2021b). For example, journals and funding agencies should place greater emphasis on research quality and reproducibility, rather than solely on novelty and impact. In addition, the implications for theory and practice are significant. Reliable and reproducible research is essential for building a robust body of knowledge and informing effective marketing strategies. Without it, both academic and managerial decisions may be based on flawed evidence. Therefore, promoting replication and transparency is critical for maintaining the credibility of the field (Mesquida et al., 2022). Several practical recommendations emerge from this analysis. These include adopting open science practices, encouraging replication studies, improving research design, and enhancing statistical rigor. Educational initiatives that emphasize ethical research practices and methodological competence are also essential (Block et al., 2022). By implementing these strategies, the marketing discipline can strengthen its scientific foundation and ensure the reliability of its contributions.

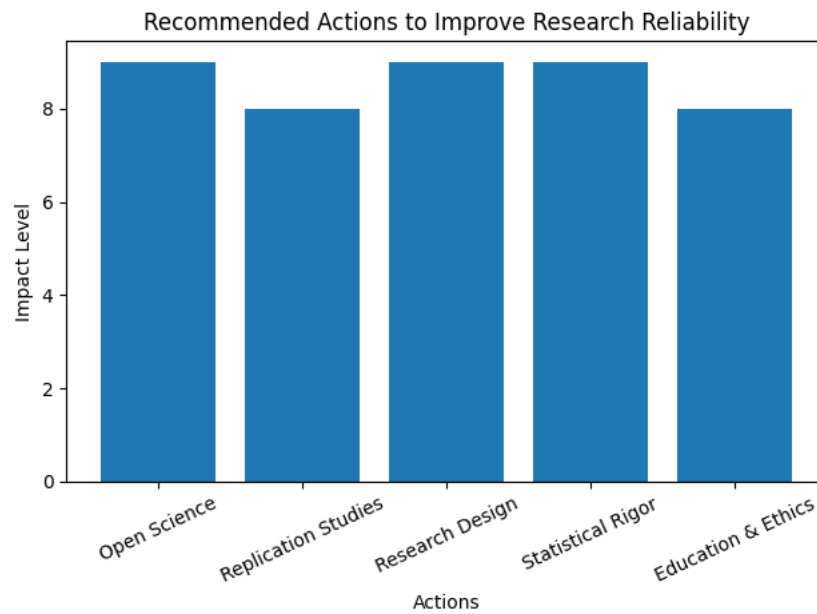


Figure 2. Recommended Actions to Improve Research Reliability

Figure 2 illustrates the relative impact of key recommended actions to improve research reliability in marketing, showing that open science practices, improved research design, and enhanced statistical rigor have the highest influence. This suggests that increasing transparency through data sharing and pre-registration, alongside strengthening the robustness of research methods and analytical techniques, are central to addressing replication issues. As investigated by Nelson et.al, replication studies and education on ethics and methodology also demonstrate substantial impact, though slightly lower, indicating their supportive role in reinforcing a culture of accountability and competence among researchers (Nelson et al., 2021). Overall, the graph emphasizes that while technical improvements in research execution are critical, they must be complemented by continuous education and a stronger emphasis on replication to ensure long-term credibility and sustainability of marketing research (Goldfarb et al., 2022).



Figure 3. Radar Chart of Comprehensive Strategies for Addressing the Replication Crisis in Marketing

The radar chart as shown in Figure 3 illustrates that addressing the replication crisis in marketing requires a balanced and multi-dimensional strategy, as all key factors demonstrate relatively high importance. Methodological rigor, open science, research design, and statistical rigor emerge as the most critical components, indicating that technical improvements in how research is conducted and analyzed are central to enhancing reproducibility (Goldfarb et al., 2022). At the same time, institutional reform and academic culture also show strong influence, highlighting the need for systemic changes in how research is evaluated and incentivized. Replication studies and education and ethics, while slightly lower, remain essential in supporting a culture of transparency, accountability, and continuous improvement (Nelson et al., 2021). Overall, the chart emphasizes that no single solution is sufficient; rather, the replication crisis can only be effectively addressed through coordinated efforts that integrate methodological excellence with institutional and cultural transformation.

CONCLUSION

The replication crisis presents a profound challenge to both the integrity and the practical impact of marketing research. As this study highlights, the problem is rooted in a combination of methodological weaknesses, publication bias, and institutional pressures that shape researcher behavior. Practices such as small sample usage, flexible data analysis, and insufficient reporting standards contribute to findings that are difficult to reproduce. At the same time, the academic emphasis on publishing novel and statistically significant results incentivizes questionable research practices, further weakening the reliability of the evidence base. These interconnected issues ultimately erode confidence in marketing scholarship and hinder the accumulation of robust, generalizable knowledge.

Beyond its academic implications, the replication crisis also affects the practical relevance of marketing research. Businesses, policymakers, and practitioners rely heavily on academic insights to inform strategic decisions, from consumer targeting to digital marketing optimization. When these insights are based on non-replicable or fragile findings, the risk of ineffective or misguided decisions increases significantly. This disconnect between research and practice not only reduces the value of academic contributions but also damages the credibility of the discipline in the eyes of external stakeholders. Therefore, ensuring the reliability of research is essential not only for theoretical advancement but also for maintaining real-world impact. Addressing the replication crisis requires a coordinated and systemic response involving researchers, academic institutions, and journal publishers. Efforts to promote transparency—such as open data, pre-registration, and clear methodological reporting—are critical first steps in improving reproducibility. Additionally, encouraging and valuing replication studies can help validate existing knowledge and strengthen the scientific foundation of the field. Equally important is the adoption of more rigorous research designs and advanced statistical methods, supported by educational initiatives that enhance methodological competence and ethical awareness. Through these combined efforts, marketing can evolve into a more credible, transparent, and trustworthy scientific discipline.

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