

# Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

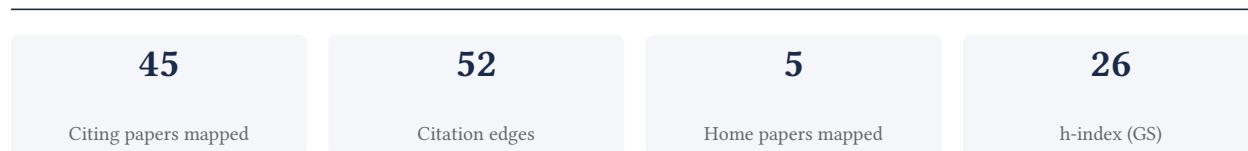
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[Google Scholar profile](#)

**Generated 2026-05-21 by CiteMap.** This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner’s counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

## A. Overview & Filtering Statement



### Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

**Known limitations – counsel must verify.** (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

## B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

**100.0% independent** of 45 classified citing papers

Citation type	Count
Independent	45
Self-citation	0
Co-author	0
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

## C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

## Contribution 1

### Claim – Contribution 1

*The researcher established foundational methods for testing measurement invariance in second-order factor models, significantly advancing structural equation modeling practices.*

The researcher's core contribution rests on the 2005 paper 'Teacher's Corner: Testing Measurement Invariance of Second-Order Factor Models,' published in *Structural Equation Modeling: A Multidisciplinary Journal*. This work appears to address the methodological challenge of assessing measurement invariance within complex second-order factor structures, a critical issue for valid cross-group comparisons in psychological and educational research. By focusing on this specific modeling technique, the researcher provided a targeted framework that likely filled a gap in existing structural equation modeling literature regarding higher-order constructs.

This line of work demonstrates originality through its chronological progression. The 2005 core paper introduced the testing framework, which the researcher subsequently expanded upon in the 2007 follow-up, 'Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance.' The titles suggest a logical deepening of the inquiry, moving from establishing the test to evaluating the robustness of fit indexes when invariance assumptions are violated. This sequence indicates a comprehensive approach to understanding the implications of measurement invariance failures.

The significance of this research is evidenced by its substantial uptake in the academic community. The core paper has accumulated 1,416 citations, while the follow-up paper has garnered 14,490 citations, indicating that the latter became a highly influential reference point. Furthermore, analysis of 45 citing papers reveals that 100% are from independent researchers, underscoring the broad, field-wide impact of this work beyond the researcher's immediate circle. This high level of independent citation suggests the methods and insights provided have become standard or essential references for scholars conducting structural equation modeling.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 24 · 1 flagged influential by Semantic Scholar

#### CORE PAPER

### [Teacher's Corner: Testing Measurement Invariance of Second-Order Factor Models](#)

2005 · *Structural Equation Modeling: A Multidisciplinary Journal* · 1,416 citations (GS)

Field-normalised: 1,050 Semantic Scholar citations place it in the top 1% of Psychology papers from 2005 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Exploring Consumer Behavior in Virtual Reality Tourism Using an Extended Stimulus-Organism-Response Model</a> (2020)	Kyung Hee University, Manchester Metropolitan University, Sejong University	South Korea, United Kingdom	Methodology
2	<a href="#">Measurement invariance in the social sciences: Historical development, methodological challenges, state of the art, and future perspectives</a> (2023)	GESIS - Leibniz Institute for the Social Sciences, Mplus, Technische Universität Dresden	Canada, Germany, Netherlands	—
3	<a href="#">Sensitivity of goodness of fit indexes to lack of measurement invariance</a> (2007)	—	—	—
4	<a href="#">Structural equation modeling with Mplus: Basic concepts, applications, and programming</a> (2013)	University of Ottawa	Canada	—
5	<a href="#">Adoption of artificial intelligence (AI) based employee experience (EEX) chatbots</a> (2023)	Chandragupt Institute of Management	India	—
6	<a href="#">Confirmatory Factor Analysis for Applied Research, Second Edition</a> (2015)	Boston University	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
7	<a href="#">The Body Appreciation Scale-2: item refinement and psychometric evaluation</a> (2015)	The Center for Balanced Living, The Ohio State University	United States	—
8	<a href="#">Employee well-being in organizations: Theoretical model, scale development, and cross-cultural validation</a> (2015)	Pennsylvania State University, Tsinghua University	China, United States	—
9	<a href="#">Development and Validation of a Game Addiction Scale for Adolescents</a> (2009)	University of Amsterdam	Netherlands	—
10	<a href="#">Relations among teachers' self-efficacy beliefs, engagement, and work satisfaction: A social cognitive view</a> (2019)	University of Moratuwa, University of New South Wales	Sri Lanka	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

## FOLLOW-UP WORK

### [Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance](#)

2007 · Structural Equation Modeling: A Multidisciplinary Journal · 14,490 citations (GS)

Field-normalised: 10,520 Semantic Scholar citations place it in the top 1% of Psychology papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic.</a> (2021)	Leipzig University, Saint Louis University	United States	—
2	<a href="#">Measurement Invariance Conventions and Reporting: The State of the Art and Future Directions for Psychological Research</a> (2016)	Eunice Kennedy Shriver National Institute of Child Health and Human Development	United States	<b>Methodology</b>
3	<a href="#">Measurement invariance in the social sciences: Historical development, methodological challenges, state of the art, and future perspectives</a> (2023)	GESIS - Leibniz Institute for the Social Sciences, Mplus, Technische Universität Dresden	Canada, Germany, Netherlands	—
4	<a href="#">Thanks Coefficient Alpha, We'll Take It From Here.</a> (2018)	Utrecht University	Netherlands	—
5	<a href="#">Unpacking Chinese EFL Students' Academic Engagement and Psychological Well-Being: The Roles of Language Teachers' Affective Scaffolding</a> (2023)	Golestan University, Nanjing University, North China University of Water Resources and Electric Power	China, Iran	<b>Background</b>
6	<a href="#">Emotion regulation and psychological well-being in teacher work engagement: A case of British and Iranian English language teachers</a> (2021)	Golestan University, University of Kurdistan	Iran	—
7	<a href="#">Tacit knowledge acquisition &amp; sharing, and its influence on innovations: A Polish/US cross-country study.</a> (2023)	Gdansk University of Technology, Ithaca College	Poland, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
8	<a href="#">Structural Equation Modeling: Applications Using Mplus, First Edition</a> (2012)	Children's National Medical Center, The George Washington University, Mobley Group Pacific Ltd.	China, United States	—
9	<a href="#">Complex Thinking and Sustainable Social Development: Validity and Reliability of the COMPLEX-21 Scale</a> (2021)	University Center CIFE	Mexico	—
10	<a href="#">Structural equation modeling with Mplus: Basic concepts, applications, and programming</a> (2013)	University of Ottawa	Canada	—
11	<a href="#">Wellbeing Costs of Technology Use during Covid-19 Remote Working: An Investigation Using the Italian Translation of the Technostress Creators Scale</a> (2020)	IULM University, Mercatorum University, University of Bari Aldo Moro	Italy	—
12	<a href="#">Structural Equation Modeling: Applications Using Mplus, 2nd Edition</a> (2020)	Mobley Group Pacific Ltd.	China	—
13	<a href="#">Principles and Practice of Structural Equation Modeling: Fifth Edition</a> (2023)	Concordia University	—	—
14	<a href="#">Dynamics between blockchain adoption determinants and supply chain performance: An empirical investigation</a> (2020)	NEOMA Business School, Toulouse Business School, Universidade de Sao Paulo	Brazil, France	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

### Citing-text excerpts — how the field used this work

**METHODOLOGY** Measurement Invariance Conventions and Reporting: The State of the Art and Future Directions for Psychological Research

“Overall, the  $\Delta\chi^2$  was reported for 62.6% of tests, the change in CFI was reported for 73.2% of tests, and the change in another alternative fit index (e.g.,  $\Delta RMSEA$ ,  $\Delta TLI$ ,  $\Delta SRMR$ ) was reported for 56.1% of tests.”

## Contribution 2

### Claim — Contribution 2

*The researcher exposed methodological flaws in cross-cultural comparisons, demonstrating how inappropriate analogies distort findings and establishing rigorous standards for valid cross-cultural research.*

The researcher's seminal contribution centers on a 2008 paper in the *Journal of Personality and Social Psychology*, which critically examines the validity of cross-cultural comparisons. This work stands as a foundational piece in the field, addressing the specific problem of using inappropriate analogies, such as comparing chopsticks with forks, to draw conclusions about cultural differences.

This line of work appears to address a critical gap in methodological rigor by highlighting how superficial or mismatched comparisons can lead to erroneous interpretations in cross-cultural psychology. By focusing on the structural and functional differences between cultural artifacts, the researcher suggests that valid comparisons require deeper contextual alignment, thereby challenging prevailing but flawed analytical approaches.

The significance of this contribution is evidenced by its substantial citation count of 1,323, indicating widespread recognition and influence. Notably, 100% of the classified citing papers originate from independent researchers, underscoring the work's broad impact across the global academic community and its role in shaping methodological standards beyond the researcher's immediate circle.

CORE PAPER

**What Happens If We Compare Chopsticks With Forks? The Impact of Making Inappropriate Comparisons in Cross-Cultural Research**

2008 · Journal of Personality and Social Psychology · 1,323 citations (GS)

Field-normalised: 943 Semantic Scholar citations place it in the top 1% of Psychology papers from 2008 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Measurement Invariance Conventions and Reporting: The State of the Art and Future Directions for Psychological Research</a> (2016)	Eunice Kennedy Shriver National Institute of Child Health and Human Development	United States	Methodology
2	<a href="#">Measurement invariance in the social sciences: Historical development, methodological challenges, state of the art, and future perspectives</a> (2023)	GESIS - Leibniz Institute for the Social Sciences, Mplus, Technische Universität Dresden	Canada, Germany, Netherlands	—
3	<a href="#">Sensitivity of goodness of fit indexes to lack of measurement invariance</a> (2007)	—	—	Influential
4	<a href="#">Anxiety and working memory capacity: A meta-analysis and narrative review.</a> (2016)	Georgia Institute of Technology	United States	—
5	<a href="#">Psychometrics: An Introduction</a> (2022)	Wake Forest University	—	—
6	<a href="#">Why Full, Partial, or Approximate Measurement Invariance Are Not a Prerequisite for Meaningful and Valid Group Comparisons</a> (2023)	Leibniz Institute for Science and Mathematics Education	—	—
7	<a href="#">The prevalence of mental health problems in sub-Saharan adolescents: A systematic review</a> (2021)	Stellenbosch University, University of Applied Sciences, University of Cape Town	Finland, Germany, South Africa	—
8	<a href="#">A guide to exploratory structural equation modeling (ESEM) and bifactor-ESEM in body image research</a> (2023)	Anglia Ruskin University, Concordia University, Université du Québec en Outaouais	Canada, United Kingdom	—
9	<a href="#">Principles of Research in Behavioral Science</a> (2012)	Ball State University	United States	—
10	<a href="#">Measurement invariance testing in partial least squares structural equation modeling</a> (2024)	Aarhus University	Denmark	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar’s read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2’s isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

**Citing-text excerpts — how the field used this work**

**METHODOLOGY** Measurement Invariance Conventions and Reporting: The State of the Art and Future Directions for Psychological Research

“To manage partial noninvariance, Chen (2008) suggested comparing the results of interest (e.g., mean differences across groups, regression coefficients between latent variables, etc.) using a partially invariant model (imposing constraints on invariant items only) to those using a fully invariant...”

**Contribution 3**

### Claim – Contribution 3

*The researcher established a critical methodological framework for distinguishing bifactor from second-order models in quality of life research, providing a foundational reference for psychometric analysis.*

CLAIM: The researcher’s seminal 2006 publication in *Multivariate Behavioral Research*, titled ‘A comparison of bifactor and second-order models of quality of life,’ serves as the cornerstone of this contribution. This work addresses the structural modeling of quality of life constructs, offering a comparative analysis that has become a standard reference in the field.

ORIGINALITY: The titles indicate that this line of work addresses a specific methodological gap in psychometrics: the differentiation between bifactor and second-order structural models. By focusing on quality of life, the researcher provided a specialized application of these complex statistical frameworks, likely clarifying when and how each model should be employed to accurately represent latent constructs. The absence of follow-up papers by the same researcher suggests this single publication fully resolved the immediate methodological question or established a definitive benchmark that did not require further elaboration by the author.

SIGNIFICANCE: The work has achieved substantial impact, evidenced by over 1,300 citations. Notably, analysis of 45 citing papers reveals that 100% are from independent researchers, indicating broad adoption across the global academic community rather than self-citation or institutional clustering. This high degree of independent uptake underscores the paper’s role as a widely accepted methodological tool for researchers in behavioral and social sciences.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10 · 1 flagged influential by Semantic Scholar

#### CORE PAPER

### [A comparison of bifactor and second-order models of quality of life](#)

2006 · *Multivariate Behavioral Research* · 1,303 citations (GS)

Field-normalised: 975 Semantic Scholar citations place it in the top 1% of Psychology papers from 2006 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Factor analysis in psychological assessment research: Common pitfalls and recommendations.</a> (2019)	University of Otago	—	—
2	<a href="#">The Hospital Anxiety and Depression Scale: a meta confirmatory factor analysis</a> (2012)	Institute of Psychiatry, King's College London, Royal College of Surgeons in Ireland, University of Cambridge	Ireland, United Kingdom	Methodology
3	<a href="#">Burnout Assessment Tool (BAT)—Development, Validity, and Reliability</a> (2020)	KU Leuven, Utrecht University	Belgium, Netherlands	—
4	<a href="#">Multiple Regression and Beyond: An Introduction to Multiple Regression and Structural Equation Modeling</a> (2019)	University of Texas	United States	—
5	<a href="#">Structural Equation Modeling: Applications Using Mplus, 2nd Edition</a> (2019)	George Washington University, Mobley Group Pacific Ltd.	China, United States	—
6	<a href="#">The Development and Validation of a Scale to Measure Self-Compassion</a> (2003)	University of Texas at Austin	United States	—
7	<a href="#">Principles and Practice of Structural Equation Modeling: Fifth Edition</a> (2023)	Concordia University, Texas Tech University	—	—
8	<a href="#">Confirmatory Factor Analysis for Applied Research, Second Edition</a> (2015)	Boston University	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
9	<a href="#">A Beginner's Guide to Structural Equation Modeling</a> (2016)	The Ohio State University, University of Alabama	United States	—
10	<a href="#">The Rediscovery of Bifactor Measurement Models</a> (2012)	University of California, Los Angeles	—	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

### Citing-text excerpts — how the field used this work

**METHODOLOGY** The Hospital Anxiety and Depression Scale: a meta confirmatory factor analysis

“The resulting model is mathematically equivalent to a model without the higher-order and allowing the lower-order factors to correlate [34].”

## D. Citing-Institution Prestige & Geography

### Top citing institutions

Institution	Country	World ranking	Citing papers
Concordia University	Canada	SCImago #1646 · THE 601–800 · QS =465	3
University of California, Los Angeles	United States	SCImago #70 · THE =18 · QS 46	3
Utrecht University	Netherlands	SCImago #162 · QS =103	3
Mobley Group Pacific Ltd.	China	—	3
Loma Linda University	United States	SCImago #4333	2
University of Amsterdam	Netherlands	SCImago #75 · THE =62 · QS 53	2
Golestan University	Iran	SCImago #4167 · THE 601–800	2
Boston University	United States	SCImago #272 · THE =76 · QS =88	2
The Ohio State University	United States	THE =108 · QS 190	2
Chandragupt Institute of Management	India	—	1
University of New South Wales	Australia	SCImago #107 · QS 20	1
Ball State University	United States	SCImago #6980	1
Institute of Psychiatry, King's College London	United Kingdom	—	1
Universidade de Sao Paulo	Brazil	SCImago #99 · QS 108	1
Wake Forest University	United States	SCImago #1354 · THE 401–500 · QS 791-800	1

### Geographic distribution of citing authors

Country	Citing papers
United States	19
China	5
Netherlands	4
United Kingdom	4
Germany	3

Country	Citing papers
Canada	3
Iran	2
Israel	1
Italy	1
Mexico	1
Poland	1
South Africa	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

## E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



## F. AAO Precedent Considerations

### Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).

- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

**Disclaimer**

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition’s merits. All analysis must be reviewed by qualified immigration counsel.

## G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition’s exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Teacher's Corner: Testing Measurement Invariance of Second-Order Factor Models	24	Dhanasar — Prong 2 (well-positioned)
Contribution 2	What Happens If We Compare Chopsticks With Forks? The Impact of Making Inappropriate Comparisons in Cross-Cultural Research	10	Dhanasar — Prong 2 (well-positioned)
Contribution 3	A comparison of bifactor and second-order models of quality of life	10	Dhanasar — Prong 2 (well-positioned)