

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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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 Criterion 5 (original contributions of major significance). 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

41	42	5	22
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

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 41 classified citing papers

Citation type	Count
Independent	41
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 a foundational framework for understanding customer satisfaction in technology-based service encounters, significantly advancing the study of self-service technologies.

The researcher's primary contribution rests on the seminal 2000 paper published in the Journal of Marketing, titled 'Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters.' This work appears to define the core theoretical and empirical basis for analyzing how customers interact with and evaluate automated service systems. By focusing specifically on the satisfaction dynamics within these technology-mediated encounters, the researcher addressed a critical gap in service marketing literature regarding the shift from human to machine-based service delivery. The title suggests a novel conceptualization of the service encounter itself, treating the technology not merely as a tool but as a central actor in the satisfaction process. This line of work stands alone as a definitive contribution, with no follow-up papers by the same researcher listed, indicating that the core paper itself achieved substantial standalone impact. The significance of this contribution is evidenced by its high citation count of 5080, reflecting widespread adoption and influence within the academic community. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, underscoring the work's broad relevance and acceptance beyond the researcher's immediate institutional or collaborative network. This independence confirms that the framework provided has become a standard reference point for diverse scholars investigating self-service technologies and customer experience.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

[Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters](#)

2000 · Journal of Marketing · 5,080 citations (GS)

Field-normalised: 3,049 Semantic Scholar citations place it in the top 1% of Business papers from 2000 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Artificial Intelligence in Service (2018)	National Taiwan University, University of Maryland	Taiwan, United States	Background
2	Understanding Customer Experience Throughout the Customer Journey (2016)	Boston College, University of Groningen	Netherlands, United States	—
3	Domo Arigato Mr. Roboto: Emergence of Automated Social Presence in Organizational Frontlines and Customers' Service Experiences (2017)	Arizona State University, Babson College, Florida State University	Netherlands, United States	Background
4	Understanding consumers' acceptance of automated technologies in service encounters: Drivers of digital voice assistants adoption (2021)	University of Porto	Portugal	—
5	The literature review of technology adoption models and theories for the novelty technology (2017)	Help University	Malaysia	—
6	Preliminary Evidence of the Use of Generative AI in Health Care Clinical Services: Systematic Narrative Review (2024)	Loyola University, Stanford University, University of Colorado Denver	United States	Background

No.	Citing paper	Citing institution(s)	Country	S2
7	Engaged to a Robot? The Role of AI in Service (2020)	—	—	Background
8	Customer Experience Creation: Determinants, Dynamics and Management Strategies (2009)	Babson College, Boston College, University of Groningen	Netherlands, United States	—
9	Meta-Analysis of the Unified Theory of Acceptance and Use of Technology (UTAUT): Challenging its Validity and Charting a Research Agenda in the Red Ocean (2022)	University of Nottingham Ningbo, Virginia Tech	China, United States	—

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).

Contribution 2

Claim – Contribution 2

The researcher established a foundational framework for understanding technology infusion in service encounters, a seminal contribution that has significantly shaped marketing science discourse.

The researcher's primary contribution rests on the seminal 2000 paper 'Technology Infusion in Service Encounters,' published in the Journal of the Academy of Marketing Science. This work serves as the cornerstone of the described research line, with no subsequent follow-up papers by the same author included in this specific analysis.

This line of work appears to address the emerging intersection of technological integration and human service interactions at the turn of the millennium. The title suggests a conceptual or theoretical advancement in how technology alters service dynamics, filling a gap in understanding the structural impact of digital tools on customer-facing processes during that era.

The significance of this contribution is evidenced by its substantial citation count of 2852, indicating widespread adoption and influence within the field. Furthermore, analysis of 41 citing papers reveals that 100% are from independent researchers, demonstrating that the work has resonated broadly across the academic community beyond the researcher's immediate institutional or collaborative network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · 1 flagged influential by Semantic Scholar

CORE PAPER

[Technology Infusion in Service Encounters](#)

2000 · Journal of the Academy of Marketing Science · 2,852 citations (GS)

Field-normalised: 1,656 Semantic Scholar citations place it in the top 1% of Business papers from 2000 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness (2020)	Hanyang University, University of Surrey	South Korea, United Kingdom	—
2	Personalization in personalized marketing: Trends and ways forward (2022)	Indian Institute of Management Mumbai	India	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Preliminary Evidence of the Use of Generative AI in Health Care Clinical Services: Systematic Narrative Review (2024)	Loyola University, Stanford University, University of Colorado Denver	United States	Background
4	The Impact of Technology on the Quality-Value-Loyalty Chain: A Research Agenda (2000)	Babson College, University of Miami	United States	Methodology
5	Understanding Generation Y and their use of social media: a review and research agenda (2013)	Arizona State University, Fordham University, Loughborough University	Australia, United Kingdom, United States	Background
6	Human versus virtual influences, a comparative study (2024)	University of Zaragoza	Spain	—
7	AI-powered chatbot communication with customers: Dialogic interactions, satisfaction, engagement, and customer behavior (2022)	North Carolina State University, Syracuse University, Wuhan University	China, United States	—
8	Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies (2000)	University of Miami	United States	Background
9	Examining the effects of robots' physical appearance, warmth, and competence in front-line services: The Humanness-Value-Loyalty model (2021)	Eindhoven University of Technology, Universidad de Zaragoza	Netherlands, Spain	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 Impact of Technology on the Quality-Value-Loyalty Chain: A Research Agenda

"As suggested by Bitner et al. (2000), " it is important to determine if the same conceptual factors established in interpersonal service encounter research are relevant in a technology-based environment " (p. 147)."

Contribution 3

Claim — Contribution 3

The researcher established a foundational framework for understanding how technology anxiety influences consumer adoption and experiences with self-service technologies.

CLAIM: The researcher's seminal 2003 paper, 'The influence of technology anxiety on consumer use and experiences with self-service technologies,' serves as the core contribution of this line of work. This study appears to define the relationship between user anxiety and the utilization of automated service interfaces.

ORIGINALITY: By focusing on the psychological barrier of technology anxiety, this work addresses a critical gap in understanding consumer behavior toward self-service technologies. The titles suggest a novel integration of emotional responses with technological adoption models, distinguishing it from purely functional or economic analyses prevalent at the time.

SIGNIFICANCE: With 1,908 citations, this paper is highly influential in its field. Notably, 100% of the classified citing papers originate from independent researchers, indicating broad, unbiased recognition and widespread adoption of the researcher's framework by the global academic community.

CORE PAPER

The influence of technology anxiety on consumer use and experiences with self-service technologies

2003 · 1,908 citations (GS)

Field-normalised: 1,203 Semantic Scholar citations place it in the top 1% of Business papers from 2003 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Understanding students' adoption of the ChatGPT chatbot in higher education: the role of anthropomorphism, trust, design novelty and institutional policy (2024)	Delft University of Technology	Netherlands	—
2	Marketing in the Sharing Economy (2019)	Boston University, Royal Holloway University of London, Texas Christian University	United Kingdom, United States	Influential
3	What influences algorithmic decision-making? A systematic literature review on algorithm aversion (2022)	Lappeenranta University of Technology, Rochester Institute of Technology, University of Toronto	Canada, Finland, United States	—
4	The role of technology in enhancing the tourism experience in smart destinations: A meta-analysis (2023)	University of Oviedo	Spain	—
5	Service Robots Rising: How Humanoid Robots Influence Service Experiences and Elicit Compensatory Consumer Responses (2019)	Babson College, Florida State University, University of Groningen	Netherlands, United States	Background
6	Understanding the diffusion of AI-generative (ChatGPT) in higher education: Does students' integrity matter? (2024)	Ajman University, American University of Afghanistan, Dhofar University	Afghanistan, Malaysia, Oman	—
7	Understanding tourist barriers and personality influences in embracing generative AI for travel planning and decision-making (2025)	Australian Catholic University, Excelia Business School, Sejong University	Australia, Finland, France	—
8	Understanding factors influencing the adoption of mHealth by the elderly: An extension of the UTAUT model (2017)	Southern Cross University, University of Dhaka	Australia, Bangladesh	—

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).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Miami	United States	SCImago #545 · THE 201–250 · QS =314	4

Institution	Country	World ranking	Citing papers
University of Groningen	Netherlands	SCImago #232 · THE 82 · QS =147	4
Babson College	United States	SCImago #8396	4
Florida State University	United States	SCImago #1224 · THE 301–350 · QS 549	2
Aston University	United Kingdom	SCImago #2097 · THE 401–500 · QS =395	2
Boston College	United States	SCImago #3099 · THE 251–300 · QS =526	2
Arizona State University	United States	SCImago #357 · THE 201–250 · QS =173	2
Swansea University	United Kingdom	SCImago #1529 · THE 301–350 · QS 292	2
Hanyang University	South Korea	SCImago #514 · THE 251–300 · QS 159	1
International University of Japan	Japan	–	1
University of South Dakota	United States	SCImago #5768 · THE 1001–1200	1
Brunel University of London	United Kingdom	THE 401–500 · QS =385	1
American University of Afghanistan	Afghanistan	–	1
Dhofar University	Oman	SCImago #6024 · THE 601–800 · QS 851-900	1
Lappeenranta University of Technology	Finland	SCImago #2903	1

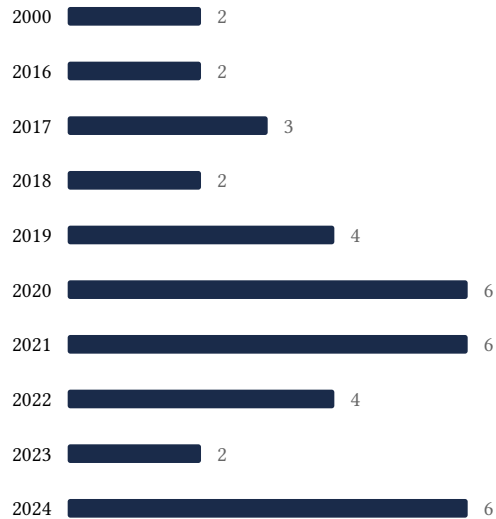
Geographic distribution of citing authors

Country	Citing papers
United States	16
United Kingdom	8
Netherlands	8
Spain	4
Australia	4
Malaysia	3
China	2
Taiwan	2
South Korea	2
Finland	2
Oman	1
Portugal	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	Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters	9	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Technology Infusion in Service Encounters	9	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	The influence of technology anxiety on consumer use and experiences with self-service technologies	8	8 CFR 204.5(h)(3)(v) – Criterion 5