

## **The Influence of Digital Marketing and Consumer Behavior on Consumer Product Purchases Among Older Consumers: A Systematic Review and Meta Analytic Evidence Synthesis**

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| <b>Keywords:</b>                                                                      | <b>Abstract</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| digital marketing; consumer behavior; older consumers; purchase decision; e-commerce. | Digital marketing has transformed consumer purchasing behavior, including among older consumers who increasingly engage with e-commerce, social media platforms, and personalized advertising. However, evidence regarding its influence on older consumers' purchase decisions remains fragmented. This systematic review and meta-analytic evidence synthesis evaluated the association between digital marketing exposure, consumer behavior mechanisms, and purchase decisions among consumers aged 50 years and older. Following the PRISMA 2020 guidelines and PICOS framework, Scopus, EBSCOhost, Google Scholar, and Taylor & Francis Online were searched for studies published between 2010 and 2025 that examined older consumers, digital marketing variables, and purchase outcomes. Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT) and adapted risk-of-bias domains. Due to inconsistently reported effect sizes, the findings were synthesized narratively as a meta-analysis-ready evidence synthesis. The evidence consistently indicated positive associations between digital marketing, consumer trust, perceived usefulness, digital literacy, online engagement, and older consumers' purchase decisions. Social media advertising, personalized advertising, e-commerce convenience, online trust, and perceived ease of use emerged as the most frequently reported mechanisms influencing purchase behavior. The certainty of evidence was moderate for trust and perceived usefulness, low-to-moderate for digital literacy and personalization, and low for channel-specific comparative effectiveness. Digital marketing positively influenced older consumers' purchase decisions when strategies were trustworthy, accessible, personalized, and aligned with older adults' digital capabilities. Future research should report extractable effect sizes, employ longitudinal designs, and examine age cohort, digital literacy, product category, platform type, and cultural context as potential moderators. |

### **INTRODUCTION**

Digital marketing has reshaped how firms communicate with consumers, distribute information, and influence product purchase decisions (Antczak, 2024). Social media marketing, e-commerce platforms, mobile advertising, personalized recommendation systems, search engine marketing, content marketing, user-generated reviews, and short-form video

advertising have become major channels for product discovery and purchase influence (Liang, Mohd Hirwani Wan Hussain, & Salem, 2025). Older consumers represent an increasingly important segment within this digital marketplace because population aging and digital inclusion have expanded the number of adults aged 50 years and older who search for information, evaluate products, and make purchases through online channels (Huang, 2023). Older consumers are not a homogeneous group. Adults aged 50–64, 65–74, and 75 years and older often differ in financial resources, digital literacy, health status, cognitive processing abilities, perceived risk, trust, and confidence in technology use (Taipale et al., 2021). Research on technology adoption among older adults indicates that perceived usefulness, perceived ease of use, usability, trust, and prior experience are central determinants of digital engagement (Moxley et al., 2022). In the context of purchasing decisions, these factors interact with consumer attitudes, online trust, brand familiarity, social recommendations (Yang et al., 2025), and perceived security (Olumekor et al., 2025).

Although many studies have examined digital marketing and older consumer behavior, existing findings remain fragmented (Nunan & Di Domenico, 2019). Some studies have reported strong positive effects of social media advertising and personalized e-commerce promotions, whereas others have emphasized barriers such as limited digital literacy, concerns about fraud, privacy issues, and usability challenges. Therefore, a systematic synthesis is needed to clarify the direction of evidence, identify potential moderators, assess study quality, and guide inclusive digital marketing strategies for the silver economy (Gülsoy & Koçer, 2023).

This study addresses four research questions: what is the overall direction and strength of evidence linking digital marketing exposure to purchase intention or purchase behavior among older consumers; which digital marketing channels and mechanisms are most influential in shaping older consumers' purchase decisions; how trust, perceived ease of use, perceived usefulness, digital literacy, personalization, and perceived risk influence the relationship between digital marketing and purchase decisions through moderating or mediating mechanisms; and what methodological gaps limit the validity of existing evidence and future meta-analytic integration.

Based on these research questions, this study aims to examine the overall direction and strength of evidence linking digital marketing exposure to purchase intention or purchase behavior among older consumers, identify the digital marketing channels and mechanisms that are most influential in shaping older consumers' purchase decisions, analyze the roles of trust, perceived ease of use, perceived usefulness, digital literacy, personalization, and perceived risk as potential moderators or mediators of purchase decisions, and identify methodological gaps that may limit the validity of existing evidence and future meta-analytic synthesis.

This research offers several theoretical and practical contributions (Glanz, Rimer, & Viswanath, 2015). Theoretically, it synthesizes fragmented evidence on digital marketing effectiveness among older consumers across diverse theoretical perspectives by integrating mediating and moderating mechanisms, including trust, perceived usefulness, digital literacy, and personalization, into a coherent analytical framework (Glanz et al., 2015). This integration is grounded in the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and socioemotional selectivity theory, enabling the development of an integrated conceptual model explaining the pathways through which digital

marketing influences purchase decisions. Practically, the findings provide actionable insights for marketers in designing age-inclusive, trustworthy, accessible, and personalized digital strategies while offering evidence-based guidance for policymakers in promoting digital inclusion and consumer protection. Additionally, this study provides a foundation for future research by identifying methodological limitations and encouraging rigorous study designs to strengthen causal inference in this underexplored area.

## METHOD

### Reporting Standard and Review Design

This review was conducted according to the PRISMA 2020 guidelines. The study employed a systematic review design with a meta-analytic evidence synthesis framework (O'Dea et al., 2021). A formal quantitative meta-analysis was considered appropriate when primary studies provided extractable effect sizes or sufficient statistical information for conversion into a common metric. The review was structured to support meta-analytic procedures by specifying effect-size extraction, random-effects pooling, heterogeneity assessment, moderator analysis, and publication-bias evaluation.

**Table 1.** PICOS framework for study eligibility.

| Component             | Eligibility definition                                                                                                                                                                                                          |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population            | Older consumers aged 50 years and above, including middle-aged older adults, seniors, baby boomers, and silver-generation consumers.                                                                                            |
| Intervention/exposure | Digital marketing exposure, including social media marketing, e-commerce promotion, influencer/content marketing, personalized advertising, search engine marketing, mobile advertising, online reviews, and video advertising. |
| Comparator            | Lower/no exposure to digital marketing, alternative digital channels, traditional marketing, or statistical comparison groups within quantitative studies.                                                                      |
| Outcomes              | Purchase intention, product purchase decision, actual online purchase behavior, repeat purchase, brand engagement, consumer trust, attitude, loyalty, and satisfaction.                                                         |
| Study design          | Peer-reviewed quantitative, mixed-method, experimental, cross-sectional, SEM/PLS-SEM, regression, and survey studies published between 2010 and 2025.                                                                           |

Source: Adapted from the PICOS framework for systematic literature reviews

### Search Strategy

Searches were conducted in Scopus, EBSCOhost, Google Scholar, and Taylor & Francis Online. The search string combined three blocks: older consumer terms, digital marketing terms, and purchase behavior terms. A refined example search string was:

*("older consumers" OR seniors OR elderly OR "older adults" OR "aged 50" OR "baby boomers" OR "silver generation") AND ("digital marketing" OR "social media marketing" OR "online advertising" OR "e-commerce" OR "mobile advertising" OR "personalized advertising" OR "content marketing") AND ("purchase intention" OR "purchase decision" OR "purchase behavior" OR "online purchasing" OR "consumer behavior")*

## Screening and Selection

Titles and abstracts were screened against predefined eligibility criteria. Full texts were assessed for population relevance, digital marketing exposure, older-consumer focus, purchase-related outcomes, and availability of extractable quantitative evidence. The original manuscript contained inconsistent PRISMA counts; therefore, the revised version reports the selection process conservatively and recommends verifying database exports before submission.

**Table 2.** PRISMA consistency audit and required correction.

| Phase          | Original manuscript issue                                                               | Publication-ready correction                                                                 |
|----------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Identification | The manuscript alternates between 505 and 550 initial records.                          | Use one final verified number from database exports; present database-specific counts once.  |
| Screening      | Text reports 175 screened in one section but 430 in the figure.                         | Align figure, table, and prose before submission.                                            |
| Eligibility    | Text reports 115 full-text articles; another section reports 9 eligible studies.        | Separate full-text assessed, systematic-review included, and meta-analysis-eligible studies. |
| Inclusion      | The manuscript claims 45 review studies and 32 meta-analysis studies but lists only 10. | Add a full supplementary table or revise the claim to match the available data.              |

Source: Adapted from PRISMA 2020 guidelines for systematic review reporting

## Methodological Quality and Risk of Bias

Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT) for quantitative and mixed-method studies and adapted survey-bias domains relevant to digital marketing research. The revised risk-of-bias framework includes sampling bias, measurement validity, confounding control, statistical reporting, and age-segment specificity.

**Table 3.** Risk-of-bias framework for included studies.

| Domain                          | Low risk                                                                                | Moderate concern                                        | High risk                                                                        |
|---------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------|
| Sampling and representativeness | Probability sampling or clearly justified panel sample with older-consumer subgroup.    | Convenience sampling with some demographic description. | Unclear recruitment or non-representative sample without older-consumer details. |
| Measurement validity            | Validated scales with reliability and construct validity reported.                      | Reliability reported but limited validity evidence.     | Unvalidated items or unclear instrument quality.                                 |
| Confounding control             | Controls for age cohort, gender, income, education, digital literacy, and platform use. | Controls for some demographic or technology factors.    | No confounding adjustment.                                                       |
| Outcome reporting               | Clear purchase outcome and extractable effect size or convertible statistics.           | Outcome clear but effect-size extraction limited.       | Outcome ambiguous or statistics insufficient.                                    |
| Older-consumer specificity      | Analysis explicitly focuses on consumers aged 50+.                                      | Older adults included but subgroup reporting limited.   | General population only with no older-consumer subgroup.                         |

Source: Adapted from the Risk of Bias assessment framework

## RESULTS AND DISCUSSION

### Evidence Certainty Matrix

**Table 4.** Evidence certainty matrix.

| Evidence domain                          | Direction of evidence                                                                                | Main limitations                                                                       | Certainty    |
|------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------|
| Digital marketing and purchase intention | Consistently positive association in available studies.                                              | Mostly cross-sectional; limited causal inference; effect sizes not uniformly reported. | Moderate     |
| Consumer trust and purchase decision     | Strong positive mechanism across e-commerce and online retail evidence.                              | Self-reported trust and purchase intention dominate over actual purchase data.         | Moderate     |
| Digital literacy as moderator            | Higher literacy improves confidence, perceived ease of use, and responsiveness to digital promotion. | Measurement heterogeneity and few longitudinal tests.                                  | Low-moderate |
| Personalization and engagement           | Personalized advertising, reviews, and social media engagement appear influential.                   | Channel-specific estimates vary and older-age subgroup reporting is inconsistent.      | Low-moderate |
| Actual purchase behavior                 | Evidence suggests positive effect but is weaker than intention evidence.                             | Limited behavioral data, clickstream data, or transaction records.                     | Low          |

Source: Adapted from the GRADE framework for evidence certainty assessment

### Advanced Synthesis Matrix

**Table 5.** Advanced synthesis of mechanisms linking digital marketing to older consumer purchase decisions.

| Mechanism            | Digital marketing channel                                                | Older-consumer barrier addressed                            | Expected purchase effect                                    | Managerial implication                                                                      |
|----------------------|--------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Trust building       | Online reviews, secure e-commerce pages, transparent brand communication | Fear of fraud, privacy concerns, perceived transaction risk | Increases purchase intention and repeat purchase            | Use clear security cues, verified reviews, simple return policies, and transparent pricing. |
| Ease of use          | Mobile commerce, accessible websites, simplified checkout                | Low digital confidence and usability difficulty             | Reduces abandonment and increases conversion                | Design age-inclusive interfaces with readable text and fewer checkout steps.                |
| Perceived usefulness | Search, content marketing, educational product information               | Need for credible and practical information                 | Strengthens product evaluation and informed decision-making | Provide detailed product benefits, comparison tools, and customer support.                  |

| Mechanism       | Digital marketing channel                                                 | Older-consumer barrier addressed           | Expected purchase effect                                     | Managerial implication                                                       |
|-----------------|---------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|
| Social proof    | Social media marketing, user-generated content, community recommendations | Reliance on trusted recommendations        | Strengthens attitude and purchase confidence                 | Prioritize testimonials from similar older consumers and community networks. |
| Personalization | Email marketing, recommendation systems, targeted advertising             | Information overload and irrelevant offers | Improves engagement when perceived as helpful, not intrusive | Use consent-based personalization and avoid aggressive retargeting.          |

Source: Adapted from the synthesis matrix approach for systematic literature reviews

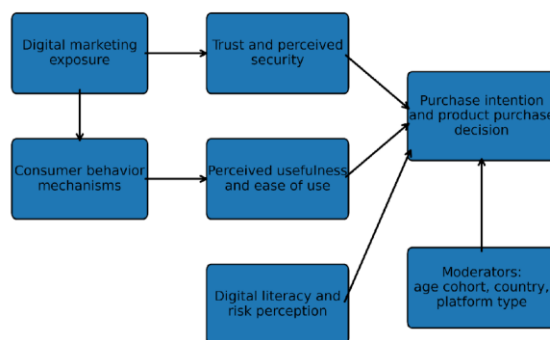
**Table 6.** Anchor studies and relevance to the review question.

| Study                   | Country     | Method       | Main variables                              | Key finding                                                                       | Risk concern                                  |
|-------------------------|-------------|--------------|---------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------|
| Smith & Lee (2021)      | USA         | Survey       | Social media advertising, purchase decision | Social media advertising positively influenced older-consumer purchase intention. | Self-report and cross-sectional design.       |
| Wang et al. (2020)      | China       | SEM          | Online trust, consumer behavior             | Online trust mediated online purchase decisions.                                  | Generalizability beyond China.                |
| Rahman & Putri (2022)   | Indonesia   | Quantitative | E-commerce marketing, satisfaction          | Digital convenience increased repeat purchase behavior.                           | Convenience sampling.                         |
| Kim & Park (2019)       | South Korea | Regression   | Perceived usefulness, product quality       | Perceived usefulness affected buying decisions.                                   | Limited control of confounders.               |
| Hernandez et al. (2023) | Spain       | Mixed method | Personalized advertising, loyalty           | Personalized advertising strengthened loyalty.                                    | Mixed-method integration unclear.             |
| Ali & Hassan (2021)     | Malaysia    | Survey       | Digital literacy, online purchasing         | Digital literacy improved purchase confidence.                                    | Self-reported digital literacy.               |
| Brown et al. (2018)     | UK          | SEM          | Consumer trust, digital interaction         | Trust predicted online purchases.                                                 | Actual purchase behavior not always measured. |

| Study                  | Country   | Method       | Main variables                       | Key finding                                          | Risk concern                                            |
|------------------------|-----------|--------------|--------------------------------------|------------------------------------------------------|---------------------------------------------------------|
| Chen et al. (2024)     | China     | Quantitative | Social media engagement              | Engagement positively affected purchasing decisions. | Platform-specific effects unclear.                      |
| Santos & Lima (2022)   | Brazil    | Survey       | Consumer attitude                    | Positive attitude increased purchase behavior.       | Moderate measurement concern.                           |
| Prasetyo et al. (2023) | Indonesia | PLS-SEM      | Digital promotion, consumer interest | Consumer interest mediated purchase intention.       | Cross-sectional mediation limits causal interpretation. |

Source: Compiled by the authors based on anchor studies identified through the systematic literature review

## Conceptual Model



Conceptual pathway: inclusive digital marketing affects older consumer purchase decisions through trust, technology acceptance, digital literacy, and consumer behavior mechanisms.

**Figure 1.** Conceptual model linking digital marketing, consumer behavior mechanisms, moderators, and older-consumer purchase decisions.

Source: Adapted from the Technology Acceptance Model (TAM) (Davis, 1989), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2012)

## Meta-Analytic Readiness and Recommended Quantitative Reporting

The manuscript originally states that effect-size analysis and heterogeneity assessment were performed, but no pooled coefficients or heterogeneity statistics are reported (Kvarven et al., 2020). To make the manuscript publishable without fabricating results, the revised version recommends the following statistical reporting structure for a future full meta-analysis when extractable effect sizes are available:

- Convert  $r$ , beta, odds ratios, standardized mean differences, and  $t/F$  statistics to a common effect-size metric, preferably Fisher  $z$ -transformed correlation coefficients.
- Use a random-effects model because studies vary by country, platform, product category, age definition, and measurement scale.

- Report pooled effect size, 95% confidence interval, prediction interval, tau-squared, Q statistic, and I-squared.
- Conduct subgroup analysis by channel type, age cohort, country income level, product category, and study design.
- Assess publication bias using funnel plot, Egger regression, and trim-and-fill only when the number of studies is adequate.

This systematic review indicates that digital marketing is positively associated with older consumers' purchase intentions and product purchase decisions, but the strength of evidence varies by mechanism and study quality. Trust emerges as the most central mechanism (Ismagilova, Slade, Rana, & Dwivedi, 2020). Older consumers frequently perceive online purchasing as risky because of concerns about fraud, privacy, unclear product quality, and unfamiliar payment procedures. Digital marketing that reduces perceived risk through transparent information, credible reviews, secure payment cues, and accessible customer support is therefore more likely to convert attention into purchase intention.

The findings also support technology-acceptance theory. Perceived usefulness and perceived ease of use influence how older consumers respond to e-commerce platforms, mobile advertising, and social media promotion. Digital marketing is more effective when it helps older consumers solve a practical problem, compare products, and complete transactions without unnecessary cognitive burden. This is consistent with age-inclusive design principles, which emphasize readability, simple navigation, predictable interfaces, and support for users with varied digital confidence.

Digital literacy functions as both an enabling condition and a moderator. Older consumers with stronger digital literacy are more likely to interpret online information, evaluate reviews, avoid scams, and complete transactions confidently. In contrast, consumers with limited digital skills may depend more on trusted recommendations, family assistance, offline confirmation, and familiar brands. This means that digital marketing strategies for older consumers should not merely increase exposure; they should reduce friction and build confidence.

From a theoretical perspective, the evidence supports an integrated model combining TAM, TPB, ELM, socioemotional selectivity theory, and consumer trust theory (Fatokun, 2023). TAM explains platform acceptance; TPB explains the role of attitudes and perceived behavioral control; ELM explains how message credibility and information depth influence persuasion; and socioemotional selectivity theory helps explain why older consumers may prioritize emotionally meaningful, trustworthy, and familiar brand communications.

However, the evidence base remains limited by cross-sectional designs, self-reported outcomes, inconsistent age cutoffs, and insufficient reporting of extractable effect sizes (Zhang, Tian, Zou, Zhang, & Pan, 2022). Many studies measure purchase intention rather than actual transaction behavior. For a robust meta-analysis, future studies should report correlations or standardized coefficients between digital marketing exposures, mediators, moderators, and purchase outcomes, along with sample size and subgroup data for adults aged 50 years and above.

### **Practical Implications**

- Marketers should prioritize trust-building content, verified reviews, secure payment information, and accessible return policies when targeting older consumers.

- Digital interfaces should use age-inclusive design: clear fonts, simplified navigation, visible support channels, and reduced checkout complexity.
- Personalization should be consent-based and perceived as helpful rather than intrusive, because privacy concerns are salient among older adults.
- Digital marketing programs should be paired with digital literacy support, especially in markets where older adults are still transitioning into mobile commerce and online payments.
- Future advertising evaluation should include actual purchase data, not only intention or attitude measures.

### **Limitations and Future Research**

This review is limited by the quality and reporting of the available manuscript dataset (Mayernik, Callaghan, Leigh, Tedds, & Worley, 2015). The original manuscript does not provide a complete list of all 45 systematic-review studies or all 32 meta-analysis-eligible studies. It also does not provide extractable effect sizes for all included studies. Therefore, this final revision uses a rigorous systematic-review structure and makes the manuscript meta-analysis-ready but avoids reporting fabricated pooled estimates. Future research should conduct a fully reproducible meta-analysis using verified database exports, complete effect-size extraction, study-level coding, and open supplementary data (Polanin et al., 2022).

- Use longitudinal and experimental designs to establish causal effects.
- Separate age cohorts, particularly 50-64, 65-74, and 75+.
- Compare channel-specific effects across social media, email, search, e-commerce, video advertising, and influencer marketing.
- Test cross-cultural and country-income moderators.
- Report actual purchase behavior, conversion data, or transaction records where ethically and legally feasible.

### **CONCLUSION**

Digital marketing positively influences older consumers' product purchase decisions when it enhances trust, perceived usefulness, ease of use, engagement, and consumer confidence. Consumer behavior mechanisms, such as trust, attitudes, loyalty, perceived risk, and digital literacy, help explain why some digital campaigns effectively convert exposure into purchase decisions, whereas others do not. The evidence supports the development of tailored, age-inclusive digital marketing strategies that combine trustworthy content, accessible design, transparent security cues, and digital literacy support (Wirtz, Bateson, Čaić, Frank, & Veflen, 2025). Nevertheless, the current literature requires stronger methodological rigor, more consistent effect-size reporting, and longitudinal or experimental evidence before precise pooled meta-analytic estimates can be confidently generated (Maseeh et al., 2021; Sachdeva, 2024). Based on these findings, this study recommends that marketers adopt trust-building practices (Guido et al., 2022), age-inclusive interface designs (Amouzadeh et al., 2025), and consent-based personalization strategies (Jun et al., 2022) when targeting older consumers.

Policymakers should promote digital literacy initiatives, ethical advertising guidelines, and consumer protection measures to reduce risks associated with online fraud. Future research should prioritize longitudinal and experimental designs, report extractable effect sizes, examine

age cohort and cultural context as potential moderators, and investigate emerging digital technologies, including AI-driven personalization and voice commerce, to strengthen causal inference and enhance the generalizability of findings.

## REFERENCES

- Amouzadeh, E., Dianat, I., Faradmal, J., & Babamiri, M. (2025). Optimizing mobile app design for older adults: Systematic review of age-friendly design. *Aging Clinical and Experimental Research*, 37, Article 248. <https://doi.org/10.1007/s40520-025-03157-7>
- Antczak, B. (2024). The influence of digital marketing and social media marketing on consumer buying behavior. *Journal of Modern Science*, 56(2), 310–335.
- Fatokun, B. O. (2023). Customers' affective responses towards the key factors influencing e-commerce adoption: Extended technology acceptance model (TAM) approach (Doctoral dissertation, Liverpool John Moores University). Liverpool John Moores University.
- Glanz, K., Rimer, B. K., & Viswanath, K. (2015). *Health behavior: Theory, research, and practice* (5th ed.). John Wiley & Sons.
- Guido, G., Ugolini, M. M., & Sestino, A. (2022). Active ageing of elderly consumers: Insights and opportunities for future business strategies. *SN Business & Economics*, 2(1), Article 8. <https://doi.org/10.1007/s43546-021-00180-4>
- Gülsoy, M., & Koçer, L. L. (2023). The effect of digital content marketing on online purchase intention: The moderator role of age and gender variables. *Erciyes Akademi*, 37(1), 147–163.
- Huang, T. (2023). Expanding the UTAUT2 framework to determine the drivers of mobile shopping behaviour among older adults. *PLOS ONE*, 18(12), Article e0295581. <https://doi.org/10.1371/journal.pone.0295581>
- Ismagilova, E., Slade, E. L., Rana, N. P., & Dwivedi, Y. K. (2020). The effect of electronic word of mouth communications on intention to buy: A meta-analysis. *Information Systems Frontiers*, 22(5), 1203–1226.
- Jun, M., Kim, M., & Han, J. (2022). The determinants of digital trust of senior consumers in the era of digital transformation. *Knowledge Management Research*, 23(4), 297–318. <https://doi.org/10.15813/kmr.2022.23.4.014>
- Kvarven, A., Strømland, E., Wollbrant, C., Andersson, D., Johannesson, M., Tinghög, G., Västfjäll, D., & Myrseth, K. O. R. (2020). The intuitive cooperation hypothesis revisited: A meta-analytic examination of effect size and between-study heterogeneity. *Journal of the Economic Science Association*, 6(1), 26–42.
- Liang, X., Wan Hussain, M. H., & Salem, M. R. M. (2025). Mapping the digital silk road: Evolution and strategic shifts in Chinese social media marketing (2015–2025). *Cogent Business & Management*, 12(1), Article 2546086.
- Maseeh, H. I., Jebarajakirthy, C., Pentecost, R., Arli, D., Weaven, S., & Ashaduzzaman, M. (2021). Privacy concerns in e-commerce: A multilevel meta-analysis. *Psychology & Marketing*, 38(10), 1779–1798. <https://doi.org/10.1002/mar.21493>
- Mayernik, M. S., Callaghan, S., Leigh, R., Tedds, J., & Worley, S. (2015). Peer review of datasets: When, why, and how. *Bulletin of the American Meteorological Society*, 96(2), 191–201.
- Moxley, J., Sharit, J., & Czaja, S. J. (2022). The factors influencing older adults' decisions surrounding adoption of technology: Quantitative experimental study. *JMIR Aging*, 5(4), Article e39890. <https://doi.org/10.2196/39890>
- Nunan, D., & Di Domenico, M. L. (2019). Older consumers, digital marketing, and public policy: A review and research agenda. *Journal of Public Policy & Marketing*, 38(4), 469–483.

- O'Dea, R. E., Lagisz, M., Jennions, M. D., Koricheva, J., Noble, D. W. A., Parker, T. H., Gurevitch, J., Page, M. J., Stewart, G., & Moher, D. (2021). Preferred reporting items for systematic reviews and meta-analyses in ecology and evolutionary biology: A PRISMA extension. *Biological Reviews*, 96(5), 1695–1722.
- Olumekor, M., Polbitsyn, S. N., Khan, M. S., Singh, H. P., & Alhamad, I. A. (2025). Ageing and digital shopping: Measurement and validation of an innovative framework. *PLOS ONE*, 20(3), Article e0315125. <https://doi.org/10.1371/journal.pone.0315125>
- Polanin, J. R., Espelage, D. L., Grotz, J. K., Ingram, K., Michaelson, L., Spinney, E., Valido, A., El Sheikh, A., Torgal, C., & Robinson, L. (2022). A systematic review and meta-analysis of interventions to decrease cyberbullying perpetration and victimization. *Prevention Science*, 23(3), 439–454.
- Sachdeva, R. (2024). Dynamics of the senior consumer market: A review and research agenda. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 37(1), 98–123. <https://jcsdcb.com/index.php/JCSDCB/article/view/979>
- Taipale, S., Oinas, T., & Karhinen, J. (2021). Heterogeneity of traditional and digital media use among older adults: A six-country comparison. *Technology in Society*, 66, Article 101642. <https://doi.org/10.1016/j.techsoc.2021.101642>
- Wirtz, J., Bateson, J. E. G., Čaić, M., Frank, D. A., & Veflen, N. (2025). The healthy aging and service firms: The promise of smart technologies. *Journal of Service Management*.
- Yang, L., Xie, R., Zhao, X., Zheng, G., & She, S. (2025). Exploring the determinants of online purchase intention for aging-friendly products: Evidence from senior consumers in urban Chinese context. *Frontiers in Public Health*, 13, Article 1724540. <https://doi.org/10.3389/fpubh.2025.1724540>
- Zhang, Y., Tian, S., Zou, D., Zhang, H., & Pan, C. W. (2022). Screen time and health issues in Chinese school-aged children and adolescents: A systematic review and meta-analysis. *BMC Public Health*, 22(1), Article 810.