

## Bibliometric Mapping on Ethics, Privacy, and Trust in Digital Marketing

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### ABSTRACT

The rapid advancement of digital technologies has significantly transformed modern marketing strategies, particularly in the utilization of consumer data, message personalization, and digital platform-based interactions. However, this evolution also raises complex ethical challenges related to privacy protection and the establishment of consumer trust. This study aims to map the development and research trends concerning ethics, privacy, and trust within the context of digital marketing through a bibliometric mapping approach. Data were collected from the Scopus database covering publications between 2013 and 2025 and analyzed using VOSviewer and Biblioshiny software. The analysis revealed four main research clusters: (1) ethics and social responsibility in digital marketing, (2) data privacy and information security, (3) consumer trust and loyalty, and (4) digital technology implementation in marketing strategies. The findings highlight that the success of digital marketing is not solely driven by technological innovation but also by how organizations uphold ethical principles and protect privacy to foster consumer trust. This study contributes to the growing body of digital marketing literature and offers practical insights for developing sustainable and integrity-oriented marketing strategies.

**Keywords:** Bibliometric Mapping, Digital Marketing Ethics, Data Privacy, Consumer Trust, Online Marketing.



## INTRODUCTION

The development of digital technologies has brought about a fundamental transformation in modern marketing practices. Digitalization enables companies to interact with consumers in a more personal, rapid, and interactive manner through various online channels such as social media, search engines, ecommerce platforms, and streaming services. This transformation not only enhances business efficiency but also raises new challenges in maintaining marketing ethics, consumer data privacy, and trust in brand–consumer relationships. These three dimensions serve as essential pillars for building a sustainable and responsible digital marketing ecosystem.

In the context of digital marketing, ethics functions as a moral guideline for marketers in designing communication and promotional strategies that neither mislead, deceive, nor exploit consumers. Digital marketing ethics require transparency, honesty, and social responsibility in every form of online interaction. However, the increasing use of algorithms, artificial intelligence (AI), and big data in marketing practices often creates ethical dilemmas—for instance, in advertising personalization, misuse of behavioral data, and psychological manipulation through digital interface design.

Data privacy has also become a major concern in the digital economy era. Digital firms rely heavily on user data to understand consumer preferences and behaviors, yet the processes of data collection and processing are often carried out without explicit consent or adequate consumer understanding. Recent cases of data breaches and privacy violations have worsened public perceptions of personal data security. Consequently, consumers' concerns about how their data are used have become a critical factor influencing trust in brands and digital platforms.

Meanwhile, trust represents a crucial element in digital marketing, particularly since interactions between buyers and sellers occur without physical contact. Trust is built through consistent ethical behavior, clear privacy policies, and a transparent and secure user experience. A decline in trust can directly affect consumer loyalty and corporate reputation—especially amid the increasingly competitive digital marketplace.

Scholarly attention toward ethics, privacy, and trust has been growing across multiple disciplines such as marketing, information systems, consumer psychology, and technology management. Although the number of publications in this domain continues to rise, there remains a need to comprehensively understand the conceptual landscape, research trends, and interconnections among these topics. Bibliometric mapping serves as an effective method to meet this need by visualizing relationships among variables, identifying influential authors and institutions, and tracing the evolution of research themes over time.

Accordingly, this study aims to map the scientific landscape regarding ethics, privacy, and trust in digital marketing through a bibliometric approach. This research seeks to provide a conceptual contribution by identifying the direction of topic development, the most productive research areas, and potential gaps for future exploration. Practically, the findings are expected to serve as a valuable reference for academics, marketing practitioners, and policymakers in designing digital marketing strategies that are more ethical, transparent, and consumer trust-oriented.

## **LITERATURE REVIEW**

This theory posits that social interactions are guided by a calculation of benefits and costs: individuals engage in actions when the expected benefits outweigh potential risks. In digital marketing, consumers weigh the advantages of personalization, discounts, and convenience against the potential risks of privacy breaches or manipulation. Thus, data-sharing and transaction decisions are shaped by this trade-off. Social Exchange Theory helps explain why transparency and clear value propositions strengthen consumer trust.

### **Privacy Calculus Theory**

Privacy Calculus Theory specifically explains the cognitive process individuals undertake when deciding whether to disclose personal information. The decision is based on a trade-off between perceived benefits (e.g., relevant recommendations, service access) and risks (e.g., data breaches, misuse). This theory is highly relevant in explaining the variability of consumer behavior regarding advertising personalization, registration forms, or interactive features on digital platforms.

### **Trust Theories**

The conceptualization of trust often revolves around three primary dimensions: competence, integrity, and benevolence. In online contexts, platform reputation, information quality, user experience, and social proof (reviews, ratings) are major determinants of perceived trust. This theoretical framework also distinguishes between cognitive trust (rational, evidence-based) and affective trust (emotional, relationship-based), both of which influence consumer decision-making in digital environments.

### **Media Richness and Media Synchronicity Theories**

Media communication theories evaluate the effectiveness of communication media based on their capacity to convey complex information and social cues. Rich media (audio, video, real-time interaction), such as live streaming, enhance message comprehension, authenticity, and engagement - key factors that foster trust formation. However, high media richness can also introduce ethical risks when messages are manipulative or lack transparency.

## **Stakeholder Theory and Ethical Theories**

Normative approaches emphasize a company's moral obligations toward various stakeholders, including consumers, regulators, and society at large. Ethical theories such as deontology, utilitarianism, and virtue ethics provide frameworks for evaluating marketing practices - whether strategies maximize overall benefit, uphold moral duty, or reflect the moral character of the organization. In digital marketing, these theories are relevant for setting standards of disclosure, non-manipulation, and the protection of vulnerable groups.

## **Technology Acceptance and Persuasion Theories (TAM/UTAUT/ELM)**

Technology Acceptance Models (TAM/UTAUT) explain the adoption of digital platforms through perceived usefulness and ease of use, while the Elaboration Likelihood Model (ELM) explains how persuasive messages are processed via central or peripheral routes. The integration of these theories helps understand how platform features (e.g., ease of navigation, host credibility) and message quality (argument strength versus peripheral cues) influence attitudes, purchase intentions, and trust.

## **PREVIOUS STUDIES**

This section synthesizes key empirical findings from prior research related to ethics, privacy, and trust in digital marketing, as well as their implications for practice and future research.

## **Formation and Fragility of Digital Trust**

Numerous studies have found that transparent interactions, social proof (reviews, ratings), and platform reputation are strong predictors of consumer trust. Platforms that consistently demonstrate ethical behavior and responsiveness to complaints tend to sustain higher trust levels. However, trust remains fragile-ethical breaches (e.g., misleading claims) or privacy violation can rapidly and significantly harm both reputation and purchasing behavior.

## **The Role of Privacy in Data-Sharing Intentions and Consumer Behavior**

Privacy concerns reduce consumer's willingness to share information and lower their intention to transact on platforms perceived as risky. Practices such as data minimization, explicit consent, and data-use transparency have been shown to mitigate perceived risk. Moreover, research indicates heterogeneity in these effects: demographic factors, digital literacy, and initial trust levels moderate the relationship between privacy concerns and online behavior.

## **Ethical Marketing and the Role of Hosts/Influencers**

Transparency in sponsorships, disclosure of commercial relationships, and evidence-based claims enhance campaign credibility. Conversely, aggressive persuasion tactics or undisclosed conflicts of

interest damage trust. In live streaming and influencer marketing, the host's personal credibility (authenticity, expertise) often has a stronger impact on consumer trust than platform attributes themselves—though this becomes problematic when hosts neglect ethical responsibility.

### **Interactions Between Ethics, Privacy, and Trust**

Empirical evidence consistently shows reciprocal relationships among these dimensions: ethical practices and privacy protection reinforce trust, while strong trust increases consumer willingness to accept ethical personalization. Some studies suggest that privacy may mediate or moderate the relationship between marketing practices (e.g., personalization) and trust or loyalty.

### **Specific Findings on Live Streaming and e-Commerce**

Empirical studies in Asian markets (China, Southeast Asia) reveal that live commerce enhances engagement and conversion rates, especially when hosts combine product demonstrations with real-time interaction. However, real-time features (e.g., live chat, giveaways, instant purchases) also introduce new ethical challenges: the need for rapid disclosure, transaction security, and mitigation of manipulative tactics such as creating false urgency.

### **Bibliometric Studies on Digital Marketing**

Previous bibliometric analyses indicate a surge in publications since the widespread adoption of big data and artificial intelligence (AI), as well as the implementation of data protection regulations such as the General Data Protection Regulation (GDPR). Thematic trends have shifted from purely technical privacy issues toward interdisciplinary studies integrating AI ethics, governance, and trust. Despite this growth, systematic reviews focusing specifically on the integration of ethics–privacy–trust within live streaming and localized platforms (e.g., Shopee Live) remain limited, suggesting contextual and regional research gaps.

## **RESEARCH GAPS AND FUTURE DIRECTIONS**

Based on theoretical synthesis and empirical evidence, several key gaps emerge as potential directions for future research:

#### **1. Contextual Studies on Local Platforms**

Limited research exists on local or regional digital platforms (e.g., Shopee Live, Tokopedia Live) that account for cultural, regulatory, and consumer behavioral factors.

#### **2. AI Ethics and Automated Personalization**

The ethical implications of recommendation algorithms and automation (e.g., dynamic pricing, targeted persuasion) remain underexplored empirically.

### 3. Longitudinal and Experimental Studies

Most existing research is cross-sectional; there is a need for longitudinal or experimental designs to examine the long-term effects of ethical and privacy practices on reputation and loyalty.

### 4. Multimethod and Multidisciplinary Approaches

Combining bibliometric, qualitative (e.g., interviews, digital ethnography), and quantitative (e.g., field experiments) approaches would yield a more holistic understanding.

### 5. Regulation, Policy, and Implementation

The gap between formal regulation and industry practice (compliance gap) warrants empirical investigation linking policy enforcement to consumer trust outcomes.

## RESEARCH METHODS

This study adopts a bibliometric analysis approach conducted through two primary stages. The first stage involves data collection using the Harzing's Publish or Perish software to gather academic publications from the Google Scholar database covering a nine-year period (2015–2024). This software assists in extracting citation metrics, publication details, and related bibliographic information relevant to the topic of digital marketing. The second stage utilizes VOSviewer, a mapping and visualization tool designed to analyze relationships among documents, authors, keywords, and publication patterns.

In the data search process, the keywords “Digital Marketing: collaboration, themes, and opportunities” were employed to identify and classify relevant publications. The retrieved data were then processed to generate bibliographic networks—including co-authorship, keyword co-occurrence, and citation networks. These networks allowed for the identification of collaboration patterns, thematic clusters, and research developments over time. Through this two-stage analytical procedure, the study provides a structured overview of the scientific landscape and thematic evolution within digital marketing research.

## RESULTS

The bibliometric analysis identified a total of 500 publications with 15,911 citations and an annual citation rate of 1,060 cites per year related to the topics of ethics, trust, and digital marketing (see Figure 1).





## Major Research Clusters

### *Cluster1–Ethics and Digital Privacy*

Represented by the red nodes, this cluster includes dominant keywords such as privacy, digital era, ethics, and digital marketing strategy. This cluster highlights studies emphasizing the ethical responsibilities of digital marketers in managing consumer data, ensuring transparency, and developing marketing practices that align with social norms and privacy laws. The theme also explores how data-driven marketing strategies can be implemented ethically without violating individuals' rights to privacy.

### *Cluster2–Trust and Data Protection*

Depicted by the blue nodes, this cluster centers on keywords such as trust, privacy, and data security. The primary focus is on the formation of consumer trust within digital interactions. Research within this cluster extensively discusses factors influencing trust, including system security, information transparency, and platform credibility. The findings emphasize that trust serves as a key mediating variable linking ethics, privacy, and consumer decision-making in digital environments.

### *Cluster3–Digital Marketing and Consumer Behavior*

Represented by green nodes, this cluster features keywords such as marketing, consumers, internet, and digital literacy. Research in this cluster examines the impact of digital transformation on consumer behavior, particularly how digital literacy, user experience, and online media exposure shape perceptions and purchase decisions. It also reveals a strong connection between ethical awareness and consumer behavior in responding to online marketing strategies.

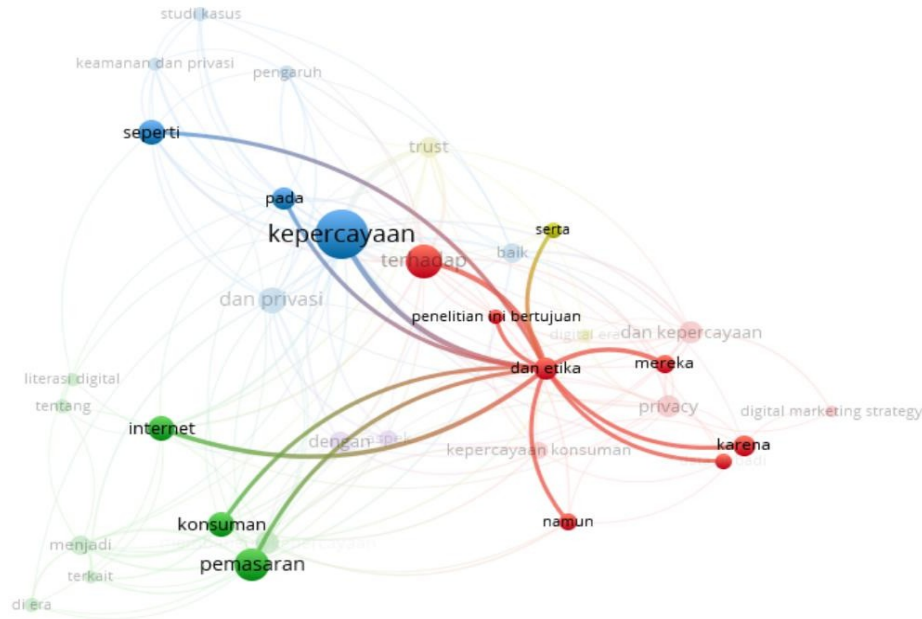
## Thematic Synthesis

These three clusters are interconnected, forming a broader research ecosystem in which: “Trust acts as the central nexus between digital marketing ethics and consumer privacy.”

In other words, the bibliometric mapping demonstrates that the sustainability of digital marketing depends heavily on the extent to which businesses can:

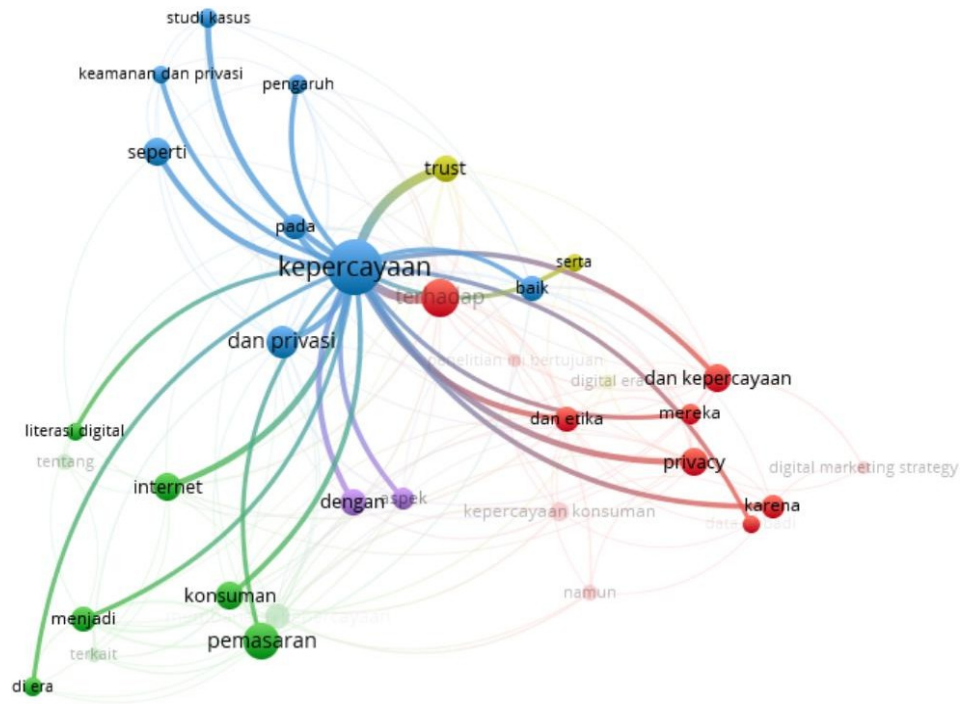
1. Uphold integrity and ethical standards,
2. Protect consumer privacy, and
3. Build and maintain trust in digital interactions.





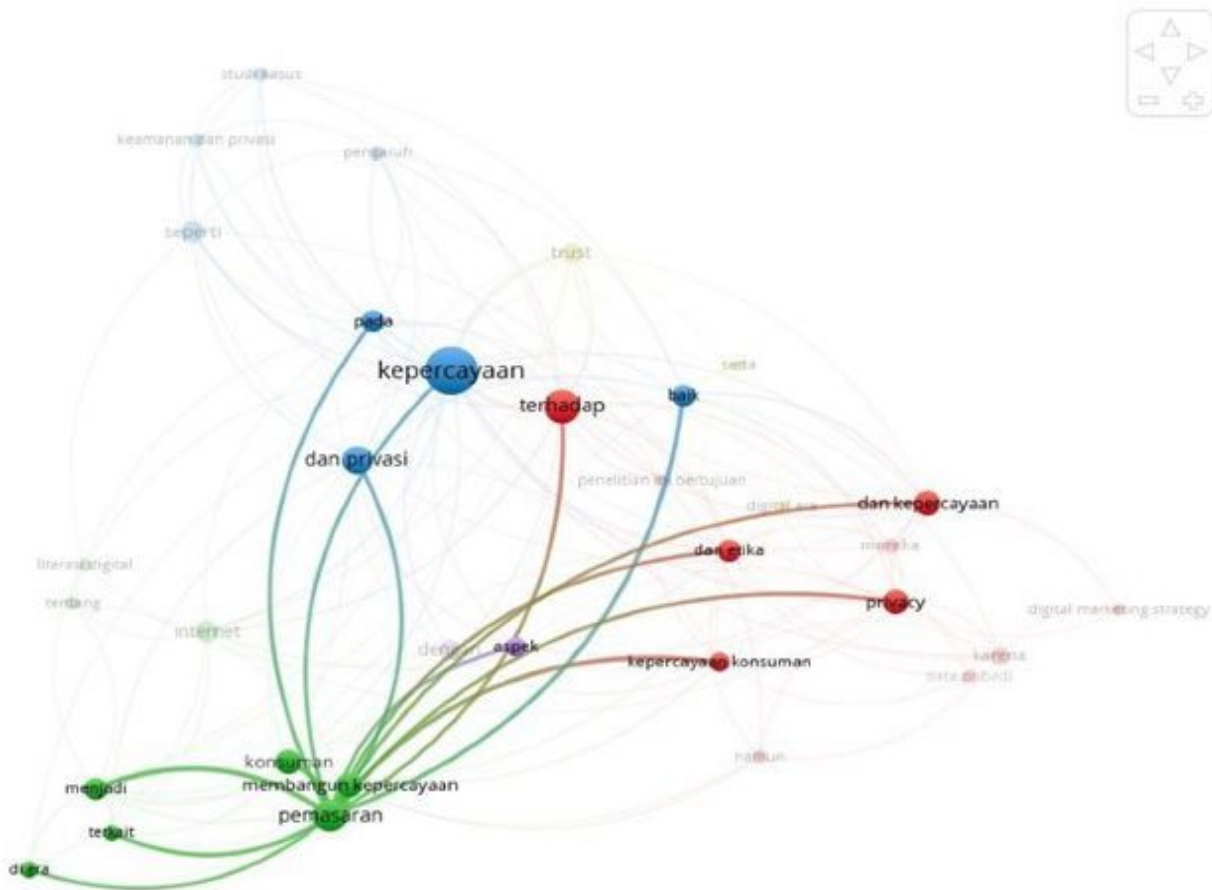
### Figure 3. Relationships among Ethics and Digital Privacy Topics

The red cluster underscores the ethical dimension of digital marketing, represented by keywords such as ethics, privacy, and digital marketing strategy. Although some keywords appear generic, the relational patterns indicate a focus on ethical communication and consumer data management within marketing strategies. The node ethics connects directly to trust, privacy, and digital marketing strategy, illustrating that ethical behavior is a determinant of consumer trust in the digital marketplace.



### Figure 4. Relationships among Trust and Data Protection Topics

The blue cluster serves as the core and most dominant theme, with trust being the largest and most connected key word node. This indicates that trust represents the central conceptual construct in studies of digital ethics and privacy. Keywords such as security, privacy, influence, and case studies suggest that previous research has predominantly examined how data security and privacy protection influence levels of consumer trust in digital environments. This reinforces the idea that digital trust emerges from users' perceptions of data security and privacy policies implemented by a platform.



**Figure 5. Relationships among Digital Marketing, Consumers, and the Internet**

The green cluster emphasizes marketing-related themes, with major keywords such as marketing, consumers, internet, and digital literacy. The relatively large size of the marketing and consumer nodes—and their direct connection to trust - indicates that effective digital marketing strategies depend on the degree of consumer trust and digital literacy. Research in this cluster highlights that digitally literate consumers tend to be more critical and selective in responding to online marketing practices, requiring higher standards of ethical transparency.



*Phase 1 (2020–2021): Foundations of Digital Trust and Security*

Early studies (blue–purple nodes) focused on foundational aspects such as security, privacy, trust, internet, and influence. These studies explored how consumer trust develops from perceptions of system security and service provider integrity. Privacy protection was viewed as a prerequisite for long-term brand–consumer relationships (Gefen et al., 2020).

*Phase 2 (2021–2022): Integration of Ethics and Digital Privacy*

During this period (green nodes), key topics such as ethics, privacy, consumer trust, and marketing became more prominent and interconnected. This shift reflects a growing integration of ethical dimensions into discussions of privacy and trust (Culnan & Bies, 2021). Researchers began emphasizing not only technical aspects of data protection but also the moral and social responsibilities of digital companies in handling consumer information. Ethical digital marketing became central to discussions on corporate legitimacy and public trust (Martin & Murphy, 2022).

*Phase 3 (2023): Digital Marketing Strategies and Consumer Trust*

Recent research (yellow nodes) has shifted toward more applied and strategic themes, such as digital marketing strategy, privacy, and trust (Dwivedi et al., 2023). These studies address how firms can maintain transparency and data protection without undermining marketing effectiveness. This reflects heightened public awareness of privacy and the increasing demand for clarity in data management practices within the digital economy.

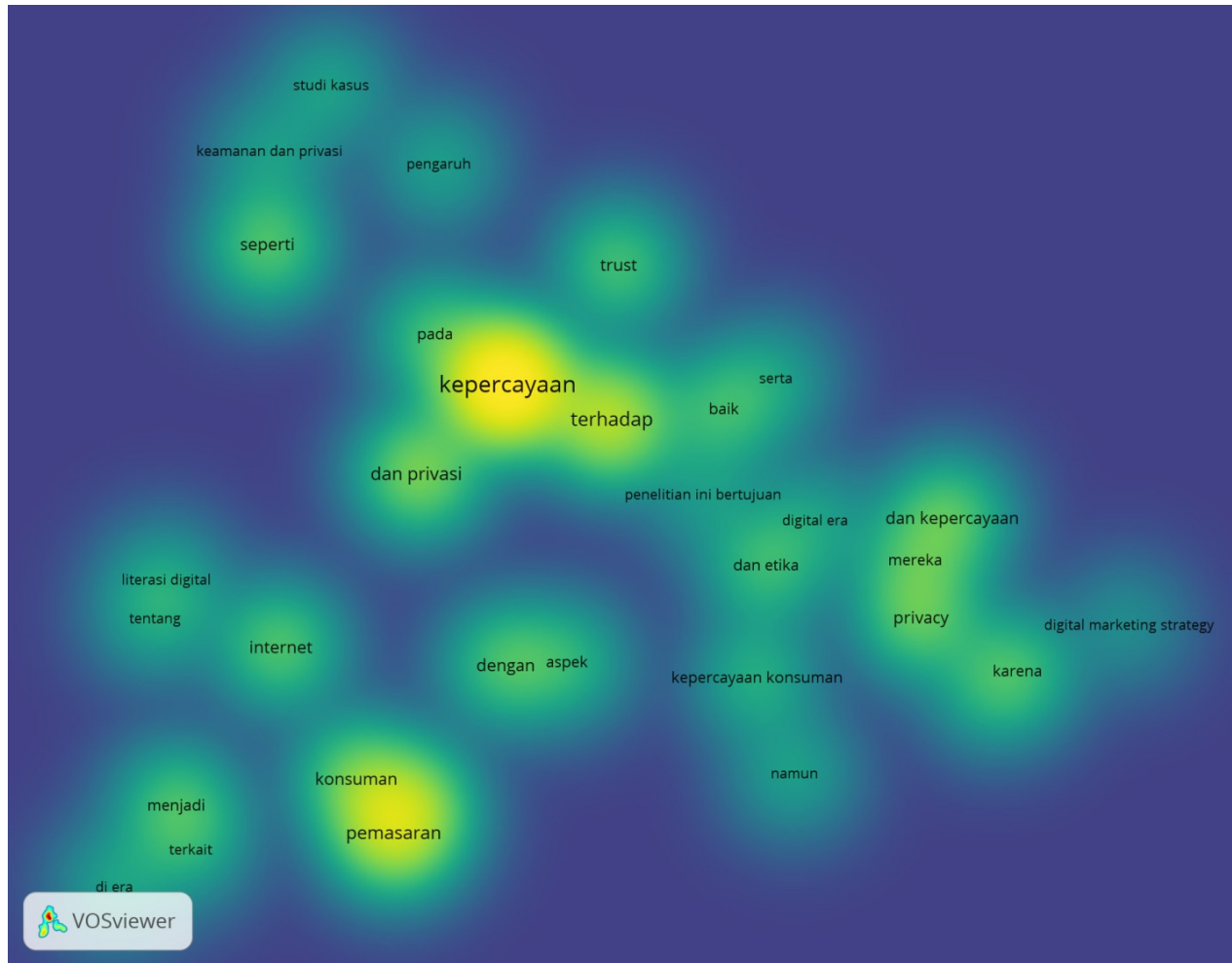
**Trust as the Central Conceptual Convergence**

Across all clusters and time periods, trust emerges as the largest and most interconnected node, symbolizing its conceptual centrality in this research domain. Trust serves as the bridge linking three major domains:

1. Digital Ethics – via connections with ethics and responsibility;
2. Privacy and Data Protection – via privacy, security, and data protection;
3. Digital Marketing and Consumer Behavior – via marketing, internet, and consumers.

This finding underscores that the sustainability of digital marketing success depends not merely on technological sophistication but on the implementation of ethical practices and privacy safeguards that cultivate consumer trust.

## Density Visualization and Topic Intensity



**Figure 7. Density Visualization of Trust, Privacy, Ethics, and Digital Marketing Topics**

The density visualization (produced with VOS viewer) illustrates the frequency and strength of topic associations within the literature:

1. Bright yellow areas represent high-frequency, highly interconnected topics;
2. Green areas indicate moderate density;
3. Dark blue areas correspond to low-frequency or underexplored topics.

### *Trust as the Core Research Focus*

The brightest node - trust - confirms that trust is the most dominant and conceptually central theme in the scholarly network. This finding supports the notion that digital trust functions as the conceptual bridge connecting data security, privacy protection, and consumer loyalty (Gefen et al., 2020). It also reflects a shift from purely technical discussions toward strategic and social analyses, such as how data transparency and ethical communication foster consumer confidence.



*Inter relationship among Trust, Privacy, and Ethics*

The yellow - green areas surrounding trust, privacy, and ethics indicate a strong correlation among these themes. Researchers have increasingly examined how ethical corporate behavior - including transparent and responsible data usage - enhances consumer trust in digital platforms and marketing campaigns (Martin & Murphy, 2022). Conceptually, these relationships can be summarized as a causal chain: Digital Ethics → Privacy Protection → Consumer Trust → Loyalty and Digital Marketing Acceptance

*Supporting Clusters: Marketing, Consumers, and Internet*

The green - yellow regions around marketing, consumers, and internet suggest that these applied topics occur frequently, though they are more contextual and practical than conceptual. Studies here focus on the application of ethical and privacy principles in areas such as customer data management, online consumer behavior, and trust-based marketing effectiveness (Dwivedi et al., 2023).

*Low-Density Areas: Case Studies, Security, and Digital Literacy*

The blue - green zones labeled case study, security and privacy, and digital literacy indicate underexplored or emerging areas with limited scholarly attention. Nevertheless, these areas hold potential for future research, particularly in investigating digital literacy, consumer education, and the effectiveness of corporate privacy policies in enhancing public trust.

**CONCLUSION**

This study conducted a bibliometric analysis of the scientific literature on ethics, privacy, and trust in digital marketing using VOSviewer software. Three types of visualization - network, overlay, and density mapping - were generated to provide a comprehensive understanding of the conceptual structure and research evolution in this domain. Overall, the findings highlight several key insights:

1. Trust as the Central Concept

Trust emerged as the core conceptual construct linking ethics and privacy in digital marketing. The keyword trust served as the primary node connecting diverse research themes on consumer behavior, data security, and transparent marketing strategies.

2. Parallel Growth of Ethics and Digital Privacy

Ethics and privacy have developed in tandem as increasingly important areas of academic and practical focus, reflecting rising awareness of corporate social responsibility in handling customer data in the digital age.

### 3. Thematic Shift Toward Strategic and Moral Perspectives

Based on overlay visualization, there has been a discernible shift in research emphasis - from technical discussions on data security (2020–2021) toward strategic and moral dimensions (2022–2023), especially regarding digital business ethics and trust management.

### 4. Research Density and Gaps

The density visualization showed that trust and marketing represent the most intensively studied topics, while digital literacy and consumer protection remain underexplored. These gaps provide promising avenues for future research.

## SUGGESTION

In conclusion, the results underscore that sustainable digital marketing depends not only on technological innovation and data analytics but also on ethical implementation, privacy protection, and public trustbuilding. By integrating these principles, businesses can strengthen consumer relationships, enhance reputation, and contribute to the creation of a more transparent and socially responsible digital ecosystem.

## CREDIT AUTHORSHIP CONTRIBUTION STATEMENT

**Kiki Puput Puspitasari:** Conceptualization, Data curation, Formal Analysis, Project administration, Resources, Software, Visualization, Writing – original draft, and Writing – review & editing. **Siti Mujanah and Achmad Yanu Alif Fianto:** Supervision and Validation.

## DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## DATA AVAILABILITY

Data will be made available in request.

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