pISSN 2798-2106 eISSN 2808-4470

Studi Ilmu Sosial Indonesia
Vol. 1, No. 1, 193-208

Technical and Ethical Dimensions of Search Engine Optimization in Managing Online Business Visibility

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Abstract

This article develops a conceptual discussion of search engine optimization as a means to enhance the online visibility of business websites through organic search results. The paper explains how keyword planning, content quality, technical performance, and internal link structure jointly shape how search engines evaluate web pages. Particular attention is given to the ethical dimension of optimization, including the need for honest presentation of information, avoidance of misleading techniques, and respect for published search engine guidelines. The text explores how ongoing modifications of search algorithms require businesses to adopt adaptive and learning oriented approaches rather than relying on short term tricks. Search engine optimization is presented as a continuous process connecting technology, communication, and trust building with prospective customers. The proposed conceptual framework is intended to support further empirical research and to guide practitioners in designing coherent, user centred, and ethically grounded optimization practices for sustainable online presence.

Keywords: search engine optimization, organic search, online business visibility, digital marketing, web content quality, search algorithms, business ethics.

Arifin, S., Y. R. Al Hakim, D. Darmawan, M. Irfan, & D. S. Sigita. 2021. Technical and Ethical Dimensions of Search Engine Optimization in Managing Online Business Visibility, Studi Ilmu Sosial Indonesia, 1(1), 193-208.

Introduction

The development of information technology has changed the way individuals and organizations interact, search for information, and conduct transactions. The presence of the internet and mobile devices has made information searching a routine part of everyday life. When someone needs a product, service, or an answer to a particular question, the first step usually taken is opening a search engine and typing keywords that are considered relevant (Veglis & Giomelakis, 2019). This situation makes the search results page the main gateway for encounters between users and various sources of information, including businesses that offer products and services online. In this context, the presence of online businesses on search engine results pages is not merely a technical matter, but relates to the opportunity to be discovered, considered, and eventually trusted by potential customers who were previously unfamiliar with them. This phenomenon shows that the development of digital technology not only affects how people search for information, but also shapes new patterns of economic interaction between business actors and consumers in the digital space (Ishaq & Darmawan, 2021).

For online business actors, having a presence in the digital world is not sufficient simply by owning a website, a store account on electronic marketplace platforms, or social media profiles (Varsha et al., 2021). The position of appearance in search engine results plays a major role in determining whether a business will be visible or drowned in the crowd of information. Search engine users tend to interact with links that appear at the top positions, while links on later pages are often overlooked. This condition creates a strong need for businesses to understand how search engines work along with the mechanisms that determine the order of displayed results. The attractiveness of promotions, the use of digital media, and the influence of the social environment can also affect consumer behavior in making purchasing decisions on online platforms (Mardikaningsih et al., 2018). Systematic efforts to organize website structure, content quality, and other technical aspects so that they align with the way search engines operate are considered one of the keys to obtaining sustainable traffic without relying entirely on paid advertisements.

Modern search engines use a set of complex algorithms to assess the relevance and quality of web pages in relation to certain keywords (Sharma et al., 2019). These algorithms are continuously updated to provide increasingly accurate and useful results for users, while also reducing manipulative practices that could harm the search experience. Changes in algorithms require online business actors and website managers to continuously adjust their approaches. Techniques that are considered effective in one period may become less relevant in another period, and may even risk penalties if they are deemed to violate guidelines. Therefore, understanding the general principles upheld by search engines, such as relevance, structural clarity, access speed, and source reliability, becomes very important for designing long-term visibility strategies. In addition to technical factors, clear and transparent communication in presenting information is also an important element in building good relationships between organizations and users in the digital environment (Gardi et al., 2021).

In practice, efforts to increase the visibility of online businesses through search engines cannot be separated from debates regarding technical and ethical approaches (Zilincan, 2015). On one side, there are guidelines that emphasize improving content quality, user experience, and compliance with search engine guidelines as the primary path. On the other side, there is temptation to use short-term oriented techniques, such as excessive keyword stuffing, the creation of unnatural links, or manipulation of certain technical elements. Practices that ignore search engine ethics may provide temporary results, but they risk causing ranking drops or removal from the index if detected. Business actors who wish to maintain business sustainability need to consider the balance between technical optimization and commitment to principles of honest information. Consumer behavior in digital spaces is also influenced by various social and psychological factors that can encourage certain consumption patterns, including tendencies toward consumptive behavior in the use of internet-based services (Mardikaningsih et al., 2020).

The transformation of consumer behavior in the digital sphere has also made search engines an increasingly crowded competitive space (Gudivada et al., 2015). Businesses of various scales, ranging from micro

enterprises to multinational companies, compete to secure advantageous positions in organic search results. This situation encourages the development of various digital presence management approaches that emphasize identifying relevant keywords, organizing clear page structures, writing informative content, strengthening internal links, and improving domain reputation. At the same time, public awareness of more responsible consumption choices is also beginning to develop, so information presented by digital businesses needs to be structured clearly and reliably (Halizah & Nuraini, 2021). In addition, attention to user experience, such as page loading speed and mobile-friendly display, becomes an inseparable part of efforts to adapt to algorithm evaluation criteria. In such circumstances, search engines function as an arena where technical quality, informational substance, and communication ethics are tested simultaneously.

The problem that arises is that many online business actors view search engine optimization merely as a collection of technical tricks without understanding its conceptual foundations. Efforts to increase rankings are often focused on short-term actions, such as adding keywords in various parts of a page, acquiring external links in large quantities, or copying content from other sources with slight modifications. Such a superficial approach has the potential to neglect user experience, ignore clarity of information, and reduce the authenticity of brand messages. In fact, in various organizational activities, good cooperation and the utilization of social networks can become important factors that support improvements in performance quality and information management (Putra et al., 2021). When search engine algorithms evolve to evaluate quality more comprehensively, practices like these are no longer adequate and may even create risks. Limited conceptual understanding causes some business actors to become trapped in technical techniques that are disconnected from the broader goal of building a trustworthy digital presence.

Another issue relates to ethical aspects in the practice of search engine optimization. Not all business actors adhere to behavioral standards that respect users and the digital information ecosystem. Attempts to deceive algorithms are still found through techniques such as cloaking, hiding text, or inserting irrelevant links. Such actions disrupt

user experience and damage the integrity of search results. On the other hand, the boundary between legitimate techniques and problematic techniques is not always clearly understood by business actors who lack a theoretical foundation. In the midst of the development of the digital economy, institutional support and appropriate financing systems also play a role in helping small and medium enterprises adapt to changes in an increasingly technology-based business environment (Wiyandarini et al., 2021). The absence of a solid understanding of ethical principles in optimization can lead to practices that unknowingly violate guidelines. In the long run, this harms the business actors themselves and reduces trust in information circulating on the internet.

The urgency of developing a conceptual study on search engine optimization as a means of increasing the visibility of online businesses lies in the need for a directed understanding of the relationship between techniques, ethics, and algorithm changes. Businesses that wish to survive in a dynamic digital landscape require a theoretical foundation that helps distinguish relatively stable and generally applicable principles from technical techniques that are temporary in nature. A structured study helps illustrate how actions at the level of content, technical structure, and reputation management are interconnected in shaping algorithmic assessments of a website. In addition, an explanation of ethical dimensions is important to ensure that efforts to pursue visibility do not sacrifice the clarity of information or user trust.

The purpose of this writing is to build a systematic conceptual description of search engine optimization as a means of increasing the visibility of online businesses. Specific objectives include explaining the forms of techniques commonly used to improve organic rankings, presenting the ethical principles that should guide optimization practices, and describing how algorithm changes influence the way business actors design their approaches. From a scientific perspective, this paper is expected to provide a conceptual framework that can be used as a reference for further research in digital marketing and online presence management. From a practical perspective, this discussion is expected to help business actors and website managers understand that sustainable search engine optimization requires a balance between technical precision and the integrity of the information presented.

Method

This study was developed as a qualitative literature-based research focusing on a conceptual exploration of search engine optimization and its implications for increasing business visibility within the digital ecosystem. This approach positions scientific literature not merely as a source of references, but as an intellectual dialogue space for constructing systematic and coherent argumentative frameworks. Greenfield and Greener (2016) emphasize that research at the postgraduate level requires analytical ability in synthesizing various academic ideas into a unified and scientifically valuable body of thought. In line with this view, Pickard (2013) regards literature study as an interpretative process that goes beyond the practice of simple citation, as researchers are required to conduct critical selection, conceptual classification, and in-depth interpretation in order to produce new understandings of the phenomena being examined. Therefore, concept-based research emphasizes the precision of terminological definitions, logical relationships among variables, and the consistency of academic reasoning. Based on this framework, the present study does not involve the collection of empirical field data, but instead conducts a systematic examination of scientific works discussing search engine technology, optimization strategies, information management ethics, and the dynamics of digital algorithm changes.

The organizational dimension and the management of digital resources serve as important foundations for linking conceptual findings with real business practices. Mardikaningsih et al. (2015) demonstrate that the interaction between management, technology, and business strategy shapes organizational decision-making patterns in utilizing information technology effectively. This perspective provides an analytical framework for understanding how companies design digital investments, allocate resources, and develop online presence strategies through search engine optimization. The integration between methodological guidelines and managerial perspectives directs this literature study toward the formulation of a normative analysis explaining the reciprocal relationship between optimization practices, digital ethical principles, and the evolution of algorithms as determining

factors in managing the visibility of online businesses in a sustainable manner.

Result and Discussion

Search engine optimization is a series of systematic strategies carried out to increase the visibility and ranking of a website or digital content on search engine results pages so that it can be more easily found by internet users organically without relying on paid advertisements. This concept emphasizes the management of the technical structure of a website, content quality, keyword relevance, and user experience so that search engine algorithms evaluate the page as a credible and valuable source of information. The effectiveness of search engine optimization is generally measured through indicators such as improvements in search ranking positions, growth of organic traffic, click-through rates on search results, duration of user visits, low bounce rates, the quality and consistency of keyword usage, website access speed, mobile device compatibility, the number of quality backlinks, and user conversion rates that demonstrate the success of digital visibility in supporting business objectives or information communication. Increased information visibility is often associated with strategies for managing consumer reviews and market perceptions of the quality of the products offered (Negara et al., 2021).

Search engine optimization can be understood as a series of planned efforts to adjust the structure, content, and technical attributes of a website so that it can be more easily found and assessed as relevant by search engines. In the context of online business, these efforts are directed toward increasing the likelihood that a website appears in prominent positions in organic search results for keywords related to the products or services offered. Organic search is considered a valuable source of traffic because it originates from genuine information needs of users, so the potential for conversion into customers becomes higher when the information presented aligns with their expectations. Thus, optimization is not merely related to technical aspects, but also touches upon the design of the information experience intended for potential customers. Good digital service quality also influences customer satisfaction and their intention to reuse the same services in the future (Fared et al., 2021).

One of the main dimensions of search engine optimization is keyword management. Website managers need to understand the terms used by users when searching for solutions to certain problems or needs. This understanding does not stop at a list of words, but also includes search intent, which may be informational, transactional, or navigational in nature. The careful placement of keywords in page titles, heading structures, opening paragraphs, and meta elements helps search engines identify the main theme of a page. However, excessive repetition that sacrifices language fluency or message clarity can be harmful, because search engines learn to identify patterns that aim to manipulate rankings. Consumer behavior in digital spaces is also often influenced by psychological and situational factors that can encourage quick purchasing decisions when users encounter information they perceive as attractive (Darmawan & Gatheru, 2021). Therefore, keyword management ideally prioritizes natural language and genuine relevance to the content.

Another very important dimension is content quality and structure. Search engines attempt to present comprehensive and easily understandable answers for users. This encourages website managers to develop content that is informative, well organized, and capable of clearly addressing users' informational needs (Khokale, 2019). The use of systematic section headings, well-structured paragraphs, and language that is easy to follow helps users find what they are looking for without confusion. Rich, relevant, and original content signals that the website deserves to be recommended. Conversely, shallow content, repetitive content, or content copied from other sources without added value risks being evaluated poorly by algorithms. Content quality becomes the heart of the long-term relationship between websites and search engines. The ability to utilize digital technology and the skills required to manage information are important factors that help individuals and organizations adapt to current technological developments (Arifin & Darmawan, 2021).

Technical aspects such as page loading speed, responsiveness across various devices, and connection security are also major considerations in search engine evaluation (Tyagi, 2017). Users who encounter slow or uncomfortable websites tend to leave the page quickly, thereby reducing

the overall value of user experience. Modern algorithms incorporate indicators of user behavior and technical parameters as signals indicating whether a website provides a proper experience. Therefore, technical optimization is not merely about meeting machine standards, but is directly related to the ease and comfort of users when interacting with the content of a website.

The structure of internal and external links adds another dimension to the discussion of optimization (Gaou et al., 2017). Carefully arranged internal links help search engines understand the hierarchy of information within a website and make it easier for users to explore related topics. Each page should not stand alone, but should be logically connected with other relevant pages. In addition, links from other websites pointing to a page are often regarded as recognition of the informational value contained on that page. However, the quality of link sources is more important than their quantity. Links obtained through honest collaboration, such as references to articles that are truly useful, provide more stable positive value compared to links obtained through artificial schemes.

In the realm of ethics, search engine optimization requires a commitment to honesty and clarity of information (Curran & O'Neill, 2011). Website managers are expected to present titles and descriptions that correspond with the content of the page, without misleading users through promises that are not fulfilled. The use of techniques that hide text, redirect users to pages different from those displayed, or insert keywords that are unrelated to the content creates ethical concerns. Such practices harm users who search for information in good faith and damage the search ecosystem in general. Ethical optimization positions search engines as partners working together to improve the quality of the information experience, rather than as opponents that must be defeated through tricks.

Changes in search engine algorithms add another layer of complexity to optimization planning. Search service providers periodically update their systems to adjust to evolving user behavior, the emergence of new manipulative techniques, and increasing quality demands (Zemlyanskaya et al., 2019). Algorithm updates may alter the weight of evaluation factors, for example by strengthening the assessment

of content quality or increasing sensitivity to website speed. Online business actors who rely on static techniques without updating their understanding risk experiencing sudden declines in rankings. Therefore, it is important to develop optimization approaches that rely on general principles that tend to remain consistent, such as relevance, clarity, and user comfort, making them more resilient to technical changes.

The relationship between optimization techniques and algorithm changes also highlights the importance of continuous learning (Behroozi et al., 2021). Website managers need to observe official guidelines, general explanations from search engine providers, and discussions among experts to understand the direction of ongoing changes. However, responses to these changes should not merely consist of chasing new tricks. What is more important is reflecting on whether the site structure and content strategy being implemented align with the search engine's objective of providing the best results for users. In this way, adaptation to algorithms becomes part of the process of improving the quality of information services, rather than simply an effort to maintain a position in search result listings.

Within the framework of online business, search engine optimization has direct implications for the formation of image and trust. Websites that consistently appear in search results for certain topics gradually become associated with authority and reliability (Bezhovski, 2015). However, if the content found by users turns out to be disappointing or manipulative, that trust quickly disappears. This situation demands a balance between the ambition to gain visibility and the responsibility to provide information that is accurate, honest, and useful. Healthy optimization views trust as a long-term asset that must not be sacrificed for short-term gain.

The ethical dimension is also related to competition among business actors. In highly competitive environments, the temptation to use techniques that exceed official guideline boundaries becomes significant (Lara, 2014). For example, there are practices that deliberately damage competitors' reputations through the creation of negative links or defamatory content. Such practices cannot be morally justified and risk receiving sanctions. A healthy search engine optimization environment requires an unwritten agreement among business actors

that competition should prioritize service quality and clarity of information, rather than harming others or manipulating systems. In facing various modern business challenges, organizations also need to develop sustainability strategies in order to adapt to regulatory changes and market dynamics (Mardikaningsih & Darmawan, 2021).

The relationship between search engine optimization and the management of online business organizations can be seen in how companies allocate their resources. Decisions to develop internal teams, use consulting services, or rely on independent learning reflect a company's strategic orientation toward the digital domain (Saberi & Saberi, 2013). Professional management of optimization requires coordination among technical developers, content writers, interface designers, and brand managers. Without proper coordination, optimization efforts may become fragmented, for example when high-quality content is not supported by adequate technical structure, or vice versa. In other words, effective search engine optimization requires cross-functional thinking within the organization.

In addition, search engine optimization is increasingly related to the overall user experience. Search engines use various signals that describe how users interact with a page, such as visit duration, the number of pages opened, and the tendency to return quickly to the search results page (Jones, 2008). These signals indicate whether the content and experience provided truly meet user needs. Therefore, clear interface design, easy navigation, and straightforward information presentation become part of the optimization strategy. Focusing on user experience helps bridge the gap between the technical requirements of algorithms and the real expectations of visitors.

The relationship between search engine optimization and social media is also worth considering (Lara, 2014). Although direct signals from social media may not always be the main factors in algorithm evaluation, an active brand presence across various digital communication platforms can increase the reach and exposure of content. When website content is widely shared, discussed, and accessed through social media, the traffic generated provides additional signals to search engines regarding the relevance and usefulness of that content. Thus, the management of brand image and interaction on social media

has the potential to support efforts to increase organic visibility through search engines.

In relation to algorithm changes, it is also important to discuss the need to avoid excessive dependence on a single source of traffic (Balkin et al., 2011). Although search engines serve as the primary gateway, prudent companies will manage a portfolio of traffic sources from various channels, such as email, social media, referrals from other websites, and direct visits. This approach reduces the risk if algorithm changes lead to temporary declines in traffic. Search engine optimization remains a focus, but it is positioned within a broader digital marketing ecosystem. In this way, business stability does not depend entirely on a single search mechanism.

The discussion of search engine optimization is also inseparable from the development of new technologies, such as voice search and virtual assistants (Godwin-Jones, 2019). Language usage patterns in voice search differ from text search, tending to take the form of natural question sentences. This encourages adjustments in how content is structured, for example by including sections that explicitly answer common questions using clear and direct language. Websites that can accommodate information needs in this format have the potential to obtain favorable positions when search engines present concise answers. Thus, the evolution of user interface technology influences how optimization is understood and practiced.

The issue of information sustainability also deserves attention. Content designed merely to satisfy algorithms in the short term often becomes outdated quickly, whereas content built on a strong understanding and long-term orientation tends to remain relevant (Newell & Marabelli, 2015). Sustainability-oriented optimization seeks to create content that can be updated, expanded, and adjusted as knowledge and user needs evolve. This approach reduces the need to produce new content solely to pursue keywords and instead emphasizes maintaining a consistent knowledge base. In practice, this means that content creators should focus on producing comprehensive and well-structured information that can be periodically revised rather than continuously replaced. By maintaining a sustainable content strategy, organizations can ensure that their digital information assets remain valuable over

time, reduce duplication of content, and provide users with reliable and continuously updated knowledge.

From the perspective of information ethics, transparency regarding the purpose and nature of content becomes very important (Craft & Vos, 2021). Users have the right to know whether a page contains advertisements, paid reviews, or purely editorial information. Clear labeling of sponsored content helps maintain trust. Search engines also tend to develop mechanisms that distinguish between organic content and paid content so that users can make decisions with complete information. Search engine optimization that respects this principle will strive to maintain a clear separation between promotion and information, ensuring that the user experience remains protected. In addition, transparency in digital content also helps prevent misinformation and manipulative marketing practices, which can damage user trust and undermine the credibility of online platforms. Ethical transparency therefore becomes a key element in maintaining the integrity of online information ecosystems.

Search engine optimization as a means of increasing the visibility of online businesses is a practice that lies at the intersection of technology, communication, and ethics (Ziewitz, 2019). Increasingly sophisticated technical techniques need to be guided by the objective of presenting useful and trustworthy information. Algorithm changes, although requiring continuous adjustment, should be viewed as encouragement to improve the quality of information services rather than as obstacles. By adhering to these principles, online businesses can build a strong and sustainable digital presence that aligns with user expectations and search engine guidelines. Furthermore, organizations that integrate ethical considerations into their SEO strategies are more likely to establish long-term relationships with users, as trust and credibility become key factors influencing online engagement and loyalty.

Conclusion

Search engine optimization for online businesses is not merely a collection of technical techniques, but rather an integrated process that combines keyword management, content quality, technical structure, and an understanding of algorithm dynamics. Efforts to increase organic

visibility are closely related to the commitment to present information that is relevant, clear, and honest to users. The ethical dimension guides optimization practices to respect official guidelines and avoid manipulation that harms the search experience. Periodic algorithm changes serve as a reminder that long-term oriented approaches, based on quality and trust, are more resilient than approaches that rely solely on temporary technical loopholes. Within this framework, search engine optimization can be viewed as part of the effort to build healthy relationships between businesses, search engines, and users.

The normative implications of this study point to the need for online business actors and website managers to develop a strong conceptual understanding before implementing technical measures. Suggestions that can be proposed include the preparation of internal guidelines regarding ethics and content quality, improving team capacity through continuous learning about search engine developments, and strengthening coordination between technical functions and marketing functions within the organization. In the academic realm, further research is needed to empirically examine the implementation of optimization principles across various types of businesses, as well as their impact on user trust and business sustainability. Thus, the discourse on search engine optimization can continue to evolve from merely a technical practice toward a more mature understanding of the role of information quality within the digital ecosystem.

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