The Rise of Voice Search and its Implications for SEO and Online Advertising: An Empirical Perspective

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Abstract
The rise of voice search has revolutionized the way people interact with technology and has significant implications for the fields of search engine optimization (SEO) and online advertising. Voice search allows users to perform searches and execute commands by speaking into their devices, such as smartphones, smart speakers, or even cars. This trend has gained immense popularity due to its convenience and efficiency. From an SEO standpoint, voice search presents new challenges and opportunities. Traditional SEO strategies that focus on optimizing text-based queries must now adapt to accommodate voice-based queries. Voice searches tend to be longer and more conversational, reflecting the way people naturally speak. As a result, keywords need to be refined to match these longer phrases and incorporate more natural language patterns. Content creators and marketers must also optimize for featured snippets, as voice assistants often rely on these concise answers to deliver search results. Moreover, the implications for online advertising are profound. With voice search, the traditional visual interface diminishes, and brands must find new ways to connect with users. Advertisers need to consider voice-activated ads that align with the user's search intent and provide value through audio content. Additionally, local businesses can leverage voice search to drive foot traffic by optimizing for location-specific queries, such as "find a coffee shop near me." Sample of 215 people involved in online marketing were considered to conduct the study survey to know the challenges and opportunities of voice search in search engine optimization (SEO) and online advertising. It is found that Advertisers are now faced with the issue of developing voice-activated advertising but Local businesses can use voice search to drive foot traffic by improving for location-specific queries.
Keywords: Voice Search, SEO, Online Advertising, Natural Language, Digital Landscape

Introduction

Voice search has seen a meteoric rise in popularity, which is transforming the way people engage with technology and, as a result, altering the disciplines of search engine optimization (SEO) and online advertising. Voice search has seen a meteoric rise in popularity. This new development makes it possible for users to do searches and carry out tasks by merely speaking into their devices, such as smartphones, smart speakers, or even vehicles. Voice search's extensive use has been spurred by the simplicity and effectiveness it provides, which has sparked the need for adaptation within search engine optimization (SEO) and online advertising methods.

The proliferation of voice search has presented search engine optimization practitioners with a fresh batch of hurdles as well as opportunities. The conventional methods of SEO, which center on the optimization of text-based inquiries, need to now develop new strategies in order to accommodate voice-based queries. Voice searches usually take on the form of a conversation, adopting a tone that is meant to mimic the normal way in which people speak. As a consequence of this, the utilization of refined keywords that are compatible with these longer phrases and make use of more natural language patterns has turned into an absolutely necessary practice. Because voice assistants frequently rely on these condensed replies to give search results, content creators and marketers must also make optimizing for featured snippets a top priority in their work. Businesses may increase their exposure and keep a competitive edge in the ever-evolving digital world by developing content that corresponds with the conversational nature of voice search. This allows for the material to align with the natural flow of voice searches.

Additionally, the consequences of voice search can be extended to the arena of internet advertising. Voice search places less emphasis on the visual user interface, which means that companies are under increasing

pressure to find new ways to communicate with their customers. Advertisers are now faced with the issue of developing voice-activated advertising that not only resonate with the user's search intent but also give value through audio content. This is a hurdle that they confront because voice-activated ads are relatively new. To successfully capture the attention of consumers and make an impression that will last with them, it is essential to craft captivating audio messages. In addition, local companies have a tremendous opportunity to profit from voice search by optimizing their websites for location-specific search inquiries. Local businesses have the ability to attract prospective clients and increase foot traffic to their physical stores by ensuring that they are present and relevant in online searches of this kind and ensuring that they are included.

Literature Review

Research looks at managers' perspectives on voice assistant evolution and potential impacts on marketing strategy. Additionally, managers' knowledge of voice commerce is linked to both a heightened sense of urgency (short-term concentration) and optimism about speech technologies (potential for brands). (Mari et. al., 2020). In another article, the mobile search interface of a commercial search engine is examined, and spoken and typed searches are compared. According to the data, voice queries tend to be less interested in social networking and adult domains and more focused on audio-visual material and question-answering. (Guy, 2016).

Research makes use of extensive archive data that includes consumer-level browsing and purchase records from Alibaba, one of the biggest online retailers in the world. According to the findings, younger and male consumers are more affected by the influence on purchases, whereas older and female consumers are more affected by the effect on browsing that the voice search feature has. (Sun et. al., 2019). Another article makes the case that media scholars can better understand the intricate relationships that underlie the dynamics of information accessibility around the Google search engine by using a microeconomic approach. A thorough evaluation of the current state of affairs and the development of regulatory strategies both depend on the identification of economic factors. (Rieder & Sire, 2014).

An article examines the efficiency of voice search systems. The findings demonstrated that when given the chance, users modified searches more partially than completely. (Sa & Yuan, 2019). Another paper presents the findings of a user study that examined how consumers felt about using smartwatches for searching. The social acceptability of various search scenarios is given particular consideration, with an emphasis on input method, device form, and information requirement. The results show that audience and location have a significant impact on whether individuals will conduct a voice-based search, which will aid developers of search systems in supporting search on smartwatches. (Efthymiou & Halvey, 2016).

Research examines common voice input errors and users' related reformulation techniques, assessing the effects of these mistakes on users' search outcomes and the efficacy of various reformulation techniques. It makes it easier to see how existing voice search systems might be made even better. (Jiang et. al., 2013). Another article suggests using topic-based competitive keywords suggesting system called TCK to improve search engine advertising. The effectiveness of the suggested method has been thoroughly tested, and the findings reveal that it outperforms current keyword suggestion techniques, making a significant contribution to the keyword suggestion advertising market. (Qiao et. al., 2017).

Research quantified the economic impacts of domestic search engines on the growth of the Internet advertising market. In order to determine how the presence of a domestic search engine affected the size of the online advertising industry, a dynamic panel of 46 nations was employed from 2009 to 2013. The findings indicated that the growth of a domestic search engine could result in a larger market for online advertising: a nation with its own domestic search engine platform(s) may have an average of 0.018% more online advertising intensity than one without this kind of platform. The causes of these findings and their consequences for policy are also examined. (Ji et. al., 2016). Another article looks at the interaction effects between search engine advertising, television, and banner advertising to determine how effective search engine advertising is inside a multimedia campaign. Four consumer metrics were evaluated in advertising tracking research with 300 respondents before and 4,700 respondents after the campaign. The findings demonstrate that search engine advertising has a considerable impact on a number of consumer

variables. While search engine advertising and television advertising interact negatively, television advertising also has an impact on consumer metrics. Only in conjunction with television advertising does banner advertising have a favourable effect. These interaction effects show that while developing multi-media campaigns, businesses must take into account investments in numerous media channels simultaneously. (Zenetti et. al., 2014).

Research suggests a dynamic linear model to account for the potential overflow from generic to branded paid search. The authors apply the model to data from a paid search campaign for a large hotel chain using a Bayesian estimation approach, and the findings demonstrate that past generic search activity influences future branded search activity favourably through knowledge of relevance. But generic search is unaffected by branded search, proving that the spillover is asymmetric. The administration of paid search advertising and our understanding of online search behaviour are both impacted by these findings. (Rutz & Bucklin, 2011). In another research, two attention-grabbing features of the ad campaign were combined with educational and emotional material to investigate the relationship between TV advertising' informational and emotional content and online brand searches. According to the research, the TV commercial's instructional content boosts brand searches online while its attentional content parts have the opposite effect. The impact of the TV commercial's emotional content on online brand searches was not supported by any evidence. These findings provide managerial implications for developing TV advertising to boost online brand searches and further marketing theory's understanding of online search. (Chandrasekaran et. al., 2018).

Objective: To measure challenges and opportunities of voice search in search engine optimization (SEO) and online advertising.

Methodology: Sample of 215 people involved in online marketing were considered to conduct the study survey to know the challenges and opportunities of voice search in search engine optimization (SEO) and online advertising. The study is empirical in nature. A checklist question was used to analyze and interpret the data. In a checklist question respondents choose "Yes" or "No" for all the questions.

Data analysis and interpretation

Table 1 Challenges and opportunities of voice search in SEO and online advertising

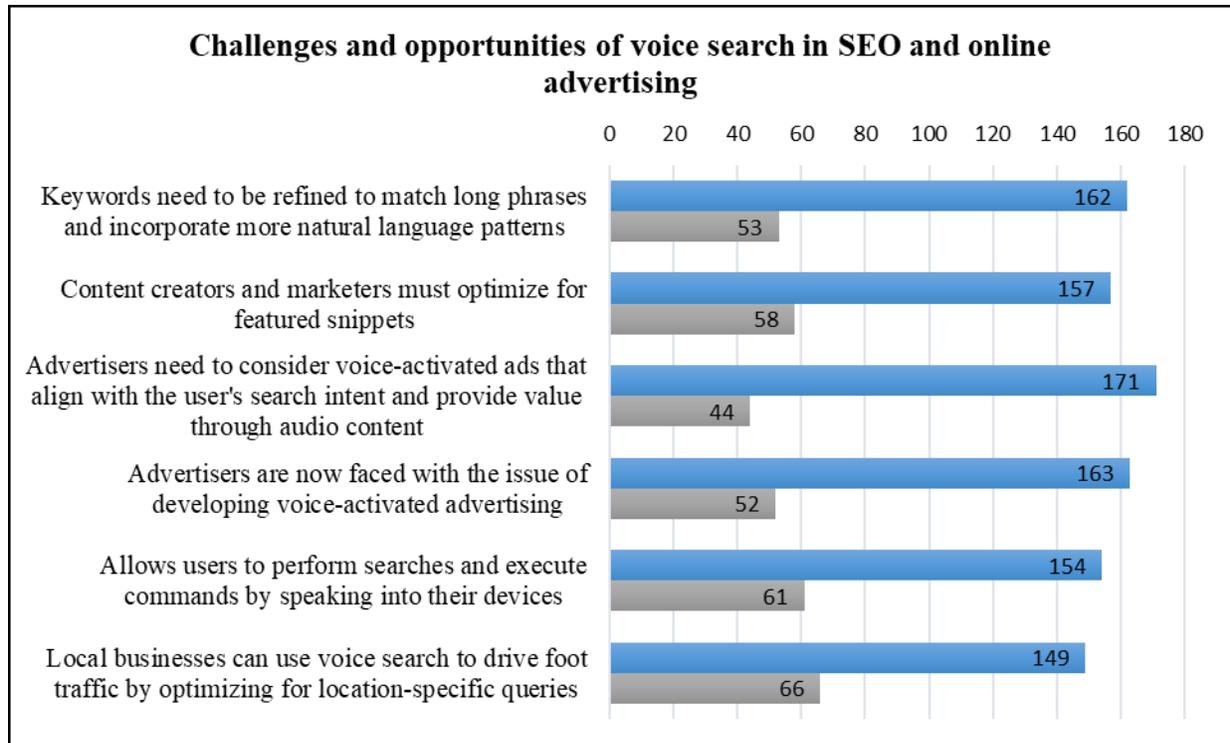| S. No.	Statements	Yes	% Yes	No	% No	Total
1	Keywords need to be refined to match long phrases and incorporate more natural language patterns	162	75.3	53	24.7	215
2	Content creators and marketers must optimize for featured snippets	157	73.0	58	27.0	215
3	Advertisers need to consider voice-activated ads that align with the user's search intent and provide value through audio content	171	79.5	44	20.5	215
4	Advertisers are now faced with the issue of developing voice-activated advertising	163	75.8	52	24.2	215
5	Allows users to perform searches and execute commands by speaking into their devices	154	71.6	61	28.4	215
6	Local businesses can use voice search to drive foot traffic by optimizing for location-specific queries	149	69.3	66	30.7	215

Figure 1 Challenges and opportunities of voice search in SEO and online advertising

Table and figure 1 shows the Challenges and opportunities of voice search in SEO and online advertising. It is found that around 75.3% of the respondent accept that Keywords need to be refined to match long phrases and incorporate more natural language patterns followed by Content creators and marketers must optimize for featured snippets (73.0%), Advertisers need to consider voice-activated ads that align with the user's search intent and provide value through audio content (79.5%), Advertisers are now faced with the issue of developing voice-activated advertising (75.8%), Allows users to perform searches and execute commands by speaking into their devices (71.6%) and Local businesses can use voice search to drive foot traffic by optimizing for location-specific queries (69.3%).

Conclusion
In conclusion, the rise in popularity of voice search has resulted in a dramatic shift in the methodologies behind search engine optimization (SEO) and online advertising. In order to take full use of the traits that are unique to voice-based queries, businesses and marketers will need to make adjustments to the methods that they already use. By employing natural language, narrowing in on keywords, optimizing for featured snippets, and studying voice-activated adverts, they are able to successfully engage with users in this rapidly shifting digital landscape. In a time when voice-driven interactions are the standard, businesses that are able to successfully navigate this shift will be in a stronger position to keep their competitive edge and develop a sustainable online presence. This will be the case in an era in which the norm is voice-driven interactions.
The study was conducted to know the challenges and opportunities of voice search in search engine optimization (SEO) and online advertising. It is a challenge for Advertisers that need to consider voice-activated ads that align with the user's search intent and provide value through audio content and it is an opportunity that allows users to perform searches and execute commands by speaking into their devices.
References

- Chandrasekaran, D., Srinivasan, R., & Sihi, D. (2018). Effects of offline ad content on online brand search: Insights from super bowl advertising. Journal of the Academy of Marketing Science, 46, 403-430.
- Efthymiou, C., & Halvey, M. (2016). Evaluating the social acceptability of voice-based smartwatch search. In Information Retrieval Technology: 12th Asia Information Retrieval Societies Conference, AIRS 2016, Beijing, China, November 30–December 2, 2016, Proceedings 12 (pp. 267-278). Springer International Publishing.
- Guy, I. (2016, July). Searching by talking: Analysis of voice queries on mobile web search. In Proceedings of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval (pp. 35-44).
- Ji, S. W., Choi, Y. J., & Ryu, M. H. (2016). The economic effects of domestic search engines on the development of the online advertising market. Telecommunications Policy, 40(10-11), 982-995.
- Jiang, J., Jeng, W., & He, D. (2013, July). How do users respond to voice input errors? Lexical and phonetic query reformulation in voice search. In Proceedings of the 36th international ACM SIGIR conference on Research and development in information retrieval (pp. 143-152).
- Mari, A., Mandelli, A., & Algesheimer, R. (2020). The evolution of marketing in the context of voice commerce: A managerial perspective. In HCI in Business, Government and Organizations: 7th International Conference, HCIBGO 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020, Proceedings 22 (pp. 405-425). Springer International Publishing.
- Qiao, D., Zhang, J., Wei, Q., & Chen, G. (2017). Finding competitive keywords from query logs to enhance search engine advertising. Information & Management, 54(4), 531-543.
- Rieder, B., & Sire, G. (2014). Conflicts of interest and incentives to bias: A microeconomic critique of Google's tangled position on the Web. New media & society, 16(2), 195-211.
- Rutz, O. J., & Bucklin, R. E. (2011). From generic to branded: A model of spillover in paid search advertising. Journal of Marketing Research, 48(1), 87-102.
- Sa, N., & Yuan, X. (2020). Examining users' partial query modification patterns in voice search. Journal of the Association for Information Science and Technology, 71(3), 251-263.
- Sun, C., Shi, Z. J., Liu, X., Ghose, A., Li, X., & Xiong, F. (2019). The effect of voice ai on consumer purchase and search behavior. NYU Stern School of Business.
- Zenetti, G., Bijmolt, T. H., Leeflang, P. S., & Klapper, D. (2014). Search engine advertising effectiveness in a multimedia campaign. International Journal of Electronic Commerce, 18(3), 7-38.