Search Optimization for the GC Pro Shop Water-Filter Website

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***Abstract*—This undergraduate thesis investigates search optimization for the GC Pro Shop water-filter sales website. A small retailer wants its product information to be easier to find in search results. The student surveys on-page, technical, local, and content-based SEO; reviews keywords and competitors; and documents work with Ahrefs, Google Search Console, WriterZen, blog pages, maps, and social channels. The manuscript contains screenshots of search tools and reports that some target keywords reached prominent positions during the study. It does not supply a reproducible ranking table or independently audited traffic outcome. Search positions change over time, and the thesis does not establish a controlled baseline or causal sales effect. The reference section is empty, so this summary cites only the source thesis. The contribution is a documented student study or prototype whose stated scope can guide further testing.**

***Index Terms*—search engine optimization, water filters, Google Search Console, keyword research**

I. Introduction

A small retailer wants its product information to be easier to find in search results. This thesis investigates search optimization for the GC Pro Shop water-filter sales website. It begins from a practical engineering need and explains the technologies and workflow chosen for the case. The objective is to document a student implementation or comparative investigation, together with the evidence available in the manuscript. Broader operational or economic effects require separate measurements and are not assumed from the existence of a prototype [1]. Earlier ICTU student work on related designs is included here for context [2], [3], [4]. Related published studies provide context for the subject and methods [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The student surveys on-page, technical, local, and content-based SEO; reviews keywords and competitors; and documents work with Ahrefs, Google Search Console, WriterZen, blog pages, maps, and social channels. The source is summarized through its stated design, implementation material, examples, and conclusion. Features shown in the manuscript are distinguished from proposals for later development. This review does not add a new experiment, fill missing measurements with estimates, or treat a planned capability as an observed result. The source thesis remains the provenance for the reported work [1].

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III. Results

The manuscript contains screenshots of search tools and reports that some target keywords reached prominent positions during the study. It does not supply a reproducible ranking table or independently audited traffic outcome. The report's screens, configurations, examples, or measurements constitute the evidence for this summary. A capability described only as a design intention is not counted as a validated operational outcome. No additional performance, adoption, financial, or safety figure has been introduced here. The result is interpreted within the scope of the student's documented setup [1].

IV. Discussion

Search positions change over time, and the thesis does not establish a controlled baseline or causal sales effect. The reference section is empty, so this summary cites only the source thesis. Further work could preserve dated query-level rankings, impressions and clicks, and compare them with a clearly defined pre-optimization baseline. These limitations affect how the evidence should be read. The current manuscript can support understanding of the design and reported demonstration, while independent tests would be needed for stronger claims. Any later deployment should document its environment and separate observed outcomes from intended benefits [1].

V. Conclusion

The thesis documents search optimization for the GC Pro Shop water-filter sales website. The manuscript contains screenshots of search tools and reports that some target keywords reached prominent positions during the study. It does not supply a reproducible ranking table or independently audited traffic outcome. Search positions change over time, and the thesis does not establish a controlled baseline or causal sales effect. The reference section is empty, so this summary cites only the source thesis. Further work could preserve dated query-level rankings, impressions and clicks, and compare them with a clearly defined pre-optimization baseline. Accordingly, the present contribution is a source-grounded account of the student work and its tested or illustrated scope. Claims

about broader effectiveness should be assessed in later work using explicit evaluation conditions [1].

References

[1] Hà Xuân Đức, ”Search Optimization for the GC Pro Shop Water-Filter Website,” internal undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, 2024.

[2] Đinh Tiến Tùng, ”Construction of an E-commerce Website for Laptop Sales for Hoang Anh-Bac Giang Store,” internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2021.

[3] Kiều Hoàng Phúc, ”Construction of an Online Clothing Store Website Using Reactjs for Hoang Minh Store,” internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2023.

[4] Lô Khánh Hòa, ”Construction of an Online Clothing Store Website for Ilike Store,” internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2021.

[5] Dwi Mandasari Rahayu et al., ”KAJIAN TEKNIK SEARCH ENGINE OPTIMIZATION PADA WEBSITE SEBAGAI STRATEGI PEMASARAN DI INTERNET,” MEDIASI, 2020. doi:10.46961/mediasi.v1i2.41.

[6] Sri Mulyatun Mulyatun et al., ”PENERAPAN SEARCH ENGINE OPTIMIZATION PADA WEBSITE KURSUS ONLINE ANAKKODING.ID,” Indonesian Journal of Business Intelligence (IJUBI), 2021. doi:10.21927/ijubi.v4i2.1952.

[7] Kay Cahill et al., ”Optimal Results: What Libraries Need to Know About Google and Search Engine Optimization,” The Reference Librarian, 2009. doi:10.1080/02763870902961969.

[8] D. Anushri et al., ”Website Development and Search Engine Optimization,” International Journal of Computer Sciences and Engineering, 2019. doi:10.26438/ijcse/v7i2.780782.

[9] Vinit Kumar Gunjan et al., ”Search Engine Optimization with Google,” Asian Journal of Engineering and Applied Technology, 2012. doi:10.51983/ajeat-2012.1.1.2503.

[10] Nektarios Stylianou Makrydakis et al., ”Analyzing E-shop onsite optimization factors in the context of E-commerce search engine optimization,” International Journal of Research in Marketing Management and Sales, 2022. doi:10.33545/26633329.2022.v4.i2a.111.