

Analysis of Critical Success Factors for Official Websites: A Case Study of the Real Estate Industry

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Abstract

This study investigates the critical success factors for real estate industry websites, focusing on how search engine optimization (SEO) and user experience (UX) design affect business conversions. By examining the official websites of Huahsiung Construction, Puyen Construction, and Jut Group, it evaluates SEO strategies, website design, and Google Analytics (GA) data. The research analyzes SEO tactics like keyword choice, content optimization, and external linking to assess their impact on organic traffic, and it also examines website design elements, such as navigation, interactivity, and page load speed, for their effects on visitor engagement and conversion. GA data further highlights performance differences across organic traffic, paid ads, and social media. This study provides strategic insights into the relationship between SEO and website functionality, helping real estate companies enhance visibility, user engagement, and conversion rates.

Keywords: Real estate websites, search engine optimization (SEO), user experience (UX) design, Google Analytics (GA), business conversion rate, website functionality, digital marketing strategy, organic traffic, brand visibility, sustainable growth

1. Introduction

1.1 Research Background

In the digital era, a company's official website serves as both a brand image display and a critical channel for customer communication and business promotion. According to Taiwan's Ministry of Economic Affairs, the output value of Taiwan's real estate industry has shown steady growth, accounting for over 11% of the nation's GDP by 2020. This emphasizes the importance of digital transformation in the sector.

Real estate companies now rely heavily on their official websites for online engagement. Prior research (e.g., Lin, 2019; Beri & Parminder, 2013; Jusuf, 2023) underscores that search engine optimization (SEO) and user experience (UX) design are essential in enhancing visibility, usability, and ultimately, conversion rates. Moreover, continuous updates to search engine algorithms and the rise of data-driven marketing necessitate constant SEO refinement and UX improvement. Google Analytics (GA) has become a widely adopted tool for assessing website performance and understanding user behavior.

UX design elements—such as site navigation, loading speed, and interactivity—have been proven to influence user engagement and retention (Udo & Marquis, 2002; Salam et al., 1998). Real estate websites must therefore integrate SEO strategy, GA analytics, and UX design to remain competitive.

1.2 Research Motivation

With the rapid proliferation of the internet, the marketing models within the real estate industry have undergone significant transformation. Traditional advertising and sales strategies are gradually being replaced by digital marketing, in which the official website plays a crucial role. Especially in the highly competitive real estate market, companies face the pressing need to leverage their websites to enhance brand visibility, attract potential customers, and drive sales.

In parallel, recent research also highlights the growing adoption of platform economy models in the real estate industry, which has further accelerated the shift toward innovative, digital-first marketing strategies (Li, 2022).

In my practical experience as the liaison responsible for an outsourced website construction project, I gained in-depth insights into the importance of official website development and SEO optimization for increasing web traffic. However, due to the real estate industry's unique characteristics, such as long sales cycles and customers' extended consideration periods, website exposure alone is insufficient to attract target customers. Integrating SEO with website functionality design to improve search rankings, increase conversion rates, and promote business growth is therefore the core issue of this research.

Moreover, the three companies selected for this study—Jut Group, Puyen Construction, and Huahsiung Construction—are prominent players in the real estate industry. Jut Group is renowned

as a luxury housing developer in Taiwan, while Puyen Construction and Huahsiung Construction were ranked among the top ten real estate developers in northern Taiwan and Taipei 101 developers in 2022, respectively. Each of their official websites presents unique design styles and SEO strategy applications; for instance, Jut Group frequently appears on the first page of search results for the keyword “construction.” This research will analyze the websites of these three companies, investigating the impact of their SEO strategies and website functionality design on business outcomes. Through this study, I hope to provide specific recommendations to help real estate companies achieve better results in digital marketing.

1.3 Research Objectives

This study aims to explore the critical success factors of official websites in the real estate industry, particularly how SEO strategies and UX design influence user behavior and business conversion. It also seeks to understand how the integration of these elements can support digital marketing performance and brand competitiveness. Specifically, the study investigates how SEO performance affects website visibility, how UX design contributes to user engagement and retention, and how their combined effects influence the overall effectiveness of real estate websites in achieving business goals.

1.4 Research Questions

This research focuses on the critical factors of SEO optimization and website functionality design for real estate companies' websites, raising the following research questions:

1. What is the relationship between SEO and website functionality design?

This study aims to understand the interactive impact between SEO optimization and website functionality design, exploring how these two factors work together to enhance website visibility and user appeal.

2. How does website functionality design affect user experience and conversion rates?

How can real estate companies use website functionality design to enhance user experience? This study will further examine how these design elements can increase visitor retention, reduce bounce rates, and ultimately enhance conversion rates.

3. How can SEO strategies and website functionality design become critical success factors?

How can SEO strategies and website functionality design become the key success factors for real estate companies' official websites? What strategies effectively strengthen website competitiveness to support business growth for real estate companies?

This study addresses the following identified research gap: While existing studies often delve

into either SEO or UX separately in response to evolving communication technologies, few have analyzed the interplay between SEO strategies and UX components from an integrated and empirical perspective. Furthermore, comparative research applying actual GA data from three real estate companies remains scarce. With the increasing application of GA metrics in evaluating UX performance, this study responds by empirically exploring the combined effect of SEO and UX under a systematic framework.

Using a multiple case study method, this research selects three highly representative real estate companies whose market segmentation, ranking, and platform models differ. For the first time, GA data will be integrated into comparative analysis, aiming to triangulate the interrelations among SEO, UX, and GA insights.

2. Literature Review

2.1 Official Websites

In the digital economy, corporate websites are crucial for brand representation and customer engagement. Linina et al. (2024) emphasize that UX design is a strategic tool for marketing and user retention. Wijaya et al. further observed that UI/UX elements and content strategy play a significant role in enhancing web performance across sectors, including real estate. The success of platforms like Zillow.com is largely attributed to intuitive design and efficient search functionality (Manko, 2021), illustrating how user-centered design directly correlates with business conversion in property platforms.

Udo and Marquis (2002) identified factors such as download time, navigation structure, graphic use, and interactivity as key to e-commerce website success. These elements are particularly important in real estate websites, where users often seek detailed visual and textual property information to inform their purchase decisions (Salam et al., 1998).

2.2 Search Engine Optimization (SEO)

SEO is a fundamental component of digital visibility. Early research also recognized SEO as a vital approach for website promotion and increasing online visibility through organic search (Meng & Hu, 2011). Jusuf (2023) and Shih et al. (2013) affirmed that SEO strategies—such as keyword optimization, quality content, and backlink development—significantly enhance web traffic and conversion rates. In real estate, SEO is especially critical, as search-driven traffic directly influences customer acquisition. SEO has also been implemented as a promotional strategy in various regional web development projects (Hayaty & Meylasari, 2018). Moreover, Hsu (2021) emphasized the importance of tailoring SEO strategies—such as effective title tag placement, meta

description writing, and keyword consistency—to improve visibility in Google search results, particularly in content-driven websites like blogs. These findings reinforce the adaptability of SEO practices across different website types, including real estate platforms.

SEO techniques are categorized into on-page and off-page strategies. On-page SEO includes content relevance, metadata accuracy, and website architecture, while off-page SEO focuses on link-building and domain authority (Sharma et al., 2022). The combined effect of both types contributes to higher SERP rankings and brand discoverability.

Additionally, Ziakis et al. (2019) identified key SEO ranking factors—such as site speed, mobile responsiveness, keyword optimization, and backlink quality—that reinforce the need for a comprehensive, technically sound SEO strategy.

2.3 Critical Success Factors

Korgaonkar et al. (2009) defines website success factors as a combination of user experience, SEO effectiveness, and content depth. Real estate websites must integrate these components to convert visitor traffic into actionable sales leads. Lai et al. (2020) evaluated web design in Taiwan’s housing market and identified responsiveness and interaction design as pivotal to user satisfaction.

A case study by Maidatussohiba et al. (2023) further demonstrated that redesigning a commercial website using Lean UX principles led to measurable improvements in user satisfaction, navigation flow, and visual clarity.

Tarafdar and Zhang (2005) emphasized that content quality, ease of navigation, and load speed significantly affect user engagement. In the real estate context, these factors must support both desktop and mobile accessibility to maximize outreach and conversion potential.

2.4 Summary of Literature Gaps and Relevance

While prior studies have explored SEO strategies or UX design individually, few have empirically examined their combined influence using

real-world user behavior data. Furthermore, little research applies GA-based analytics to triangulate the effectiveness of SEO and UX strategies in real estate websites. This literature gap highlights the need for a more integrated, data-driven approach, as proposed in this study.

3. Research Methodology and Design

3.1 Hypothesis Development

Based on the literature review and identified research gaps, this study proposes the following hypotheses to guide empirical investigation:

H1: Higher SEO performance (e.g., better keyword rankings, faster load times) is positively associated with increased organic traffic.

H2: Improved UX design (e.g., optimized navigation and mobile responsiveness) significantly reduces bounce rates and increases session duration.

H3: The integration of strong SEO strategies and UX design collectively contributes to higher conversion rates and user engagement.

These hypotheses will be tested using cross-case comparison of three real estate websites, supported by GA metrics and SEO evaluation data.

3.2 Research Methodology

This study adopts a multiple case study approach, selecting three real estate companies—Huahsiung Construction, Puyen Construction, and Jut Group—based on their digital visibility, SEO strategy application, and design variety. These companies reflect diversity in market position and branding strategies within Taiwan’s real estate sector.

As this is a work-in-progress study, the current focus is on developing a robust research framework and completing comprehensive data collection and preliminary analysis. The final stage of data interpretation and validation is planned for the upcoming months. Figure 1 presents the research framework for this study, illustrating how SEO strategy, UX design, and GA performance indicators interrelate as key success factors.

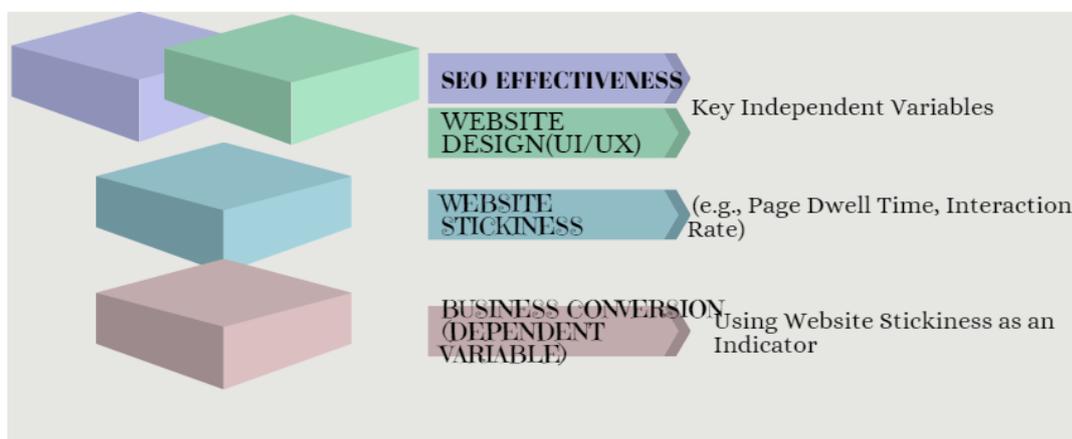


Figure 1: Research Framework for Analyzing Critical Website Success Factors in the Real Estate Industry

3.3 Data Collection and Analysis Methods

This study collects SEO, UX, and behavioral data from each case site using a suite of established digital tools. These include Google Search Console for keyword rankings, Google PageSpeed Insights for page performance, and Google Analytics (GA) for user behavior and traffic source analysis. To evaluate user experience and technical SEO structure, additional tools such as SEOquake, Matomo, Screaming Frog, SEO Meta in 1 Click, and Google Lighthouse are employed. These tools collectively enable both quantitative and qualitative assessments of website effectiveness.

The tools, their functions, and respective strengths are summarized in Table 1. For example, Google Search Console provides accurate, Google-sourced metrics on keyword performance and click-through rates (CTR), while PageSpeed Insights offers actionable recommendations for improving loading times on both desktop and mobile. To understand visitor behavior, Matomo is utilized for bounce rate tracking, and Screaming Frog enables internal link audits. SEO Meta in 1 Click helps evaluate the clarity and accuracy of on-page SEO elements such as titles and descriptions. Google Lighthouse provides integrated reports on accessibility, UX performance, and SEO compliance.

Table 1: SEO and UX Evaluation Tools and Their Analytical Functions

Key SEO Data	Analysis Tool	Function	Advantage
Keyword Rankings	Google Search Console	Provides keyword rankings and click-through data from Google SERPs	Data accuracy and comprehensiveness directly from Google
Page Load Speed	Google PageSpeed Insights	Analyzes page load speed with optimization suggestions for both desktop and mobile	Provides detailed performance improvement suggestions
Bounce Rate	Matomo	Provides open-source analytics data on bounce rates	Data ownership stays with the user, free from Google privacy concerns
Internal Links	Screaming Frog SEO Spider	Checks internal link structure, providing depth and broken link reports	Ideal for technical SEO analysis, free version analyzes up to 500 URLs
Page Titles and Descriptions	SEO Meta in 1 Click	Checks SEO elements like titles, meta descriptions, H1-H6 tags	Quick and easy view of SEO elements on any page
User Experience (UX)	Google Lighthouse	Comprehensive performance, SEO, accessibility, and UX analysis	Integrated in Chrome, free, and user-friendly

The data analysis follows a cross-case comparative strategy. Each company's website is assessed against consistent performance benchmarks, and the resulting indicators are used to evaluate the hypotheses outlined above. Metrics such as bounce rate, average session duration, click-through rate, and conversion proxies (e.g., inquiry forms or reservation buttons) will be analyzed to reveal patterns across the cases. Where feasible, inferential statistical techniques such as t-tests or ANOVA will be employed to assess the significance of observed differences.

References

- Beri, B., & Parminder. (2013). Web analytics: Increasing website's usability and conversion rate. *International Journal of Computer Applications*, 72(6), 36-38.
- Hayaty, M., & Meylasari, D. (2018). Implementasi Website Berbasis Search Engine Optimization (SEO) Sebagai Media Promosi. *Jurnal Informatika*, 5(2), 295-300.
- Hsu, C. Y. (2021). *Application strategies for Google SEO on blog websites*. (Master's thesis, Shih Hsin University). Taiwan Master's Thesis Knowledge Value-Added System.
- Jusuf, D. I. (2023). Optimizing SEO (Search Engine Optimizing) strategy to increase visibility and achievement of marketing goals. *Lead Journal of Economy and Administration*, 2(2), 98-103.
- Korgaonkar, P., O'Leary, B., & Silverblatt, R. (2009). Critical factors to successful website development: Opinions of website designers and developers. *International Journal of E-Business Research (IJEER)*, 5(4), 39-54.
- Lai, I.-S., Huang, Y.-F., Siang, J.-H., & Weng, M.-W. (2020). Evaluation of key success factors for web design in Taiwan's bike case study. *Journal of Asian Finance, Economics and Business*, 7(11), 927-937.
- Li, M. C. (2022). *A study on innovative marketing models in the real estate industry utilizing platform economy in dynamic contexts*. (Master's thesis, National Sun Yat-sen University). Taiwan Master's Thesis Knowledge Value-Added System.
- Lin, T. Y. (2019). Application of online search behavior to predict the real estate market. *Taiwan Journal of Applied Economics*, 105, 221-242.

- Linina, I., Villerte, K., Vevere, V., & Zvirgzdina, R. (2024). FUser experience (UX) design websites as a marketing tool. *WSEAS Transactions on Business and Economics*, 21, 1461-1471.
- Maidatussohiba, E., Maarij, M. N., Wahyu P, B., Lisnorviona, M. D., & Krisna P, K. A. (2023). Redesain website ventela untuk meningkatkan user experience pengguna menggunakan lean UX. *ETNIK: Jurnal Ekonomi dan Teknik*, 2(11), 1056-1069.
- Manko, B. A. (2021). Teaching user-friendly web design: A case study on Zillow. com in the real estate industry. *Journal of Information Technology Teaching Cases*, 12(1), 35-42.
- Meng, C. H., & Hu, S. Y. (2011). Research on search engine optimization for website promotion. In *Proceedings of the 2011 International Conference on Information Technology, Computer Engineering and Management Science* (pp. 100-103). Nanjing, China.
- Salam, A. F., Rao, H. R., & Pegels, C. C. (1998). Content of corporate Web pages as advertising media. *Communications of the ACM*, 41(3), 76-77.
- Sharma, S., Panda, S. P., & Verma, S. (2022, May). Role and analysis of various SEO strategies to improve website ranking. In *2022 International Conference on Machine Learning, Big Data, Cloud and Parallel Computing (COM-IT-CON)* (Vol. 1, pp. 639-648). IEEE.
- Shih, B. Y., Chen, C. Y., & Chen, Z. S. (2013). Re-tracked: an empirical study of an internet marketing strategy for search engine optimization. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 23(6), 528-540.
- Tarafdar, M., & Zhang, J. (2005). Analysis of critical website characteristics. *Journal of Computer Information Systems*, 45(3), 15-22.
- Udo, G. J., & Marquis, G. P. (2002). Factors affecting e-commerce web site effectiveness. *Journal of Computer Information Systems*, 42(2), 10-16.
- Ziakis, C., Vlachopoulou, M., Kyrkoudis, T., & Karagkiozidou, M. (2019). Important factors for improving google search rank. *Future Internet*, 11(2), 32.

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