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A Study On Impact Of Website User Experience On Search Engine Optimization At Shanthi It Soution, Chennai

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ABSTRACT

The study emphasizes website loading speed, ease of navigation, quality content, keyword optimization, and mobile responsiveness directly influence user satisfaction and search engine rankings. Using primary data collected through a structured questionnaire from 217 respondents, the study applies non-parametric statistical tests like Mann-Whitney U, Chi-Square, Spearman's Correlation, and Kruskal-Wallis to analyze user perceptions. Findings reveal that a seamless, fast, and user-friendly interface significantly enhances engagement, reduces bounce rates, and positively affects SEO outcomes. The study concludes that an integrated approach to UX and SEO is essential for businesses aiming for digital growth. Continuous optimization of website speed, intuitive navigation, content relevance, and responsiveness across devices is vital to attract, retain, and satisfy users while maintaining strong visibility in search engine results.

Keywords: Website User Experience (UX), Search Engine Optimization (SEO), Website Loading Speed, Navigation Ease, Content Quality, Keyword Optimization, Mobile Responsiveness, User Satisfaction, Bounce Rate, Search Engine Rankings

1.INTRODUCTION

Website User Experience and Search Engine Optimization (SEO) are crucial factors in determining a website's success in today's digital landscape. UX focuses on how easily users can interact with a site, considering elements like loading speed, mobile compatibility, and navigation. A seamless Website user Experience improves user engagement, reduces bounce rates, and encourages actions such as purchases or sign-ups. SEO, on the other hand, works to enhance a website's visibility in search engines through strategies like keyword optimization, quality content, fast page load times, and backlinks. As search engines increasingly prioritize Website user Experience elements like mobile-friendliness and page speed, websites that offer a positive user experience tend to rank higher. Focusing solely on technical SEO is no longer enough; a well-designed, user-friendly website is essential for success. By integrating both Website user Experience and Search Engine Optimization (SEO), businesses can attract more visitors, improve engagement, and boost conversions. This combined approach leads to improved website performance, higher search rankings, and long-term growth in the competitive digital market.

2. NEED OF THE STUDY

- To Evaluate the quality of content to enhance user experience and increase engagement.
- To identify the effective keyword strategies for improved search engine visibility.
- To find the ways to enhance loading times for improved user retention and SEO.
- To create intuitive navigation to improve user experience and reduce bounce rates.

3.OBJECTIVES OF THE STUDY

- To analyse the impact of website speed and easy navigation on user experience
- To assess the role of keyword optimization in search engine rankings
- To find out the quality of contents enhancing experience of users
- To evaluate the significant of a user- friendly interface improving user experience

4.SCOPE OF THE STUDY

This research explores key aspects that influence website performance, user satisfaction, and search engine optimization (SEO). It analyses the impact of website loading speed on user experience and search rankings, emphasizing the need for fast, efficient websites. Additionally, it examines the significance of keyword optimization in improving organic search visibility, helping websites connect with their target audience more effectively. The study also investigates how high-quality content enhances user engagement and retention, reinforcing the importance of delivering valuable information. Furthermore, it assesses the relationship between a user-friendly interface and user satisfaction, demonstrating how intuitive design fosters positive interactions. Lastly, it evaluates the role of mobile responsiveness in shaping user experience and SEO success, highlighting the necessity of adaptive, mobile-friendly web designs in the digital era.

5. LIMITATION OF THE STUDY

- The study focuses primarily on website speed, keyword optimization, and content quality, excluding other important SEO elements like backlinks.
- User experiences can differ across various devices and platforms, which may not be fully addressed in the study.
- The study does not include a comparative analysis with competitor websites, limiting its ability to contextualize the findings.
- The rapid evolution of SEO practices and search engine algorithms may render the findings outdated over time.

6. REVIEW OF LITERATURE

Muhammad Iqbal, Muhammad Noman (2024): Search Engines (SEs) play a crucial role in driving web traffic by sorting and ranking vast online data. With SEs like Google, Bing, and Yahoo influencing website visibility, SEO becomes essential for competing online. This study highlights the importance of SEs and SEO, focusing on bounce rate and load time in retaining users. Data from the web development blog "MLT" was analysed using Google Analytics and Page Speed Insight to assess SEO impact. Experimental results confirm that key SEO elements significantly reduce bounce rates and enhance website performance.

Karol Król (2024): This study evaluates the SEO quality of selected marketplace and e-commerce websites, scoring them 2,126 out of 3,000 points (71%). The analysis involved exploratory tests on homepage source code and algorithmic tests using online tools. The findings show that most websites had brand names in the meta description and title tags, but only one had a meta keywords tag. The study identifies both basic SEO flaws and good practices, offering insights for improving SEO performance in e-commerce sites.

Rico Ferdinand, Angga Aditya Permana (2024): The study explores how the Industrial Revolution 4.0 has pushed businesses toward digital marketing. A new website for Entre Fine, offering data management systems and Excel training, was developed using the Waterfall model for efficiency. SEO was implemented to improve search rankings, and within a short period, the website achieved 100% functionality, generating 341 traffic and ranking at an average of 8.4, demonstrating the effectiveness of SEO strategies.

Roseline Nyamwamu, David Gichoya (2022): This book emphasizes the importance of user involvement in improving the external quality of a website. By collecting user feedback, businesses can enhance the user experience and ultimately benefit from the services offered online. The author discusses various assessment models and highlights the WAM (Web Assessment Model) as a useful alternative for institutions, providing valuable insights for website administrators and users.

Rika Perdana Sari, Silvana Rosio Hemin (2022): This study evaluates the usability of the Pekanbaru City tourism website, which provides public information about local attractions. Despite the website's importance, it suffers from outdated content and missing tourist information. Using the System Usability

Scale (SUS), the website received a score of 65.87, placing it in the Marginal High category. The results indicate that the site is less effective, efficient, and satisfying for users, pointing to areas for improvement.

Chun-Fu Li and Ya-Qi Jiang (2019) highlight the shift towards user-centered design in the Web 2.0 era, emphasizing the importance of positive user experience (UX) in enhancing task completion, satisfaction, and brand image. Despite global advancements, many regions still rely on imitative designs with limited UX research. The study proposes a multidisciplinary approach—blending psychology, behavior, art, and technology—and validates it through experiments on popular websites, offering both theoretical and practical guidance.

7. RESEARCH METHODOLOGY

Research methodology is a systematic and organized process of conducting research, which involves a set of procedures, techniques, and tools used to collect, analyse, and interpret data in order to answer research questions or test hypotheses. The purpose of research methodology is to ensure that the research is conducted in a rigorous and systematic manner, and that the findings are reliable, valid, and generalizable. Participants will be selected based on their response given to the google form created from my side for them to fill.

RESEARCH DESIGN

Research design refers to the overall plan or strategy for conducting a research study. A questionnaire is a research tool used to collect data from respondents. It is a quantitative research method that is often used to gather data from a large number of participants. Here are some steps to consider when designing a research study using a questionnaire

TYPE OF RESEARCH DESIGN

The type of research design adopted in this study is DESCRIPTIVE RESEARCH

DESCRIPTIVE RESEARCH.

Descriptive research is a type of research that aims to accurately and systematically describe a population, situation, or phenomenon. It can answer questions about who, what, where, when, and how, but not why. Descriptive research is often used to describe characteristics or functions of a specific group, determine frequencies of occurrences, and categorize information.

SAMPLING TECHNIQUE

The study Website user experience the Simple random Sampling technique due to time constraints and ease of accessibility to respondents. This Probability sampling method allows the researcher to focus on targeted groups, making data collection more efficient and practical.

SAMPLE SIZE

Since the population is unknown, a pilot study with 30 respondents was conducted to determine the sample size.

N_0 = sample size , Z^2 =level of significance (3.8416), P = number of YES (0.83) , Q = number of NO (0.17) , e^2 = standard error (0.0025)

$$= 3.8416(0.83 \times 0.17) / 0.0025 = 216.81 = 217$$

Thus, the optimal sample size for this study is 217 respondents.

NON-PARAMETRIC TEST

The Kolmogorov –Smirnov test of normality was conducted and it is found that the data deviates from normal distribution. So, the non-Parametric tools and tests were used.

1. H_0 : The data follows normal distribution
2. H_1 : The data does not follow normal distribution

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Search Engine Results	.489	217	.000	.472	217	.000
Easy to Navigate	.308	217	.000	.834	217	.000
Keyword Optimized	.202	217	.000	.864	217	.000
During Difficulties	.201	217	.000	.880	217	.000

a. Lilliefors Significance Correction

INFERENCE:

The Normality of the data was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Since all significance values were 0.000 (less than 0.05), the null hypothesis was rejected, indicating that the data does not follow a normal distribution. Therefore, non-parametric tests are recommended for further analysis

CORRELATION

Null Hypothesis (H_0): There is no significant correlation between the variables During Difficulties, Enjoyable Experience, and Overall Website Experience.

Alternative Hypothesis (H_1): There is a significant correlation between the variables During Difficulties, Enjoyable Experience, and Overall Website Experience.

			During Difficulties	Enjoyable Experience	Overall Website Experience
Spearman's rho	During Difficulties	Correlation Coefficient	1.000	.672**	.512**
		Sig. (2-tailed)	.	.000	.000
		N	217	217	217
	Enjoyable Experience	Correlation Coefficient	.672**	1.000	.603**
		Sig. (2-tailed)	.000	.	.000
		N	217	217	217
	Overall Website Experience	Correlation Coefficient	.512**	.603**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	217	217	217

** . Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2- tailed).

INFERENCE:

Since the sample data follows non parametric test, The Spearman's correlation results show significant positive relationships among During Difficulties, Enjoyable Experience, and Overall Website Experience. All correlations are strong and significant at the 0.01 level ($p = 0.000$). Therefore, the null hypothesis is rejected, confirming that improvements in one experience area positively influence the others.

8.SUMMARY OF FINDINGS

- Most respondents 39% strongly agree that fast-loading websites enhance user experience.
- The majority 50% of respondents agree that websites are easy to navigate and find what they need.
- The majority 36% of respondents strongly agree that websites with clear navigation menus are easier to use.
- The majority 32% of respondents strongly agree that relevant and high-quality content is crucial for a positive user experience.
- The majority 48% of respondents agree that it's easier to locate relevant information when keywords are well-optimized.
- Most respondents 35% strongly agree that keyword-optimized content helps them find relevant information quickly.

- The majority 32% of respondents strongly agree that websites are comfortable to access across multiple devices.
- The majority 42% of respondents agree that websites deliver real-time responses to user actions.
- Most respondents 35% strongly agree that browsing is more enjoyable when websites are optimized for all devices.
- The majority 32% of respondents strongly agree that they are satisfied with the website's assistance during difficulties.
- The majority 46% of respondents agree that the website offers a smooth and enjoyable experience.
- Most respondents 36% strongly agree that website user experience impacts search engine optimization.
- The majority 83% of respondents say the website appears on the first page of search engine results.

SUGGESTIONS

- Ensure the website adjusts seamlessly across smartphones, tablets, and desktops, offering a smooth experience on all devices. A mobile-first design enhances accessibility and keeps users engaged.
- Optimize images, compress files, and minimize unnecessary scripts to improve website loading times. A faster site boosts user engagement and supports better SEO rankings.
- Use clean, simple menus and logical content organization for easy navigation. Consistent page layouts and breadcrumbs provide clear pathways for users, improving satisfaction.
- Keep the website fresh with well-researched, relevant, and valuable content. Quality content encourages return visits, enhances credibility, and boosts SEO.
- Integrate relevant keywords naturally in titles, headers, and text to improve search visibility. Smart keyword usage helps attract targeted users and enhances the browsing experience.
- Offer live chat, FAQs, and quick-access help centres to address user inquiries instantly. Providing immediate support builds trust and enhances user engagement and loyalty.

CONCLUSION

The study at Shanthi IT Solution explored how website user experience influences search engine optimization (SEO). It highlighted that fast-loading times, easy navigation, and mobile responsiveness play a crucial role in enhancing user engagement, which in turn boosts SEO performance. A smooth, intuitive interface and high-quality content further contribute to improving user satisfaction and trust in the website. The study also emphasized the importance of keyword optimization and regularly updated, well-organized content for better search engine visibility. Additionally, real-time responses and responsive design were found to be key factors in keeping users engaged across multiple devices. In conclusion, combining effective UX strategies with strong SEO practices is essential for online success, helping businesses stay competitive and attract users while improving their search rankings.

BIBILOGRAPHY

Muhammad Iqbal SEO: Tips to Minimize Bounce Rate of Website User (2024) DOI:10.21015/vtse.v12i1.1708

Karol Król Assessing marketplace and e-commerce website quality with SEO score 2024 Scientific Papers of Silesian University of Technology Organization and Management Series 2024(202):287-303 DOI:10.29119/1641-3466.2024.202.18

Rico Ferdinand Enhancing Website Marketing Through Effective Seo Strategies: A Case Study of Entrefine 14(2):370-377 DOI:10.37859/jf. v14i2.7392 LicenseCC BY SA 4.0

Roseline Nyamwamu Enhance your website user experience through its assessment (2022), Publisher: LAP LAMBERT Academic Publishing (May 23, 2017) ISBN: ISBN-13: 978-3330318670

Rika Perdana Sari Measurement and Analysis of Tourism Website User Experience Using Usability Techniques (2022), Journal of Applied Engineering and Technological Science (JAETS) 4(1):539-546 DOI:10.37385/jaets.v4i1.1343

Chun-Fu Li Research on the Optimization Method of Website Based on User Experience (2019) Advances in Intelligent Systems and Computing DOI:10.1007/978-3-319-94947-5_42b

