

A Study on SEO and Competitor Analysis: A Strategic Approach to the Digital Presence of Modern Businesses

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Abstract: *Businesses nowadays depend more and more on online presence if they are to remain competitive and expandable. This paper investigates how strategic use of competition analysis and search engine optimization (SEO) could improve the online visibility of contemporary companies. Examining several SEO elements—on-page, off-page, and technical SEO—alongside analytical frameworks used to track rivals helps the study to pinpoint best practices and main elements influencing digital success. The study assesses the link between budget levels, SEO priorities, and the efficacy of various techniques by means of a mix of quantitative surveys and qualitative views from consumers and marketers as well as students. The results show that companies with well defined, data-driven SEO strategies coupled with integrated real-time competitor analysis are more likely to draw quality traffic, increase brand authority, and get greater conversion rates. This initiative provides useful advice for companies trying to use SEO not just as a marketing tool but also as a fundamental strategic capability in digital transformation.*

Keywords: Search Engine Optimization (SEO) Competitor Analysis, Digital Presence, SEO Strategy, Marketing Analytics, Conversion Rates, Quality Traffic

I. INTRODUCTION

In today's technology-driven world, the internet serves as the primary platform for businesses to connect with their customers. As more consumers turn to online channels for information and purchasing decisions, the need for a strong digital presence has never been more paramount. Search Engine Optimization (SEO) emerges as a vital tool in this context, enabling businesses to enhance their visibility on search engines and attract organic traffic. However, SEO is not a standalone strategy; it must be complemented by a thorough understanding of competitors in the market. This study aims to explore the intricate relationship between SEO and competitor analysis, highlighting how these two components can be integrated into a cohesive strategy that drives business success. By analyzing competitors' strengths and weaknesses, businesses can identify opportunities for differentiation and improvement in their own SEO practices. Furthermore, understanding the competitive landscape allows companies to adapt their strategies in real-time, ensuring they remain relevant and visible in an ever-changing digital environment.

The objectives of this study are multi-faceted. Firstly, it seeks to provide a comprehensive overview of SEO principles and best practices, emphasizing their significance in enhancing online visibility. Secondly, the research will delve into the methodologies of competitor analysis, illustrating how businesses can effectively assess their rivals' strategies and performance. Lastly, the study aims to present actionable insights and recommendations for businesses looking to optimize their digital presence through a strategic approach that combines SEO and competitor analysis. As we embark on this exploration, it is essential to recognize that the digital landscape is not static; it is influenced by various factors, including technological advancements, consumer behavior, and market dynamics. Therefore, this study will also consider the implications of these factors on SEO and competitor analysis, providing a holistic view of the challenges and opportunities that modern businesses face in their quest for digital excellence. Through this research, we hope to



equip businesses with the knowledge and tools necessary to navigate the complexities of the digital marketplace and achieve sustainable growth.

The Evolution of SEO in Business Strategy

SEO has come a long way from its early days of keyword stuffing and link farming. With the advancement of algorithms and user experience (UX) metrics, modern SEO is now a complex and multifaceted discipline. Google's algorithm updates—such as BERT, Core Web Vitals, Helpful Content Updates, and the introduction of E-E-A-T (Experience, Expertise, Authoritativeness, and Trustworthiness)—has reshaped how businesses optimize their digital platforms. These updates emphasize the importance of relevance, user satisfaction, and trustworthiness, thereby pushing businesses to adopt more ethical, user-focused, and data-driven strategies.

Today, SEO is not just a marketing tactic; it is a strategic pillar integrated into broader business objectives. Organizations leverage SEO to enhance brand visibility, capture high-intent leads, and improve conversion rates. Moreover, in the age of mobile-first indexing and voice search, businesses must constantly evolve to remain visible and relevant. SEO now incorporates **technical audits, content optimization, site speed, mobile responsiveness, and user behaviour analytics**—each playing a role in influencing rankings.

Competitor Analysis as a Strategic Advantage

In parallel, competitor analysis has become indispensable in shaping digital marketing strategies. With hundreds of thousands of businesses competing for online visibility, knowing what competitors are doing—how they optimize their content, the keywords they target, their backlink profiles, and their on-page and off-page strategies—provides a foundation for informed decision-making. Competitor analysis in SEO allows businesses to:

- Identify keyword gaps and ranking opportunities
- Analyse traffic sources and user behaviour
- Benchmark content structure, backlink quality, and domain authority
- Understand brand positioning in SERPs (Search Engine Results Pages)

Tools like SEMrush, Ahrefs, Uber suggest, Moz, and Google Search Console have made it easier for businesses to gain real-time insights into their competitors' SEO activities. These platforms provide in-depth data on keyword rankings, traffic trends, backlink sources, domain metrics, and more. When used strategically, this data enables businesses to reverse-engineer competitor success and apply refined strategies tailored to their own brand and audience.

The Intersection of SEO and Competitor Analysis

What makes the combination of SEO and competitor analysis particularly powerful is their synergistic potential. While SEO focuses on optimizing a business's digital presence for search engines, competitor analysis injects a layer of strategic intelligence that guides decision-making. Together, they form a **proactive approach to digital marketing** that is both agile and data-driven. For instance, a business aiming to enter a new niche market can perform a competitor keyword gap analysis to identify underutilized opportunities. Similarly, by tracking how competitors respond to algorithm changes or shifts in consumer behaviour, businesses can adapt their content and technical strategies to maintain or enhance their rankings. In doing so, companies not only improve their SEO performance but also ensure that their digital presence is resilient and future-ready.

Moreover, in the context of **modern consumer behaviour**, where purchase decisions are often influenced by digital touch points, the ability to rank higher in search results can make or break a brand. Users are more likely to trust and engage with businesses that appear on the first page of Google, making visibility a form of digital credibility. By consistently monitoring and outperforming competitors in SEO, businesses position themselves as leaders in their domain, earning greater trust, traffic, and conversions.



Digital Presence

A strong digital presence allows businesses to connect with customers, build brand awareness, and drive sales. With the majority of consumers conducting online research before making purchasing decisions, having a well-established online footprint is vital. A robust digital presence can lead to increased credibility, customer loyalty, and competitive advantage in the marketplace.

Key Components of Digital Presence

1. **Website:** A professional and user-friendly website serves as the cornerstone of a business's digital presence. It should provide essential information about products or services, facilitate easy navigation, and be optimized for search engines (SEO).
2. **Social Media:** Platforms like Facebook, Instagram, Twitter, and LinkedIn enable businesses to engage with their audience, share content, and promote their brand. Each platform has its unique demographic, making it essential to choose the right channels for effective communication.
3. **Content Marketing:** Producing valuable and relevant content helps attract and retain customers. Blogs, videos, info graphics, and podcasts can establish a business as an authority in its industry while improving SEO.
4. **Email Marketing:** Building an email list allows businesses to communicate directly with customers, share updates, and promote offers. Personalized email campaigns can significantly enhance customer engagement.
5. **Online Reviews and Reputation Management:** Customer reviews on platforms like Google, Yelp, and social media can influence potential buyers. Actively managing online reputation and responding to feedback is crucial for maintaining a positive image.

Strategies to Enhance Digital Presence



- **SEO Optimization:** Implementing SEO best practices ensures that a business's website ranks higher in search engine results, making it more visible to potential customers.
- **Consistent Branding:** Maintaining a consistent brand voice and visual identity across all digital platforms helps in building recognition and trust among consumers.
- **Engagement and Interaction:** Actively engaging with customers through comments, messages, and social media interactions fosters a sense of community and loyalty.
- **Analytics and Monitoring:** Utilizing tools like Google Analytics to track website traffic and user behaviour can provide insights into what works and what needs improvement.
- **Ad Campaigns:** Investing in online advertising, such as Google Ads or social media ads, can boost visibility and attract targeted traffic to a business's website.



Roofing Industry

The roofing industry plays a pivotal role in the construction and infrastructure sectors, providing essential protection and structural integrity to buildings and facilities. As urbanization, population growth, and infrastructure development continue to accelerate worldwide, the demand for diverse roofing solutions has grown substantially. Roofing is no longer just about shelter; it has evolved into a sophisticated field that includes energy efficiency, aesthetics, sustainability, and smart technology integration. The industry encompasses a wide variety of services and materials such as metal roofs, shingles, tiles, bitumen, PUF panels, tensile structures, polycarbonate sheets, and smart retractable roofing. Roof installation, repair, maintenance, waterproofing, insulation, and solar roofing systems are among the primary services offered. The increasing complexity of customer needs—ranging from residential housing to industrial warehouses and smart architectural structures—has led to rapid innovation and diversification within the roofing sector.

Indian Roofing Industry

India's roofing industry has experienced exponential growth over the past two decades, supported by massive infrastructure development, rural housing schemes, and government initiatives such as "Housing for All," "Smart Cities Mission," and "Make in India." The Indian roofing market is estimated to be worth over **₹50,000 cores (approx. USD 6 billion)** and is expanding at a CAGR of **7-8%**.

Distinct segments within the Indian roofing industry include:

- **Residential Roofing:** Including tiled roofs, metal roofing, shingles, and solar roofs
- **Industrial & Warehouse Roofing:** Pre-engineered buildings (PEBs), PUF panels, and metal sheets
- **Commercial & Institutional Roofing:** Transparent roofs, tensile roofing, and cladding
- **Agricultural Roofing:** For poultry farms, dairy units, and greenhouse structures

Regions such as **Tamil Nadu, Maharashtra, Gujarat, Karnataka, and Andhra Pradesh** are leading contributors, with high demand in tier-1 and tier-2 cities. The industry also benefits from increased awareness of **aesthetics, energy efficiency, and thermal insulation**, particularly in urban housing and premium commercial projects

The Future Outlook of the Roofing Industry with SEO and Competitor Analysis

The roofing industry will increasingly rely on **strategic digital marketing** to compete effectively. As more customers turn online for service discovery, roofing companies must prioritize SEO and competitor analysis as core business functions rather than optional marketing tactics. Integration of these strategies with overall business goals—such as brand positioning, customer experience, and product innovation—will define leaders in the space. Moreover, roofing companies that leverage data insights to anticipate customer needs and industry trends will sustain growth in a competitive digital marketplace. The future roofing company is not just a contractor or supplier but a **digital-savvy service provider** with an active online presence, consistent branding, and data-driven marketing initiatives.

Company Overview

Smart Roofs and Fabs is a prominent roofing solutions provider headquartered in Chennai, Tamil Nadu. Established in 2009, the company has grown to become a trusted name in the roofing industry, specializing in a wide range of roofing systems for residential, commercial, and industrial applications. With a commitment to quality, innovation, and customer satisfaction, Smart Roofs and Fabs has successfully completed over 2,500 projects, serving more than 375 satisfied clients.

Scope of the Study

The scope of this study encompasses an in-depth analysis of SEO techniques and competitor analysis methodologies as they pertain to various industries. It will investigate the effectiveness of different SEO strategies, the tools available for competitor analysis, and how these elements can be integrated into a cohesive digital marketing strategy. The study will focus on both small and large enterprises, providing a comprehensive overview of best practices in the field.



Need of the study

The study of SEO and competitor analysis is vital for modern businesses seeking to enhance their digital presence. By understanding the intricacies of SEO and keeping a close eye on competitors, companies can develop strategic approaches that drive growth and ensure long-term success in the digital realm. Embracing these practices is not just beneficial; it is essential for thriving in today's competitive market.

Objectives of the Study**Primary objectives**

A study on SEO and competitor analysis: a strategic approach to the digital presence of modern businesses

Secondary objectives

1. To analyze the current trends in SEO and their impact on digital marketing.
2. To evaluate the methodologies used in competitor analysis and their effectiveness.
3. To identify best practices for integrating SEO and competitor analysis into a cohesive strategy.
4. To provide recommendations for businesses seeking to enhance their digital presence through effective SEO and competitor analysis.

II. REVIEW OF LITERATURE

Moz, (2021) In this foundational text, outlines the essential components of SEO, including technical SEO, content creation, and link-building strategies. The guide emphasizes the importance of understanding the competitive landscape and utilizing competitor analysis to inform SEO practices. By providing actionable insights and best practices, this resource serves as a valuable tool for businesses looking to enhance their digital presence through effective SEO strategies.

Fishkin, R. (2020) In his comprehensive guide, delves into the intricacies of SEO and its impact on business growth. The author presents a detailed analysis of on-page and off-page SEO techniques, emphasizing the need for businesses to adopt a holistic approach to their digital marketing strategies. Fishkin also discusses the significance of competitor analysis, illustrating how businesses can leverage insights from their rivals to refine their SEO tactics and achieve better online performance.

Jansen, B. J., & Mullen, T. (2019) Examine the intersection of SEO and paid search advertising, highlighting how businesses can integrate these strategies for maximum impact. The authors discuss the role of competitor analysis in identifying effective keywords and ad placements, providing a strategic framework for businesses to enhance their digital marketing efforts. This literature review emphasizes the necessity of a cohesive approach to SEO and competitor analysis in driving online success.

Cutroni, J. (2018), Provides an in-depth look at how analytics can inform SEO strategies and competitor analysis. The author argues that data-driven decision-making is crucial for businesses seeking to optimize their online presence. By utilizing tools like Google Analytics, companies can track their performance against competitors and adjust their SEO strategies accordingly. This study underscores the importance of continuous monitoring and adaptation in the fast-paced digital landscape.

III. RESEARCH METHODOLOGY

The research methodology will involve a mixed-methods approach, combining qualitative and quantitative research techniques. This will include surveys, interviews with industry experts, and analysis of existing literature on SEO and competitor analysis.

Research Design

The research design will be descriptive, aiming to provide a detailed account of the current state of SEO and competitor analysis practices. It will involve case studies of businesses that have successfully implemented these strategies, as well as comparative analysis of their performance metrics.



Sources of Data

Primary data :

- Interviews with marketing professionals and business owners.
- Online surveys targeting businesses across different sectors.

Secondary data:

Data will be collected from a variety of sources, including:

- Academic journals and articles on SEO and digital marketing.
- Industry reports and white papers.

Period of the Study

- The study will be conducted over a period of six months, starting from **January 2025 to May 2025**. This timeframe will allow for thorough data collection, analysis, and the formulation of recommendations.

Questionnaire

This questionnaire presents a concise overview of formulating research questions utilizing a **5-point Likert scale**. The Likert scale is a popular tool in survey research, allowing respondents to express their level of agreement or disagreement with a series of statements. By employing this scale, researchers can quantify attitudes, perceptions, and behaviors effectively.

Statistical Tools: Descriptive analysis

Sample

The sample for this study will consist of businesses from various industries that have implemented SEO and competitor analysis strategies. The sampling method Purposive sampling. It will include both small startups and established corporations to provide a diverse perspective.

Sample Size

The study aims to include a sample size of **105 respondents**, businesses, ensuring a representative cross-section of the market. This sample size will facilitate robust statistical analysis and enhance the validity of the findings. By addressing these components, this study seeks to contribute valuable insights into the strategic importance of SEO and competitor analysis in the digital marketing landscape, ultimately aiding businesses in enhancing their online presence.

Limitations of the Study

This study may face several limitations, including:

- A potential bias in the selection of case studies and examples.
- The rapidly changing nature of SEO practices, which may affect the relevance of findings over time.
- Limited access to proprietary data from competitors, which may hinder comprehensive analysis.

IV. DATA ANALYSIS

Table No 1: CLASSIFICATION OF RESPONDENTS BASED ON SEO GOAL

S.NO	PARTICULARS	NO:OF: RESPONDENTS	PERECNTAGE OF RESPONDENTS
1	Increase website traffic	36	34.28
2	Improve search engine rankings	27	25.71
3	Enhance brand awareness	25	23.80



4	Generate leads	17	16.19
TOTAL		105	100

Source: **Primary Data**

Interpretation: From the above table inferred that the highest number of respondents choose Increase website traffic 34% and 25% Improve search engine rankings, 23% Enhance brand awareness and 16% Generate leads.

Chart No 1: Classification of respondent based on SEO Goal

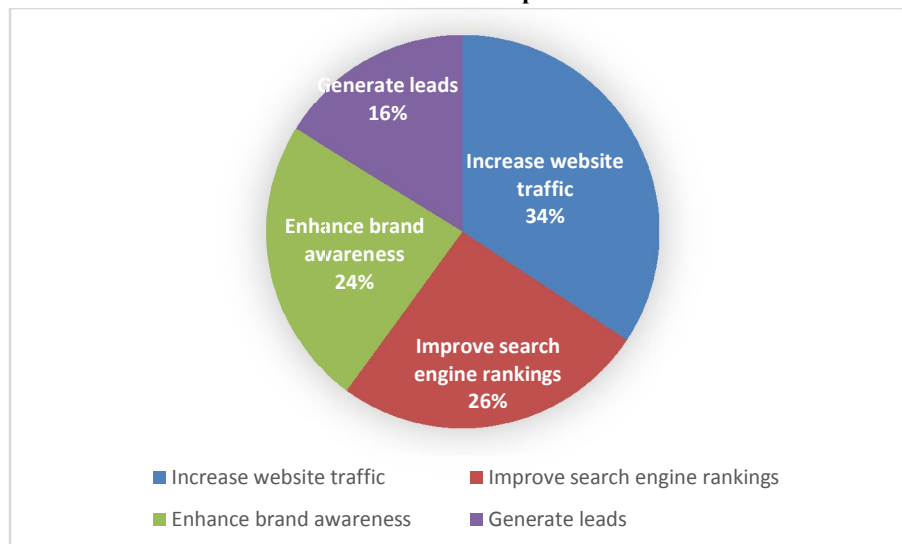


Table No 2: CLASSIFICATION OF RESPONDENTS BASED ON SEO AUDITS

S.NO	PARTICULARS	NO:OF: RESPONDENTS	PERCENTAGE OF RESPONDENTS
1	Monthly	34	32.38
2	Quarterly	45	42.85
3	Annually	12	11.42
4	Never	14	13.33
TOTAL		105	100

Source: **Primary Data**

Interpretation: From the above table it clearly shows that 42% of the company do SEO audits on quarterly wise, 32% of the respondent choose Monthly wise SEO audit for their company, 13% choose they never done SEO audits for their company and finally 11% of respondent choose Annually SEO audits.



Chart No 2: Classification of respondent based on SEO Audits

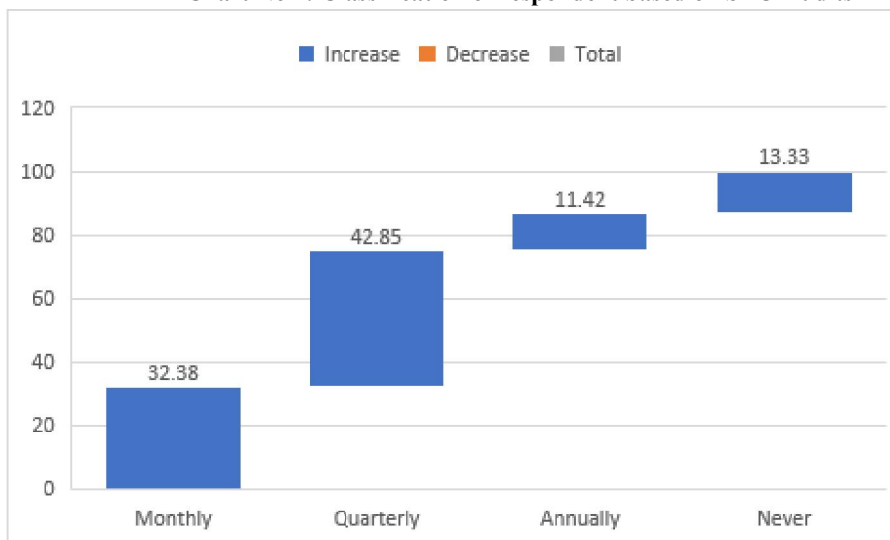


Table No 3: CLASSIFICATION OF RESPONDENTS BASED ON FACTOR OF CA

S.NO	PARTICULARS	NO:OF: RESPONDENTS	PERECNTAGE OF RESPONDENTS
1	Keyword strategy	23	21.90
2	Backlink profile	8	7.61
3	Content quality	35	33.33
4	All of the above	39	37.14
TOTAL		105	100

Source: Primary Data

Interpretation: From the above table I found that the respondent of 37% choose the all of the above for the factor to determine the competitor analysis, which includes 33% of content quality, 21% keyword strategy and 9 % of the backlink profile. so, for the competitor analysis they mostly consider everything.

Chart No 3: Classification of respondent based on factor of CA

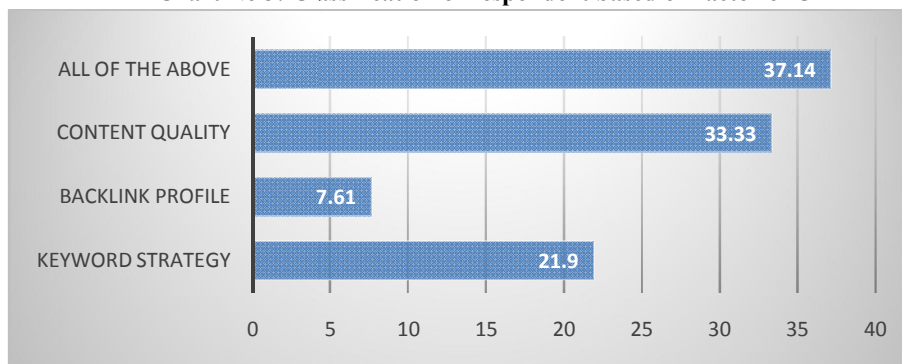


Table No 4: CLASSIFICATION OF RESPONDENTS BASED ON EFFECTIVENESS OF SEO

S.NO	PARTICULARS	NO.OF RESPONDENTS	PERECNTAGE OF RESPONDENTS
1	Traffic analysis	20	19.04
2	Keyword rankings	24	22.85
3	Content quality	24	22.85
4	All of the above	37	35.23
TOTAL		105	100

Source: Primary Data

Interpretation: From the above table I found that the more number of respondent 35% choose all of the above for their SEO effectiveness followed by 22% respondent choose keyword rankings and content quality equally and 19% choose traffic analysis , in conclusion the effectiveness of SEO relies on keywords, traffic and content quality.

Chart No 4: Classification of respondent based on effectiveness of SEO

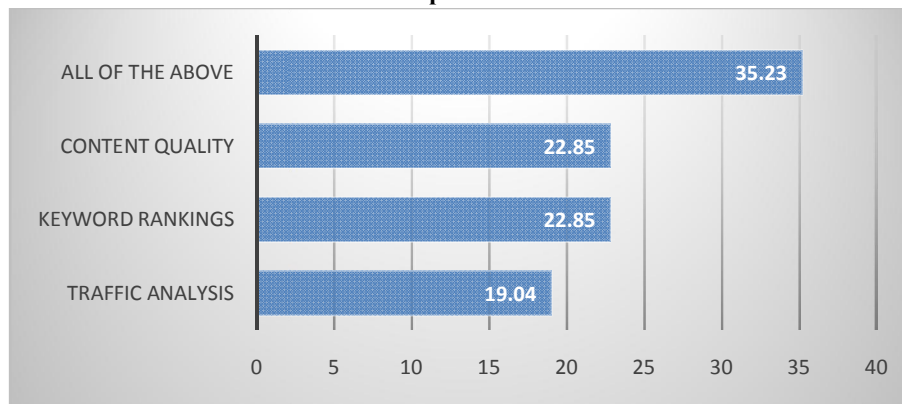


Table No:5

CLASSIFICATION OF RESPONDENTS BASED ON TYPE OF SEO

S.NO	PARTICULARS	NO:OF: RESPONDENTS	PERECNTAGE OF RESPONDENTS
1	On-page SEO	44	41.90
2	Off-page SEO	15	14.28
3	Technical SEO	13	12.38
4	All of the above	33	31.421
TOTAL		105	100

Source: Primary Data

Interpretation: From the above table I found that 41% of the respondent choose on-page SEO for the type of SEO they focus and use for their betterment, followed by 31% of the respondent choose all of the above that indicates every type of SEO is important and 14% choose off-page SEO and 12% choose Technical SEO.



Chart No 5: Classification of respondent based on SEO type

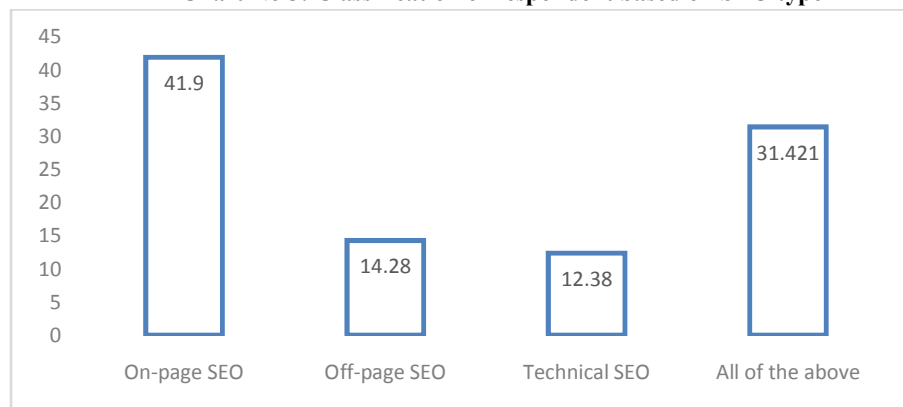


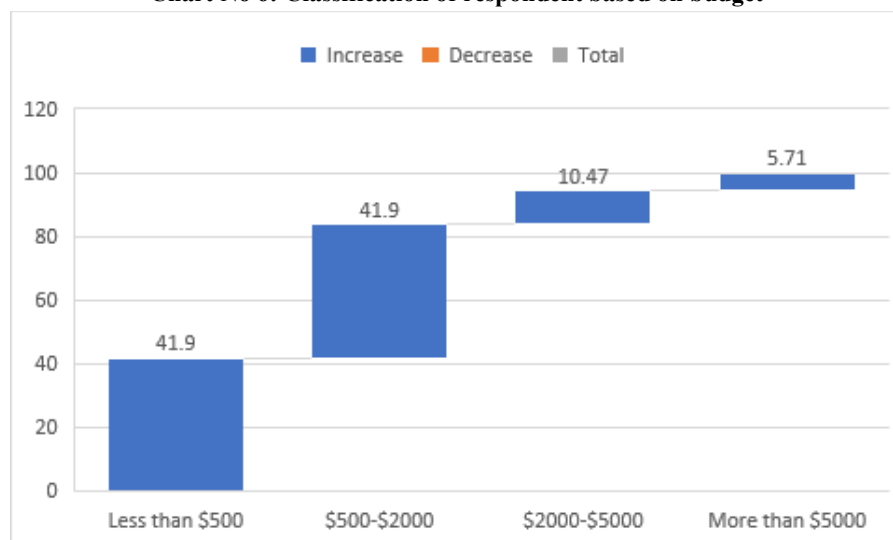
Table No 6: CLASSIFICATION OF RESPONDENTS BASED ON BUDGET

S.NO	PARTICULARS	NO.OF RESPONDENTS	PERECNTAGE OF RESPONDENTS
1	Less than \$500	44	41.90
2	\$500-\$2000	44	41.90
3	\$2000-\$5000	11	10.47
4	More than \$5000	6	5.71
TOTAL		105	100

Source: Primary Data

Interpretation: From the table I found that respondent equally shared their response 41% for Less than \$500 and \$500-\$2000 and followed by 10% for \$2000-\$5000, 5% for More than \$5000 it indicates that more no of response are willing to pay low cost for SEO.

Chart No 6: Classification of respondent based on budget



Current Trends in SEO and Their Impact on Digital Marketing

SEO is an ever-evolving field, influenced by changes in search engine algorithms, user behavior, and technological advancements. Recent trends include the rise of voice search, mobile-first indexing, and the increasing importance of



user experience (UX) signals. These trends necessitate a shift in digital marketing strategies, as businesses must adapt to ensure visibility and engagement in a competitive online landscape. Understanding these trends allows marketers to tailor their content and optimize their websites effectively, ultimately driving traffic and conversions.

Methodologies Used in Competitor Analysis and Their Effectiveness

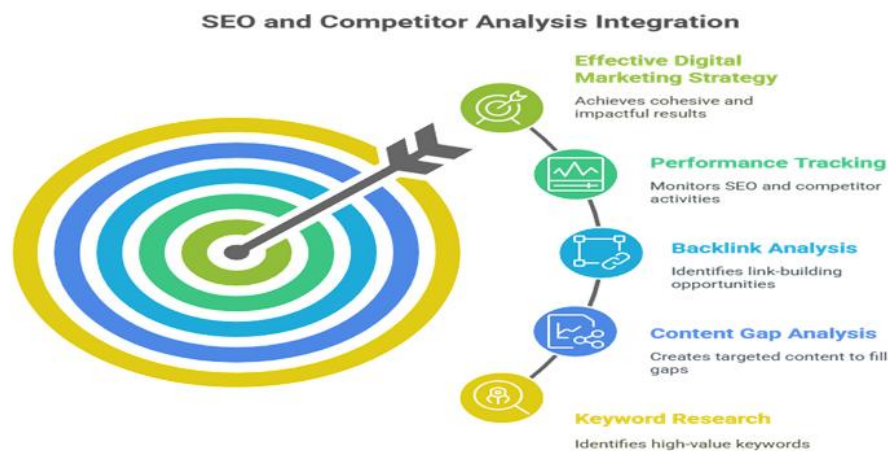
Competitor analysis is a critical component of digital marketing that helps businesses understand their market position and identify opportunities for growth. Common methodologies include SWOT analysis, market share analysis, and benchmarking against key performance indicators (KPIs). Each method has its strengths and weaknesses, and their effectiveness can vary based on the industry and specific business goals. By employing a combination of these methodologies, businesses can gain a comprehensive view of their competitive landscape and make informed decisions.

Best Practices for Integrating SEO and Competitor Analysis

Integrating SEO with competitor analysis is essential for developing a cohesive digital marketing strategy. Best practices include:

1. **Keyword Research:** Analyze competitors' keyword strategies to identify high-value keywords that can enhance your SEO efforts.
2. **Content Gap Analysis:** Evaluate the content produced by competitors to identify gaps in your own content strategy and create targeted content that addresses those gaps.
3. **Backlink Analysis:** Assess competitors' backlink profiles to uncover potential link-building opportunities and improve domain authority.
4. **Performance Tracking:** Regularly monitor both SEO performance and competitor activities to adapt strategies in real-time.

By following these best practices, businesses can create a more effective and integrated approach to their digital marketing efforts.



Recommendations for Enhancing Digital Presence

To enhance their digital presence through effective SEO and competitor analysis, businesses should consider the following recommendations:

1. **Invest in SEO Tools:** Utilize advanced SEO tools to conduct thorough keyword research, track rankings, and analyze competitors' strategies.
2. **Focus on User Experience:** Prioritize website design and user experience to meet the expectations of modern users and search engines.
3. **Create High-Quality Content:** Develop valuable, engaging content that addresses user needs and aligns with identified keywords and competitor gaps.



4. **Regularly Update Strategies:** Stay informed about the latest SEO trends and competitor movements to continuously refine and optimize digital marketing strategies.

Enhancing Digital Presence



V. STATISTICAL ANALYSIS

I) Test if audit frequency is relegated to SEO goals

Hypothesis:

- **Null Hypothesis (H_0):** There is no significant association between the primary SEO goal and how often SEO audits are performed.
- **Alternative Hypothesis (H_1):** There is a significant association between the primary SEO goal and how often SEO audits are performed.

SEO goal	Monthly	Quarterly	Annually	Never	Row total
Increase website traffic	12	15	5	4	36
Improve search engine rankings	10	12	3	2	27
Enhance brand awareness	7	10	2	6	25
Generate leads	5	8	2	2	17
Column total	34	45	12	14	105

Calculate expected frequency:

$$E = \text{Grand Total (Row Total)} \times (\text{Column Total})$$

$$E = 10534 \times 36 = \text{approx. } 11.66$$



Expected Frequency table:

	Monthly	Quarterly	Annually	Never
Traffic	11.66	15.43	4.11	4.8
Rankings	8.74	11.57	3.09	3.6
Brand	8.1	10.72	2.86	3.33
leads	5.51	7.71	1.94	2.27

Chi-square calculation:

$$\chi^2 = \sum \frac{(O - E_i)^2}{E_i}$$

$$\chi^2 = 0.0425 + 0.0272 + 0.0242 + 0.0925 = 0.184$$

Degrees of freedom:

$$Df = (4-1) \times (4-1) = 3 \times 3 = 9$$

Significance level:

At a 5% significance level ($\alpha=0.05$) and $df=9$, the critical value from the chi-square table is $p\text{-value} \approx 0.9999$.

Interpretation:

At a significance level of $\alpha = 0.05$, the chi-square test yielded a $p\text{-value} \approx 0.9999$.

Since $p > 0.05$, we conclude there's no significant association between SEO audit frequency and SEO goals.

II) See if factor preferences align with assessment method

Hypotheses

Null Hypothesis (H_0):

There is **no association** between the factors considered important in competitor analysis and the methods used to assess the effectiveness of competitors' SEO strategies.

(The two variables are independent.)

Alternative Hypothesis (H_1):

There is **an association** between the factors considered important in competitor analysis and the methods used to assess the effectiveness of competitors' SEO strategies.

(The two variables are not independent.)

Competitors	Traffic analysis	Keyword rankings	Content quality	All of the above	Row total
Keyword strategy	5	10	3	5	23
Backlink profile	5	2	0	1	8
Content quality	4	6	15	10	35
All of the above	6	6	6	21	39
Column total	20	24	24	37	105

Calculate expected frequency:

$$E = \text{Grand Total (Row Total)} \times (\text{Column Total})$$

For example:



- Keyword Strategy & Traffic Analysis =
 $23 \times 20 / 105 = 4.38 = 4.3810523 \times 20 = 4.38$
- Content Quality & Keyword Rankings =
 $35 \times 24 / 105 = 8.00 = 8.0010535 \times 24 = 8.00$

Expected Frequency table:

	Traffic Analysis	Keyword Rankings	Content Quality	All of the Above
Keyword Strategy	4.38	5.26	5.26	8.10
Backlink Profile	1.52	1.83	1.83	2.82
Content Quality	6.67	8.00	8.00	12.33
All of the Above	7.43	8.91	8.91	13.74

Chi-square calculation:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$(O - E)^2 = 4.38(5 - 4.38)^2 = 0.0878$$

$$\chi^2 = 31.62$$

Degrees of freedom:

$$Df = (4 - 1) \times (4 - 1) = 3 \times 3 = 9$$

Significance level:

At a 5% significance level ($\alpha = 0.05$) and $df = 9$, the critical value from the chi-square table is 0.00023

Interpretation:

The significance level (α) is set at 0.05 (5%).

Since the p-value (0.00023) is less than 0.05, the result is statistically significant.

This means there is enough evidence to reject the null hypothesis and conclude that the factor preferences in competitor analysis and SEO assessment methods are related.

III) Test if budget level affects the type of SEO strategy prioritize

Hypotheses

- **Null Hypothesis (H_0):**
There is **no association** between budget level and the type of SEO strategy prioritized.
(Budget level does not affect SEO strategy focus.)
- **Alternative Hypothesis (H_1):**
There is **an association** between budget level and the type of SEO strategy prioritized.
(Budget level does affect SEO strategy focus.)

Budget/types	On-page SEO	Off-page SEO	Technical SEO	All of the above	Row Total
Less than \$500	20	8	6	10	44
\$500 - \$2000	15	4	4	21	44
\$2000 - \$5000	7	2	2	0	11
More than \$5000	2	1	1	2	6
Column Total	44	15	13	33	105



Calculate expected frequency:

$$E = \text{Grand Total (Row Total)} \times (\text{Column Total})$$

$$E = 10544 \times 44 = 1051936 = 18.43$$

Expected Frequency table:

	On-page SEO	Off-page SEO	Technical SEO	All of the above
Less than \$500	18.44	6.29	5.45	13.83
\$500 - \$2000	18.44	6.29	5.45	13.83
\$2000 - \$5000	4.61	1.57	1.36	3.46
More than \$5000	2.51	0.86	0.74	1.89

Chi-square calculation:

$$(20 - 18.43) / 18.43$$

$$2.45 / 18.43 = 0.133$$

$$\chi^2 = \sum E(O - E)^2 = 12.63$$

Significance level:

At a 5% significance level ($\alpha = 0.05$) and $df = 9$, the critical value from the chi-square table = 16.92

Interpretation:

At $\alpha = 0.05$, with $df = 9$, the critical chi-square value from the chi-square table is 16.92.

The calculated chi-square statistic is 24.02, which is greater than 16.92, so we reject the null hypothesis.

This means there is a significant relationship between budget level and type of SEO strategy prioritized.

VI. FINDINGS

- 57 percent of the respondents are students
- 34 percent of the respondents belongs to Ecommerce/Retail industry
- 34 percent of the respondents said increase website traffic
- 36 percent of the respondents choose weekly for SEO update
- 80 percent of the respondent said Google analytics for SEO
- 42 percent of the respondent choose blog posts for content type
- 37 percent of respondent choose all of the above for SEO measures
- 29 percent of the respondent choose national customers for target audience
- 41 percent of respondent choose quarterly for competitor analysis
- 34 percent of respondent choose content quality for competitor analysis
- 53 percent of respondent choose face book for social media
- 41 percent of respondent choose all of the above for optimize website
- 56 percent of respondent choose social media sharing for link building
- 49 percent of respondent choose somewhat important for local SEO
- 41 percent of respondent choose social media for organic traffic
- 37 percent of respondent choose all of the above for SEO trends
- 41 percent of respondent choose Less than \$500 for budget
- 38 of respondent choose all of the above for keyword SEO strategy
- 39 percent of respondent choose ON- page SEO for type of SEO
- 38 percent of respondent choose improve my own SEO and monitor and report equally for negative SEO from competitors
- 35 percent of respondent choose limited budget for challenges in SEO



- 34 percent of respondent choose all of the above for strategies
- 42 percent of respondent choose somewhat significant for user experience in SEO
- 41 percent of respondent choose quarterly for SEO audits
- 50 percent of respondent choose Google search console for tracking SEO performance
- 35 percent of respondent choose social media engagement for feedback
- 38 percent of respondent choose AI and ML for future Seo trends

VII. SUGGESTIONS

- The company can focus more on **two-way digital communication** through regular surveys, website feedback forms, and social media engagement to better understand user needs and improve SEO effectiveness.
- The company can implement **training opportunities for marketing and SEO teams** to develop skills in AI tools, competitor analysis, and SEO trend forecasting — which will enhance overall strategy and execution.
- The company can **encourage content creators** by recognizing high-performing content (blogs, videos, etc.) through internal performance programs, thereby increasing motivation and content quality.
- The company can improve **SEO budget allocation and planning** to support essential tools, competitive analysis, and advertising — especially for small businesses with limited financial resources.
- Investing in **comprehensive SEO audits and performance tracking tools** can help in reducing inefficiencies and maintaining competitive advantage in search engine rankings.
- In order to prioritize long-term growth, the company can focus on **improving the technical SEO environment** — such as mobile-friendliness, site speed, and structured data — to enhance both user experience and Google indexing efficiency.
- The company can use **quarterly competitor benchmarking reports** to make informed adjustments in keyword targeting, backlink strategies, and content types, ensuring that the SEO plan stays dynamic and relevant.
- **Social media SEO strategies** can be diversified beyond Facebook to include platforms like Instagram, LinkedIn, and YouTube, thereby attracting wider audience segments and driving organic traffic more effectively.

VIII. CONCLUSION

SEO and competitor analysis have become absolutely essential for improving the online presence and visibility of contemporary companies in the digital-first economy of today. This research made clear how several SEO techniques—on-page, off-page, and technical—help to generate natural traffic, enhance user experience, and raise brand credibility. The results of the research also showed that companies with organized SEO strategies—especially those catered to their budget and competitive environment—are more suited to draw in and keep consumers in a very saturated digital market.

Moreover, competition study helps companies to benchmark their performance, spot areas of weakness, and actively improve their digital plans. Constant observation of rivals' strengths and shortcomings helps businesses to make informed decisions supporting innovation and development. The study comes to the general conclusion that including SEO with strategic competitor analysis is not only a marketing strategy but also a necessary long-term method for maintaining digital relevance and competitive advantage in modern corporate environments.

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