

# Influence Of Data-Driven Marketing Technologies On The Brand Awareness Of Small And Medium Scale Enterprises: An African Experience

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**ABSTRACT:** *One of the objectives of most SMEs is to be seen and be able to penetrate the market. However, because of the ever changing nature of the digital world and process of carrying out businesses, SMEs need to adapt to the dynamic nature of the global landscape. Therefore, this study aimed at investigating the influence of data-driven marketing technologies, specifically SEO and web analytics tools, on SME-brand awareness and market reach. This study adopts a qualitative research methodology. Data was gotten from secondary sources such as peer reviews and relevant literatures and studies from Google scholar, Research gate and Tech sites. The findings from this study shows that strategic application of SEO, ensures online visibility and discoverability, combined with the data-driven insights provided by web analytics, enhances an SME's online presence and effectively expands its geographical reach far beyond traditional boundaries. Regardless of glaring challenges, particularly as regards resource constraints, limited digital literacy, and technical complexities, these tools offers enormous opportunities, ranging from cost-effective market access and precision targeting to strengthened brand credibility and scalable growth, outweighs its diverse impediments. The study recommends implementing digital skills training, evaluation of finances, applying integrated tools, creating engaging contents and setting SMART goals*

**Keywords:** Brand Awareness, Data-Driven Marketing Technologies, Search Engine Optimization, Web Analytics. Online Presence, Brand awareness.

## INTRODUCTION

Globally, modern businesses are becoming more intricate and interconnected, and have been significantly reshaped by digital technologies, which have transformed how enterprises, especially Small and Medium Enterprises (SMEs) compete and achieve growth. A key development in this transformation is the rise of Data-Driven tools, which are now being utilized for decision-making, and has become an essential approach for organizations aiming to manage uncertainty and improve their competitive position (Jaiswal, 2023). This method harnesses extensive data from various sources, allowing leaders to extract actionable insights and make informed decisions that are in line with their strategic goals. By employing sophisticated analytical methods and tools, companies can reveal patterns, recognize trends, and predict results, thereby turning raw data into meaningful knowledge (Gade, 2021). This strategic shift is vital for resource-limited SMEs, enabling them to enhance brand perception, boost conversion rates through targeted messaging, and gain a deeper understanding of consumer behavior to support long-term growth (Ali, 2023).

Before the emergence of advanced technologies, SMEs struggled with reaching large markets and have been using traditional marketing methods like local advertising and word-of-mouth, which constrained their brand awareness and geographical expansion (Ujah-Ogbuagu, 2019). However, since the birth of the internet and subsequently, sophisticated data-driven marketing technologies, there have been tremendous changes in how business functions are carried out. Consumers increasingly turn to online search engines to find products and services, making a strong online presence important for any business that wants to be seen (Tatikonda, Ponnala, Thatikonda, Yendluri, Kempanna & Ananthan, 2024). For SMEs, this presents tremendous opportunities to compete with big players in the industry, who traditionally dominate advertising channels especially monopolists (Sechele, Rabedzwa, Nongayo & Thango, 2024).

Brand awareness is very important for commercial success, as consumers naturally favour and patronize recognized and trusted brands (Ledikwe & Roberts-Lombard, 2022; Wijekoon, 2022). While social media and influencer marketing significantly aid SMEs in building brand recognition and visibility (Agustian, Hidayat, Zen, Sekarini & Malik, 2023; Ayitey & Amanorkour, 2024; Oluwarotimi, 2021), Search Engine Optimization (SEO) and web analytics offer a more fundamental approach to establishing a strong online foundation. SEO is very important for improving an SME's visibility on search engines, making them seen by a broad online audience and driving organic traffic to their websites, thereby boosting brand recognition and extending geographical reach, regardless of physical location (Checchinato, Finotto, & Mauracher, 2024; Hasan, 2024; Kuchkovskiy, Andrunyk, Krylyshyn, Chyrun, Vysotskiy, Chyrun & Brodovska, 2021; Odden, 2012). Complementarily, web analytics tools provide the essential data infrastructure for informed decision-making by tracking website performance and user behaviour (Mohaimin, 2025).

Despite the recognized role of SEO and web analytics tools in boosting online presence, brand recognition, and market access for SMEs, many SMEs still appear to struggle with their effective implementation. There is also a noticeable gap between the recognized benefits of data-driven digital strategies and their actual practical application (Umetiti, Nwafor, Arachie & Ifeme, 2025). SMEs frequently face different challenges, in translating complex data into actionable business strategies (Small Business CEO, 2024; Wits University, 2025). These challenges can prevent them from fully realizing the benefits, potentially limiting their growth. While existing literature generally discusses the importance of digital marketing for SMEs (Ayitey & Amanorkour, 2024; Oluwarotimi, 2021), a more focused inquiry is needed to understand the specific utilization patterns, challenges, and opportunities associated with SEO and web analytics within the SME context in Nigeria, particularly concerning brand awareness. This research, however, aims to investigate the influence of data-driven marketing technologies, specifically SEO and web analytics tools, on SME-brand awareness. The specific objectives of the study include:

1. To explore how SMEs utilize SEO and web analytics tools to enhance their online presence.
2. To examine the challenges and opportunities involved in utilizing SEO and web analytics tools in enhancing the online presence of SMEs.

## **REVIEW OF RELATED LITERATURE**

### **Data-driven marketing**

Data-driven marketing represents a fundamental shift in contemporary business strategy, moving from intuitive decision-making, to an evidence-based approach that leverages insights derived from extensive data analysis (Jaiswal, 2023). At its core, this paradigm involves the systematic collection, measurement, analysis, and application of consumer and market data to inform and optimize all facets of marketing efforts. This includes understanding customer preferences, predicting market trends, personalizing communications, and meticulously evaluating campaign performance to ensure optimal resource allocation (Ali, 2023). For Small and Medium Enterprises (SMEs), this approach is particularly transformative, enabling them to maximize their often-limited budgets by focusing on strategies that yield measurable results and directly contribute to their growth objectives (Correct Digital, 2025).

A cornerstone of data-driven marketing technologies is Search Engine Optimization (SEO), which is inherently reliant on data to enhance a website's visibility in organic search results (Gade, 2021). SEO strategies are meticulously crafted based on extensive data analysis, beginning with keyword research to identify the precise terms and phrases consumers use to find products and services online. This data informs on-page optimization efforts, ensuring content is not only keyword-rich but also relevant and engaging for the target audience (Hasan, 2024). Furthermore, technical SEO relies on data from site audits to improve website performance and crawlability, while off-page SEO leverages data to build authoritative backlinks. The continuous optimization of digital marketing strategies through SEO, as highlighted by Tatikonda et al., (2024), directly contributes to an SME's online presence and its ability to attract targeted traffic, thereby significantly impacting brand awareness and market reach (Sechele et al., 2024).

Complementing SEO, web analytics tools are indispensable data-driven technologies that provide granular insights into user behaviour and website performance. These tools, such as Google Analytics, collect, measure, and report data on various aspects of website usage, including traffic sources, audience demographics, navigation paths, engagement metrics, and conversion rates (Mohaimin, 2025). By analyzing this rich dataset, SMEs can gain a profound understanding of how users interact with their online platforms, identify popular content, pinpoint areas for improvement, and measure the effectiveness of their marketing campaigns. This empirical feedback loop allows for continuous refinement of online strategies, ensuring that website design, content, and marketing initiatives are optimized to enhance user experience and achieve specific business objectives.

The synergistic application of SEO and web analytics tools forms a powerful foundation for data-driven marketing in SMEs. SEO drives initial visibility and attracts potential customers, while web analytics provides the intelligence to understand their behaviour once they arrive, enabling iterative improvements. This combined approach allows SMEs to not only enhance their online presence and geographical reach but also to build stronger brand awareness by delivering more personalized and relevant experiences. By leveraging these technologies, SMEs can make informed decisions, allocate resources efficiently, and ultimately compete more effectively in the digital marketplace, transforming their potential for growth and market penetration.

### **Search Engine Optimization (SEO)**

Search Engine Optimization (SEO) is a critical component of modern digital marketing, defined as the practice of improving the visibility and ranking of a website or web page in a search engine's unpaid, or "organic," results (Gade, 2021). The primary objective of SEO is to attract relevant, high-quality traffic to a website by making it more discoverable and authoritative in the eyes of search engine algorithms. This process is inherently data-driven, as it relies on continuous analysis of search queries, user behaviour, and competitive landscapes to identify optimal strategies. By understanding what users are searching for and how search engines evaluate content, businesses can tailor their online presence to meet both user intent and algorithmic requirements, thereby, increasing their chances of appearing prominently in search results (Tatikonda et al., 2024).

Search Engine Optimization (SEO) encompasses a multi-faceted approach, broadly categorized into on-page, off-page, and technical optimization. On-page SEO involves optimizing elements directly within a website's pages, such as content quality, keyword integration in titles and headings, meta descriptions, and URL structures (Bell, 2025). This ensures that the content is relevant to user queries and easily understood by search engine crawlers. Off-page SEO, conversely, focuses on external factors that influence a website's authority and credibility, primarily through building high-quality backlinks from other reputable websites (BrandLume, 2023). These backlinks act as "votes of confidence," signaling to search engines that the content is valuable and trustworthy. Lastly, technical SEO addresses the structural and performance aspects of a website, including site speed, mobile-friendliness, secure connections (HTTPS), and XML sitemaps, all of which are crucial for optimal crawling and indexing by search engines (Kuchkovskiy et al., 2021; Socialectric, 2025).

For SMEs, SEO is an invaluable and often cost-effective marketing channel that can significantly enhance their competitiveness. Unlike paid advertising, which ceases to generate traffic once the budget is depleted, effective SEO provides long-term, sustainable visibility and organic traffic (Bizplanr, 2025). This is particularly beneficial for SMEs with limited marketing budgets, allowing them to compete with larger corporations by appearing alongside them in search results (Sechele et al., 2024; Backlinko, 2025). By optimizing for relevant keywords and improving their online presence, SMEs can boost brand awareness, making their brand more recognizable and trustworthy to potential customers (Hasan, 2024; Safitri, Novyanti & Pratomo, 2025). Furthermore, SEO, especially local SEO, enables SMEs to expand their market reach by connecting with customers in specific geographical areas or even globally, transforming their online presence into a powerful tool for business growth (Checchinato, Finotto & Mauracher, 2024).

### **Web Analytics Tools**

Web analytic tools are indispensable digital instruments designed for the systematic collection, measurement, analysis, and reporting of internet data, with the ultimate goal of understanding and optimizing web experiences (Gandhi, 2024). These tools, prominently exemplified by Google Analytics, capture a wide array of information about website visitors and their interactions. Key data points typically include website traffic volume, sources of traffic (e.g., direct, organic search, social media, referral), geographic location of users, devices used, pages viewed, time spent on pages, and navigation paths (Pius, 2025). By transforming raw data into actionable insights, web analytics empowers businesses to move beyond mere guesswork, making informed decisions that drive continuous improvement of their online strategies and overall digital performance.

The insights derived from web analytic tools are multifaceted, offering a comprehensive understanding of user behavior and website effectiveness. These tools allow businesses to meticulously track key performance indicators (KPIs) such as conversion rates, bounce rates, and engagement metrics, providing a clear picture of how well a website is achieving its objectives (Naprawski, 2023). For instance, analyzing user flow data can reveal pain points in the customer journey, identifying where visitors drop off or encounter difficulties. Demographics and interest data help businesses refine their target audience understanding, enabling more personalized content and marketing campaigns (Naprawski, 2023). Furthermore, web analytics facilitates A/B testing, allowing businesses to experiment with different versions of web pages or calls-to-action to determine which performs best, thereby continuously optimizing user experience and conversion funnels (Rafalski, 2025).

For Small and Medium Enterprises (SMEs), web analytic tools are particularly transformative, offering a cost-effective means to gain competitive intelligence and enhance their digital footprint. These tools enable SMEs to understand their audience better, track the success of marketing campaigns across various channels, and optimize their website performance without the need for extensive research budgets typically required for traditional market analysis (WP Statistics, 2025). By providing detailed reports on website usage, web analytics helps SMEs ascertain the impact of their online presence on brand awareness and market reach. Identifying popular content or geographic areas of interest can inform content strategy and opportunities for market expansion, while tracking traffic sources helps in allocating marketing resources more efficiently across SEO, social media, and paid campaigns (Dwivedi, Ismagilova, Hughes, Carlson, Filieri, Jacobson, Jain, Karjaluoto, Kefi, Krishen, Kumar, Rahman, Raman, Rauschnabel, Rowley, Salo, Tran & Wang, 2021). Ultimately, web analytics empowers SMEs to make data-driven decisions that foster growth, improve customer experience, and ensure a higher return on their digital marketing investments (Mohaimin, 2025).

### **Brand awareness**

Brand awareness stands as a foundational concept in marketing, representing the extent to which consumers are familiar with a particular brand. It is the initial cognitive step in the consumer's journey, as a brand must first be recognized or recalled to be considered for purchase. This critical construct is typically understood through two primary dimensions: brand recognition and brand recall (Wijekoon, 2022). Brand recognition refers to a consumer's ability to identify a brand when presented with its name, logo, jingle, or other distinctive cues. In contrast, brand recall signifies a deeper level of awareness, where consumers can retrieve the brand from memory when prompted by a product category, a specific need, or a purchasing situation. For instance, Oluwarotimi (2021) implicitly highlights the importance of recall by examining how social media marketing impacts SME brand awareness, suggesting that a strong digital presence helps brands readily surface in consumers' minds.

The significance of brand awareness for businesses, particularly Small and Medium Enterprises (SMEs), cannot be overstated. High brand awareness directly correlates with an increased likelihood of consumer purchase, as familiarity often fosters trust and a perception of reliability (Wijekoon, 2022). In competitive markets, a well-known brand gains a distinct advantage, differentiating itself from rivals and often becoming the preferred choice even in the presence of similar alternatives (Karaste, 2025). Moreover, brand awareness serves as the bedrock for building overall brand equity, influencing subsequent stages such as perceived quality, brand associations, and customer loyalty (Ledikwe& Roberts-Lombard, 2022). For SMEs with limited resources, achieving this initial level of recognition is crucial, as it enhances the effectiveness of all subsequent marketing communications and builds a reputable market image.

In the contemporary digital era, the landscape for building brand awareness has dramatically evolved, with various data-driven technologies playing pivotal roles. A robust online presence, encompassing a well-designed website and active digital touchpoints, is now paramount for brand visibility (Checchinato, Finotto, &Mauracher, 2024). Search Engine Optimization (SEO) is a key driver of this visibility, enabling SMEs to rank higher in search results and thereby increase their brand exposure to users actively seeking relevant products or services (Tatikonda et al.; Sechele et al., 2024). Beyond search, social media marketing has proven highly effective for promoting brand awareness among SMEs, facilitating direct engagement and content dissemination (Ayitey&Amanorkour, 2024; Oluwarotimi, 2021). Furthermore, the rise of influencer marketing has provided SMEs with a powerful avenue to leverage established credibility and reach new audiences, significantly boosting brand recognition and sales (Agustian et al., 2023).

For SMEs, while the pursuit of brand awareness is essential, it often comes with unique challenges such as constrained marketing budgets and a lack of specialized digital expertise (SMBCEO, 2024; Wits University, 2025). However, data-driven marketing technologies offer cost-effective and scalable solutions to overcome these limitations. By strategically employing tools like SEO and leveraging insights from web analytics, SMEs can optimize their online visibility, refine their messaging, and engage with their target audience more effectively (Mohaimin, 2025). This targeted approach ensures that resources are allocated efficiently to maximize brand exposure and foster a deeper connection with consumers, ultimately enabling SMEs to build strong brand awareness and compete successfully in the dynamic digital marketplace.

### **Online presence**

Online presence refers to the collective visibility and activity of an individual or organization across the internet. In today's digitally connected world, a robust online presence is no longer merely an option but a strategic imperative for businesses of all sizes, especially Small and Medium Enterprises (SMEs). It encompasses a wide array of digital touchpoints where a business can be found and interacted with, including a dedicated website, active social media profiles, listings on online directories and review platforms, e-commerce stores, and participation in relevant online communities or forums (Checchinato, Finotto, &Mauracher, 2024;). This multi-faceted digital footprint serves as a modern equivalent to a physical storefront, providing a constant interface for potential customers to discover, engage with, and learn about a brand, regardless of their geographical location.

For SMEs, establishing and maintaining an effective online presence is critical for various business functions. It serves as a primary driver of credibility and trust, as consumers increasingly expect legitimate businesses to have a professional online identity (Ujah-Ogbuagu, 2019; Umer, 2024). An online presence enhances accessibility, allowing customers to find information, make inquiries, or complete purchases outside of traditional business hours. Furthermore, it facilitates direct customer engagement, enabling SMEs to build relationships, gather feedback, and offer personalized experiences (Ayitey&Amanorkour, 2024; Oluwarotimi, 2021). This digital accessibility and interactive capacity are vital for SMEs aiming to compete with larger entities, providing a cost-effective platform for communication, marketing, and sales (Jaiswal, 2023).

The strength of an SME's online presence directly impacts its brand awareness and market reach. By being visible on various digital channels, an SME increases its chances of being discovered by potential customers, thereby fostering brand recognition and familiarity (Karaste, 2025; Wijekoon, 2022). Search Engine Optimization (SEO) is particularly crucial in this regard, as it enhances a website's ranking in search results, ensuring that the brand appears prominently when consumers search for relevant products or services (Hasan, 2024; Tatikonda, et al., 2024). This improved discoverability significantly expands market reach, allowing SMEs to connect with audiences beyond their immediate local vicinity, even globally (Kuchkovskiy, et al.,2021). Moreover, leveraging social media and influencer marketing further amplifies online presence, contributing to broader brand exposure and ultimately increasing sales (Agustian et al., 2023)

### **Empirical Insight**

Ayitey and Amanorkour (2025) examined the role of social media in promoting brand awareness for small and medium enterprises in the new Juaben South Municipality. The study aimed at assessing the role of social media in promoting brand awareness for SMEs, particularly in the New Juaben South Municipality, Koforidua. The study adopted quantitative research design to gather numerical data and analyze relationships between social media usage and brand awareness among SMEs in the New Juaben South Municipality. Sekaran and Bougie 2016 table was used to sample 354 SMEs from the population of 4,500 SMEs. The study utilized

a questionnaire as a primary research tool, designed to collect data on various aspects related to the investigation. Data analysis was conducted using Microsoft Excel 2007 and the Statistical Package for the Social Sciences (SPSS) version 22. The study found out that, social media plays a vital role in promoting brand awareness among SMEs in New Juaben South Municipality in the sense that, it influences customers to develop positive behaviour towards the brand. The study also revealed that, SMEs utilized targeted advertising and segmentation techniques on social media platforms as strategies. By identifying and reaching specific audience demographics, SMEs tailor their brand promotions effectively. The study revealed that SMEs in the New Juaben South Municipality encounter several significant challenges and barriers when attempting to leverage social media for brand promotion.

Agustian, Hidayat, Zen, Sekarini and Malik (2023) investigated the influence of influencer marketing in increasing brand awareness and sales for SMEs. The study aimed at investigating the effect of influencer marketing on increasing brand awareness and sales for SMEs. The technique applied is a qualitative literature analysis with an emphasis on in-depth understanding of the subject over the period from 2012 to 2023. The results of the study indicated that influencer marketing has great potential to provide significant benefits to SMEs in their endeavours to reach their target market, expand brand awareness, and increase sales. In an ever-changing digital world, influencers hold unique appeal as a source of influence that can connect brands with relevant and engaged audiences.

Ali (2023) assessed the influence of Data-Driven strategies on organizational marketing performance: Mediating Role of IT infrastructure. The purpose of the research was to investigate the function that IT infrastructure played as a mediator between data driven digital marketing strategies and the marketing performance of organizations. Dimensions of data-drive digital marketing strategies adopted included (Data collection, Data analysis, Segmentation, Targeting, Personalization, Automation and Optimization). The quantitative method was used to successfully complete the study's objectives, a questionnaire was distributed on a sample of (84) marketing managers and leaders within delivery services companies which are licensed and operating in Jordan. Results of study indicated that IT infrastructure mediates the relationship between Data-driven digital marketing strategies and marketing performance.

Oluwarotimi (2021) ascertained the impact of social media marketing on smes brand awareness in Ireland, a case studies of Johnston Mooney & Obrien and Glenisk. The data used in justifying the objectives of the study was gotten through primary means of an online survey. The data sourced from the respondents were analysed quantitatively using descriptive statistics. The values of the mean and standard deviation were used for interpretation. The average or mean values of the variables were set at the benchmark of 3.0, while the standard deviation value was pegged at the benchmark of 1.5. The outcome of the descriptive statistics revealed that all the variables were positive and significant in explaining the objectives. Even the test of hypotheses carried out with the help of the Chi-Square statistical technique affirmed the outcome of the descriptive statistics as  $X^2_{cal} > X^2_{tab}$  for the various hypotheses tested in the research work is in the following magnitude:  $14.82 > 9.49$ ;  $58.067 > 18.31$ ;  $104.89 > 18.31$ ;  $19.66 > 12.59$  and  $18.56 > 12.59$ . The main findings of the study revealed that social media marketing has a significant impact on brand awareness of Irish food processing firms: increasing the knowledge of a brand, endearing buyers to patronise a brand, etc. are some of the objectives behind the use of social media marketing. Digital marketing methods and tools are significantly useful for the creation of SME brand awareness in Ireland.

Wijekoon (2022) studied creating brand awareness and brand image in new ventures: the role of entrepreneurial marketing. The study investigated the extent to which entrepreneurial marketing impacts the development of branding capabilities to create brand awareness and brand image in new ventures. The study utilized effectuation theory as the theoretical framework and analyzed the role of bricolage capability and brand management capabilities in facilitating the relationship between entrepreneurial marketing and branding outcomes in new ventures. The study adopted a quantitative research approach and used a multiple-informant design to collect data from the owners/entrepreneurs and the marketing managers of the same firm. Data was gathered from new ventures in Sri Lanka and analyzed using PROCESS analysis and regression analysis to test the hypothesis. The findings indicated that entrepreneurial marketing plays an important role to facilitate creating brand awareness and brand image in new ventures while brand management capabilities mediate, and effectuation and bricolage capabilities moderates this relationship.

Ledikwe and Roberts-Lombard (2022) investigated the linkage between relationship quality dimensions, brand awareness, and brand image: An emerging African market perspective. The study aimed at determining the linkage between relationship quality dimensions, brand awareness, and brand image among three selected small and medium enterprise (SME) brands in the emerging economy of Botswana. A quantitative approach was used to collect data for the study. Empirical data were gathered from 260 respondents using a self-administered questionnaire and analysed through structural equation modelling and Hayes process macro. The results indicated that trust, commitment, satisfaction, and communication directly impact brand awareness, while brand awareness has a positive influence on brand image, moderated by brand trust. Additionally, brand awareness mediated the effects of trust, commitment, satisfaction, and communication on brand image.

## **METHODOLOGY**

This study adopts a qualitative research methodology. Data was gotten from secondary sources such as peer reviews and relevant literatures and studies from Google scholar, Research Gate, ScienceDirect, Web of Science databases.. This method allows for an in-depth exploration of how SMEs utilize Data- Driven tools such as SEO and web analytics, to enhance brand awareness (online

presence) and market reach (geographical reach), making it a more appropriate method for this research. The data analysis involved a systematic content analysis, meticulously reviewing existing academic literature, industry reports, and case studies related to SEO, web analytics, online presence, and geographical reach within the SME context. Following content analysis, thematic analysis was applied to identify recurring patterns, key concepts, and overarching themes. This dual analytical approach enabled a comprehensive examination of how SMEs currently utilize SEO and web analytics tools to enhance their online presence and expand their geographical reach, while also shedding light on the specific challenges and opportunities they usually encounter in this endeavour. The data used covered a period of five years (2020-2025), making it part of the inclusion and exclusion criteria. Other criteria used include that the studies must be peer-reviewed, written in English and freely and fully available online.

## Data Analysis

### Thematic analysis

#### 1. How SMEs Utilize Search Engine Optimization (SEO) and Web Analytics Tools to Enhance Online Presence and Market Reach

SMEs strategically deploy SEO and web analytics as foundational pillars for their digital marketing efforts, transforming their online visibility and market footprint.

- **Search Engine Optimization (SEO) for Enhanced Discoverability and Market Expansion:** SEO is fundamentally utilized by SMEs to improve their rankings on search engine results pages (SERPs), thereby increasing their online discoverability (Hasan, 2024; Tatikonda et al., 2024). By targeting relevant keywords, optimizing website content (on-page SEO), and implementing technical SEO best practices (e.g., website speed, mobile-friendliness), SMEs can attract higher volumes of organic traffic (Bansal, 2024). Crucially, local SEO strategies, such as optimizing Google Business Profiles and incorporating local keywords, enable SMEs to effectively reach customers in specific geographical areas, converting local searches into physical visits or local online sales (BuzzBoard, 2024). This capability allows even small businesses to gain significant visibility within their target regions, competing effectively with larger entities without extensive physical infrastructure (Tomasi & Li, 2018). Beyond local reach, general SEO helps SMEs to transcend geographical limitations entirely, opening doors to national and international markets by ensuring their offerings are found by a global online audience (Mou, Hossain & Siddiqui, 2022). This widespread visibility is crucial for building brand awareness and establishing credibility in diverse markets (Karaste, 2025).
- **Web Analytics for Informed Strategy and Performance Optimization:** Web analytics tools, predominantly Google Analytics due to its accessibility and comprehensive features, are indispensable for SMEs to gather, analyze, and interpret data on user behaviour and website performance (Mohaimin, 2025; Al-Sharif, Alshurafa, & Aljuraid, 2023). SMEs leverage these tools to understand visitor demographics (including geographical location), traffic sources, popular content, navigation patterns, and conversion funnels (Naprawski, 2023). By analyzing these insights, SMEs can refine their website content, improve user experience, and optimize their digital marketing campaigns for specific geographical segments (WP Statistics, 2025). This data-driven approach allows for precise targeting, identifies new market opportunities by revealing where potential customers are searching from, and helps allocate marketing budgets more efficiently, ensuring maximum impact on online presence and geographical expansion (Jaiswal, 2023). Furthermore, web analytics enables SMEs to track the return on investment (ROI) of their digital efforts, providing concrete evidence of success and areas for improvement (The Knowledge Academy, 2025).

#### 2. Challenges and Opportunities for SMEs in Utilizing SEO and Web Analytics

While the benefits are clear, SMEs navigate a landscape rife with specific challenges and significant opportunities when integrating SEO and web analytics into their operations.

### Challenges:

- **Resource Constraints and Budget Limitations:** SMEs frequently face significant financial constraints, limiting their investment in advanced SEO tools, specialized analytics platforms, and skilled personnel (Owolabi, Enyejo, Babalola & Olola, 2024). This often results in a reliance on free tools, which may lack comprehensive features, or a fragmented approach to digital marketing.
- **Lack of Expertise and Digital Literacy:** A critical barrier is the limited in-house expertise and knowledge among SME staff in implementing effective SEO strategies and interpreting complex web analytics data (Munna & Afzal, 2023). This skill gap can lead to ineffective campaigns, misinterpretation of data, or an inability to adapt to the dynamic digital landscape, including evolving search engine algorithms (Daoud, Sharabati, Samarah & Alqurashi, 2024).
- **Time Constraints and Competing Priorities:** SME owners and managers often wear multiple hats, leading to severe time limitations for consistent SEO efforts, content creation, and ongoing data analysis. Digital marketing, particularly SEO,

requires consistent effort and patience, which can be challenging to sustain amidst daily operational demands (Sechele, Gundo, Nongayo, &Thango-Mabizela, 2024).

- **Technical Complexities and Data Overload:** The technical intricacies of SEO (e.g., site speed optimization, mobile-friendliness, structured data) and the sheer volume of data generated by web analytics tools can be overwhelming for SMEs without dedicated technical support (Daoud et al., 2024). This complexity can hinder effective implementation and actionable insights.

#### Opportunities:

- **Cost-Effective Market Access:** SEO offers a highly cost-effective method for SMEs to gain visibility and attract qualified leads compared to traditional advertising or paid digital channels, significantly reducing customer acquisition costs (Tomasi, & Li, 2018). This democratizes market access, allowing SMEs to compete on visibility rather than solely on advertising budget (BuzzBoard, 2024).
- **Data-Driven Competitive Advantage:** Web analytics provides SMEs with unparalleled insights into consumer behaviour, market trends, and competitor performance. This data enables agile decision-making, allowing them to optimize their offerings, personalize customer experiences, and identify niche geographical markets that larger competitors might overlook (Naprawski, 2023; Mou, Hossain & Siddiqui, 2022).
- **Enhanced Brand Credibility and Trust:** A strong online presence cultivated through effective SEO and validated by positive online engagement metrics builds trust and credibility with potential customers (Gade, 2025). Appearing high in search results often signals authority and reliability, which is particularly valuable for new ventures and smaller businesses (Wijekoon, 2022).
- **Targeted Growth and Scalability:** By utilizing keyword research and geographical data from analytics, SMEs can precisely target their ideal customer segments and expand their reach incrementally. Digital strategies are inherently scalable, allowing businesses to test new markets and grow their digital footprint efficiently as resources permit, fostering long-term sustainable growth (Mou, Hossain & Siddiqui, 2022).

#### Discussion Of Findings

The comprehensive systematic and thematic analysis reveals that Search Engine Optimization (SEO) and web analytics tools are not merely supplementary digital marketing tactics but rather foundational pillars enabling Small and Medium Enterprises (SMEs) to significantly enhance their online presence and expand their geographical reach. The findings illuminate a dynamic interplay between these tools, alongside distinct challenges and transformative opportunities that shape the digital trajectory of SMEs.

The analysis strongly underscores that SMEs leverage SEO as a primary mechanism to establish and improve their digital visibility. By engaging in various forms of SEO, including optimizing on-page content with relevant keywords, building authoritative backlinks through off-page strategies, ensuring technical soundness, and executing local SEO tactics, SMEs effectively elevate their ranking in search engine results (Hasan, 2024; Tatikonda et al., 2024). This enhanced discoverability is paramount for drawing organic traffic, which translates directly into an improved online presence. Crucially, local SEO strategies allow SMEs to pinpoint and dominate specific geographical markets, whereas general SEO efforts facilitate a borderless expansion, enabling them to reach customers far beyond their physical locations (Kuchkovskiy, et al., 2021). This capability is particularly vital for SMEs, as it democratizes market access, allowing them to compete with larger entities based on relevance and visibility rather than sheer physical footprint or advertising budget.

Complementing SEO, web analytics tools serve as the intelligence hub, providing the necessary data to understand and optimize the online presence. SMEs utilize these tools, predominantly Google Analytics, to gather granular insights into website traffic, user behavior, and demographic profiles, including precise geographical locations of their visitors (Mohaimin, 2025; Al-Sharif, Alshurafa, &Aljuraid, 2023). These insights are pivotal; they enable SMEs to understand *who* their audience is, *how* they interact with their digital assets, and *where* they are located. This data-driven understanding allows for the continuous refinement of online content, user experience optimization, and the strategic allocation of marketing resources. By identifying emerging geographical areas of interest or underperforming regions, SMEs can tailor their SEO efforts and overall marketing campaigns to specifically target and penetrate new markets, thereby directly translating online presence intelligence into expanded geographical reach (Jaiswal, 2023; WP Statistics, 2025).

The synergistic application of SEO and web analytics creates an iterative and self-optimizing loop for SMEs. SEO generates the initial visibility and traffic, while web analytics provides the feedback necessary to refine and improve SEO strategies, content, and the overall user journey. This dynamic process ensures that an SME's online presence is not static but continuously evolving and optimizing to maximize its effectiveness. By meticulously analyzing data from their web properties, SMEs can pinpoint what is working and what isn't, allowing for agile adjustments to their digital marketing efforts (Mou, Hossain & Siddiqui 2022).). This

integrated approach empowers SMEs to transcend traditional limitations, establishing a strong, adaptable online identity that fuels substantial expansion of their geographical reach and overall market influence.

Despite the clear strategic advantages, the findings highlight that SMEs encounter distinct challenges in fully leveraging SEO and web analytics tools. The most prominent challenges revolve around resource constraints, encompassing limited financial capital for premium tools and expert services, and a scarcity of human resources with specialized digital marketing skills (Varghese, 2025). This often leads to reliance on basic or free tools and a fragmented approach to digital strategies. Furthermore, a pervasive lack of in-house expertise and digital literacy among SME personnel impedes effective implementation of complex SEO tactics and accurate interpretation of sophisticated web analytics data (Munna& Afzal, 2023). The rapid evolution of search engine algorithms and web technologies also presents technical complexities and a steep learning curve, making it challenging for SMEs to keep pace and maintain optimal performance without dedicated support (BuzzBoard, 2024.). Finally, accurately measuring the direct ROI of SEO and web analytics initiatives can be elusive for SMEs lacking integrated data systems, making it difficult to justify continued investment (Bansal, 2024).

Conversely, the analysis reveals compelling strategic opportunities that underscore the imperative for SMEs to overcome these challenges. The cost-effectiveness of SEO stands out, offering SMEs a significantly more affordable avenue for customer acquisition and market penetration compared to traditional advertising (Sechele, 2024). This levels the competitive playing field, allowing smaller businesses to gain visibility alongside larger corporations. Web analytics provides an unparalleled opportunity for data-driven precision targeting, enabling SMEs to identify and exploit niche markets or specific geographical segments with tailored messaging, thereby optimizing resource allocation and achieving higher conversion rates (Naprawski, 2023). Furthermore, a strong online presence cultivated through SEO and informed by analytics inherently fosters enhanced brand credibility and trust, which is vital for building customer loyalty and expanding reach in new markets (Wijekoon, 2022). Lastly, the inherent scalability of digital marketing allows SMEs to test, adapt, and expand their geographical reach incrementally and sustainably, providing a robust framework for long-term growth (Tomasi& Li, 2018).

## **Conclusion**

This study employed a qualitative methodology, deriving data from secondary sources to explain how Search Engine Optimization (SEO) and web analytics tools are utilized by SMEs, in achieving online presence and geographical reach. The challenging and diverse opportunities, these tools proffer were also evaluated. The findings from this study shows that strategic application of SEO, ensures online visibility and discoverability, combined with the data-driven insights provided by web analytics, enhances an SME's online presence and effectively expands its geographical reach far beyond traditional boundaries. Regardless of glaring challenges, particularly as regards resource constraints, limited digital literacy, and technical complexities, these tools offers enormous opportunities, ranging from cost-effective market access and precision targeting to strengthened brand credibility and scalable growth, outweighs its diverse impediments. For SMEs in dynamic and emerging markets, adopting and strategically investing in these digital competencies is not just an advantage but an important factor to achieving sustainable growth, competing effectively, and tapping into broader national and global markets in an increasingly interconnected world.

## **Recommendations**

This study makes the following recommendations:

1. To overcome the various challenges regarding digital literacy and competence of employees, SMEs need to prioritize continuous training and capacity-building programs.
2. Small and Medium Enterprises (SMEs) need to evaluate their financial capacity, and formulate strategies to integrating SEO and web analytics tools. They can start with basic tools like Google Analytics, Google My Business, and Google Search Console, and then to more advanced digital proficiency and business growth tools, and then gradually explore investing in more advanced, specialized SEO and analytics platforms..
3. It is very important that SMEs access not just isolated digital tools, but also integrated strategies SEO and web analytics work simultaneously. The use of web analytics data such as popular pages, geographic origin of visitors, exit pages) to inform and refine SEO systems, should be integrated.
4. SMEs need to focus majorly on local SEO, especially if they have physical stores. Beyond local, data from web analytics should be used to identify potential niche markets or geographical areas that are prospects. By creating contents that are targeted towards these rural unaccessed areas, SMEs can achieve tangible geographical reach and penetrate specific markets more effectively with limited resources, having a competitive advantage.
5. Finally, in other to address the challenge that comes with measuring ROI and ensure accountability, SMEs must set specific, measurable, achievable, relevant, and time-bound (SMART) goals for their online presence and geographical reach, tied to performance, monitored and evaluated regularly.

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