

An Analysis of Digital Marketing Strategies and Website Content Usage : Key Requirements, Metrics and Tactics for Hyper-Personalized SMEs Websites

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ABSTRACT

The study evaluates the integration of website content into Digital Marketing Strategies (DMS) to drive the hyper-personalization of Small and Medium Enterprises (SMEs) websites. The study's objectives were to analyse the key requirements and metrics for integrating website content and DMS for SMEs websites, examine the relationship between website content consumption patterns and DMS, and suggest data-driven tactics for hyper-personalized SMEs websites. The study employs a descriptive design and targets a sample of 95 Digital Marketing Agencies using random and purposive sampling techniques. Data collection was through an online questionnaire and desktop research. Data analysis was done through content analysis and the IBM SPSS statistical tool for descriptive and inferential statistics. The Spearman's rank correlation revealed patterns highlighting both positive and negative monotonic associations between website content usage and DMS. Additionally, the results show that digital marketing strategies have a statistically significant impact on content usage that can influence the hyper-personalization of websites. In today's competitive landscape, hyper-personalized websites are essential for SMEs to stand out. Therefore, the study suggests data-driven tactics for leveraging hyper-personalized websites to gain a competitive edge in the digital era.

Keywords : Digital Marketing Agencies, Digital Marketing Strategies, Hyper-personalization, SMEs Websites, Website Content

I. INTRODUCTION

The rapid evolution of Information Technology, particularly the application of Artificial Intelligence (AI) has significantly reshaped business models in

digital marketing initiatives [1]. While the debate over AI's potential to fully replace human content creators in digital marketing persists [2], it is clear that this technology is playing an increasingly pivotal role in shaping the Small and Medium Enterprises (SMEs)

industry. Global voices concur that integrating website content with Digital Marketing Strategies (DMS) using AI and machine-learning techniques can create opportunities to accelerate the future of digital transformation [3], [4], [5]. Consequently, this leads to increased DMS uptake in business, revolutionizing how consumers engage online. Other studies indicate that by leveraging data analytics and automation, businesses can enhance their ability to create website pages and content tailored to specific audiences [6], [7]. More so, according to [8], defining website content using techniques to collect and utilize user data such as browsing behaviour and purchase history can foster hyper-personalization of websites.

Digital Marketing Agencies (DMAs) are increasingly designing and implementing strategies for SMEs but struggle to hyper-personalize website experiences for customers based on the available content [9]. Whereas, businesses with website presence or planning for the same, are struggling to leverage customer data and to manage the content. This disconnect between DMS utilization and the lack of effective website content to address user expectations creates a significant barrier for DMAs to optimize their client base online visibility. This is because website content is key to the implementation of DMS to facilitate hyper-personalization through the generation of website traffic to inform, persuade, educate, and attract target audiences [10]. Hence, the bottom line is creating DMS with a strategic eye focusing on different types of content to drive traffic on website platforms. The findings of the study will help DMAs plan for contextual and multilevel customer interaction and profiling based on DMS and web content usage to achieve hyper-personalization for their clients' websites.

This study aimed to evaluate the integration of website content into DMS for fostering hyper-personalization of SMEs websites. The study's objectives were to:

- 1) Analyze the key requirements and metrics for integrating website content with DMS.
- 2) Examine the relationship between DMS and website content consumption patterns.
- 3) Suggest data-driven tactics for hyper-personalized SMEs Websites.

II. LITERATURE REVIEW

A. The Role of Website Content

The World Wide Web is the underlying infrastructure for browsing websites through hyper-linked combinations of multimedia formats and other electronically presentable content [11]. Website content is the different multimedia forms including textual, visual, infographics, sounds, videos, and animation content that users encounter while interacting over websites [12], [13]. This phenomenon has evolved from read-only to read-write, and now to read-write-execute, using different technologies, channels, and socializations as shown in Fig. 1.

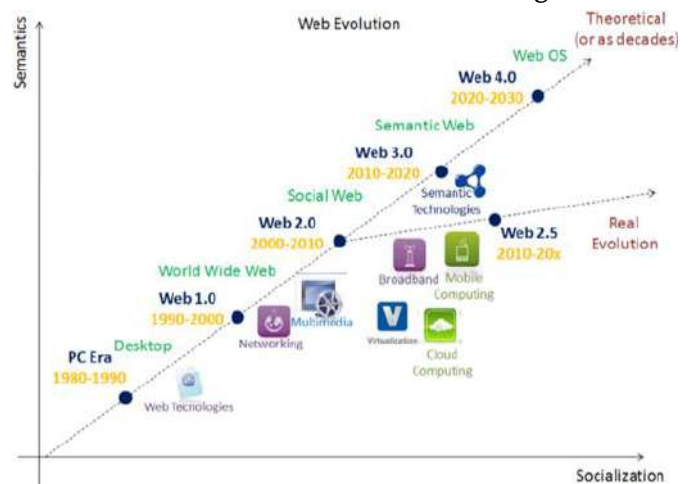


Figure 1 : Web Evolution

Source: <https://medium.com/@vivekmadurai/web-evolution-from-1-0-to-3-0-e84f2c06739>

Essentially, websites have evolved to become the information hub for business content. This means that SMEs should not only be concerned about the content but also about the application of AI, machine learning, and analytics to gauge the effectiveness of their digital

marketing initiatives. [12] observe that web applications have rendered a good deal of real-time information to users, catering to their needs. Consequently, the increase in website interactivity has also created opportunities and barriers related to web content usage.

B. The Role of Digital Marketing Strategies

Digital Marketing Strategies entail using online techniques for data-driven marketing solutions through the internet. This refers to all the action plans for reaching an online audience [14], [15]. Additionally, these technologies can be adopted to automate tasks like content optimization for search engines or generating basic product descriptions [13], [6]. A survey by [16] identified the most widely utilized DMS as Email Marketing, Social Media Marketing, Search Engine Optimization, Voice Search Engine Optimization, Video Marketing, Pay-Per-Click, and Content Marketing. These DMS are important for driving and delivering seamless end-to-end website consumer experiences [17], [18]. Hence, the expertise of DMAs in designing and implementing different DMS plays a key role in promoting the online visibility of SMEs.

C. The Role of Hyper-Personalization

Optimizing websites requires careful forethought and planning using the right tools and digital channels. For instance, machine learning predictive techniques design use cases that generate website user experiences based on target user characteristics, keywords, and search intent [19], [9]. It is necessary to use different digital touch-points to build specific user profiles and their behavioral patterns based on web usage data [20], [21]. The extraction of such data is necessary to realize personalized experiences using different technologies and techniques, a process known as hyper-personalization. When combined with AI, key metrics for automation, and data analytics, these techniques can elevate capabilities to formulate structures for designing website content and DMS that resonates

with target audiences [6], [7]. Also while creating and designing website content, [22] observe that web developers should consider such metrics as visibility, interaction, usability, aesthetics, and website traffic.

III. METHODS AND MATERIAL

The study conducted between 2023 and 2024, employed pragmatism worldview philosophy using a mixed method research design. The target population were SMEs in Kenya represented by a sample size of 95 DMAs drawn from a sampling frame of a list of 288 agencies obtained from an online database. The study applied a triangulation approach to select the sample using both probability and non-probability methods. The choice of the DMAs was based on their ability to provide various digital marketing services and solutions that enhance the online presence of SMEs. Among the many services, the study was interested in web-based digital marketing solutions for tailoring different approaches to target SME's needs. These included designing strategies based on key requirements, evaluation metrics, tactics, and techniques employed for fostering hyper-personalization of SMEs websites. Data collection was through desktop research and an online questionnaire on Google Forms using a 5-point Likert scale. Presentation of findings is in the form of illustrations and textual descriptions.

IV. RESULTS AND DISCUSSION

A. Distribution of Sample Size

The DMAs were drawn from four counties namely; Mombasa, Kilifi, Nakuru, and Uasin-Gishu. Out of 95 Questionnaires distributed, 71 were completed and submitted online and used for analysis. Nineteen responses (26.8%) were received from Mombasa, 21 (29.6%) from Kilifi, and 15 (21.1%) and 16 (22.5%) from Nakuru and Uasin-Gishu respectively. This indicated a 75% response rate considered acceptable in research.

B. Characteristics of Digital Marketing Agencies

The study used a cross-tabulation to analyze the characteristics of the respondents shown in Table 1.

TABLE 1
CROSS TABULATION FOR POSITION AND WORKING EXPERIENCE OF RESPONDENTS

Position of Respondent	Frequency (Percent)	Working Experience and Percentage			
		< 1 Year	1-2 Years	3-5 Years	> 5 years
Digital Marketing Strategist	22 (31%)	5 (7%)	9 (12.7%)	5 (7%)	3 (4.2%)
Web Designer/Developer	26 (36.6%)	6 (8.5%)	7 (9.9%)	6 (8.5%)	7 (9.9%)
Content Developer	17 (23.9%)	4 (5.6%)	2 (2.8%)	8 (11.3%)	3 (4.2%)
Others	6 (8.5%)	1 (1.4%)	1 (1.4%)	2 (2.8%)	2 (2.8%)
Total	71	16	19	21	15

The last category included a Software Quality Analyst, two Digital Transformation Change Analysts and three Marketing Consultants. In total, 15 respondents had a working experience of more than five years, 21 had a working experience of three to five years, 19 respondents having worked for up to two years while 16 had a short tenure of less than a year each. Further, the average number of years in operation for the establishments was calculated as 2.63 with a standard deviation of 1.018. This indicates that a majority of the establishments were in the category of 3-5 years. This is an indication that out of the 71 agencies surveyed, a significant portion (80.3%) had at least one year of experience in the field of digital marketing. This suggests that a degree of experience is necessary among DMAs whereas there is a growing demand for digital marketing services among SMEs.

C. Analysis of Key Requirements and Metrics for integrating Web Content and DMS

1) Factors to Determine Web Content Design: The study identified the factors to determine the web content to share with the target audience. This was in regard to the intent targeted for the SMEs as presented in Fig. 2.

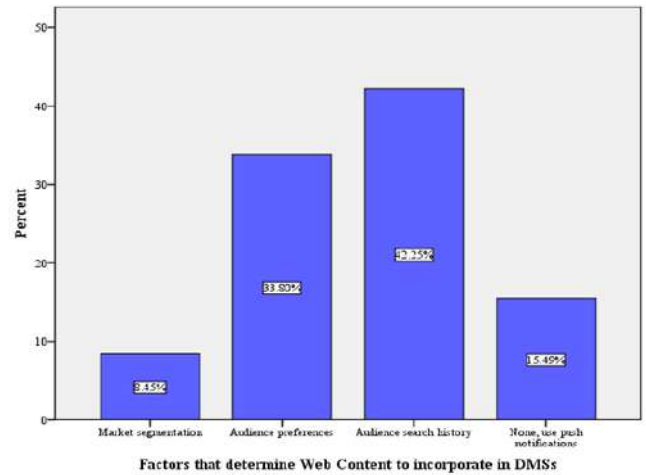


Figure 2: Factors that Determine Web Content Integration with DMS

The results show that DMAs determined the type of web content designed for SMEs to share with the audience based on different factors. Responses from 14% of DMAs reported that their clients preferred to use push notifications with diversification across media. This implies no consideration for the web content shared with the audience. This finding is attributed to the fact that globally, marketers prefer to use push notifications with intriguing content to help boost the visibility of a brand, retain customers, and attract new visitors all in real-time. On the contrary, this can indicate that push notifications can be intrusive or

irrelevant to the website audience’s interests. This also means that the content of the notifications is not valuable to the users. Alternatively, the users might prefer other communication channels such as Email, SMS, or Social Media platforms, and therefore find push notifications disruptive.

Another factor is having insufficient data and insights about the target audience for effective personalization of web content for sharing with the audiences. In addition, the findings could also suggest that because SMEs could be storing customer data in different

systems, they lack systems to leverage real-time data to deliver relevant web content to different audiences. This, implies that contextual experiences were the biggest gap between user experience strategy and extension. Studies have shown that the success of any business using websites depends on the ability to influence web audiences with content that is clear, relevant and keyword-rich.

- 1) Website Content Design Requirements: The study identified the website content design considerations for integrating with digital marketing strategies as presented in Table 2.

TABLE 2
WEB CONTENT DESIGN CONSIDERATIONS FOR INTEGRATION WITH DMS

Design Requirements	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std
Design of effective content related to the target audience	4 (5.6)	7 (9.9)	9 (12.7)	28 (39.4)	23 (32.4)	3.83	1.159
Building buyer personas to represent audience attributes	8 (11.3)	6 (8.5)	7 (9.9)	31 (43.7)	19 (26.8)	3.66	1.276
The quality of website content	10 (14.1)	11 (15.5)	8 (11.3)	30 (42.3)	12 (16.9)	3.32	1.318
Design of visually appealing content	4 (5.6)	13 (18.3)	7 (9.9)	29 (40.8)	18 (25.4)	3.62	1.211
Web content design that resonates with the target audience	10 (14.1)	8 (11.3)	7 (9.9)	32 (45.1)	14 (19.7)	3.45	1.318

Note: N=71, Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)

The Grand Mean was calculated at 3.58 and shows significance. This underscores the fundamental principle of effective marketing, understanding and addressing the needs of target audiences. This can include the relevance of the website content that must align with the target audience’s interests, preferences, and needs. In regards to the consideration of building buyer personas, the findings underscore the significance of web-user centricity in digital marketing solutions. Buyer personas provide detailed profiles of ideal website users based on pain points. The findings suggest that despite DMS being a key component in business, a significant number of businesses are still not properly documenting this based on web content

design considerations. This means that understanding a user’s journey and content preferences is key to creating relevant website content that caters to personalized experiences.

- 2) *Requirements* for Digital Marketing Strategies: the study further established the different requirements for integrating DMS with website content consumption as presented in Table 3.

TABLE 3
REQUIREMENTS FOR DIGITAL MARKETING STRATEGIES

No.	Requirements	Mean	Std
REQ1	Defining goals and objectives	2.56	1.451
REQ2	Creating relevant content	2.39	1.213
REQ3	Building customer personas	2.45	1.169
REQ4	Selecting relevant keywords	3.45	1.156
REQ5	Creating backlinks	2.56	1.180
REQ6	Tracking metrics	2.54	1.205
REQ7	Measuring the effectiveness of campaigns using data analytics	2.41	1.450
REQ8	Designing call-to-action	2.94	1.157
REQ9	Identifying pain points	3.10	1.148
REQ10	Optimizing digital marketing channels	2.86	1.211

Note: Results of 5 Likert scale using VI=Very Important, I=Important, FI=Fairly Important, SI=Slightly Important, NI=Not Important. Interpretation of the statements is based on Weighted Average = $27.26/10 = 2.73$ (Grand Mean)

The study revealed that DMAs employed varied considerations for the requirements necessary for integrating DMS with website content consumption. The Grand Mean for the ten requirements was 2.73 indicating means ranging between 2.39 to 3.45. This implies that the requirements were important in integrating DMS with website content. However, REQ7 and REQ2 scored low.

The results concur with the findings of (Business2Community, 2020; Patel, 2021) indicating that requirements are essential for integrating DMS and website content in various ways. First, they help align goals and improve data-driven decision-making, ultimately influencing future decisions for SMEs. Secondly, requirements are important for performance measurement and performance evaluation of the DMS

based on content usage. It also shows that we can use these requirements to maximize the return on SMEs' marketing investments by understanding web user content consumption patterns. The requirements are for a deep understanding of target user experiences through data collection and analysis capabilities. Sophisticated technological tools are, therefore, necessary for designing DMS that can effectively analyse SMEs datasets and derive actionable insights related to website users. This can foster data-driven decision-making for SMEs to improve their online visibility.

3) Metrics for Evaluating Digital Marketing Strategies: the study established the following Key Performance Indicators (KPIs) measurements necessary for tracking DMS:

- Growth in business
- Website audience activities
- Amount of website traffic from organic search results
- The average amount of time spent by visitors on website page
- Cost per conversion generated by digital marketing campaigns
- Percentage of website visitors who click Call-To-Action (CTA)
- Monthly website traffic generated by digital marketing campaigns

The Grand Mean of the metrics was calculated at 3.08 suggesting that KPIs are essential for measuring the effectiveness of DMS. However, the low mean score of 2.55 for cost per conversion can be attributed to the fact that higher efficiency for a DMS means that the SMEs are spending less to acquire target audiences.

D. Examining the Relationship between DMS and Web Content Usage

1) Analysis of Spearman's Correlation Coefficient: the study computed Spearman's Rank Correlation to evaluate the relationship between the different DMS (DMS1-DMS10) and Web Content Usage (W1-W6) variables as shown in Table 4.

TABLE 4
SUMMARY OF SPEARMAN'S CORRELATION COEFFICIENTS FOR DMS AND WEB CONTENT USAGE

Variable	Spearman	W1	W2	W3	W4	W5	W6
DMS1	Correlation	.445**	.422**	.434**	.420**	.532**	.228
	Sig.	.000	.000	.000	.000	.000	.056
DMS2	Correlation	.249*	.297*	.146	.239*	.204	.194
	Sig.	.036	.012	.224	.045	.088	.106
DMS3	Correlation	.408**	.392**	.546**	.199	.304**	.258*
	Sig.	.000	.001	.000	.096	.010	.030
DMS4	Correlation	-.343**	-.310**	-.352**	-.203	-.179	-.253*
	Sig.	.003	.009	.003	.090	.136	.033
DMS5	Correlation	.265*	.296*	.161	.279*	.243*	.077
	Sig.	.026	.012	.181	.018	.041	.525
DMS6	Correlation	.028	.070	.138	.079	.200	.003
	Sig.	.820	.563	.250	.515	.094	.980
DMS7	Correlation	-.281*	-.247*	-.204	-.095	-.422**	-.335**
	Sig.	.018	.038	.087	.430	.000	.004
DMS8	Correlation	-.065	-.079	-.074	-.265*	-.392**	-.004
	Sig.	.590	.513	.542	.025	.001	.975
DMS9	Correlation	.072	-.124	.058	-.017	-.139	-.121
	Sig.	.549	.304	.630	.891	.247	.315
DMS10	Correlation	.099	-.100	.004	-.016	.190	-.010
	Sig.	.412	.406	.972	.894	.112	.936

** Correlation is significant at the 0.01 level (2-tailed), N=71

The test patterns highlight positive and negative monotonic associations between the DMS variables and various aspects of web content usage. The strongest relationships appear to be between DMS1 and several web content usage variables, as well as between DMS3 and the credibility of the web content. However, there are also inverse monotonic relationships, particularly with DMS4 and DMS7. We therefore conclude that there is a significant relationship between DMS and some elements of web content usage. Some DMS appeared to be dominant in driving website content campaigns as revealed in other studies (Sukhyani, 2020; Patel, 2021). This is due to the massive audience reach that makes especially Social Media highly scalable way to share content.

E. Data-driven Hyper-Personalization Tactics

1) Personalization Algorithms: these are sets of codes used to observe the digital footprint or behaviors of users and then predict the next user choices. This infers the application of rule-based and learning-based approaches in designing website functionalities. The rule-based approach uses algorithms that refer to a knowledge base with an inference engine using IF-

THEN statements. Whereas the learning-based approach entails a machine learning technique that defines algorithms that create mathematical models based on data reuse. Additionally, using machine learning for contextualization of website content is equally important to facilitate the experiences and requirements of audiences.

2) Personalization Engines: this includes software applied to contextualize individual web usage behaviors and to select, tailor, and deliver messaging and content. They can effect hyper-personalization using three use cases derived from websites namely; marketing, digital commerce, and customer experiences. The software can enhance the recommendation and individualization of webpages based on different applications such as email, social media, and digital adverts. They are acquired as stand-alone software or can be embedded in website content management, content marketing, multi-channel marketing hubs, and digital commerce platforms. Examples of commercial personalization engines are Discovery Pro, Adobe Target, Optimizely Platform, Dynamic Yield Personalization, Oracle Maxymiser, and IBM Interact (Legacy).

V. CONCLUSION

SMEs should adapt and constantly improve their marketing initiatives to drive and deliver seamless end-to-end experiences to website audiences. Website content is key to the implementation of DMS that drives website traffic. Requirements are essential for integrating website content and DMS to help align SME's goals. Additionally, metrics are important for performance measurement and evaluation of DMS. The study revealed positive and negative monotonic associations between the DMS and elements of web content usage. However, there were also inverse monotonic relationships, particularly with SEO and Digital Advertising Strategies. The study concludes that AI is taking center stage in contextualizing personalized website content that is important to facilitate the experiences of audiences through hyper-personalization. Data-driven tactics like personalization algorithms and personalization engines can further elevate capabilities to formulate structures for designing DMS and website content that resonates with target audiences.

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