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Beliefs and adoption of AI in content marketing: Insights from South African marketing agencies

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Background: Notwithstanding a large body of academic literature on artificial intelligence (AI) in computer science and other technical fields dating back decades, research is needed on how AI is applied in the context of marketing. Marketers have used AI for many years, but generative AI has only recently come to the forefront. The study focussed on understanding the beliefs and adoption of AI in content marketing practices in South Africa.

Objectives: By combining various perspectives in the marketing industry, a taxonomy is proposed that categorises current AI practices in content marketing.

Method: An exploratory web-based survey was adopted. It was important to measure the scope and extent of beliefs, acceptance, and adoption of AI in content marketing, and to gain insights to categorise current AI practices in content marketing. Data analyses of the closed-ended and open-ended questions were conducted using JMP®, 17.2 (SAS Institute Inc., Cary, NC, 2023) and through inductive thematic analysis, respectively.

Results: The findings reveal that South African marketing agencies currently adopt AI for content strategy optimisation, content creation enhancement, insight integration and personalisation, automation and process enhancement.

Conclusion: While South African marketing agencies acknowledge the value of AI in improving content marketing, they believe that the human element is still necessary, and that content marketing practice cannot depend entirely on AI.

Contribution: The proposed taxonomy lays the foundation for future research about AI in content marketing with a larger sample.

Keywords: artificial intelligence; content marketing; content strategy; content optimisation; content creation; generative artificial intelligence.

Introduction

The adoption of artificial intelligence (AI) in marketing is not a recent phenomenon. As early as the 1950s and 1960s, efforts were made to enhance the marketing mix and pricing strategies using methodologies such as linear programming, game theory and decision trees. In subsequent decades, AI was used to predict customer behaviour and preferences, as well as for web analytics, search engine optimisation (SEO) and targeted advertising (Jasminara 2023; Zhang 2021).

The current decade has seen significant progress in AI, particularly in big data, cloud computing, natural language processing, deep learning and computer vision (Jasminara 2023). This progress has led to the emergence of numerous AI applications tailored specifically for marketing (Mariani, Perez-Vega & Wirtz 2021). Artificial intelligence, which refers to the intelligence exhibited by machines (Verma et al. 2021), is defined by Russell and Norvig (2010) as 'a field of computer science involving the development of machines capable of simulating human cognitive and affective functions'. Today, AI includes various types of machines that strive to emulate human-like thinking capabilities, facilitating continuous learning and problem-solving processes (Verma et al. 2021).

Although AI has been used in marketing for decades, the introduction of ChatGPT by OpenAI in November 2022 brought generative AI (GenAI) to the forefront by making it more accessible to

the public. Generative AI uses advanced algorithms to create different types of content by learning from examples in existing data (Duggal 2023).

The advancement of GenAI tools (Gozalo-Brizuela & Garrido-Merchan 2023) has renewed scholarly interest and debates on the use of AI in marketing (Rivas & Zhao 2023). In contemporary marketing practices, AI has emerged as a valuable tool for optimising conversions, predicting outcomes and enhancing the overall customer experience (Verma et al. 2021; Vlačić et al. 2021). Many large businesses are enhancing their performance through AI-based platforms such as Google Cloud, IBM Watson and Microsoft Azure (Marr 2021).

Focussing on content marketing in a digital context, this study aims to gain a deeper understanding of the beliefs surrounding AI and the adoption of AI in content marketing practices in South Africa. Content marketing is a strategic marketing approach that is a component of a digital marketing strategy (Forsey 2023; Ho, Pang & Choy 2020). It involves creating and distributing consistent, relevant and valuable digital content to target and retain a specific audience. This marketing approach builds consumer trust and loyalty by consistently producing personalised, valuable content according to a content strategy (Ho et al. 2020; Hollebeek & Macky 2019).

In this context, a business might create blog posts, infographics, videos and social media updates that educate and engage their audience about a particular issue, positioning their product or service as a viable solution. This content can be personalised based on consumer behaviour and preferences, making it more effective in addressing specific needs and building stronger connections (Ho et al. 2020). The main advantage of content marketing is that it can position a business as a thought leader and trusted source of information, leading to long-term product or service purchases (Pulizzi & Piper 2023). Unlike traditional advertising, which focusses on selling a product or service, content marketing provides useful information and builds trust and loyalty between the brand and its audience (Lou & Xie 2021).

As with contemporary marketing, scholarly interest in using AI in content marketing is also evident in the literature (Barbosa et al. 2023; Hsu & Liou 2021). Generative AI is increasingly being used and applauded by content marketers around the world for its ability to generate and analyse various types of content, namely textual, visual and auditory (Lawton 2023). For example, using AI in content marketing can increase the productivity of content writing teams, assist with content personalisation and customer segmentation (Cornuke 2023), generate marketing ideas, write marketing copy (Santiago 2023) and improve marketing processes (Smarty 2022).

However, a systematic review by Mariani et al. (2021) reveals that while there is a substantial body of academic literature on AI in computer science and other technical fields, more research is needed on how AI is applied within the context of marketing. This study aims to fill this gap by focussing on AI content marketing practices in the context of South Africa.

Prior to this study, no research had been conducted to examine the beliefs of practitioners concerning the use and adoption of AI for content marketing in South Africa. Therefore, this study not only contributes to a better understanding of beliefs about AI in content marketing but also proposes a taxonomy for classifying the main areas where AI is adopted by South African marketing agencies.

The study was conducted to answer the following research questions:

1. To what extent do South African content marketing agencies find AI tools for market research useful?
2. What are the reasons driving the adoption of AI tools in content strategies by agencies in South Africa?
3. How do AI tools facilitate the optimisation of content for these agencies' content marketing activities?
4. What AI tools are used by content marketing agencies in South Africa?

To answer these questions, a purposive sample of content marketing agencies in South Africa completed a web-based survey on their beliefs and adoption of AI in content marketing activities. To propose a taxonomy classifying the areas in which AI is adopted, both closed and open-ended questions were included in the questionnaire. It was important to capture the measurable scope and extent of AI adoption in content marketing practices, as well as marketing agencies' insights.

The remainder of the article is organised as follows. Firstly, a review of the literature on content marketing and AI in content marketing, and secondly the theoretical foundation of the study is discussed. The research methodology and findings are then explained and a proposed taxonomy categorising current AI adoption in South Africa is presented. The article concludes with a summary and discussion of the findings.

Defining content marketing

The definition of content marketing as proposed by The Interactive Advertising Bureau (IAB) of South Africa (2022) emphasises the change to a strategic audience-centred approach, stating that content marketing is:

> A strategic marketing approach of creating and distributing relevant, consistent content targeted at defined audiences to add value to their lives at specific points in the user journey, without using the brand or its product as the hero. Content marketing delights, educates, informs and entertains to build and engage owned, loyal audiences, thereby increasing their commercial value to the brand. (IAB 2022:23)

For this study, the views of the IAB (2022) are adopted, namely that the essence of content marketing is the strategic creation and dissemination of valuable, consistent and customised content, designed to enhance their experiences, with a focus on audience engagement and value over direct brand or product promotion.

Despite the absence of a definitive definition of content marketing, it is generally accepted as being a digital marketing strategy and distinct from other types, such as social media content marketing (distributing content in multiple social media environments), digital content marketing (exchanging information and ideas on digital platforms),and video content marketing (sharing different forms of video content) (cf. Baker 2021; Killian & McManus 2015; Lopes & Casais 2022). Current definitions illustrate the evolution of content marketing and support its adoption as a collective concept, therefore the stance adopted here, namely that content marketing serves as the collective term for the many types of content created by a business (cf. Hollebeek & Macky 2019; LaFleur 2023).

Boufim and Barka (2021) express the view that marketing needs a modern way of thinking and doing in a digital context, which inevitably includes the way content on digital platforms is created and conveyed. Rowley (2008:517) defines digital content as 'bit-based objects distributed through electronic channels', of which graphics, images, text, video and audio are examples.

The benefits of content marketing lie in creating consumer awareness, reinforcing loyalty towards the brand, persuading consumers to become loyal advocates of the brand (Sudarević, Marić & Brkljač 2023) and personalised customer experiences (Aksoya et al. 2021). Considering the definition of the IAB, personalised experiences create loyal and supportive customers that permit the brand to create brand value and extend its reach. Artificial Intelligence has become the basis for personalised experiences, necessitating insights into content creation to allow brands to have a view of the customer and their media (Ho et al. 2020)

Content marketing in South Africa

Locally, as in the rest of the world, content marketing has its roots in print and publishing. It was in 2003, when New Media launched *Taste* magazine for Woolworths, that a watershed moment in South African customer publishing was reached (IAB 222).

The adoption of content marketing in South Africa was nevertheless slower than in the rest of the world. In this regard, Geldenhuys (2017) expressed a need for a paradigm shift among South African marketers and their executive teams. He advocated for the integral incorporation of relatable and relevant content into their marketing strategies, emphasising the significance of content marketing activities.

The IAB's 2022 white paper report reveals some interesting insights into the South African marketing industry, namely an underrepresentation of content marketing, mainly because of different interpretations of what it entails (IAB 2022). Despite content marketing not being entirely new to the country, South Africa's marketing industry is only now acknowledging its immense potential because many marketing agencies now recognise that content marketing is an essential component of their digital marketing strategy (IAB 2022; Van der Burg 2022). However, because of the complexity of the business landscape and the multicultural nature of society in South Africa, content marketers must deal with multiple points of view when planning and delivering content (BusinessTech 2020). Therefore, there is a need to gain insights into the beliefs concerning the adoption of AI for content marketing in this country.

Also, South African content marketers, like their global counterparts, must adapt to a constantly changing media and marketing landscape because of changing technologies and an increased preference for personalised content by customers (Aksoya et al. 2021; Andrews 2019). For example, the introduction of various AI technologies that are advancing at a rapid pace is one of these changes (Gozalo-Brizuela & Garrido-Merchan 2023).

Content strategy and content marketing tactics

The implementation of content marketing is dependent on a content strategy, which is the practice of planning for the creation, delivery, optimisation and evaluation of useful and relatable content. Content marketing implements a content strategy via content marketing tactics, namely the way in which content is delivered to the target audience. Examples of some content marketing tactics are e-mails, blogging, social media posts, videocasting, podcasting, webinars, white papers, infographics, e-books, e-mail newsletters, images and videos (Lyons 2023; Pulizzi & Piper 2023; Wang & Chan-Olmsted 2020).

The purpose of a content strategy is to ensure that all content, whether for a website, social media or mobile application, or about a product or service, supports the overall goal of the business (Forsey 2023; Harris 2021). The content must also be discoverable and engaging, ranked, and be displayed across different platforms whenever consumers search for it (Baxter 2022).

Market research is crucial for content strategy to gain a competitive edge by enabling the planning, creation and distribution of effective content tailored to the target audience. Through market research, content marketers understand audience needs, identify competitors and spot industry trends. This data-driven approach helps to predict outcomes and optimise content across various platforms (Roseman 2023).

Artificial intelligence and content marketing

A considerable body of research has been dedicated to examining the adoption of AI in marketing, as, for example,

evidenced by the work of Chintalapati and Pandey (2021), Haleem et al. (2022) and Rivas and Zhao (2023). However, very few studies have been dedicated to specifically investigating the beliefs about and adoption of AI in the context of content marketing.

In the early 2000s, Ann Rockley, President of The Rockley Group, was instrumental in the development of what she referred to as 'intelligent' content strategies at the time. As a result, Rockley and Cooper (2012) put forward the concept of 'intelligent content' that is semantically rich and structured, thereby facilitating its discovery, adaptability and reuse across a variety of platforms. In other words, content can adapt to various channels and recipients with minimal human intervention (Rockley & Cooper 2012).

Rockley's Intelligent Content Conference in March 2015 was purchased by the Content Marketing Institute (CMI) and paved the way for the use of technologies to produce intelligent content, which according to the CMI at the time, was 'the next generation of content marketing' (CMI 2014; Linn 2015). Their viewpoint was proved and justified, as GenAI progressed in content creation. Generative AI uses sophisticated algorithms, commonly rooted in deep learning and neural networks, to produce various types of content in different formats by using patterns and exemplars derived from pre-existing data (Duggal 2023).

A systematic review by Chintalapati and Pandey (2021) highlights the growing use of smart technology and AI to create and select content for content marketing. Their findings reveal that AI helps tailor content for audiences, making it more effective. As more content is made and shared online, there is a greater need to personalise it to align with people's interests. Also, AI helps by recommending content that matches the target audiences' preferences. This personalised approach is becoming more common because of the need for more engaging content.

Valuable studies on the use of AI in content marketing have focussed, among other things, on how content marketing processes can be improved (Kose & Sert 2017); using natural language generation (NLG) to write content (Reisenbichler et al. 2022); adopting GenAI for visual content marketing (Mayahi & Vidrih 2022) and gaining more audience insight (Barbosa et al. 2023; Hsu & Liou 2021).

Practitioner literature suggests that AI is used in content marketing to plan, discover, create, optimise, distribute and automate content for various digital platforms, as well as to analyse and report on how effective the content is (Pierre-Louis 2023; Santiago 2023). For this purpose, several GenAI tools have been adopted, among them Jasper.ai, GPT-4, Bard, DALL-E 2, Owly Writer.ai and Type Studio (Kothari 2023). Interestingly, there are already references to an AI content strategy that uses AI to manage online content faster and more effectively (Arnold 2022).

While GenAI is widely used in content marketing, this study focussed on its usefulness for market research, why it is used in content strategies, how it optimises content and which AI tools South African marketing agencies adopt.

Theoretical point of departure

The Technology Acceptance Model (TAM) has been successfully applied to emerging technologies in a variety of fields, making it appropriate for investigating AI beliefs and adoption in South African content marketing (Marikyan & Papagiannidis 2023). As a result, it serves as a lens through which the study's research questions were examined. Adopting this model helped categorise AI practices in content marketing, linking them to user beliefs, acceptance and adoption, allowing for a more structured analysis of the study's research questions. The need for research into technology adoption is not new and has received increasing attention since the 1980s, mainly because of technological advances (Marikyan & Papagiannidis 2023).

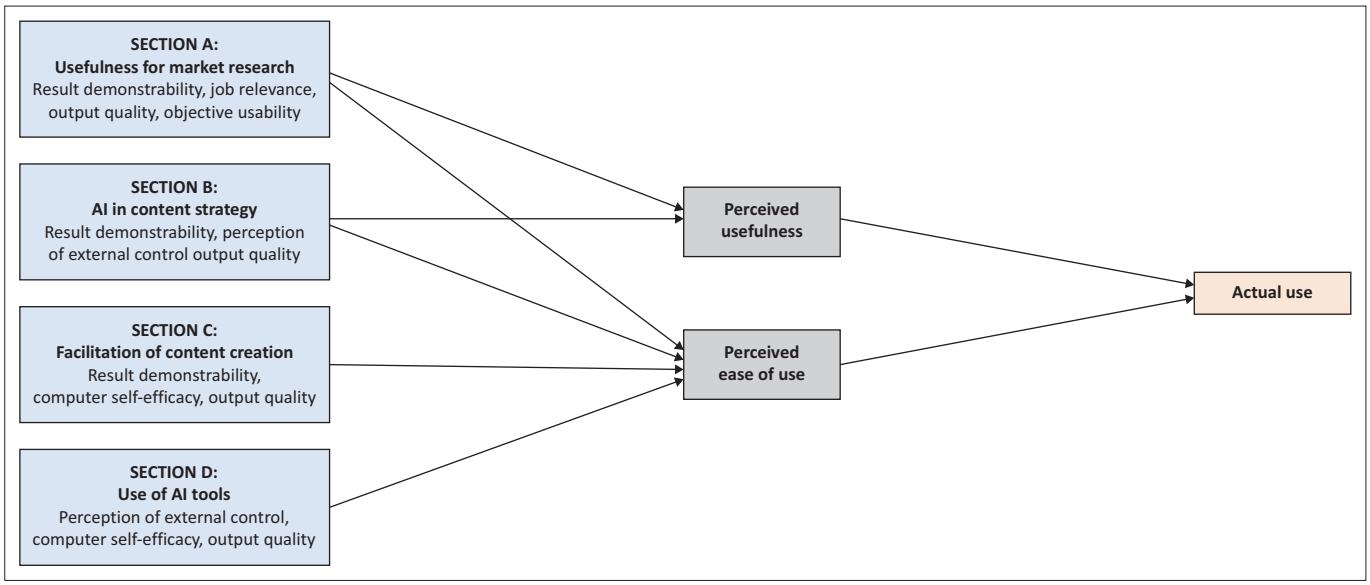
Technology Acceptance Model is based in part on the theory of reasoned action (TRA) of Ajzen and Fishbein (Ajzen 2011), and was used to predict how individuals' attitudes and intent affect their behaviour. As a theoretical foundation for the implementation of new technology, TAM comprises unique constructs and antecedents that align with the main goal and the aspects explored in the study (cf. Marikyan & Papagiannidis 2023). Based on the seminal contributions of Davis (1989) and others (Marikyan & Papagiannidis 2023; Venakesh & Davis 2000), the two constructs that fundamentally affect user acceptance are the *perceived ease of use* and the *usefulness* of the technology (Bothma & Mostert 2023). To answer the research questions, the study focussed on the antecedents of TAM, which have the potential to influence its actual use. These are illustrated in Figure 1 in accordance with the sections of the online questionnaire.

Initially, five constructs were identified, namely the four in Figure 1 and a fifth on the *Adoption of AI*. To further improve reliability, *AI Tools Adoption* was incorporated with *Adoption of AI* into Section D as illustrated (see piloting the questionnaire further on).

Research methods and design

The study aimed to provide preliminary insights into the use of AI in content marketing from marketing agencies within a specific geographical context, laying the groundwork for future research with larger samples. The study is primarily anchored in the positivist research paradigm, with its associated philosophical orientations and assumptions.

To answer the research questions, a quantitative deductive research design with closed-ended questions in a web-based survey, complemented by two open-ended questions was adopted. The qualitative data from these questions were analysed using inductive thematic analysis to identify



Source: Adapted from Marikyan, D. & Papagiannidis, S., 2023, 'Technology acceptance model: A review', in S. Papagiannidis (ed.), *TheoryHub book*, viewed 01 March 2024, from http://open.ncl.ac.uk/
AI, artificial intelligence.

FIGURE 1: Antecedents of Technology Acceptance Model in accordance with the sections in the online questionnaire.

emerging themes. This approach captured both the measurable scope and extent of beliefs, acceptance, and adoption of AI in content marketing, as well as marketing agencies' insights to categorise current AI practices. The combined deductive and inductive approach provided more in-depth insights into South African AI content marketing practices.

The questionnaire comprised of several response formats, namely a ranking scale (five-point Likert scale), fill-in multiple choice questions and dichotomous questions scale (Robinson & Leonard 2019). To ensure the integrity and accuracy of the study, the research criteria used were designed to maintain construct validity and scale reliability. It was necessary to ensure that the questionnaire measured the theoretical constructs, for which it was designed (Mochon & Schwartz 2019). As a result, the TAM model and the literature served as guidance for the theoretical constructs of the questionnaire. Content validity was ensured by piloting the questionnaire among marketing agencies familiar with the topic to refine the questionnaire (DePoy & Gitlin 2016).

Piloting the questionnaire

The researchers adopted a two-phased approach, firstly by piloting a web-based survey, and secondly by implementing the main study. For scale reliability, the questionnaire was piloted among South African content marketing agencies who were not included in the main study. It was particularly important to determine internal consistency to ensure that the questionnaire items were suitably intercorrelated. Lee Cronbach's (1951) Cronbach's alpha coefficient (α), currently, one of the most widely used reliability statistics, was used to measure the internal consistency of the questionnaire. For the pilot study, a value between 0.6 and 0.8 was deemed acceptable, because the survey was exploratory (see Taber 2018). However, although the initial five sections in the questionnaire all indicated an acceptable α score, they were condensed into four sections, based on the results of the pilot study, to further improve reliability (see Figure 1).

Sample and sample size

Because of the lack of a comprehensive sample frame, a purposive sample was used to identify South African marketing agencies potentially adopting or interested in AI for their content marketing for the final study. Purposive sampling allowed for the selection of respondents who were knowledgeable and experienced in AI in content marketing.

To begin, the researchers used the Clutch (2023) list of top content marketing agencies in South Africa to identify and e-mail respondents. However, not all e-mail addresses on the list were valid. After sending out 100 invitations and follow-up e-mails to verified e-mail addresses, they achieved only an 8% response rate. They also approached the Marketing Association of South Africa (MASA) and the IAB of South Africa for targeted outreach, who used their own contact lists. While MASA sent survey invitations via e-mail to their members, the IAB included an open invitation in their newsletter. Although the exact number of recipients and the response rate are unknown, this approach ensured a varied and relevant sample of marketing professionals.

Also, because the study focussed on a niche area (AI in content marketing) within a specific geographic region, namely South Africa, the pool of respondents was limited. Because of the novelty of the research questions, the researchers focussed on response quality rather than quantity (Wu, Zhao & Fils-Aime 2022).

A total of 44 marketing agencies were willing to participate and complied with the inclusion criteria in that they had to

be involved in using AI for content marketing, be interested in using AI and be willing to participate in the study. Reputable and experienced content marketing specialists in these marketing agencies provided responses from a variety of industry perspectives. Thus, while the findings cannot be generalised to all marketing agencies in South Africa, it was possible to derive sufficiently meaningful insights to classify current AI adoption in content marketing to guide future studies.

Data collection

Data for the main study were collected from 24 October 2023 to 05 January 2024 through a web-based questionnaire. Google Forms, a free survey administration software package, was used as a data collection tool. Responses were exported to Microsoft Excel for analysis.

Data analysis

The researchers engaged the services of a statistician to analyse the responses for the pilot study and the closed-ended Likert scale statements of the main survey using JMP®, 17.2 (SAS Institute Inc., Cary, NC, 2023). Because of the small sample, an exploratory factor analysis was not viable. The responses were analysed with descriptive statistics to first elucidate the dataset followed by multivariate correlations and correlation probability. Correlation analysis revealed relationships among the four key constructs (Newbold, Carlson & Thorne 2020), deepening understanding and guiding the proposed taxonomy. The open-ended questions were analysed using Braun and Clarke's (2021) inductive thematic analysis, providing additional insights for the proposed taxonomy.

Ethical considerations

The study received institutional ethics approval from the College of Human Sciences, College Research and Ethics Committee (CREC), University of South Africa on 27 September 2023 with ethical clearance number CREC Reference # 1115685_SEPTEMBER_CREC_CHS_2023, and was conducted in accordance with approved ethical standards.

Results

The findings of the survey are explained in this section. Four constructs associated with AI were measured in the main survey, namely usefulness, content strategy, content creation and adoption. The internal consistency of the entire items set, and the four constructs were measured with Cronbach's alpha as shown in Table 1.

The Cronbach's alpha value of 0.7492 for the entire set suggested that the items in the survey collectively demonstrated an acceptable level of internal consistency (Taber 2018). The final items in each analysis showed acceptable reliability, with α values ranging from 0.7247 to 0.8428, indicating satisfactory internal consistency.

TABLE 1: Cronbach's alpha for internal consistency of the entire set and the four key constructs.

Cronbach's alpha – Reliability	α
Entire set	0.75
Set of items (the four key constructs)	
Usefulness of AI for Market Research	0.75
Content Strategy Impact of AI Tools	0.84
Content Creation Effectiveness of AI	0.83
AI Tools Adoption in Content Marketing	0.72

Note: Data compilation with JMP® (2023).
AI, artificial intelligence.

Sample characteristics

The characteristics of the responses were obtained and focussed on educational level and work experience. Educational level provided evidence of respondents' knowledge and skills in content marketing, while work experience related to their expertise and perspectives as these relate to AI within various contexts of content marketing.

In terms of educational level, some respondents selected more than one option (n = 47), and therefore the result cannot be expressed as a percentage. A total of 41 respondents held a bachelor's degree or above, whereas 6 respondents held either college qualifications, short courses or diplomas, accreditation from MASA or a high school certificate, respectively.

In terms of work experience in content marketing, most respondents (n = 28; 61%) had 11 years or more experience in content marketing, whereas 10 (14%) of the respondents had 6–10 years of experience, and 6 (7%) had 2–5 years' experience. Based on the positions indicated, content marketing primarily falls under the marketing department, with content marketing specialists completing the survey.

Descriptive statistics of the dataset

Descriptive statistics are the initial emphasis for the findings to offer a succinct overview of the dataset, and to establish the primary attributes, trends and patterns present in the data (Kaliyadan & Kulkarni 2019). The analysis focussed on overall constructs rather than individual items, using continuous data from multiple Likert items as recommended by Boone and Boone (2012). This approach aimed to record the general beliefs and AI adoption practices of South African marketing agencies across each construct (Table 2).

The findings and median suggest a positive perception of AI tools' usefulness and integration in market research. The data show 68.1% (6, 13.6%; 24,; 54.5%) strongly agreed and agreed that AI tools, such as natural language processing and machine learning, help identify the right audience for their clients' content quickly. Furthermore, 56.7% (6, 13.6%; 19, 43.1%) strongly agreed and agreed that AI tools enhance the quality of market research. The 36.3% (16) neutral responses suggest many respondents were undecided. The data indicate that 74.9% (6, 13.6%; and 27, 61.3%) strongly agreed and agreed that integrating AI tools is beneficial, indicating acknowledgement of AI's advantages. Moreover, 74.3% (9, 20.9%; 23, 53.4%) strongly agreed and agreed that they intended to continue using AI because of its

useful insights into the ideal customer. The standard deviation (SD) of 0.6229353 for this construct suggests a consistent perception among respondents regarding the usefulness of AI tools in market research, with minimal variability in their opinions across the survey statements.

This is also evident in question 5, where 65% of respondents answered yes and 35% answered no when asked if AI tools provide more insights into consumer behaviour. A total of 43 responses were received.

The findings and median indicate that AI tools for a content strategy are viewed as effective and convenient (Table 3). The data reveal that 83.6% (11, 25.5%; 25, 58.1%) strongly agreed and agreed that AI improves content strategy, highlighting AI's role in ideation. Moreover, 68.1% (7, 15.9%; 23, 57.2%) strongly agreed and agreed that AI assisted customer segmentation. A total of 56.7% (5, 11.3%; 20, 45.4%) strongly agreed and agreed that AI improves clients' content relevance. Furthermore, 56.8% (3, 6.8%; and 22, 50%) strongly agreed and agreed that AI enhances the agency's market position. The 34% neutral response suggests some uncertainty. Lastly, 49.9% (4, 9%; 18, 40.9%) strongly agreed and agreed on the value of unforeseen AI insights in content strategies. The SD of 0.6909258 not only indicates a general agreement on the benefits of AI tools in a content strategy but it also reflects some variation in the level of agreement among respondents.

Table 4 shows that respondents were generally positive, supported by the median. A total of 86.3% (9, 20.4%; and 29, 65.9%) strongly agreed and agreed that AI tools are easy to use for creating diverse content across platforms. Also, 54.5% (3, 6.82%; 21, 47.7%) strongly agreed and agreed that AI tools improve clients' content relevance. However, 31.8% were neutral. The data reveal that 79.4% (12, 27.2%; 23, 52.2%) strongly agreed and agreed that AI tools speed up content distribution. Furthermore, 84% (8, 18.1%; and 29, 65.9%) strongly agreed and agreed that AI tools help identify content topics. Additionally, 69.7% (8, 18.6%; 22; 51.1%) believed AI tools are essential for optimising content for different channels.

The data show that 88.5% (8, 18.1%; 31, 70.4%) strongly agreed and agreed that AI tools enable effective content refinement. Lastly, 74.9% (8, 18.1%; 25; 56.8%) strongly agreed and agreed that AI tools simplify content, making it clear and concise. Most perceived AI tools as effective for content creation and enhancement. The SD of 0.5356902 indicates some variation in respondents' agreement on different items of the construct. This variability may arise from differing experiences with AI, varying familiarity levels, or contextual differences in AI use across marketing agencies.

TABLE 2: Responses relating to the construct usefulness.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		All		
	N	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	Median
1. AI tools, such as natural language processing and machine learning, enable our agency to identify the right audience for our clients' content more quickly.	1	2.27	4	9.09	9	20.45	24	54.55	6	13.64	44	100.00	4
2. The incorporation of AI tools has enhanced the quality of market research conducted by my agency.	0	0.00	3	6.82	16	36.36	19	43.18	6	13.64	44	100.00	4
3. The integration of AI tools into our market research practices presents numerous beneficial outcomes.	0	0.00	2	4.55	9	20.45	27	61.36	6	13.64	44	100.00	4
4. Our agency will continue using AI for market research because of useful insights into the ideal customer.	0	0.00	4	9.30	7	16.28	23	53.49	9	20.93	43	100.00	4

Note: Data compilation with JMP® (2023).
AI, artificial intelligence.

TABLE 3: Responses relating to the construct content strategy.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		All		
	N	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	Median
6. AI tools help to improve our clients' content strategy.	0	0.00	3	6.98	4	9.30	25	58.14	11	25.58	43	100.00	4
7. AI tools help with customer segmentation in a content strategy.	1	2.27	6	13.64	7	15.91	23	52.27	7	15.91	44	100.00	4
8. AI tools have been successful in targeting the ideal audience(s) for a content strategy.	1	2.27	5	11.36	13	29.55	20	45.45	5	11.36	44	100.00	4
9. AI tools have improved our clients' positioning strategy in the market.	0	0.00	4	9.09	15	34.09	22	50.00	3	6.82	44	100.00	4
10. We often incorporate unexpected insights from AI tools into our clients' overall content strategy.	0	0.00	9	20.45	13	29.55	18	40.91	4	9.09	44	100.00	3.5

Note: Data compilation with JMP® (2023).
AI, artificial intelligence.

The findings and median show a noticeable trend of agreement on the benefits of AI tools for clients (Table 5). Specifically, 81.7% (8, 18.1%; 28, 63.6%) strongly agreed and agreed that their agency uses AI tools to improve client content quality. Furthermore, 61.8% (4, 9.0%; 25, 56.8%) strongly agreed and agreed that AI helps them understand target audiences, emphasising its importance in audience analysis. Of the respondents, 22.7% were neutral. A total of 84.0% (7, 15.9%; 30, 68.1%) strongly agreed and agreed that AI improves client content visibility, highlighting its role in SEO. Furthermore, 90.8% (13. 31.8%; 26, 59%) strongly agreed and agreed that AI automates repetitive tasks, freeing resources for strategic work. Lastly 79.4% (12, 27.2%; 23, 52.2%) strongly agreed and agreed that AI leads to more data-driven decision-making for better content performance.

This construct's SD of 0.4998097, indicated strong agreement on AI's benefits in content marketing. Respondents consistently believe that AI improves content quality, audience insight, visibility, efficiency, and decision-making.

Correlations among the key constructs in the study

Table 6 indicates the multivariate correlations and correlation probability among pairs of key constructs associated with AI. The correlations were estimated by the row-wise method.

Correlation coefficients range from -1 to 1, where 1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 indicates no correlation (Newbold et al. 2020). Based on the correlation matrix and the correlation probability matrix, the following relationships are evident:

1. Usefulness and content strategy: There is a moderately positive correlation (0.5237) and a *p*-value less than 0.0001, indicating a statistically significant relationship.
2. Usefulness and content creation: There is no correlation (-0.0009) and the *p*-value is 0.9956, indicating no statistically significant relationship.

TABLE 4: Responses relating to the construct content creation.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		All		
	N	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	Median
12. AI tools are easy to use for creating different types of content across different platforms.	0	0.00	1	2.27	5	11.36	29	65.91	9	20.45	44	100.00	4
13. Using AI tools has been effortless in improving the relevance of our clients' content.	0	0.00	6	13.64	14	31.82	21	47.73	3	6.82	44	100.00	4
14. AI tools allow for quick distribution of content.	0	0.00	3	6.82	6	13.64	23	52.27	12	27.27	44	100.00	4
15. AI tools can assist our agency to identify relevant topics for content creation.	0	0.00	0	0.00	7	15.91	29	65.91	8	18.18	44	100.00	4
16. AI tools are essential to optimise content for different channels and formats.	0	0.00	5	11.63	8	18.60	22	51.16	8	18.60	43	100.00	4
17. Using AI tools makes it possible to refine content.	0	0.00	3	6.82	2	4.55	31	70.45	8	18.18	44	100.00	4
18. AI tools allow for content to be simplified.	0	0.00	3	6.82	8	18.18	25	56.82	8	18.18	44	100.00	4

Note: Data compilation with JMP® (2023).
AI, artificial intelligence.

TABLE 5: Responses relating to the construct adoption.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		All		
	N	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	*N*	Column %	Median
23. My agency uses AI tools to help improve the quality of our clients' content.	1	2.27	1	2.27	6	13.64	28	63.64	8	18.18	44	100.00	4
24. The use of AI tools for content marketing facilitates a better understanding of target audiences and their preferences.	1	2.27	4	9.09	10	22.73	25	56.82	4	9.09%	44	100.00	4
25. AI tools can increase the visibility of our clients' online content, such as for search engines.	0	0.00	3	0.00	7	15.91	30	68.18	7	15.91%	44	100.00	4
26. The use of AI tools can help to automate repetitive tasks in content marketing, allowing for more time and resources to be spent on strategy and creativity.	0	0.00	0	0.00	4	9.09	26	59.09	14	31.82%	44	100.00	4
27. The use of AI tools in content marketing can lead to more data-driven decision-making for better overall content performance.	0	0.00	1	2.27	8	18.18	23	52.27	12	27.27%	44	100.00	4

Note: Data compilation with JMP® (2023).
AI, artificial intelligence.

TABLE 6: Multivariate correlations and correlation probability among pairs of key constructs.

Constructs	Usefulness	Content strategy	Content creation	Adoption
Multivariate correlations				
Usefulness	1.00	0.52	-0.00	0.56
Content strategy	0.52	1.00	0.211	0.55
Content creation	-0.00	0.21	1.00	0.42
Adoption	0.56	0.55	0.42	1.00
Correlation probability				
Usefulness	< 0.00	0.00	0.99	< 0.00
Content strategy	0.00	< 0.00	0.17	0.00
Content creation	0.99	0.17	< 0.00	0.00
Adoption	< 0.00	0.00	0.00	< 0.00

Note: Data compilation with JMP® (2023).

3. Usefulness and adoption: There is a moderately positive correlation (0.5646) and a *p*-value less than 0.0001, indicating a statistically significant relationship.
4. Content strategy and content creation: There is a weak positive correlation (0.2081) and a *p*-value of 0.1752, indicating no statistically significant relationship.
5. Content strategy and adoption: There is a moderately positive correlation (0.5471) and a *p*-value of 0.0001, indicating a statistically significant relationship.
6. Content creation and adoption: There is a moderately positive correlation (0.4184) and a *p*-value of 0.0047, indicating a statistically significant relationship.

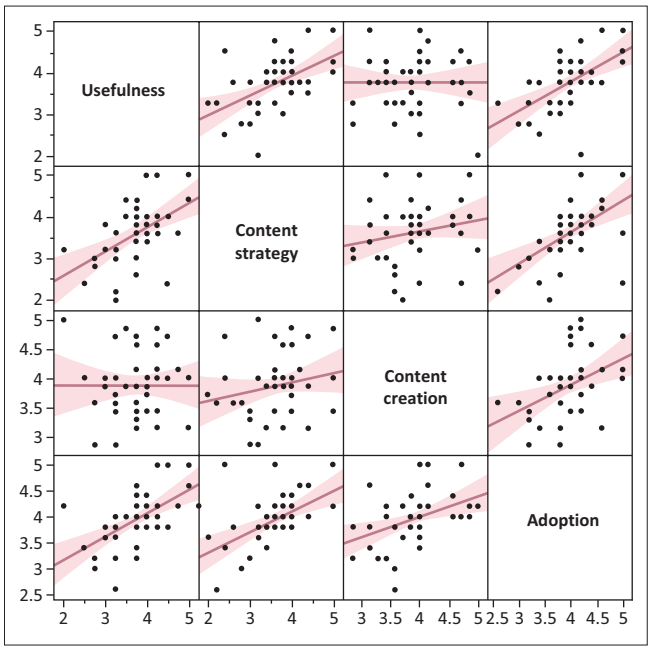
The strong correlations between 'usefulness', 'content strategy', and 'adoption' highlight AI's role in strategic planning and adoption. Weaker correlations between 'content strategy' and 'content creation' suggest limited mutual influence, implying agencies may separate strategy from creation, with AI focussing more on strategy development.

Figure 2 depicts a scatterplot matrix to visually depict the relationships among the four constructs.

Table 7 shows the AI tools adopted by marketing agencies for market research, content strategy and content creation. Respondents could select all applicable options and add unlisted tools.

For market research, marketing agencies identified AI social media analytics and social media listening tools as useful to gain insights from social media about audience sentiments, behaviours and trends. AI-powered SEO and predictive analytics tools are also widely adopted. Natural Language Processing (NLP) and image/video recognition tools are also prevalent, demonstrating the growing importance of AI-driven technologies for interpreting unstructured data sources such as text and video.

For a content strategy, most respondents preferred AI-powered writing assistants and content optimisation platforms indicating that AI is crucial to improving content creation and optimising it for different platforms and audiences. Marketing agencies' widespread use of AI-powered content planning and curation tools shows they understand the importance of strategic planning and curated content in content marketing to simplify content creation, ensure relevance, and boost audience engagement.



Note: Data compilation with JMP® (2023).

FIGURE 2: A scatterplot matrix visually depicting the relationships among the four key constructs.

The responses also show that marketing agencies use many AI tools for content creation and that content development is approached from many angles. Most respondents used AI-powered editing tools such as Grammarly and language models such as GPT-3. Their use of Canva emphasises the importance of visual aesthetics in content creation. However, several respondents were unsure about their agency's use of some AI tools for content creation, suggesting more investigation.

Findings of open-ended questions in the questionnaire

Respondents could answer two open-ended questions, which were analysed using inductive thematic analysis to gain more insights into marketing agencies' use of AI.

Question 1: How do you adapt your artificial intelligence content creation after analysing the audience engagement rate with the content?

The following two themes emerged, based on 41 responses.

Theme 1: Integration of artificial intelligence with human expertise and continuous iteration: This theme emphasised the collaborative relationship between AI tools and human creativity. It underlines how important it is for humans to help improve and customise content, with AI insights used as a foundation. Respondents highlighted the iterative process of refining content based on audience engagement data, referring to AI as a tool to assist in content creation rather than as a standalone solution. The responses revealed

TABLE 7: Artificial intelligence tools adopted by the marketing agencies for market research, content strategy and content creation.

Option	Number of responses
AI tools adopted by marketing agencies for market research	
AI social media analytics tool	31
Social media listening tool	31
AI-powered SEO tool	24
Predictive analytics tool	24
Natural (semantic) language processing tool	25
Image and video recognition tool	25
Chatbot	13
Voice assistant	13
AI-powered customer experience tool	13
Media intelligence platform	20
Transcription of interviews tool	8
FireFlies Note Taker tool	12
Content sorting for design tool	17
Content creation tool	1
Number of respondents who completed	**44**
AI tools used for a content strategy	
AI-powered writing assistant	34
AI content optimisation platform	34
AI-powered content planning tool	21
AI content curation tool	21
AI content discovery and analysis tool	21
Tool that uses natural language processing	21
Social listening tool	15
Not aware if agency currently uses	19
Number of respondents who completed	**41**
AI tools used for content creation	
AI-powered editing tool (e.g., Grammarly)	33
GPT-3 language model tool	33
GPT-4 language model tool	25
Another large language model	25
Semantic language SEO tool	25
Design tools such as Canva	25
AI art generation tools (e.g., DeepArt)	12
Machine learning tools such as TensorFlow	12
AI tools that create videos	12
AI video generator tool (e.g., Lumen5)	12
Not aware if agency currently uses	27
AI-Generated Stock Images	12
Otter.ai for transcribing meetings	24
Number of respondents who completed	**44**

Note: Data compilation with JMP® (2023).
AI, artificial intelligence; SEO, search engine optimisation.

the importance of using AI engagement data to streamline and adapt content strategies, although with caution. As previously stated, content strategies are crucial for ensuring successful execution and support of the overall goals of the organisation (Harris 2021). Wang and Chan-Olmsted (2020) found that engagement is highly platform-dependent, indicating that marketers should use AI engagement data from each platform to refine content strategies. They emphasise balancing AI-generated content with human input and iteratively improving content based on audience engagement.

Examples are:

> 'AI is seen as a framework rather than the end result, providing a starting point for content creation. Human intervention is necessary to tailor content effectively.' (P4)

> 'Taking a bulk approach to content creation, refining and optimising based on feedback and engagement data.' (P5)

> 'Utilising engagement analysis to inform personalised content creation aligned with audience preferences, focussing on top-performing formats and ongoing monitoring of engagement data.' (P9)

> 'Adapting input factors for AI content creation.' (P23)

Thus, when adapting AI content creation after analysing audience engagement rates, the marketing agencies emphasised a collaborative approach, seeing AI as a framework for content creation that still requires human intervention for effective tailoring and refinement, as well as using engagement rates to inform personalised content creation aligned with audience preferences (cf. Wahid et al. 2023).

Theme 2: Tailored content creation with cautious artificial intelligence optimisation: This theme focussed on tailoring content to specific client brands and audience preferences while using AI tools for efficiency and optimisation. Respondents highlighted the importance of personalised content creation driven by AI insights to enhance engagement and relevance. Key issues within this theme encompass the need to customise content to resonate with individual client brands, using AI to enhance content creation, and driving engagement through personalised content. Furthermore, caution, human oversight, and more research on AI benefits were identified as essential to marketing agencies. Respondents expressed the view that both the benefits and drawbacks of AI should be considered when using it in content creation. Respondents emphasised the importance of human oversight to maintain content quality and relevance, stressed the need to use AI-generated content cautiously, and recommended the exploration of the potential of AI technology while acknowledging its limitations and risks (Wahid et al. 2023:1816).

Examples are:

> 'Making edits after using AI to ensure content relevance to each client's individual brand.' (P3)

> 'Using AI to understand deeper insights post-engagement analysis and prompt relevant content creation based on trends.' (P16)

> 'Empowering AI tools with a knowledge base to produce personalised, performance-enhancing content.' (P10)

> 'Checking and editing content as AI cannot be trusted blindly.' (P12)

Thus, after analysing audience engagement rates with content, marketing agencies adapt AI content by tailoring content to specific client brands and audience preferences using AI tools. They prefer to exercise caution in the form of human oversight and require additional research on AI benefits to ensure content relevancy and quality.

However, there are disadvantages associated with the use of AI for content adaptation, with some respondents mentioning

ongoing trial and error and the need for effective briefing to maximise AI effectiveness. Thus, while AI tools provide efficiency and insights, they perform best when integrated into a collaborative and iterative content creation process that combines AI capabilities with human expertise and creativity.

Question 2: In your opinion, how does using artificial intelligence tools for market research compare with traditional market research methods in terms of practicality?

Three themes emerged from 41 responses.

Theme 1: Speed and efficiency of data analysis with artificial intelligence: This theme highlighted the speed and efficiency of data analysis enabled by AI tools compared with traditional market research methods. Respondents highlighted the capability of AI tools to quickly process vast amounts of data, leading to faster insights and identification of trends. Respondents referred to the comparative advantage of AI in processing large amounts of data quickly, its ability to generate insights more efficiently than traditional methods, and its potential for market segmentation and real-time analysis.

Examples are:

> 'Using AI tools for market research saves a lot of time in comparison to traditional methods.' (P3)
>
> 'AI can analyse mountains more data than humans can – and deliver much more granular segmentation, that can constantly be on trend, because it can process data in real-time.' (P9)
>
> 'The speed, quality of the data from different channels and the ability to streamline the research process as well as enhance content creation makes it more practical from a time and cost-saving perspective.' (P22)

The marketing agencies were therefore of the opinion that AI makes faster and more effective data analysis possible, with advantages such as time savings and real-time insights critical for informed decision-making (Rodrigue 2023).

Theme 2: Synergy of artificial intelligence and traditional methods: This theme emphasised the idea that AI tools complement rather than replace traditional market research methods. Respondents referred to the strengths of both approaches, with AI performing well in the areas of data analysis and efficiency, while traditional methods offer more qualitative insights and human insight. The respondents recognised that AI tools offer valuable additions to conventional market research practices, thereby improving the research process.

Examples are:

> 'I consider the use of AI tools for market research to be a useful addition to traditional methods but not a replacement.' (P1)
>
> 'They each have their strengths, and it's about choosing the right tool for the job.' (P2)
>
> 'Traditional market research is limited to the person you are speaking to and the information they give you. AI tools can search and analyse vast amounts of data which you can use in your research.' (P31)

Accordingly, marketing companies believe that AI and conventional techniques can work together to produce more comprehensive insights. Each approach complements the strengths of the other to improve the research process.

Theme 3: Data accuracy and human oversight: This theme focussed on the balance between the accuracy of AI-generated data and the need for human oversight in interpreting and contextualising market research results. Respondents expressed their concerns about the potential margin of error with AI-generated data and the importance of human judgement in research. AI tools enhance rather than replace traditional research methods because AI is more engaging, but it is important to select the right AI tool for the specific research task (Kose & Sert 2017; Wahid et al. 2023).

Examples are:

> 'AI-generated data is historically reliable but may not be as accurate as data collected through empirical research.' (P30)
>
> 'You do, however, have to ensure that you review and analyse the data as the human element and what you as an agency want out of the data might not be interpreted 100% by the AI option.' (P6)
>
> 'AI tools can be beneficial to collect the data, in some cases being more cost-effective and quicker. However, you do have to ensure human oversight to maintain content quality and relevance.' (P6)
>
> 'AI is engaging and interesting while the traditional market research method is rigid.' (P26)

Marketing agencies are thus of the opinion that marketers can use the strengths of both AI and traditional methods to enhance market research practices and to ensure data accuracy.

Discussion

The study's findings shed light on beliefs relating to and adoption of AI for content marketing and provide preliminary insights from South African content marketing agencies. Regarding research question 1, the findings reveal that South African content marketing agencies have a positive perception of the usefulness of AI tools for marketing research. Most respondents agreed that AI tools help clients identify the right audience for their content, improve market research quality, provide numerous benefits, and provide useful insights into the ideal customer (see Reisenbichler et al. 2022). Regarding research question 2, several aspects contribute to marketing agencies' beliefs, acceptance, and adoption of AI tools in content strategies. For example, AI tools are valued for their ability to assist in customer segmentation, increase content relevance, target ideal audiences, and improve clients' market positioning strategies (Barbosa et al. 2023). Furthermore, respondents considered

AI tools to be critical for optimising content across multiple channels and formats, streamlining content creation, and improving overall content quality (Rockley & Cooper 2012; Linn 2015). These aspects highlight the strategic importance of AI in content marketing strategies, where marketing agencies use AI technologies to supply their audiences with more targeted, engaging, and impactful content (Forsey 2023; Arnold 2022).

Regarding research question 3, it was evident that AI tools play an important role in facilitating content optimisation for content marketing activities. AI-powered writing assistants, content optimisation platforms, and planning tools are commonly used to streamline content creation processes, improve content relevance, and increase audience engagement (Rodrigue 2023). Thus, AI tools help to make content marketing more efficient, targeted, and impactful by allowing marketing agencies to use data insights and automation in content creation and optimisation processes, as highlighted by Chintalapati and Pandey (2021).

In answering research question 4, it is interesting to note that the study revealed a diverse range of GenAI tools used for a variety of applications. These tools include writing assistants, content optimisation platforms, content planning and curation tools, NLP tools, social listening tools, and design tools such as Canva. The findings highlight new AI adoption trends, including its application in video creation, art generation, and voice assistant integration, indicating an emerging environment of AI adoption.

However, the respondents perceive AI to be a supplement to traditional marketing efforts rather than a replacement for it, as the human element is still required, particularly for data and content quality assurance. Thus, while the respondents acknowledge the value of AI in improving content marketing, they believe that the human element is still necessary, and that content marketing practice cannot depend entirely on AI (Taylor 2023).

The study's findings are consistent with the core tenets of TAM, which states that perceived usefulness and ease of use are important predictors of users' intention to adopt and use technology (Marikyan & Papagiannidis 2023). In this context, the positive perceptions held by marketing agencies of the usefulness and effectiveness of AI for content marketing are indicative of a high likelihood of increased adoption and use.

Based on the findings, a taxonomy is now proposed to classify the four main areas in which AI is currently adopted by South African marketing agencies for content marketing, namely content strategy optimisation, content creation enhancement, insight integration and personalisation, and automation and process enhancement (Table 8).

The study has several theoretical and practical implications, as explained next.

TABLE 8: A proposed taxonomy for artificial intelligence adoption in content marketing in South Africa.

Content strategy optimisation	
Strategic planning Arnold (2022), Forsey (2023)	South African marketing agencies adopt AI for strategic planning in content marketing. This involves using AI insights to formulate content strategies, analyse market trends, and identify competitive environments, thus displaying strategic alignment between AI use and broader agency goals.
Audience segmentation Barbosa et al. (2023), Hsu and Liou (2021)	AI assists in segmenting audiences based on various criteria such as demographics, interests, and behaviour. This facilitates targeted content delivery to specific audience segments.
Content creation enhancement	
Workflow efficiency Santiago (2023)	AI is used to streamline content creation processes, optimising tasks such as writing, editing, and formatting for increased productivity.
Quality management Kose and Serte (2017), Wahid et al. (2023)	AI-driven quality control measures, combined with human oversight, are used to ensure that content meets accuracy, relevance, and tone standards.
Insight integration and personalisation	
Integration of insights Pierre-Louis (2023)	Agencies incorporate AI-derived insights into content strategy decisions, guiding content ideas, planning, and distribution.
Personalisation Chintalapati and Pandey (2021); Rodrigue (2023)	Use of AI to personalise content based on user data and preferences, enhances engagement and conversion rates.
Automation and process enhancement	
Automation Duggal (2023)	Agencies automate repetitive tasks in content creation, such as template generation, topic suggestion, and SEO optimisation.
Process enhancement Rodrigue (2023)	Enhancements in content creation activities through AI-driven tools and technologies facilitate creativity and planning.

Theoretical implications

The findings provide theoretical insights permitting the classification of AI adoption for content marketing by South African marketing agencies. The proposed taxonomy is intended to close a theoretical gap in South Africa and enable marketers to build brand awareness, emotional bonds, and, ultimately, positive behaviour.

The findings also reinforce TAM by confirming the importance of perceived usefulness and ease of use in AI adoption. In addition, the study sheds light on the multifaceted role of AI in content marketing from creation to distribution and its impact on overall content marketing practices. Furthermore, the study highlights views on the collaborative nature of AI–human interaction in the planning, creation and distribution of content. Lastly, the study enriches theoretical debates on technology adoption, human–machine collaboration and innovation in content marketing.

Practical implications

The study also has some practical implications. Through gaining an understanding of the areas in which AI tools are commonly adopted for content marketing, such as market research, content strategy, and content creation, marketers can make informed decisions about their AI technology investments.

The proposed taxonomy emphasises AI's role as a strategic enabler for content optimisation such that target audiences have

personalised, high-quality content experiences. The taxonomy may also facilitate informed decision-making and strategic planning in AI integration initiatives. In this regard, using AI for a content strategy and content creation can be distinct processes, but they must be aligned in terms of overall business goals.

Conclusion

The taxonomy proposed in the study provides a structured framework for understanding the various functionalities and applications of AI technologies, which can inform future research and practice in the field of content marketing. GenAI has become important for content marketing in South Africa because it allows for automated content creation, improves personalisation, and encourages creativity and engagement in content strategies. While AI is perceived as supplementing, not replacing, the human element in content marketing, it can significantly improve the effectiveness of content marketing activities.

However, the study also has some limitations. The small sample size in this exploratory survey limited generalisability and statistical power. The findings thus represent only preliminary insights from those South African marketing agencies that completed the survey regarding their beliefs and the adoption of AI for content marketing and did not include clients' perceptions of AI content. The findings nevertheless provided enough insight to propose a taxonomy for the better understanding of AI adoption for content marketing in South Africa. In this regard, the findings of this study provide an important starting point in the debate concerning the use of AI in various areas of content marketing. Future studies should use a larger sample size for surveys and focus on clients' perceptions and beliefs about content created with the assistance of AI tools.

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Authors' contributions

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Data availability

The data that support the findings of this study are available from the corresponding author, C.d.P. upon request.

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