

Impact of Digital Marketing Techniques in the UAE Real Estate Market: A Mediation Model Examining the Effects on Business Outcome

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Abstract: *The UAE real estate businesses lack empirical clarity regarding the actual effectiveness of digital marketing strategies on business performance outcomes, such as sales revenue growth, customer acquisition, customer retention, and market share. While digital marketing investments in the UAE have grown at double-digit annual rates, many firms continue to report uncertainty in measuring return on investment (ROI) and difficulty in linking digital marketing activities to tangible performance indicators. This study analyzed the concepts, mechanisms, and evidence around four core digital marketing levers: Search Engine Optimization (SEO), Social Media Marketing (SMM), Email Marketing (EMM), and Content Marketing (CTM); and two behavioral outcomes that mediate those levers into firm performance, namely, Customer Engagement (CET) and Customer Satisfaction (CSN). It then considered the firm-level Business Outcomes (BO), such as, sales revenue growth, market share, brand loyalty, and customer retention. The study employed a stratified random sampling technique to ensure representative and diverse participation across various segments within the UAE real estate business sector. A sample size of 330 was selected. The conceptual framework developed for the study was examined by multivariate mediation analysis (Hayes' Model 6). It was found that Search Engine Optimization technique is the most powerful digital marketing tool for enhancing customer satisfaction, and business outcome in UAE real estate business sector. SEO techniques significantly enhance the visibility and discoverability of real estate websites in the UAE; the use of relevant keywords and optimized content boosts organic traffic for real estate companies in the UAE market; implementing local SEO practices effectively targets and engages relevant audiences seeking property related information in the UAE, and regular updating and optimizing website content positively impacts search engine ranking for real estate businesses in the UAE.*

Keywords: Business Outcome; Customer Satisfaction; Digital Marketing; Mediation Model; Search Engine Optimization

1. Introduction

As technology continues to advance and consumer behavior evolves, digital marketing emerged as a critical component for successful business strategies in the United Arab Emirates (UAE). The rapid growth of internet usage and smartphone penetration in the country accelerated the growth of digital marketing. E-commerce platforms have experienced significant growth, with digital marketing techniques such as search engine optimization, social media advertising, email marketing, and content marketing playing crucial roles in attracting and retaining customers. In UAE, property developers, real estate agencies, and brokers, leverage digital platforms to showcase their listings, targeting local and international buyers, and tenants. This study focuses on understanding how various digital marketing techniques influence business performance and customer engagement in the UAE real estate market.

2. Background of the Study

As a fast-paced developing country in the Gulf region, the UAE has one of the highest rates of internet penetration in the world, with around 91% of the population being active internet users (Owais, et. al., 2025). According to a survey conducted by PwC Middle East, 95% of businesses in the UAE have a digital presence, and 90% of them have incorporated digital marketing into their overall marketing

strategy (PwC Middle East, 2018). As of January 2025, active social media identities in the UAE are reported at ~11.3 million, approximately 100% of the population, underscoring the pervasiveness of digital touch points across segments and nationalities (Data Reportal, 2025). Many businesses struggle to effectively measure the return on investment (ROI) of their digital marketing campaigns in the UAE and finding its difficulty in quantifying the tangible impact of digital marketing efforts on key performance indicators, such as sales revenue and customer acquisition (Almestarihi, et.al., 2024).

3. Problem Statement

The UAE real estate sector is one of the country's most significant contributors to GDP. It has rapidly adopted digital marketing channels such as property portals, social media advertising, search engine marketing, and customer relationship management (CRM) systems to attract investors and end users. Industry reports indicate that more than 70% of property searches in the UAE now begin online, and real estate firms allocate a substantial proportion of their marketing budgets to digital platforms. Despite this widespread adoption, measurable improvements in firm-level business performance remain inconsistent across the sector. The core problem is that UAE real estate businesses lack empirical clarity regarding the actual effectiveness of digital marketing strategies on business performance outcomes, such

as sales revenue growth, customer acquisition, customer retention, and market share. While digital marketing investments in the UAE have grown at double-digit annual rates, many firms continue to report uncertainty in measuring return on investment (ROI) and difficulty in linking digital marketing activities to tangible performance indicators. In practice, real estate firms frequently track operational metrics such as website traffic, impressions, or social media engagement; however, these metrics do not consistently translate into validated measures of sales conversion, lead quality, or long-term customer value. This disconnect highlights a critical gap between digital marketing effort and performance accountability.

The absence of sector-specific empirical models explaining how distinct digital marketing dimensions - such as content quality, social media engagement, search visibility, and data analytics capability - collectively influence business performance has led to ineffective adoption, suboptimal resource allocation, and missed growth opportunities within the UAE real estate sector. There is limited empirical research focused on the UAE real estate sector, particularly studies that quantitatively examine the relationship between digital marketing constructs and business performance using robust analytical techniques.

4. Research Objectives

- To examine the impact of digital marketing techniques in the UAE real estate sector.
- To analyze the effectiveness of digital marketing techniques on customer engagement and customer satisfaction in the UAE real estate sector.
- To compare the direct effect with indirect effect of digital marketing techniques on business outcomes through the mediators- customer engagement, and customer satisfaction.

5. Research Questions

- How is the effectiveness of digital marketing techniques on customer engagement in UAE real estate sector?
- How is the effectiveness of digital marketing techniques on customer satisfaction in UAE real estate sector?
- How is the direct effect of digital marketing techniques on business outcome in UAE real estate sector?
- Is the direct effect of digital marketing techniques on business outcome is more predictive than the indirect effect through the mediators customer engagement, and customer satisfaction?

6. Literature Review

Several studies have examined the impact of digital marketing on businesses in the UAE. A study by Al Sharif (2019) found that digital marketing has a positive impact on the brand image, customer engagement, and sales revenue of businesses in the UAE. Digital marketing has also been found to be an effective way to reach out to target audiences in the UAE, especially the younger generation who are more likely to engage with brands through digital platforms (Habib & Tariq, 2017). All the Social media platforms, including recently developed applications, have become a crucial part of digital

marketing plans in the UAE, with Instagram and Facebook being the most popular platforms for businesses to advertise their products and services (Shankar & Mankani, 2020).

The present study reviews the concepts, mechanisms, and evidence around four core digital marketing levers—Search Engine Optimization (SEO), Social Media Marketing (SMM), Email Marketing (EMM), and Content Marketing (CTM); and two behavioral outcomes that mediate or translate those levers into firm performance - Customer Engagement (CET) and Customer Satisfaction (CSN). It then considers the firm-level Business Outcomes (BO) most relevant to managerial decision-making: sales revenue growth, market share, brand loyalty, and customer retention. The review synthesizes foundational theories such as Resource-Based View, Commitment-Trust theory, Service-Dominant (S-D) logic theory, and Stimulus-Organism-Response (SOR model), with recent empirical evidence to reflect both scholarly depth and practical relevance.

Search Engine Optimization (SEO) is one of the most prominent digital marketing techniques employed by businesses in the UAE and globally. SEO refers to the systematic process of enhancing the quality and quantity of website traffic from search engines. The primary objective of SEO is to improve a website's visibility on search engine results pages (SERPs) by optimizing its content, structure, and technical framework to achieve higher rankings in search engine algorithms. This process encompasses multiple facets, including on-page optimization, off-page optimization, technical SEO, content creation, and link-building strategies. Through these efforts, businesses aim to attract organic traffic, which can translate into greater brand awareness, customer acquisition, and overall business growth. Crucially, SEO is not a one-time exercise but an ongoing process that requires continuous monitoring and adaptation to evolving search engine algorithms, user behavior, and competitive dynamics (Chaffey et al., 2019; Singh & Shukla, 2018).

Social Media Marketing (SMM) has become another most influential and widely adopted digital marketing strategies among businesses in UAE. SMM refers to the strategic process of creating, curating, sharing, and promoting content across various social media platforms with the objectives of increasing brand awareness, fostering customer engagement, and driving measurable business outcomes. By leveraging the extensive reach and interactive capabilities of widely used social networks, organizations are able to communicate directly with their target audiences, build strong online communities, and deliver marketing messages in innovative and highly engaging formats. This approach allows businesses to not only disseminate information about their products and services but also to cultivate meaningful relationships with customers, stimulate brand loyalty, and encourage user participation and advocacy (Alam et al., 2020; Gupta & Jain, 2019). SMM encompasses both organic and paid activities across multiple platforms, including Instagram, TikTok, Snapchat, YouTube, LinkedIn, X (formerly Twitter), and niche forums. Strategic tactics involve short-form video content, influencer and creator collaborations, user-generated content (UGC), retargeting campaigns, and community management.

Email Marketing (EMM) represents a fundamental strategy within digital marketing, characterized by the direct transmission of targeted messages to specific customer segments via email. This approach enables organizations to communicate effectively with both prospective and existing customers, delivering content that is relevant, timely, and personalized. EMM has emerged as a crucial tool for promoting products, services, special offers, organizational updates, and other informational content that supports engagement and brand recognition. By leveraging email as a controlled and measurable communication channel, businesses can reinforce brand awareness, nurture potential leads, provide ongoing information regarding promotions or events, and stimulate conversions in a cost-efficient manner. Beyond its role in short-term promotional campaigns, EMM is particularly valued for its capacity to cultivate long-term relationships with customers, enhancing loyalty and encouraging repeat interactions over time. Its advantages are widely recognized in academic and professional literature, including its relatively low implementation costs, scalability across large audiences, and measurable impact on marketing performance metrics, such as open rates, click-through rates, and return on investment (Chaffey et al., 2016; Alam et al., 2020; Gupta & Jain, 2019).

Content Marketing (CTM) is a strategic digital marketing approach that entails the creation, publication, and distribution of valuable, relevant, and consistent content aimed at attracting and retaining a clearly defined audience, with the overarching objective of driving profitable customer action. In contrast to traditional marketing approaches, which primarily focus on promoting products or services, CTM emphasizes delivering information and insights that assist prospects and customers in solving problems, making informed decisions, or gaining knowledge relevant to their needs. As an inbound marketing strategy, CTM not only attracts potential customers but also fosters trust, strengthens customer loyalty, and encourages sustained engagement over time, thereby enhancing both brand equity and long-term business performance (Pulizzi, 2014; Brown & Suter, 2016; Li, 2019).

Customer engagement (CET) is a multidimensional construct encompassing the emotional, cognitive, and behavioral connections that customers establish with a brand or organization (Brodie et al., 2011; Kabadayi & Price, 2014). It reflects a psychological state in which customers actively participate in interactions across all stages of their journey, including pre-purchase, purchase, and post-purchase phases. Within digital ecosystems, Customer engagement is observable through a range of behaviors, such as time spent on platforms, repeat visits, interactions with digital content, participation in webinars, responses to email campaigns, and the depth of inquiries during the consideration phase. This multifaceted nature positions customer engagement as both a process and an outcome, underscoring the significance of meaningful brand-customer interactions (Brodie et al., 2011). Contemporary research identifies customer engagement as a crucial mediator linking digital marketing activities—such as social media marketing (SMM), content marketing (CTM), and email marketing (EMM)—to improved business performance outcomes. Empirical studies conducted recently demonstrate that customer engagement significantly drives

customer loyalty, retention, and long-term profitability (Science Direct, 2023).

Customer satisfaction (CSN) is widely recognized as a post-evaluation judgment in which customers compare the perceived performance of a product, service, or overall experience against their expectations (Kassim & Abdullah, 2010). It encompasses both tangible and intangible dimensions, including product/service quality, responsiveness, and emotional engagement, and serves as a critical indicator of an organization's ability to meet or exceed customer needs (Anderson, Fornell, & Lehmann, 1994). High levels of customer satisfaction are positively associated with customer retention, repeat purchases, lifetime value, and brand equity, while low satisfaction often reveals operational gaps requiring strategic attention (Kotler & Keller, 2021).

Digital marketing has become increasingly important for businesses to reach out to customers and generate sales revenue growth. Previous research studies have shown that digital marketing can positively impact revenue growth for businesses (Alalwan et al., 2017; Khatibi et al., 2016). Sales revenue represents the income generated from the sale of goods or services, serving as the foundational metric for calculating net income, forecasting, and strategic decision-making. Sales revenue growth is particularly relevant in high-competition industries such as UAE real estate, where digital marketing strategies have become pivotal in driving inquiries, transactions, and overall revenue expansion. Market share represents the proportion of total sales or revenue that a company captures within a specific market or industry. It serves as a key metric to evaluate a firm's competitive position relative to its competitors and is often expressed as a percentage of total industry sales (Aref, Ma & Bailey, 2018). A higher market share typically reflects a larger customer base, economies of scale, enhanced bargaining power, and potential improvements in profitability and pricing strategies (Alalwan et al., 2017). Brand loyalty represents the tendency of customers to consistently choose a particular brand's products or services over competitors, even when faced with alternative options. It reflects the strength of the relationship between the customer and the brand, shaped by emotional connections, perceived value, and positive experiences (Al-Ghaith & Al-Kulaib, 2009). Loyal customers believe a brand delivers superior quality and service, which fosters repeat purchases, advocacy, and a competitive advantage in the market (Kumar & Reinartz, 2016). Customer retention refers to a firm's ability to maintain and nurture existing customers, fostering repeat business and long-term relationships (Nguyen & Simkin, 2019). It is a crucial performance metric, as it indicates how effectively a company retains satisfied customers, reduces churn, and maximizes lifetime value (LTV). In the UAE real estate sector, retention is particularly vital due to high-ticket transactions and competitive market dynamics, where maintaining ongoing customer engagement directly influences repeat purchases, referrals, and sustained revenue streams (Kumar et al., 2020).

7. Conceptual Framework Components

The conceptual framework integrates three broad constructs—Digital Marketing Concepts (DMC), Customer Behavior (CB), and Business Outcomes (BO)—to capture the

complex interactions between marketing strategies and firm performance.

a) Digital Marketing Concepts (DMC)

DMC comprises the following sub-constructs:

- Search Engine Optimization (SEO): Enhances organic visibility, drives qualified traffic, and supports lead generation.
- Social Media Marketing (SMM): Engages diverse audiences, amplifies reach, and builds social proof.
- Email Marketing (EMM): Provides personalized, timely, and automated communications to nurture leads and foster retention.
- Content Marketing (CTM): Educates, informs, and builds credibility through high-value content, including guides, blogs, and videos.

The strategic integration of these digital marketing levers enables firms to influence customer perceptions, engagement, and satisfaction across the purchase journey (Alalwan et al., 2017; Singh & Gupta, 2021).

b) Customer Behavior (CB)

CB reflects the mediating role of Customer Engagement (CET) and Customer Satisfaction (CSN) in translating digital marketing initiatives into performance outcomes. Engagement encapsulates customers' cognitive, emotional, and behavioral involvement with marketing activities, while satisfaction measures the degree to which customers' expectations are met through interactions and experiences (Brodie et al., 2011).

c) Business Outcomes (BO)

- BO captures firm-level performance indicators influenced by digital marketing and customer behavior, including-
- Brand Loyalty: The propensity for repeat transactions and advocacy;
- Customer Retention: The ability to maintain long-term client relationships;
- Sales Revenue: Incremental financial gains attributable to marketing activities; and
- Market Share: The proportion of total industry revenue captured by the firm (Nguyen et al., 2020; Alalwan et al., 2017).

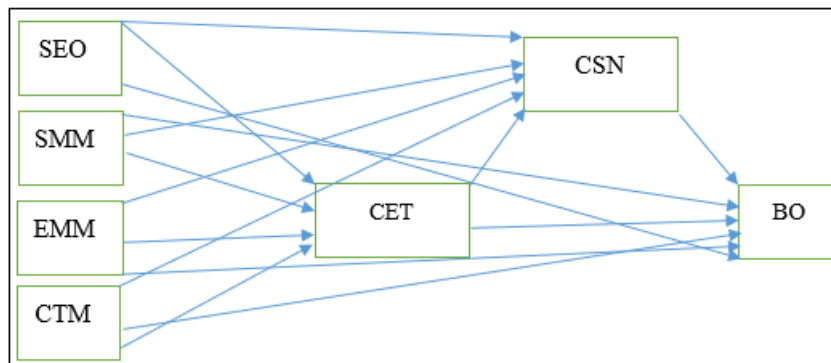


Figure 1: Conceptual Framework

8. Hypotheses

The following alternative hypotheses were formulated on the basis of the paths in the conceptual framework depicted in Figure 1

Ha1: The SEO, SMM, EMM, and CTM have significant direct positive effect on CET

Ha2: The SEO, SMM, EMM, CTM and CET have significant direct positive effect on CSN

Ha3: The SEO, SMM, EMM, CTM, CET, and CSN have significant direct positive effect on Business Outcome (BO)

Ha4: The SEO has direct positive effect on BO

Ha5: The SEO has an indirect positive effect on BO through the mediator CET

Ha6: The SEO has indirect positive effect on BO through the mediator CSN

Ha7: The SEO has an indirect positive effect on BO through the mediators CST and CSN serially ordered.

9. Population and Sample

The target population for the study comprises a diverse spectrum of stakeholders, professionals, and entities operating within the UAE real estate business sector. The unit of analysis, therefore, encompasses multiple levels within the industry, aiming to capture insights and perspectives from

various segments and roles. They include- Real estate professionals, Individual realtors, Real estate companies and Organizations. The unit of analysis encompasses both individual-level responses and aggregated data at the organizational or industry level. The study employed a stratified random sampling technique to ensure representative and diverse participation across various segments within the industry. Since the population size is unknown the determination of an appropriate sample size was based on statistical considerations, aiming to achieve an optimal balance between precision and practicality, a sample size of 330 valid responses were selected from 400 responses collected for the study and that would give a sufficient sample size to draw assumptions of nearly any population size at the 95% confidence level with 5% margin of error.

10. Research Instrument and Pilot Study

A survey questionnaire was designed based on the research objectives, conceptual framework, and literature review findings. It includes items that capture relevant variables related to digital marketing concepts, business outcomes, and customer behaviors. The questionnaire was carefully crafted to ensure clarity, relevance, and reliability of measurement. Before administering the survey questionnaire to the selected respondents, it underwent pre-testing. Pre-testing involves

administering the questionnaire to a small sample of respondents to identify any ambiguities, inconsistencies, or issues with the questions or response options. Pilot testing further validates the questionnaire by assessing its comprehensibility, usability, and effectiveness in capturing the intended constructs. Feedback from pre-testing and pilot

testing is used to refine and improve the questionnaire before full-scale implementation. The pilot study was conducted with 30 respondents from the UAE real estate sector. The reliability of each construct was tested using Cronbach's Alpha, a statistical measure that assesses internal consistency. The results are given in Table 1.

Table 1: Reliability Statistics

Construct	Variable	No. of Items	Cronbach's Alpha	Reliability level
Digital Marketing Concepts (DMC)	Search Engine Optimization (SEO)	4	0.762	Acceptable
	Social Media Marketing (SMM)	3	0.670	Acceptable
	Email Marketing (EMM)	3	0.881	Good
	Content Marketing (CTM)	4	0.700	Acceptable
Customer Behaviour (CB)	Customer Engagement (CET)	3	0.912	Excellent
	Customer Satisfaction (CSN)	3	0.851	Good
Business Outcome (BO)	Sales Revenue Growth (SRG)	3	0.995	Excellent
	Market Share (MS)	3	0.995	Excellent
	Brand Loyalty (BL)	3	0.782	Acceptable
	Customer Retention (CR)	3	0.985	Excellent

1) Inferential Analysis: Multiple Linear Mediation Regression Model

The Model 6 of A. F. Hayes' Mediation Model was applied for the analysis of the conceptual framework in Figure 1. 'PROCESS 4.2' was integrated with IBM SPSS version 31.0.2.0(126). The outputs of Model 6 are given in the following Tables which examine the hypotheses formulated

for the study, where SEO, SMM, EMM, and CTM are the IVs, CET and CSN are M1 and M2 respectively, and BO is the DV.

Ha1: *The SEO, SMM, EMM, and CTM have significant direct positive effect on CET*

Table 2: Regression Results of IVs on the outcome variable CET

R = 0.8274		F (4, 325) = 176.3882				
R-Sq.= 0.6846		p = 0.000				
MSE = 0.2733		N = 330				
Variables	b-value	SE	t-value	p-value	95% LLCI	95% ULCI
Constant	1.5450	0.1480	10.4386	0.0000	1.2539	1.8362
SEO	-0.0494	0.0707	-0.6992	0.4849	-0.1886	0.0897
SMM	0.0261	0.0762	0.3426	0.7321	-0.1237	0.1759
EMM	0.5090	0.0307	16.5937	0.0000	0.4486	0.5693
CTM	0.1540	0.0611	2.5200	0.0122	0.0338	0.2743

Overall Model Fit (Table 2)

R = 0.8274: There is a strong, positive correlation between the combined predictor variables and the outcome variable Customer Engagement (CET). **R-sq. = 0.6846:** The model explains **68.46%** of the variance in CET. This indicates a high explanatory power. **F (4, 325) = 176.3882, p < .001:** The overall regression model is highly statistically significant ($p = .0000$). At least one of the predictors significantly predicts CET.

Therefore, the null hypothesis (H01) is rejected, and, hence, SEO, SMM, EMM, and CTM have significant positive direct effect on Customer Engagement (CET).

Individual Predictor Analysis (Table 2)

Search Engine Optimization (SEO): Coefficient (b) = -0.0494; Significance: Not Significant ($p = .4849$); 95% Confidence Interval: [-0.1886, 0.0897]

Interpretation: SEO does not have a statistically significant effect on CET. The confidence interval includes zero, confirming no meaningful effect.

Social Media Marketing (SMM): Coefficient (b) = 0.0261; Significance: Not Significant ($p = .7321$); 95% Confidence Interval: [-0.1237, 0.1759]

Interpretation: SMM does not have a statistically significant relationship with CET. The confidence interval includes zero.

E-mail Marketing (EMM): Coefficient (b) = 0.5090; Significance: Significant at less than 1 percent level ($p = .0000$); 95% Confidence Interval: [0.4486, 0.5693]

Interpretation: EMM is a strong positive predictor of CET. For every 1-unit increase in EMM, CET increases by **0.5090 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

Content Marketing (CTM): Coefficient (b) = 0.1540; Significance: Significant at less than 5 percent level ($p = .0122$); 95% Confidence Interval: [0.0338, 0.2743]

Interpretation: CTM is a significant positive predictor of CET. For every 1-unit increase in CTM, CET increases by **0.1540 units**, holding all other variables constant.

Table 3: Summary of Regression on CET

IV	Impact on ET	Statistical Status	Strength of Prediction
EMM	Positive	Significant (p<.001)	Strongest Predictor
CTM	Positive	Significant (p<.05)	Moderate Predictor
SEO	None	Not Significant (p>.05)	No effect
SMM	None	Not Significant (p>.05)	No effect

Ha2: The SEO, SMM, EMM, CTM and CET have significant direct positive effect on CSN

Table 4: Regression Results of IVs on the outcome variable CSN

R = 0.9245					F (5, 324) = 381.2747	
R-Sq.= 0.8547					p = 0.000	
MSE = 0.1406					N = 330	
Variables	b-value	SE	t-value	p-value	95% LLCI	95% ULCI
Constant	-0.4911	0.1227	-4.0031	0.0001	-0.7325	-0.2498
SEO	0.1209	0.0508	2.3807	0.0179	0.0210	0.2207
CET	0.5169	0.0398	12.9924	0.0000	0.4387	0.5952
SMM	0.2413	0.0546	4.4165	0.0000	0.1338	0.3488
EMM	-0.0235	0.0299	-0.7859	0.4325	-0.0823	0.0353
CTM	0.2565	0.0443	5.7933	0.0000	0.1694	0.3436

Overall Model Fit (Table 4)

R = 0.9245: There is a strong, positive correlation between the combined predictor variables and the outcome variable Customer Satisfaction (CSN). **R-sq. = 0.8547:** The model explains **85.47%** of the variance in CSN. This indicates a high explanatory power. **F (5, 324) = 381.2747, p < .001:** The overall regression model is highly statistically significant (p = .0000). At least one of the predictors significantly predicts CSN.

Therefore, the null hypothesis (H02) is rejected, and, hence, SEO, CET, SMM, EMM, and CTM have significant positive direct effect on Customer Satisfaction (CSN).

Individual Predictor Analysis (Table 4)

Search Engine Optimization (SEO): Coefficient (b) = 0.1209; Significance: Significant at less than 5 percent level (p = .0179); 95% Confidence Interval: [0.0210, 0.2207]

Interpretation: SEO is a significant predictor of CSN. For every 1-unit increase in SEO, CSN increases by **0.1209 units**, holding all other variables constant.

Customer Engagement (CET): Coefficient (b) = 0.5169; Significance: Significant at less than 1 percent level (p = .0000); 95% Confidence Interval: [0.4387, 0.5952]

Interpretation: CET is a strong positive predictor of CSN. For every 1-unit increase in CET, CSN increases by **0.5169 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

Social Media Marketing (SMM): Coefficient (b) = 0.2413; Significance: Significant at less than 1 percent level (p = .0000); 95% Confidence Interval: [0.1338, 0.3488]

Interpretation: SMM is a strong positive predictor of CSN. For every 1-unit increase in SMM, CSN increases by **0.2413 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

E-mail Marketing (EMM): Coefficient (b) = -0.0235; Significance: Not Significant (p = .4325); 95% Confidence Interval: [-0.0823, 0.0353]

Interpretation: EMM does not have a statistically significant relationship with CSN. The confidence interval includes zero.

Content Marketing (CTM): Coefficient (b) = 0.2565; Significance: Significant at less than 1 percent level (p = .0000); 95% Confidence Interval: [0.1694, 0.3436]

Interpretation: CTM is a strong positive predictor of CSN. For every 1-unit increase in CTM, CSN increases by **0.2565 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

Table 5: Summary of Regression on CSN

IV	Impact on CSN	Statistical Status	Strength of Prediction
CET	Positive	Significant (p<.001)	Strongest Predictor
CTM	Positive	Significant (p<.001)	Moderate Predictor
SMM	Positive	Significant (p<.001)	Moderate Predictor
SEO	Positive	Significant (p<.05)	Weakest Predictor
EMM	None	Not Significant (p>.05)	No effect

Ha3: The SEO, SMM, EMM, CTM, CET, and CSN have significant direct positive effect on Business Outcome (BO)

Table 6: Regression Results of IVs on the outcome variable BO

R = 0.8400					F (6, 323) = 129.0116	
R-Sq.= 0.7056					p = 0.000	
MSE = 0.1552					N = 330	
Variables	b-value	SE	t-value	p-value	95% LLCI	95% ULCI
Constant	1.0016	0.1320	7.5865	0.0000	0.7419	1.2613
SEO	0.6429	0.0538	11.9515	0.0000	0.5371	0.7488
CET	0.4114	0.0515	7.9810	0.0000	0.3100	0.5128
CSN	-0.2268	0.0584	-3.8858	0.0001	-0.3416	-0.1120
SMM	0.0108	0.0591	0.1824	0.8554	-0.1055	0.1270

EMM	-0.0242	0.0314	-0.7693	0.4423	-0.0860	0.0377
CTM	-0.0824	0.0489	-1.6859	0.0928	-0.1785	0.0137

Overall Model Fit (Table 6)- **R = 0.8400**: There is a strong, positive correlation between the combined predictor variables and the outcome variable Business Outcome (BO). **R-sq. = 0.7056**: The model explains **70.56%** of the variance in BO. This indicates a high explanatory power. **F (6, 323) = 129.0116, p < .001**: The overall regression model is highly statistically significant ($p = .0000$). At least one of the predictors significantly predicts BO.

Therefore, the null hypothesis (H03) is rejected, and, hence, SEO, CET, CSN, SMM, EMM, and CTM have significant positive direct effect on Business Outcome (BO).

Individual Predictor Analysis (Table 6)

Search Engine Optimization (SEO): Coefficient (b) = 0.6429; Significance: Significant at less than 1 percent level ($p = .0000$); 95% Confidence Interval: [0.5371, 0.7488]

Interpretation: SEO is a significant predictor of BO. For every 1-unit increase in SEO, BO increases by **0.6429 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

Customer Engagement (CET): Coefficient (b) = 0.4114; Significance: Significant at less than 1 percent level ($p = .0000$); 95% Confidence Interval: [0.3100, 0.5128]

Interpretation: CET is a moderate positive predictor of BO. For every 1-unit increase in CET, BO increases by **0.4114 units**, holding all other variables constant. The confidence interval does not cross zero, showing high reliability.

Customer Satisfaction (CSN): Coefficient (b) = -0.2268; Significance: Significant at less than 1 percent level ($p = .0001$); 95% Confidence Interval: [-0.3416, -0.1120]

Interpretation: CSN is a weakest negative predictor of BO. For every 1-unit increase in SEO, BO decreases by **0.2268 units**, holding all other variables constant.

Social Media Marketing (SMM): Coefficient (b) = 0.0108; Significance: Not Significant ($p = .8554$); 95% Confidence Interval: [-0.1055, 0.1270]

Interpretation: SMM does not have a statistically significant relationship with BO. The confidence interval includes zero.

E-mail Marketing (EMM): Coefficient (b) = -0.0242; Significance: Not Significant ($p = .4423$); 95% Confidence Interval: [-0.0860, 0.0377]

Interpretation: EMM does not have a statistically significant relationship with BO. The confidence interval includes zero.

Content Marketing (CTM): Coefficient (b) = -0.0824; Significance: Not Significant ($p = .0928$); 95% Confidence Interval: [-0.1785, 0.0137]

Interpretation: CTM does not have a statistically significant relationship with BO. The confidence interval includes zero.

Table 7: Summary of Regression on Business Outcome (BO)

IV	Impact on BO	Statistical Status	Strength of Prediction
SEO	Positive	Significant ($p < .001$)	Strongest Predictor
CET	Positive	Significant ($p < .001$)	Moderate Predictor
CSN	Negative	Significant ($p < .001$)	Weakest Predictor
SMM	None	Not Significant ($p > .05$)	No effect
EMM	None	Not Significant ($p > .05$)	No effect
CTM	None	Not Significant ($p > .05$)	No effect

Direct and Indirect Effects:

Ha4: The SEO has direct positive effect on Business Outcome (BO)

The mediation analysis conducted by using Hayes' (2022) PROCESS macro, reveals that the direct effect of SEO on BO is positive and statistically significant [$b = 0.64$, $SE = 0.05$, $t = 11.95$, $p < .001$, 95% CI (0.537, 0.749)]. For every 1-unit increase in SEO, BO increases by 0.64 units, and SEO is a strong predictor of BO

Therefore, the null hypothesis (H04) is rejected, and, hence, SEO has significant positive direct effect on Business Outcome (BO).

The specific indirect effects are not statistically significant.

Ha5: The SEO has an indirect positive effect on BO through the mediator CET

The indirect path 1: $SEO \rightarrow CET \rightarrow BO$ [95% Boot CI (-0.070, 0.017)]. The confidence interval includes zero.

Therefore, the null hypothesis (H05) is accepted, and, hence, SEO has no significant positive indirect effect on Business Outcome (BO) through the mediator Customer Engagement (CET).

Ha6: The SEO has indirect positive effect on BO through the mediator CSN

The indirect path 2: $SEO \rightarrow CSN \rightarrow BO$ [95% Boot CI (-0.066, 0.002)]. The confidence interval includes zero.

Therefore, the null hypothesis (H06) is accepted, and, hence, SEO has no significant positive indirect effect on Business Outcome (BO) through the mediator Customer Satisfaction (CSN).

Ha7: The SEO has an indirect positive effect on BO through the mediators CST and CSN serially ordered.

The indirect path 3: $SEO \rightarrow CET \rightarrow CSN \rightarrow BO$ [95% Boot CI (-0.004, 0.021)]. The confidence interval includes zero.

Therefore, the null hypothesis (H07) is accepted, and, hence, SEO has no significant positive indirect effect on Business Outcome (BO) through the mediators Customer Engagement (CET) and Customer Satisfaction (CSN).

These results suggest that the Search Engine Optimization (SEO) exerts a strong direct positive effect on Business Outcome (BO) and the indirect effects are not significant individually.

11. Discussion

The study was focussed on four basic questions regarding the effectiveness of Digital marketing concepts / techniques on business outcome in the UAE real estate sector. It was designed as mediation model where customer engagement and customer satisfaction were inserted as two mediators between digital marketing concepts and business outcome. The digital marketing concepts are well defined variables, viz., search engine optimization, social media marketing, e-mail marketing, and content marketing. The business outcome was measured by its four dimensions- sales revenue growth, market share, brand loyalty, and customer retention. The first question was the effectiveness of digital marketing techniques on customer engagement in UAE real estate sector. It was proved from the hypothesis testing (Ha1) that E-mail Marketing (EMM), and Content Marketing (CTM) among the four digital marketing concepts have positive impact on Customer Engagement (CET). Search Engine Optimization (SEO) and Social Media Marketing (SMM) have no impact on Customer Engagement with respect to UAE real estate sector. E-mail Marketing has been proved as a strong predictor of Customer Engagement. This finding supports some previous study findings that EMM advantages are its relatively low implementation costs, scalability across large audiences, and measurable impact on marketing performance metrics, such as open rates, click-through rates, and return on investment (Chaffey et al., 2016; Alam et al., 2020; Gupta & Jain, 2019).

The second question was regarding the effectiveness of digital marketing concepts on customer satisfaction in UAE real estate sector. It has been proved (Ha2) that four predictors: Customer Engagement (CET), Content Marketing (CTM), Social Media Marketing (SMM), and Search Engine Optimization (SEO); were positive and significant on Customer Satisfaction. This supports the theoretical background that high levels of customer satisfaction are positively associated with customer retention, repeat purchases, lifetime value, and brand equity, while low satisfaction often reveals operational gaps requiring strategic attention (Kotler & Keller, 2021). It could be concluded that the digital marketing strategies adopted by firms in UAE real estate sector were gaining customer loyalty and retention.

The third question was regarding the direct effect of digital marketing concepts on business outcome of firms in the UAE real estate sector. It was proved that (Ha3) Search Engine Optimization and Customer Engagement have direct positive effect on Business Outcome and SEO is the strongest predictor of Business Outcome. This finding support the finding of one previous study in UAE that digital marketing has a positive impact on the brand image, customer engagement, and sales revenue of businesses in the UAE (Al Sharif, 2019). It also supports the finding that customer engagement not only attracts potential customers but also fosters trust, strengthens customer loyalty, and encourages sustained engagement over time, thereby enhancing both

brand equity and long-term business performance (Pulizzi, 2014; Brown & Suter, 2016; Li, 2019).

The fourth question was about the direct and indirect of digital marketing techniques. It was proved through the mediation analysis that SEO has no indirect effect through the mediators Customer Engagement and Customer Satisfaction upon the dependent variable Business Outcome. SEO is a direct positive predictor of Business outcome of individual firms in the UAE real estate sector. Previous research studies have shown that digital marketing can positively impact revenue growth for businesses (Alalwan et al., 2017; Khatibi et al., 2016). The results of this study further emphasize that SEO is not a one-time exercise but an ongoing process that requires continuous monitoring and adaptation to evolving search engine algorithms, user behavior, and competitive dynamics (Chaffey et al., 2019; Singh & Shukla, 2018). These efforts would definitely enhance the sales revenue growth, market share, brand loyalty, and customer retention of firms in the UAE real estate business.

12. Conclusion

In short, Search Engine Optimization technique is the most powerful digital marketing tool for enhancing customer satisfaction, and business outcome in UAE real estate business sector. It can be concluded that SEO techniques significantly enhance the visibility and discoverability of real estate websites in the UAE; the use of relevant keywords and optimized content boosts organic traffic for real estate companies in the UAE market; implementing local SEO practices effectively targets and engages relevant audiences seeking property related information in the UAE, and regular updating and optimizing website content positively impacts search engine ranking for real estate businesses in the UAE.

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