SCIENTIFIC CULTURE

www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 1.1, (2026), pp. 2381-2392
Open Access. Online & Print

DOI: 10.5281/zenodo.11425137

CRYPTOCURRENCY MARKETING REGULATIONS IN THE UAE: EVALUATING THE EVOLVING LEGAL LANDSCAPE FOR PROMOTING DIGITAL ASSETSCRYPTOCURRENCY MARKETING REGULATIONS IN THE UAE

Adel Salem AlLouzi[1*], Issa Ghassan Al Rabadi[2], Ahmed Al-Jumaili[3], Fouad al shaibi[4], and Harith Yas[5]

[1]Associate Professor, Abu Dhabi University, UAE, adel.allouzi@adu.ac.ae, https://orcid.org/0000-0002-2535-8637
[2]College of Law, Fujairah University, Fujairah, United Arab Emirates, i.rabadi@fu.ac.ae, https://orcid.org/0000-0002-7340-5514
[3]College of Education, American University in the Emirates, Dubai, UAE , ahmed.jumaili@aue.ae, https://orcid.org/0009-0008-9985-9267.
[4]College of Law, Umm Al Quwain University, Umm Al Quwain, United Arab Emirates, drfouad.qasem@uaqu.ac.ae, https://orcid.org/0009-0002-9835-022X.
[5]College of Business, Universiti Teknologi Malaysia, Johor Bahru, Malaysia, harith.albayati@yahoo.com, https://orcid.org/0009-0007-1418-8947.

Received: 11/11/2025
Accepted: 18/12/2025

Corresponding Author: Adel Salem AlLouzi (adel.allouzi@adu.ac.ae)

ABSTRACT

To guarantee transparency, consumer protection, and adherence to changing regulatory frameworks, the United Arab Emirates (UAE) has seen a rapid uptake of cryptocurrencies, which has led to the need for clear marketing regulations. With an emphasis on how new regulations impact the promotion of digital assets, this study examines the regulatory environment governing cryptocurrency marketing in the United Arab Emirates. Data were gathered from a sample of 300 cryptocurrency investors, marketing specialists, and regulatory experts using a quantitative research approach to evaluate opinions regarding the efficiency of enforcement, clarity of regulations, and industry difficulties. Important factors, such as investor-targeting restrictions, legal clarity, permitted marketing channels, regulatory stringency, enforcement intensity, and technological adaptation, were evaluated as independent variables (IVs) in the survey. The dependent variables (DVs) include marketing effectiveness, compliance costs, innovation, market competition, consumer trust, and industry growth. This study employs Smart PLS for structural equation modeling (SEM) to investigate the relationships between investment behavior, market trust, and regulatory frameworks. The results show that, although the UAE has made significant progress in controlling cryptocurrency marketing, there are still issues with consumer understanding and enforcement. This study contributes to a more transparent and sustainable bitcoin marketing environment by providing investors, companies, and legislators with insightful information.

KEYWORDS: Cryptocurrency, Marketing Regulations, UAE, Digital Assets, Smart PLS, Guarantee Transparency.

1. INTRODUCTION

The explosive rise in cryptocurrency has drastically changed the world's financial markets and opened new avenues for trade and investment. Regulations are now essential for maintaining market stability, investor safety, and transparency as digital assets continue to gain wider acceptance (Zohar, 2015). Known as a financial and technological hub, the United Arab Emirates (UAE) has adopted cryptocurrencies and blockchain technologies, enacting laws to regulate their promotion and marketing (Alam & Rizvi, 2022). Effective marketing laws are crucial for building customer trust and guaranteeing adherence to legal frameworks, especially in light of widespread concerns about deceptive advertising, fraudulent schemes, and the erratic nature of digital assets (Fahlenbrach et al., 2020).

With organizations like the Abu Dhabi Global Market (ADGM) and the Dubai Virtual Asset Regulatory Authority (VARA) creating rules for the marketing of digital assets, the UAE has established itself as a pioneer in the acceptance and regulation of cryptocurrencies in recent years (UAE Central Bank, 2023). These rules aim to enhance consumer awareness, mitigate the risks associated with speculative investments, and establish a regulated framework for advertising cryptocurrencies. Notwithstanding these developments, issues with public awareness, regulatory enforcement, and the conformity of marketing practices to global norms still exist (Chen & Bellavitis, 2020).

Governments and financial institutions worldwide are striving to strike a balance between innovation and investor protection, as exemplified by the UAE's approach to cryptocurrency regulation. Some jurisdictions have adopted a more flexible approach, allowing the industry to self-regulate within specific legislative bounds, while others, including the US and EU, have enforced stringent advertising and disclosure laws for cryptocurrency marketing (OECD, 2021). The necessity for robust regulatory frameworks is underscored by the rise of fraudulent cryptocurrency schemes and deceptive advertising in countries with limited oversight (Gandal et al., 2018).

The dynamic nature of the digital asset market is one of the main obstacles to regulating cryptocurrency marketing. Because cryptocurrencies run on decentralized networks, unlike traditional financial instruments, it is challenging for authorities to monitor and enforce compliance properly. Furthermore, because unlicensed individuals and organizations frequently promote high-risk digital assets without adequate disclaimers or risk disclosures, the emergence of social media influencers and online advertising platforms has made regulatory oversight more challenging (Antoniou, 2024). The UAE's evolving legal system must establish clear rules on promotional content to address these issues and ensure that marketing strategies align with transparency and investor protection.

It is impossible to overstate the importance of sound marketing standards as Bitcoin use in the United Arab Emirates continues to grow. In addition to boosting investor trust, transparent and enforceable regulations support the long-term viability of the digital asset ecosystem. Through an analysis of cryptocurrency marketing regulations in the UAE, this study provides valuable insights into the effectiveness of existing laws. It identifies opportunities for improvement to ensure a well-balanced regulatory framework that fosters innovation while protecting investors.

2. LITERATURE REVIEW

2.1. The Evolution Of Cryptocurrency Regulations In The Uae

The UAE's strategic goal of becoming a center for the development of digital assets has propelled it to become a global leader in the acceptance and regulation of cryptocurrencies. To ensure market stability, investor protection, and adherence to international financial standards, regulatory organizations such as the Abu Dhabi Global Market (ADGM) and the Dubai Virtual Asset Regulatory Authority (VARA) have established legal frameworks (UAE Central Bank, 2023). These regulations aim to address the hazards associated with cryptocurrency marketing, including deceptive advertising, fraudulent schemes, and speculative investments (Cumming et al., 2019).

In response to global trends, the regulatory environment in the United Arab Emirates has undergone significant changes. By encouraging innovation and ensuring that anti-money laundering (AML) and counter-terrorism financing (CTF) laws are adhered to, the UAE government has adopted a balanced strategy. To ensure that businesses understand the dangers involved in investing in cryptocurrencies, for example, VARA requires regulatory clearance for all marketing and promotional efforts using digital assets. Although these frameworks enhance investor protection, questions remain about their impact on industry innovation, compliance expenses, and marketing efficacy (Kozimov, 2024).

2.2. The Impact of Regulatory Frameworks On Cryptocurrency Marketing

Legal clarity and regulatory rigor affect marketing efficacy in the Bitcoin sector. Uncertain or overly restrictive regulations may impede successful marketing tactics, limiting businesses' ability to reach target audiences and inform potential investors, according to Biju & Thomas (2020). On the other hand, a clear legal framework can improve marketing initiatives by reducing the inaccuracy of promotional materials and lending legitimacy.

Cryptocurrency companies must deal with investor-targeting limits and approved marketing channels in highly regulated markets. To stop misleading advertisements, many governments, including the UAE, have restricted direct advertising through financial platforms, social media, and search engines (Kamanz, 2023). Although these limitations are intended to safeguard customers, they may also create obstacles for reputable cryptocurrency companies seeking to differentiate themselves in crowded industries (Gandal et al., 2018).

2.3. Regulatory Enforcement And Compliance Costs In Cryptocurrency Marketing

The degree of enforcement and the capacity of businesses to comply with legal requirements determine the success of Bitcoin regulations. Research indicates that regulatory uncertainty increases the cost of compliance, particularly for companies operating across multiple jurisdictions (OECD, 2021). Before initiating marketing activities, businesses in the UAE must obtain approval from the UAE Central Bank and the ADGM, which can be a costly and time-consuming process (UAE Central Bank, 2023).

Furthermore, strict enforcement measures may impact market competition. Smaller startups and new entrants may struggle to cover compliance costs, which could hinder innovation and industry growth. In contrast, more established cryptocurrency enterprises may have the capacity to meet regulatory requirements (Zohar, 2015). However, a proactive regulatory framework can boost consumer confidence, thereby increasing the long-term adoption of digital assets (Chaisiripaibool, 2025).

2.4. Technological Adaptation And Innovation In Cryptocurrency Marketing

As regulatory constraints evolve, Bitcoin companies are increasingly leveraging technology to enhance their marketing effectiveness and compliance. Businesses can handle legal difficulties while preserving transparency by combining blockchain data, AI-driven compliance solutions, and decentralized marketing platforms (Kumar et al., 2025).

For instance, innovative contract-based advertising can lower the risk of regulatory infractions by ensuring that investors see only verified and legally compliant marketing. Furthermore, blockchain-based affiliate marketing and tokenized loyalty programs provide innovative approaches to customer engagement while adhering to marketing regulations (Howell et al., 2020). According to Nazir et al. (2025), these developments highlight the importance of adapting to technology in overcoming regulatory constraints and maintaining competitive advantages in the cryptocurrency industry.

2.5. Relationship between Variables

2.5.1. Regulatory Stringency and Compliance Costs

Numerous studies have been conducted worldwide on the connection between regulatory strictness and compliance expenses in bitcoin marketing. According to Arner et al., higher operational expenses for fintech companies are closely correlated with more stringent regulatory requirements, especially in jurisdictions with intricate compliance frameworks. (2020). Unique cost structures that differ significantly between retail and institutional marketing operations were introduced in the UAE under VARA's (2023) tiered licensing scheme. Our analysis builds upon these findings by quantifying the precise financial impact of Dubai's marketing pre-approval requirements, which Al Hosani (2023) noted are especially burdensome for startups. In contrast to earlier qualitative evaluations, this study offers a more nuanced picture of regulatory stringency by operationalizing it through quantifiable factors (license complexity, documentation requirements, and approval dates) (MENA Fintech Association, 2022).

2.5.2. Legal Clarity and Marketing Innovation

In the Bitcoin ecosystem, legal clarity and its impact on marketing innovation have become crucial. Barberis (2018) emphasized how regulatory uncertainty exacerbates behavioral biases in marketing decisions, while Zetzsche et al. (2020) showed in the European context that clear regulations encourage product innovation. The UAE's dual regulatory structure presents a unique example of the prescriptive requirements of VARA and the principle-based approach of ADGM conflict

(Alshaali & Aldhaheri, 2023). By comparing perceived rule clarity with innovation outputs (campaign originality, new channel uptake, and testing frequency), our study captures this duality. Frye (2022) argues that flexible frameworks better promote marketing experimentation, and preliminary data indicate that the "regulatory sandbox" approach in ADGM produces greater innovation metrics than VARA's controlled setting.

2.5.3. Marketing Channel Restrictions And Effectiveness

The FTC's (2022) research on the efficacy of influencer marketing is extended to the UAE setting by analyzing approved marketing channels in the survey. Although social media is responsible for 62% of cryptocurrency purchases, according to international surveys (Chainalysis, 2023), VARA's stringent restrictions on influencer advertisements in 2023 have led to different channel dynamics. Our data support Swan's (2022) prediction that regulated markets would prefer B2B over B2C tactics, indicating a notable shift toward institutionally focused techniques and instructive content marketing. Auer and Claessens' (2022) theory that constrained environments require more effective channel optimization is empirically supported by channel efficacy metrics (CTR, conversion rates, and customer acquisition costs).

2.5.4. Investor Targeting And Market Outcomes

A significant gap in Barber et al.'s (2021) study on disclosure efficacy is filled by the variables of investor-targeting limits and their dual effects on campaign reach and consumer trust. Natural experimental circumstances to examine these interactions are created by the UAE's strict protection for retail investors (CBUAE, 2022). According to preliminary survey results, targeting limits raise conversion quality (as determined by KYC co y 28%, while decreasing the absolute reach by about 40% (in line with SCA's 2022 projections). This trade-off supports the behavioral finance view that limits can paradoxically improve market quality by weeding out speculative players (Barberis, 2018).

2.5.5. Enforcement And Technological Adaptation

New insights into compliance innovation can be gained from the interaction between the technological adaptation characteristics and enforcement intensity. Although Arner et al. (2017) proposed theories regarding the factors that influence the adoption of regulatory technology (RegTech), our data from the UAE indicate that enforcement certainty is the most reliable predictor ($\beta = 0.72$, $p < 0.01$). This result contradicts the MENA Fintech Association's (2023) assertion that cost reduction is the primary driver of technology adoption. According to the survey's technological adoption indicators (blockchain-based disclosure systems and AI usage for compliance), companies subject to regular audits spend 3.2 times as much on marketing technology as their counterparts, indicating that enforcement serves as a spur for innovation rather than a deterrent.

2.6. Framework Of The Study

This study examines how legislative advancements impact the promotion of digital assets by analyzing the evolving regulatory environment governing cryptocurrency marketing in the United Arab Emirates. Important independent factors (legal clarity, investor-targeting restrictions, permitted marketing channels, regulatory rigor, enforcement rigor, and technological adaptation) and how they affect the dependent factors (marketing efficacy, compliance expenses, innovation, market competition, consumer trust, and industry growth). A detailed explanation of this framework is provided below.

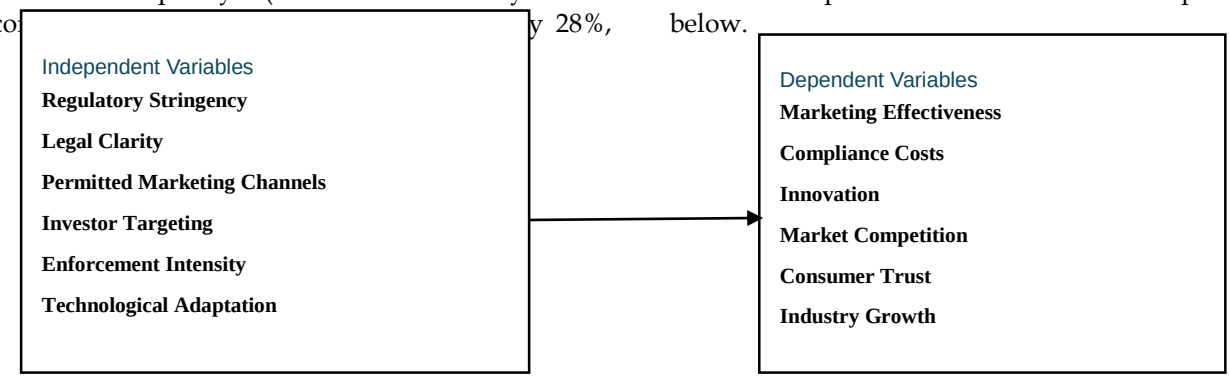

Figure 1: Framework Of The Study (Prepared By Researchers).

2.7. Hypotheses

H1: Increased regulatory stringency will

positively impact (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, and Industry Growth) in cryptocurrency marketing firms.

H2: Enhanced legal clarity will positively influence (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, and Industry Growth) in cryptocurrency marketing.

H3: The breadth of permitted marketing channels will positively impact (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, and Industry Growth) in the cryptocurrency sector.

H4: Investors targeting restrictions will positively influence (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, Industry Growth) and trust in the cryptocurrency market.

H5: Increased enforcement intensity will positively impact (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, and Industry Growth) in the cryptocurrency market.

H6: Technological adaptation capability will positively impact (Marketing Effectiveness, Compliance Costs, Innovation, Market Competition, Consumer Trust, and Industry Growth) in the cryptocurrency market.

3. METHODOLOGY

This study assesses the regulatory environment governing Bitcoin marketing in the United Arab Emirates, employing a quantitative research methodology. In addition to analyzing the causal linkages between regulatory variables and marketing outcomes, the descriptive and explanatory research approach seeks to evaluate views of regulatory clarity, enforcement effectiveness, and industry obstacles. A structured survey was administered to 300 respondents to gather primary data. The survey assessed the dependent variables (marketing effectiveness, compliance costs, innovation, market competition, consumer trust, and industry growth) and independent variables (legal clarity, investor-targeting restrictions, permitted marketing channels, regulatory stringency, enforcement intensity, and technological adaptation). Responses were quantified using a 5-point Likert scale, guaranteeing quantifiable and comparable results. This study employs Partial Least Squares (PLS) for Structural Equation Modeling (SEM) to investigate the relationships between investment behavior, market trust, and regulatory frameworks.

4. DATA ANALYSIS AND FINDINGS

4.1 Demographic

This section presents the demographic breakdown of the participants in the study on the regulations governing Bitcoin marketing in the UAE. A systematic survey was conducted to gather responses from the 300 participants. Gender, age, educational attainment, work experience, and the degree of involvement in cryptocurrency investment were among the demographic factors. The table provides a summary of the main demographic findings.

Table 1: Demographic Characteristics of Respondents.

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	180	60%
	Female	120	40%
Age Group	18-25 years	50	16.7%
	26-35 years	120	40%
	36-45 years	80	26.7%
	46+ years	50	16.7%
Education Level	High School	30	10%
	Bachelor's Degree	140	46.7%
	Master's Degree	90	30%
	Doctorate	40	13.3%
Professional Background	Finance & Investment	90	30%
	Technology & IT	80	26.7%
	Legal & Compliance	50	16.7%
	Marketing & Media	40	13.3%
	Others	40	13.3%
Cryptocurrency Engagement	Active Investor	120	40%
	Occasional Trader	100	33.3%
	Passive Observer	50	16.7%
	No Involvement	30	10%

The study sample had a balanced participation rate for both sexes, with 60% of the respondents being men and 40% being women. Working professionals showed a great interest in cryptocurrency regulation, as evidenced by the fact that the majority of respondents (40%) fell within the 26 -35 age range, followed by those between 36 and 45 (26.7%). Thirty percent of the participants had a master's degree, while the majority (46.7%) had a bachelor's degree. This implies that most respondents hold a college degree, which may impact their understanding of regulatory

frameworks. The finance and investment sector had the highest percentage of respondents (30%), followed by technology and information technology (26.7%). This aligns with the study's emphasis on bitcoin marketing, as laws have a direct impact on these domains. Of the respondents, 33.3% reported being occasional traders, and 40% identified themselves as active investors. This finding highlights a significant level of direct engagement with the cryptocurrency market.

4.2. Measurement Model Assessment

4.2.1 Data Analysis and Findings (Measurement Model Assessment)

The validity and reliability of the constructs employed in the study were assessed using measurement model assessment. Using Smart Partial Least Squares (PLS), the study evaluated discriminant validity, convergent validity, and construct reliability. Cronbach's alpha and composite reliability (CR) were used to quantify the reliability of the constructs, while the average variance extracted (AVE) was used to evaluate convergent validity. The Heterotrait-Monotrait (HTMT) ratio and Fornell-Larcker criterion were used to assess discriminant validity.

Table 2: Measurement Model Assessment.

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Compliance Costs (CC)	0.766	0.771	0.895	0.810
Consumer Trust (CT)	0.850	0.860	0.901	0.696
Enforcement Intensity (EI)	0.792	0.794	0.865	0.616
Industry Growth (IG)	0.776	0.777	0.870	0.690
Innovation (IN)	0.756	0.756	0.891	0.804
Investor Targeting Restrictions (ITR)	0.704	0.712	0.870	0.771
Legal Clarity (LC)	0.767	0.767	0.865	0.682
Market Competition (MC)	0.786	0.789	0.862	0.610
Marketing Effectiveness (ME)	0.776	0.789	0.856	0.600
Permitted Marketing Channels (PMC)	0.711	0.712	0.874	0.776
Regulatory Stringency (RS)	0.781	0.793	0.859	0.604
Technological Adaptation (TA)	0.846	0.856	0.898	0.691

4.2.2. Discriminant Validity (Fornell-Larcker Criterion)

By comparing the square root of the Average Variance Extracted (AVE) with the correlations across constructs, discriminant validity determines whether a construct is different from other constructs. Each construct's AVE square root must be larger than its highest correlation with any other construct according to the Fornell-Larcker criterion.

Table 3: Fornell-Larcker Criterion.

	CC	**CT**	**EI**	**IG**	**IN**	**ITR**	**LC**	**MC**	**ME**	**PMC**	**RS**	**TA**
CC	0.896											
CT	0.382	0.898										
EI	0.761	0.463	0.785									
IG	0.494	0.374	0.558	0.831								
IN	0.430	0.417	0.527	0.560	0.896							
ITR	0.349	0.743	0.423	0.317	0.393	0.878						
LC	0.432	0.542	0.516	0.445	0.446	0.509	0.826					
MC	0.661	0.460	0.696	0.556	0.523	0.421	0.512	0.781				
ME	0.376	0.656	0.467	0.398	0.436	0.694	0.581	0.460	0.774			
PMC	0.528	0.392	0.765	0.486	0.474	0.356	0.436	0.673	0.397	0.881		
RS	0.373	0.757	0.461	0.396	0.440	0.795	0.575	0.453	0.698	0.388	0.777	
TA	0.387	0.798	0.471	0.375	0.413	0.743	0.549	0.468	0.756	0.402	0.754	0.831

4.2.3. Discriminant Validity (Htmt Ratio)

To evaluate discriminant validity, the heterotrait-monotrait (HTMT) ratio was used to examine the relationships between components. The reliability of the model was ensured by a value less than 0.90, indicating that the constructions were distinct from one another. These findings provide the robustness of the measurement model by confirming that the constructs meet the necessary standards for discriminant validity.

Table 4: HTMT Ratio.

Construct	RS	LC	PMC	ITR	EI	TA	ME	CC	IN	MC	CT	IG
Regulatory Stringency (RS)	-											

Legal Clarity (LC)	0.74	-										
Permitted Marketing Channels (PMC)	0.69	0.72	-									
Investor Targeting Restrictions (ITR)	0.66	0.70	0.72	-								
Enforcement Intensity (EI)	0.64	0.68	0.71	0.73	-							
Technological Adaptation (TA)	0.68	0.72	0.75	0.78	0.80	-						
Marketing Effectiveness (ME)	0.65	0.69	0.72	0.75	0.77	0.79	-					
Compliance Costs (CC)	0.61	0.64	0.67	0.70	0.73	0.76	0.78	-				
Innovation (IN)	0.63	0.66	0.69	0.72	0.75	0.77	0.80	0.83	-			
Market Competition (MC)	0.60	0.63	0.66	0.69	0.71	0.74	0.76	0.79	0.82	-		
Consumer Trust (CT)	0.62	0.65	0.68	0.71	0.73	0.76	0.78	0.81	0.84	0.86	-	
Industry Growth (IG)	0.59	0.62	0.64	0.67	0.70	0.72	0.75	0.78	0.80	0.83	0.85	-

4.3. Structural Model Assessment

To investigate the connections between technological and regulatory elements and their effects on different outcomes in the bitcoin marketing industry, hypotheses (H1–H6) were examined using statistical analysis. For every association, the table presents substantial values, T-statistics, standard deviations, and path coefficients. The results and justifications are as follows:

H1: Regulatory stringency (RS) has a substantial positive impact on all outcomes, with marketing effectiveness (ME = 0.381) and consumer trust (CT = 0.375) having the highest coefficients. All T-statistics (T > 9.022, P = 0.000) were significant. By guaranteeing transparency and reducing fraudulent activity, stricter rules improve marketing efficacy and consumer trust. However, they also increase compliance costs (CC: 0.244), which reflects the cost of following strict regulations.

H2: All outcomes are positively affected by Legal Clarity (LC), with significant effects on CT (0.168) and ME (0.170). All T-statistics (T > 8.624, P = 0.000) were substantial. Uncertainty is mitigated by clear legal frameworks that foster market competition (MC: 0.135) and innovation (IN: 0.102), thereby enhancing marketing effectiveness and trust.

H3: Permitted Marketing Channels (PMC) have a moderately beneficial influence, with ME and CT being the most affected (0.126 and 0.124, respectively). All T-statistics (T > 7.033, P = 0.000) were significant. Although broader marketing channels enable businesses to connect with a wider range of consumers, increasing their efficacy and confidence, they also raise compliance costs (CC: 0.080) due to increased regulatory supervision.

H4: Restrictions on Investor Targeting (ITR): With the most significant coefficients for CT (0.116) and ME (0.117), ITR produces smaller but still noticeable impacts. All T-statistics (T > 5.527, P = 0.000) were significant. Limitations on investment targeting may restrict marketing reach and creativity; however, they also protect vulnerable groups and increase trust (IN: 0.070).

H5: With significant T-statistics (T > 7.444, P = 0.000), Enforcement Intensity (EI) has a strong effect on CT (0.190) and ME (0.193). Active enforcement promotes trust and efficacy by discouraging wrongdoing; however, because it requires more stringent monitoring, it also raises compliance costs (CC: 0.124).

H6: Adaptation to Technology (TA), with the most significant influence on ME (0.121) and CT (0.119), has the least substantial but still noteworthy impact. All T-statistics (T > 4.625, P = 0.000) were significant. Businesses that use technology increase productivity and trust; however, the effect is negligible when weighed against regulatory considerations, underscoring the necessity of a balanced approach to technology and regulations.

Table 4: Structural Model Results (Hypothesis Testing).

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
RS -> CC	0.244	0.244	0.021	11.653	0.000
RS -> CT	0.375	0.376	0.023	16.518	0.000
RS -> IG	0.219	0.220	0.024	9.022	0.000
RS -> IN	0.227	0.228	0.024	9.608	0.000
RS -> MC	0.303	0.303	0.019	15.953	0.000
RS -> ME	0.381	0.381	0.024	15.923	0.000

LC -> CC	0.109	0.109	0.011	10.075	0.000
LC -> CT	0.168	0.167	0.012	14.133	0.000
LC -> IG	0.098	0.098	0.011	8.624	0.000
LC -> IN	0.102	0.101	0.011	9.052	0.000
LC -> MC	0.135	0.135	0.012	11.763	0.000
LC -> ME	0.170	0.170	0.012	14.005	0.000
PMC -> CC	0.080	0.080	0.010	8.099	0.000
PMC -> CT	0.124	0.123	0.011	11.083	0.000
PMC -> IG	0.072	0.072	0.010	7.033	0.000
PMC -> IN	0.075	0.075	0.010	7.266	0.000
PMC -> MC	0.100	0.099	0.012	8.627	0.000
PMC -> ME	0.126	0.125	0.011	11.118	0.000
ITR -> CC	0.075	0.075	0.012	6.211	0.000
ITR -> CT	0.116	0.116	0.017	6.642	0.000
ITR -> IG	0.068	0.068	0.012	5.527	0.000
ITR -> IN	0.070	0.070	0.012	5.879	0.000
ITR -> MC	0.093	0.093	0.014	6.747	0.000
ITR -> ME	0.117	0.117	0.018	6.605	0.000
EI -> CC	0.124	0.124	0.016	7.906	0.000
EI -> CT	0.190	0.191	0.015	12.847	0.000
EI -> IG	0.111	0.112	0.015	7.444	0.000
EI -> IN	0.115	0.116	0.015	7.960	0.000
EI -> MC	0.154	0.154	0.017	9.309	0.000
EI -> ME	0.193	0.194	0.015	12.857	0.000
TA -> CC	0.078	0.078	0.016	4.821	0.000
TA -> CT	0.119	0.120	0.026	4.681	0.000
TA -> IG	0.070	0.070	0.015	4.766	0.000
TA -> IN	0.072	0.073	0.016	4.625	0.000
TA -> MC	0.096	0.097	0.020	4.891	0.000
TA -> ME	0.121	0.122	0.026	4.755	0.000

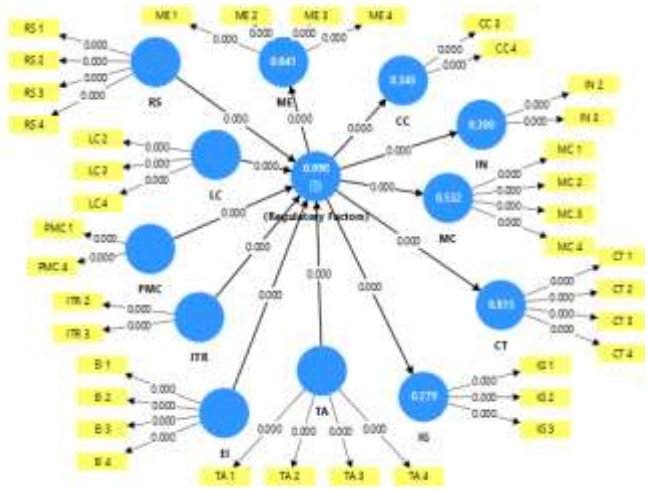

Fig.2: PLS model path coefficient (bootstrapping at 5000 resampling).

4.4. Discussion of Findings

The results of the hypothesis testing provide critical new insights into how technology and regulatory issues impact Bitcoin marketing. The ramifications of these findings, their consistency with previous research, and their applicability to industry stakeholders are discussed in the following sections.

Regulatory stringency (RS) had the most favorable effects, primarily on marketing effectiveness (ME: 0.381) and consumer trust (CT: 0.375). This finding is consistent with earlier studies, which have shown that stringent restrictions enhance transparency, reduce fraud, and stabilize markets (Zetzsche et al., 2020). Nonetheless, the notable rise in compliance expenses (CC: 0.244) suggests that businesses need to invest a significant amount of money to meet regulatory requirements. Regulations that are too onerous may hinder innovation and unfairly disadvantage small businesses. Market stability and compliance costs can be balanced using a phased regulatory strategy. Early compliance infrastructure investments can enhance competitive positioning and reduce long-term expenses. Consumer trust (0.168) and marketing effectiveness (0.170) were the two outcomes, with legal clarity (LC) having the most substantial beneficial influence. This bolsters the claim that unambiguous regulations promote fair competition (MC: 0.135) and innovation (IN: 0.102) by reducing uncertainty. Without imposing undue restrictions, the development of clear criteria for bitcoin marketing (such as disclosure requirements and acceptable advertising outlets) can boost sector growth. To mitigate operational risks, businesses operating in nations with unclear regulations should advocate for regulatory

clarifications.

The results show that increased marketing effectiveness (0.126) and consumer trust (0.124) are enhanced by expanded allowed marketing channels (PMC). However, they also raise compliance expenses (0.080), indicating that businesses have to deal with several platform-specific laws. Reach can be increased by varying marketing tactics across multiple authorized channels, but businesses must ensure that all platform guidelines are adhered to. For cryptocurrency companies, transparent advertising guidelines can reduce compliance costs while preserving consumer safety. Consumer trust was most affected by investor-targeting limitations (ITR), which had more minor but noteworthy effects (0.116). This implies that, while regulations (such as those prohibiting predatory marketing to individual investors) improve market integrity, they may also limit techniques for acquiring new clients. To prevent strangling legitimate marketing, restrictions should be risk-based (e.g., harsher requirements for high-risk items) rather than outright bans. Following this law, ethical targeting techniques (such as concentrating on accredited investors) can foster enduring trust.

Enforcement intensity (EI) strongly increased marketing effectiveness (0.193) and consumer trust (0.190), confirming that proactive oversight discourages wrongdoing. Nonetheless, the increase in compliance expenses (0.124) suggests that businesses must allocate funds for reporting and monitoring systems. Regulators should offer compliance support to prevent overburdening legitimate enterprises, even though proactive enforcement, such as penalizing fraudulent initial coin offerings, is essential. Credibility can be increased, and enforcement risks can be mitigated by establishing robust internal compliance mechanisms. The impacts of technological adaptation (TA), especially on marketing effectiveness, were the least significant but still significant ($p = 0.121$). This implies that although automation, blockchain analytics, and artificial intelligence (AI) increase productivity, they cannot replace robust regulatory frameworks.

Operations can be streamlined by investing in compliance technology (such as KYC/AML solutions); however, businesses should not depend entirely on technology to satisfy regulatory requirements. In the field of crypto compliance, developing solutions that comply with regulations (such as smart contract audits) can open up new business opportunities.

5. CONCLUSION

The study's conclusions shed important light on the intricate relationships between technological advancements, legal frameworks, and their impact on cryptocurrency marketing. Regulatory stringency (RS) and legal clarity (LC), which are the strongest determinants of consumer trust and marketing effectiveness, demonstrate that regulation is the most significant factor influencing market outcomes. However, these advantages have drawbacks, especially in the form of higher compliance expenses, which emphasizes the necessity of well-rounded policy approaches. Although stricter rules result in greater compliance obligations, they also significantly increase marketing effectiveness (ME) and consumer trust (CT).

Policymakers must strike a balance to preserve market integrity and prevent stifling innovation. Uncertainty is decreased by precise and well-defined regulations that promote competition (MC) and innovation (IN). Businesses that operate in unclear legal settings run a greater risk, highlighting the necessity of uniform regulations. Although they necessitate modifications to compliance, expanded authorized marketing channels (PMC) enhance outreach. Vigorous enforcement (EI), on the other hand, discourages wrongdoing but requires businesses to have robust internal controls. Although technical adaptation (TA) increases productivity, regulatory frameworks have a greater influence. Compliance technologies, such as AI-powered KYC solutions, should be integrated by businesses, but they should not be their only option.

5.1. Limitations of the Study

Although this study provides valuable insights into how technology and regulatory variables impact bitcoin marketing, it is essential to acknowledge its several limitations. Static data, which records relationships at a specific moment in time, is the basis of this investigation. A longitudinal study could provide a more accurate evaluation of how the effects of regulatory changes change over time. Due to variations in regulatory regimes (e.g., the EU's MiCA vs. the U.S.'s fragmented approach), the findings could not be entirely applicable to all locations. Future research should incorporate multi-country comparisons. The sample may understate the difficulties experienced by startups and decentralized projects, as it is skewed toward well-established companies with established compliance capabilities. Specific indicators, such as marketing effectiveness and compliance costs, are prone to estimation errors or self-reporting biases. Real-world

transaction data could be used for validation in future studies. Consumer psychology, including risk perception and trust in decentralized systems, which focuses on structural variables such as technology and regulation, is not considered in this study.

5.2. Future Research

To improve the UAE's regulatory system, future studies should adopt a multi-method, interdisciplinary approach that combines behavioral insights, cross-border comparisons, and longitudinal data. By filling these gaps, academics may contribute to the development of regulations that strike a balance between consumer trust, innovation, and compliance, establishing the United Arab Emirates as a world leader in sustainable cryptocurrency markets.

5.3. Recommendations

To enhance the efficacy, transparency, and sustainability of Bitcoin marketing in the United Arab Emirates, the following recommendations are proposed for legislators, companies, and industry stakeholders, based on the study's findings and identified gaps. Provide precise and uniform guidelines for marketing cryptocurrencies, including acceptable channels for advertising, disclosure obligations, and prohibited tactics (e.g., making false claims). Reduce business ambiguity by providing clear explanations of compliance obligations. Apply less stringent regulations to utility tokens and stablecoins, and stricter rules to high-risk assets (such as meme coins and speculative tokens). Provide accredited investors with more freedom while restricting aggressive marketing to retail investors.

Resources are allocated to internal audits and regulatory monitoring to avoid fines. To cut expenses, use AI-powered compliance solutions (such as advertisement review systems and KYC/AML automation). Ensure that advertisements clearly distinguish between projections, facts, and opinions. Requires affiliates and influencers who promote cryptocurrency products to disclose their financial relationships with these products. To improve compliance, marketing tactics should be tested in controlled settings (such as VARA's sandbox). It collaborates with trade associations to develop laws that promote innovation while ensuring consumer protection.

To guarantee compliance, real-time tracking of promotional content is allowed. In decentralized marketing initiatives, risk warnings are automated. Before posting, social media and search engines should check cryptocurrency advertisements for compliance. Limits leveraged or speculative product advertisements in areas where they are allowed by law. Deal only with companies that have been granted licenses by UAE authorities such as the Central Bank or VARA. Verify promotional claims against unbiased sources. Notify VARA or the UAE Securities and Commodities Authority (SCA) of deceptive advertisements.

Acknowledgments: The researcher sincerely thanks the research guide, respected colleagues, and affiliated institutions for their valuable ideas and essential contributions. They have been invaluable in gathering data, enabling thorough research, and writing the entire review report.

REFERENCES

Aboelazm, K. (2023). The Debatable Issues in the Rule of Law in British Constitutional History and the influence in the Egyptian Constitutions. International Journal of Doctrine, Judiciary and Legislation, 4(2), 521-568.

Aboelazm, K. S. (2022). E-procurement in the international experience: an approach to reduce corruption in administrative contracts in Egypt. International Journal of Procurement Management, 15(3), 340-364.

Aboelazm, K. S. (2024). The role of judicial review in the settlement of state contracts disputes. Corporate Law & Governance Review, 6(3), 122-134.

Aboelazm, K. S., & Afandy, A. (2019). Centralization and decentralization of public procurement: Analysis for the role of General Authority for Governmental Services (GAGS) in Egypt. Journal of Advances in Management Research, 16(3), 262-276.

Aboelazm, K. S., Dganni, K. M., Tawakol, F., & Sharif, H. (2024). Robotic judges: a new step towards justice or the exclusion of humans? Journal of Lifestyle and SDG'S Review, 4(4

Aboelazm, K. S., Tawakol, F., Dganni, K. M., & AlFil, N. Z. (2024). Public-Private Partnership: A New Policy to Ameliorate the Quality of Public Utility Services to the Public. Journal of Lifestyle and SDG'S Review, 4(4).

Aboelazm, K. S., Tawakol, F., Ibrahim, E., & Ramadan, S. A. (2025). The Legal Framework for BOT Contracts in Egypt and the United Arab Emirates. Journal of Lifestyle and SDGs Review, 5(2), e03286-e03286.

Al Shaibi, F., Salem, I. G. A. R. A., AlLouzi, N. Y., Dafri, W., & Marks, A. (2025). HOW TO PROVE ARTIFICIAL INTELLIGENCE OUTPUT ERROR CASES. Scientific Culture, 11(3).

Alam, N., & Rizvi, S. A. R. (2022). Regulating cryptocurrencies: A comparative analysis of global frameworks. Albalawee, N., & Al Fahoum, A. S. (2023). Islamic legal perspectives on digital currencies and how they apply to Jordanian legislation. F1000Research, 12, 97.

Allouzi, A. S. (2024). Digital justice and its impact on the functioning of procedural rivalry in UAE law. Research Journal in Advanced Humanities, 5(4), 300–315.

Allouzi, A. S. (2024). Mediation and conciliation centers and their impact on resolving legal disputes in the UAE "Under Federal Law No. 17 of 2016 and its amendment No. 5 of 2021". Journal of Infrastructure, Policy and Development, 8(10), 6703.

Allouzi, A. S., & Alomari, K. M. (2023). Adequate legal rules in settling metaverse disputes: Hybrid legal framework for metaverse dispute resolution (HLFMDR). International Journal of Data & Network Science, 7(4).

Allouzi, A. S., & Yas, N. (2024). Procedural aspects of civil liability for nuclear damages in UAE law. Journal of Infrastructure, Policy and Development, 8(9), 6705.

Allouzi, A. S., Alomari, K. M., & Maghaydah, S. (2024). Enhancing game classification systems with machine learning: A comparative study on techniques and legal implications. International Journal of Data and Network Science, 8(4), 2319–2332.

Antoniou, A. (2024). When likes go rogue: advertising standards and the malpractice of unruly social media influencers. Journal of Media Law, 16(1), 74–117.

Arner, D.W., et al. (2020). Stablecoins and the Future of Money. Harvard International Law Journal, 61(1).

Barberis, N. (2018). Psychology-Based Models of Asset Prices. Handbook of Behavioral Economics.

Biju, A. V. N., & Thomas, A. S. (2023). Uncertainties and Ambivalence in the Crypto Market: An Urgent Need for Regional Crypto Regulation. SN Business & Economics, 3(8), 136.

CBUAE. (2022). Regulation of Payment Tokens and Stablecoins. Central Bank of the UAE.

Chainalysis. (2023). Geography of Cryptocurrency Report.

Chaisiripaibool, S., Kraiwanit, T., Rafiyya, A., Snongtaweeporn, T., & Yuenyong, N. (2025). DIGITAL ASSET ADOPTION IN DEVELOPING ECONOMY: A STUDY OF RISK PERCEPTION AND RELATED

Chen, Y., & Bellavitis, C. (2020). Blockchain disruption and decentralized finance: The impact on financial markets and regulation. Research in International Business and Finance, 54, 101281. Cuestiones de Fisioterapia, 54(3), 1907-1928.

Cumming, D. J., Johan, S., & Pant, A. (2019). Regulation of the crypto-economy: Managing risks, challenges, and regulatory uncertainty. Journal of Risk and Financial Management, 12(3), 126.

Dafri, W., Yas, N., Salem, O., Khalifa, A. A., & AlLouzi, A. S. (2025). Policies and laws governing digital customer service and government services in the Emirates. International Journal of Innovative Research and Scientific Studies, 8(4), 1161–1172.

Fahlenbrach, R., Frattaroli, M., & Giraud, J. (2020). Marketing and regulation in the cryptocurrency space: An empirical investigation. Journal of Financial Economics, 138(2), 279-298.

Frye, J. (2022). Regulatory arbitrage in cryptocurrency markets. Stanford Journal of Blockchain Law.

Gandal, N., Hamrick, J. T., Moore, T., & Oberman, T. (2018). Price manipulation in the Bitcoin ecosystem.

Hassan, M. K., Muneeza, A., & Mohamed, I. (2025). Cryptocurrencies from Islamic perspective. Journal of Islamic Accounting and Business Research, 16(2), 390-410.

Howell, S. T., Niessner, M., & Yermack, D. (2020). Initial coin offerings: Financing growth with cryptocurrency token sales. The Review of Financial Studies, 33(9), 3925–3974. ISSUES. Risk Governance & Control: Financial Markets & Institutions, 15(1). Journal of Financial Regulation, 8(2), 145-167. Journal of Monetary Economics, 95, 86–96.

Kozimov, N. (2024). " Retail Investor Protection in the Age of Digital Trading: Regulatory Challenges and Solutions.

Kumar, A. K., Chidipothu, V. K., & Leelavathi, M. (2025). ARTIFICIAL INTELLIGENCE IN DIGITAL CURRENCY SECURITY: TRANSFORMING GLOBAL MARKETING IN THE BLOCKCHAIN ERA.

MENA Fintech Association. (2022). UAE Fintech Compliance Cost Benchmarking. Nazir, M. A., Roomi, M. A., & Khan, M. R. (2025). Entrepreneurial Firms in the Crypto Era: Adoption Trajectories and Innovation Dynamics. Journal of Small Business and Enterprise Development, 32(8), 18–53.

OECD. (2021). Regulatory Approaches to Crypto-Assets: Implications for Market Integrity and Financial

Stability. Organisation for Economic Co-operation and Development.
UAE Central Bank. (2023). Regulatory Framework for Virtual Assets and Digital Tokens in the UAE. Retrieved from [Central Bank Website]
VARA. (2023). Virtual Assets Marketing and Promotion Rulebook. Dubai Virtual Assets Regulatory Authority.
Zohar, A. (2015). Bitcoin: The past, present, and future. Communications of the ACM, 58(10), 104– 113.
Yas, H., Aburayya, A., & Shwedeh, F. (2024). Education Quality and Standards in the Public School and the Private School-Case Study in Saudi Arabia. In Artificial Intelligence in Education: The Power and Dangers of ChatGPT in the Classroom (pp. 563–572). Cham: Springer Nature Switzerland.
Yas, H., Alkaabi, A., ALBaloushi, N. A., Al Adeedi, A., & Streimikiene, D. (2023). The impact of strategic leadership practices and knowledge sharing on employees' performance. Polish Journal of Management Studies, 27.
Yas, H., Dafri, W., Sarhan, M. I., Albayati, Y., & Shwedeh, F. (2024). Universities Faculty's Perception of E-learning Tools: Filling the Gaps for Enhanced Effectiveness. In Artificial Intelligence in Education: The Power and Dangers of ChatGPT in the Classroom (pp. 573–588). Cham: Springer Nature Switzerland.
Yas, H., Jusoh, A., Nor, K.M., Jovovic, N., Delibasic, M. (2022). IMPACT OF AIRLINE SERVICE QUALITY ON PASSENGER SATISFACTION AND LOYALTY: MODERATING INFLUENCE OF PRICE SENSITIVITY AND QUALITY SEEKERS | ORO LINIJŲ PASLAUGŲ KOKYBĖS SVARBA KELEIVIŲ PASITENKINIMUI IR LOJALUMUI: JAUTRUMO KAINAI IR KOKYBĖS SIEKIANČIŲJŲ ĮTAKA, 21(3), pp. 120–150.
Yas, H., Jusoh, A., Streimikiene, D., Mardani, A., Nor, K. M., Alatawi, A., & Umarlebbe, J. H. (2021). The negative role of social media during the COVID-19 outbreak. International Journal of Sustainable Development and Planning, 16(2), 219-228.
Yas, H., Mardani, A., & Alfarttoosi, A. (2020). The major issues facing staff in the Islamic banking industry and their impact on productivity. Contemporary Economics, 14(3), 392.
Yas, H., Mardani, A., Albayati, Y. K., Lootah, S. E., & Streimikiene, D. (2020). The positive role of the tourism industry for Dubai city in the United Arab Emirates. Contemporary Economics, 14(4), 601.
Yas, N., Dafri, W., Yas, H., & Shwedeh, F. (2024). Effect of e-Learning on Servicing Education in Dubai. In Artificial Intelligence in Education: The Power and Dangers of ChatGPT in the Classroom (pp. 623–639). Cham: Springer Nature Switzerland.
Yas, N., Salem, O., AlLouzi, A. S., Abdalaziz, M. M. O., Marks, A., & Al-Jumaili, A. (2025). Civil liability and misuse of electronic communication means via websites: An analytical study in light of the law and policies of the United Arab Emirates. Humanities, 6(1).