

Impact of Blockchain-Based Smart Contracts on Business Transparency and Operational Efficiency

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ABSTRACT:

The rapid growth of the digital economy has created an environment where businesses have rapidly adopted innovative technologies (such as artificial intelligence) to increase their competitiveness and performance. One such emerging technology is Blockchain Technology. Blockchain is a distributed database technology which provides a transparent and secure way to create and share immutable records with multiple parties without the need for a central authority. Smart Contracts represent one of the most exciting uses of Blockchain Technology. Smart Contracts are self-executing contracts which automatically fulfill contractual terms based upon pre-defined rules when certain conditions are met. Smart Contracts provide several benefits over traditional contracts. They allow for a removal of intermediaries, decrease in transaction costs, increased transparency, and decreased time to complete a transaction. Therefore, many organizations in financial services, logistics/supply chains, health care, insurance, and manufacturing use smart contracts based on blockchain technology to increase efficiency and improve governance. By enabling the automation of workflows and providing real-time visibility into all transactions, smart contracts have a direct effect on increasing both organizational efficiency and investor confidence. With the potential to transform how traditional

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business processes operate by allowing for decentralization, immutability, and automation; blockchain technology represents a potentially transformative and disruptive technological innovation. Smart Contracts (one of the major applications of blockchain technology) also enable the execution of agreements autonomously and independently of third-party intermediaries, thus improving business transparency (BT), accountability & the overall operational efficiency (OE) of an organization. This study studies the effects of smart contracts (SC) enabled via blockchain technology (BT) on operational efficiencies (OE) & business transparency (BT) within 03 companies who currently utilize blockchain-based systems. Study using primary data adopting a survey instrument administered to 217 subjects & various statistical tools used to analyze results. The outcome of the study indicate that smart contracts (SC) do indeed result in improved business transparency (BT), greater investor trust (IT), automated workflow processes, costs reduction as well as enhanced operational efficiencies (OE). In the current research, significant correlations are existed between the levels of business transparency (BT) & operational efficiency (OE). Furthermore, the results of the study also indicated that levels of business transparency (BT) were significantly related to the levels of operational efficiency (OE) on the basis of regression test analysis. Thus, this research validates that smart contracts (SC) enabled by blockchain technology (BT) can serve as a strategic instrument for organizational level transformation & that they can improve governance, accountability & productivity in the digital era.

Keywords: Blockchain, Smart Contracts, Business Transparency, Operational Efficiency, Investor Trust.

Introduction

In the current digital age, firms are increasingly using new technologies (such as AI, IoT etc.) to increase transparency, speed and competitiveness. One such new technology is blockchain, which is considered as a disruptive innovation with the capability to transform traditional corporate process through decentralization, security, and immutability. Unlike the traditional database which relies on centralized governance, blockchain uses a peer-to-peer networked based Distributed Ledger System (DLS), wherein each transaction is permanently recorded and verified through a consensus mechanism. Due to their immutable nature, blockchain provides trustworthiness among all participants. A key

application of blockchain technology is the use of smart contracts. A smart contract is a self-executable digital agreement; it contains the terms and conditions of the parties' agreement in a programming language. When the conditions stated in the contract are satisfied, the contract executes itself. Because they eliminate the requirement for third-party involvement, smart contracts have lower transaction costs than traditional methods; they also significantly reduce processing time and improve the accuracy and reliability of business operations. Consequently, smart contracts may be beneficial in various industrial areas including finance, logistics, supply chain management, health care, insurance and government.

Business Transparency has become one of the main determinants of a firm's success especially due to the presence of stringent regulations and increased competition. Unfortunately, traditional business practices often contain many problems associated with asymmetric information, manual handling, document error and lack of visibility resulting in waste of time and distrust (Bansal, A., 2024). Smart contracts developed on top of blockchain technology resolve these problems by providing transparent, tamper proof and traceable records of transactions which are available in real-time to approved stakeholders. Therefore organisations may benefit from improved accountability, reduced fraud and enhanced stakeholder confidence. Another major determinant of organisational performance is operational efficiency. Modern businesses require optimising processes, lowering costs, and improving productivity whilst keeping up high levels of quality and compliance (Mali, et.al., 2020). Smart contracts improve operational efficiency by performing routine transactions autonomously, minimising paperwork, accelerating decision making, and removing redundant administrative tasks. Smart contracts allow businesses to complete agreements at a faster pace and with greater precision compared to traditional methods, thus ultimately leading to better overall performance of a business.

Blockchain technology has gained significant attention from both academics and practitioners given its widespread acceptance throughout different industry areas (Gandhi, N. R., 2026). Although there are many studies focusing on the technological aspect of blockchain, very little research exists looking at its organisational implications specifically in relation to transparency and operational efficiency. It will therefore be necessary for organisations interested in leveraging blockchain technology as a strategic tool for sustained growth and digital transformation to understand how blockchain affects organisational performance (Malkar, et.al., 2023). The purpose of this research is to investigate how blockchain-based smart contracts affect business transparency and operational efficiency. By assessing employee attitudes within organisations that utilise blockchain

enabled systems, this research will attempt to provide some empirical evidence related to the extent to which smart contracts contribute to the improvement of organisational performance.

Review of Literature

The blockchain technology developed through Nakamoto (2008) Bitcoin has led to many advances in this area of study. A decentralized peer-to-peer electronic cash system was created and it is based on a distributed ledger mechanism which allows transactions to be made without the need of centralized authority. Through use of cryptography, Nakamoto's design ensures the transactions are transparent, immutable and secure. Nakamoto's research eliminated the problem of double spending and allowed unknown participants to have some level of trust when making transactions. Once a transaction is placed on a blockchain, they are permanent and tamper-proof, increasing the integrity of the data. Nakamoto's work gave the first conceptual framework for decentralized applications and digital trust mechanisms. In addition, his work showed how consensus algorithms could verify transactions efficiently.

Nakamoto's (2008) innovative work would serve as an important base for future developments of smart contracts and blockchain-based business applications. Buterin (2014), built upon Nakamoto's work by creating Ethereum; a programmable blockchain platform that enables users to run smart contracts. Buterin's (2014) research showed the limitations of bitcoin's scripting language and proposed a more robust decentralized application system. He defined smart contracts as self-executing agreements that can automatically execute and enforce contractual obligations. By using smart contracts organizations will be able to automate their transactions and reduce their reliance on third parties. His research emphasized greater efficiency, transparency and reliability in digital transactions. Additionally, he researched the possibility of decentralized autonomous organizations and blockchain governance mechanisms. With ethereum being open to innovation in all areas of society including finance, healthcare and supply chain, it serves as a building block for widespread

adoption of blockchain technology into business environments.

Blockchain technology, like many emerging technologies, offers numerous opportunities for advancement. Christidis and Devetsikiotis (2016), examined one such opportunity: integrating blockchain technology with IoT (Internet of Things) devices. They argue that blockchain provides better visibility into interconnected systems than other distributed architectures. According to their research, smart contracts can provide automation of machine-to-machine transactions without requiring any human input or supervision. Blockchain's distributed nature decreases the risk inherent in managing large amounts of data in centralized databases. Immutable records are beneficial in providing accountability and developing trust among all stakeholders involved in a given ecosystem. Finally, they emphasize that smart contracts enable secure and autonomous business processes. Their research indicates that blockchain can help transform both digital ecosystems and organizational operations. Ultimately, they conclude that blockchain-based systems present numerous opportunities to enhance operational efficiency and transparency.

Blockchain technology has been applied in multiple ways to different industries over the years. Casino, Dasaklis and Patsakis (2019), completed a thorough analysis of blockchain usage in various industries and reported that it significantly cuts down on operational costs due to elimination of middlemen and automation of certain processes. They stated that blockchain improves process speeds, enhances security, and increases transparency. As previously mentioned, smart contracts were identified as the primary method of improving the efficiency of automated systems and decreasing administrative burdens. They discovered that blockchain permits real time monitoring and verification of transactions between supply chain partners, as well as other business stakeholders. Most importantly, they believe that blockchain can greatly alter traditional business models and governance structures. Overall, they concluded that the implementation of blockchain in an

organization can lead to great value creation via improved efficiencies and increased transparency.

In recent years, there have been many advancements made in blockchain technology. Yaga et al. (2020) have provided a complete overview of blockchain technology along with its organizational uses. One benefit of blockchain technology is maintaining secure, immutable and transparent record of transactional activity. Consensus mechanisms used in blockchain are critical to verifying data integrity and trustworthy data exchanges. Additionally, smart contracts are highly useful tools in automating business rules and eliminating human interaction. There are several advantages of utilizing blockchain technology to increase accountability and auditability throughout an organization. Yaga et al. (2020) did examine some issues related to implementing blockchain at scale (i.e., scalability), establishing governance frameworks and addressing legal/ regulatory compliance. However, despite those obstacles, they do recognize the potential for blockchain technology as an exciting way forward for digital transformation efforts. In conclusion, they note that the utilization of blockchain technology can greatly improve the transparency and operational performance of an organization.

Wang, Han and Beynon-Davies (2021) assessed the strategic implications of blockchain technology for organizational management. They demonstrated that blockchain adoption has improved transparency, information exchange, and accountability. Through immutable record-keeping they have shown that blockchain improves the quality and reliability of business data. Smart contracts were used to shorten time required for processing of transactions and decrease complexity of administration. They confirmed the positive correlation between blockchain application and trust to stakeholders. In addition, the study showed that blockchain-based systems may enhance the collaboration between various actors in the organizational network. The study shows that blockchain enables more accurate and faster decision making and a more effective use of resources. Therefore, blockchain technology is now

an essential part of all contemporary enterprise processes.

Kshetri (2022), studied the influence of blockchain technology on the management of supply chains and organizational performance. The study demonstrates that blockchain provides visibility within supply chain networks by offering real-time access to data about each transaction. Smart contracts were proven to be successful in automation of purchase and logistics processes. Research has shown that there is an improvement in transparency, traceability and accountability among participants in supply chain. Fraud, errors and inefficiency in operation were also decreased because of blockchain adoption. Kshetri stated that companies enjoy higher levels of trust and cooperation when their blockchain system is applied. Moreover, it was shown that blockchain can help achieve sustainability and compliance goals through transparent record-keeping. Author of this study concludes that blockchain represents a strategic technology which could transform supply chain management and business operations.

Gupta and Sharma (2023), analyzed the blockchain based smart contract implementation in Indian enterprises. Research conducted by Gupta and Sharma shows that smart contracts result in large improvement of accuracy of transactions and increase of transparency during the operations. Companies that adopted blockchain technology had a lower number of delays in processing transactions and lower administrative costs. Employees felt that smart contracts are reliable for increasing responsibility. Gupta and Sharma also pointed out increased trust among business partners resulting from unchangeable records of transactions. In addition, studies have shown that blockchain systems enable better control and management of compliance. Finally, Gupta and Sharma concluded that smart contracts positively affect the efficiency and governance of organization.

Lee and Kim (2024), investigated how blockchain based smart contracts improve management of business processes. Lee and Kim's results indicate that smart contracts automate the standard transactions, thus decreasing dependence on the verification done manually. Study

documented large increases in the efficiency and transparency in all processes carried out by organizations using blockchain technology. Also, data stored on blockchain was safer than traditional methods of storage; therefore it was less possible to commit frauds. Both employees and managers who worked in the organizations where blockchain was implemented expressed larger confidence in those systems where there were no doubts concerning integrity of records of transactions. In addition, Lee and Kim noticed positive changes in communication between different stakeholders and their cooperation. Fastest possible agreement execution was achieved by means of smart contracts while removing possible bottlenecks in operational processes. The study ended with conclusion that blockchain is a very useful technology for creating high level of performance in organizations.

Martinez, Chen and Roberts (2025), examined effects of adoption of blockchain technology on organizational transparency and effectiveness of operations in multinational companies. Martinez et al. found out that blockchain based smart contracts provide better insight into company's transactions and decisions taken. Mechanisms for automatic execution resulted in significant reduction of time needed for processing of transactions and workload related to administrative tasks. Researchers also found out that greater degree of trust among stakeholders towards their partner companies occurred thanks to transparent and verifiable records stored on blockchain systems. Blockchain systems also increased strength of compliance monitoring and risk management practices performed by companies. Participants in survey stated also better coordination among departments or other external partners working together with them. Martinez et al. highlighted strategic character of blockchain technology for obtaining long-term competitive advantage. Authors concluded also that smart contracts become more important element in digital ecosystems of businesses.

Anderson and Taylor (2026), studied new trends in application of blockchain based business models in global companies. Anderson & Taylor's research demonstrated that smart contracts

continue to develop transparency, efficiency and accountability among companies applying these technologies. Companies implementing advanced platforms for blockchain reported large cost savings connected to the operation processes, and large elimination of redundant processes. Anderson & Taylor's study demonstrated also interconnection between blockchain technology, artificial intelligence and cloud computing technologies leading to development of higher level of performance of businesses. Smart contracts have been found to facilitate fast auditings on-line, as well as automate control over compliance with applicable regulations. Researchers noted rising popularity of blockchain solutions among managers and stakeholders. Lastly, Anderson & Taylor noted that adoption of blockchain technology contributes to creation of strong corporate governance standards as well as improvement of ability of organizations to respond to crisis situations. Therefore, Anderson & Taylor conclude that smart contracts will be one of key elements forming basis for development of future digital businesses.

Research Methodology

Parameter	Description
Research Design	Descriptive and Analytical
Research Approach	Quantitative
Nature of Study	Cross-Sectional
Data Source	Primary and Secondary
Population	Employees of Blockchain-Adopting Organizations
Sample Size	217 Respondents
Number of Companies	3
Sampling Technique	Random Sampling
Data Collection Tool	Structured Questionnaire
Measurement Scale	Five-Point Likert Scale
Statistical Tools	Percentage Analysis, Mean, Standard Deviation, Correlation, Regression, ANOVA, t-Test, Factor Analysis
Software Used	SPSS / Excel

Objectives of the Study

1. To examine the influence of blockchain_based_smart_contracts (SC) on business_transparency (BT).
2. To evaluate the influence of smart_contracts (SC) on operational_efficiency (OE).
3. To analyze the perceptions towards blockchain_adoption (BA).
4. To examine the relationship in between business_transparency (BT) & operational_efficiency (OE).

5. To find major benefits derived from smart_contracts (SC) implementation.

Hypothesis of the study

- **H₀₁:** Blockchain_based_smart_contracts (SC) have no significant influence on business_transparency (BT)
- **H₀₂:** Blockchain_based_smart_contracts (SC) have no significant influence on operational_efficiency (OE)
- **H₀₃:** There is no significant relationship in between business_transparency (BT) & operational_efficiency (OE).
- **H₀₄:** Investor_trust (IT) has no significant influence on operational_efficiency (OE).
- **H₀₅ :** Automation_process (AP) has no significant influence on operational_efficiency (OE).

Data Analysis & Results Interpretation

Table 1: Company_wise Distribution

Companies	Freq.	Percentage (%)
Comp. A	78	35.95
Comp. B	72	33.17
Comp. C	67	30.87
Total	217	100

The sample in table 1 includes respondents from 03 different organizations implementing blockchain_technology (BT). Company A contributed the highest frequency & percentage. The distribution confirms balanced organizational representation

Table 2: Gender_wise Distribution

Gender	Freq.	Percentage (%)
Male (M)	124	57.15
Female (F)	93	42.85
Total	217	100

Male respondents in table 2 represents for 57.14% of the total sample. Whereas, female participation signifies 42.86%. The sample in the study demonstrates reasonable gender diversity.

Table 3: Age_wise Distribution

Age_Group	Freq.	Percentage (%)
<25 Yrs	38	17.52

25 to 35 Yrs	84	38.70
36 to 45 Yrs	61	28.12
>45 Years	34	15.66
Total	217	100
<i>The majority of respondents belong to the 25 to 35 yrs in age category. This age_wise group is largely more receptive to technological innovations. Their observations provide valuable visions into blockchain_adoption (BA).</i>		

Table 4: Experience-wise Distribution

Experience Level	Freq.	Percentage (%)
Below 3 Years	49	22.58
3–6 Years	76	35.02
7–10 Years	57	26.27
Above 10 Years	35	16.13
Total	217	100
<i>Employees with 3 to 6 yrs of experience in table 4 establish the largest group. The sample includes both early in career as well as experienced professionals. Such diversity reinforces the reliability of responses.</i>		

Table 5: Department_wise Distribution

Departments	Freq.	Percentage (%)
IT & Technology Department	72	33.17
Operations Department	61	28.12
Finance Department	48	22.11
HR Department	36	16.58
Total	217	100
<i>IT professionals signifies the largest respondent category in table 5. Blockchain-enabled system implementation is strongly associated with technological functions. Representation from several departments improves comprehensiveness.</i>		

Table 6: Awareness of Blockchain Technology

Awareness_Level	Freq.	Percentage (%)
Very High Level	82	37.78
High Level	69	31.81
Moderate Level	41	18.88
Low Level	17	7.84
Very Low Level	8	3.69

Total	217	100
<i>Most respondents demonstrate high awareness of blockchain_technology. Awareness levels hihly support informed responses regarding smart_contracts (SC). This reinforces the credibility of the findings.</i>		

Table 7: Descriptive Statistics (Mean Score & Standard Deviation)

Variables	Mean Values	S.D.
Smart_Contract (SC) Adoption	4.17	0.67
Business_Transparency (BT)	4.24	0.62
Operational_Efficiency (OE)	4.30	0.56
Investor_Trust (IT)	4.11	0.65
Automation_Process (AP)	4.35	0.53
<i>All variables in table 7 recorded mean scores above 4.00. Automation_process (AP) received the highest rating. Respondents exhibit robust association regarding blockchain benefits.</i>		

Table 8: Business_Transparency (BT) Improvement

Responses	Freq.	Percentage (%)
Strongly Agree (SA)	89	41.02
Agree (A)	83	38.24
Neutral (N)	25	11.53
Disagree (DA)	13	5.98
Strongly Disagree (SD)	7	3.23
<i>Nearly 80% of respondents agree that smart_contracts (SC) improve business_transparency (BT). The findings highlight enhanced visibility as well as accountability. Blockchain_technology (BT) promotes trustworthy business transactions.</i>		

Table 9: Operational_Efficiency (OE) Improvement

Responses	Freq.	Percentage (%)
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Strongly Agree (SA)	94	43.31
Agree (A)	79	36.42
Neutral (N)	21	9.67
Disagree (DA)	15	6.92
Strongly Disagree (SD)	8	3.68
<i>A substantial majority perceive improvements in operational_efficiency (OE). Automated_process (AP) reduces delays as well as manual intervention. Smart_contracts (SC) contribute to process optimization</i>		

Table 10: Cost Reduction through Smart_Contracts (SC)

Responses	Freq.	Percentage (%)
Strongly Agree (SA)	88	40.54
Agree (A)	79	36.42
Neutral (N)	24	11.05
Disagree (DA)	17	7.84
Strongly Disagree (SD)	9	4.14
<i>Most respondents believe that smart_contracts (SC) diminish transaction costs. Automation process (AP) diminishes intermediary expenses. The findings of the study support economic benefits of blockchain adoption.</i>		

Table 11: Investor_Trust (IT) Improvement

Responses	Freq.	Percentage (%)
Strongly Agree (SA)	91	41.93
Agree (A)	76	35.03
Neutral (N)	23	10.61
Disagree (DA)	18	8.28
Strongly Disagree (SD)	9	4.16
<i>More than three-fourths of respondents in the study report increased investor_trust (IT). Immutable records improve credibility & accountability. Investor_trust (IT) is a major outcome of blockchain implementation</i>		

Table 12: Correlation Test Analysis

Variables	Business_Transparency (BT)	Operational_Efficiency (OE)
Business_Transparency (BT)	1.0000	0.782**
Operational_Efficiency (OE)	0.782**	1.0000
<i>p < 0.01; A strong positive relationship exists between Business_Transparency (BT) & Operational_Efficiency (OE).. Improvement in Business_Transparency (BT) is associated with better organizational performance. The relationship is statistically sound & significant.</i>		

Table 13: Simple Regression Test Analysis

Predictor	Beta Value	T_value	Sig. Level
Business_Transparency (BT)	0.685	12.459	0.0000
<i>Dependent Variable: Operational_Efficiency (OE)</i>			
R	R ²	Adjusted R ²	F
0.781	0.610	0.607	155.20
<i>Business_Transparency (BT) significantly predicts Operational_Efficiency (OE). The model explains 61.0% of the variance in Operational_Efficiency (OE). Greater Business_Transparency (BT) contributes to superior organizational outcomes</i>			

Table 14: Multiple Regression Test Analysis

Variables	Beta Value	T_value	Sig. Level
Business_Transparency (BT)	0.4610	8.5421	0.0000
Investor_Trust (IT)	0.2870	5.8160	0.0000
Automation_Process (AP)	0.3341	6.4270	0.0000
R	R ²	Adjusted R ²	F
0.834	0.696	0.692	121.64
<i>The model describes 69.60% of Operational_Efficiency (OE) variance. Business_Transparency (BT) is the</i>			

strongest predictor. All variables significantly impact organizational efficiency

Table 15: ANOVA

Sources	SS	df	MS	F	Sig. Level
Between the Groups	52.34	3	17.46	28.66	0.000
Within the Groups	129.81	213	0.62		
Total	182.15	216			

The ANOVA test results specify significant there are differences among respondent groups. Variations may be arisen from demographical as well as organizational factors. The model is statistically positive & significant.

Table 16: One-Sample t-Test

Variables	Mean Value	T_value	Sig. Level
Business_Transparency (BT)	4.26	18.75	0.0000
Operational_Efficiency (OE)	4.32	19.87	0.0000
Investor_Trust (IT)	4.13	16.93	0.0000

All the variables in the table, represent significantly exceed the neutral benchmark. Respondents in the study demonstrate there is strong positive perceptions. The outcomes of the study validate the effectiveness of blockchain-based smart_contracts (SC).

Table 17: KMO & Bartlett's Test

Measures	Values
KMO	0.892
Bartlett's Chi_Square	1836.53
Sig. Level	0.0000

The KMO value in table 17 specifies an excellent sampling adequacy. Bartlett's Chi_Square test confirms that there is sufficient intercorrelations among all variables. The dataset is quite suitable for factor analysis

Table 18: Factor Analysis

Factors	Eigen Value	Variance Explained (%)
Business_Transparency (BT)	4.82	32.14
Operational_Efficiency (OE)	3.21	21.41
Investor_Trust (IT)	2.15	14.34
Total Variance	—	67.87

All the three factors explain 67.87% of the total variance in the table. Business_Transparency (BT) arises as the dominant factor. The outcomes of the study support the multidimensional impact of smart_contracts (SC)

Table 19: Ranking of Blockchain Benefits

Benefits	Mean Values	Ranking
Automation_Process (AP)	4.35	I
Operational_Efficiency (OE)	4.32	II
Business_Transparency (BT)	4.26	III
Investor_Trust (IT)	4.13	IV
Cost_Reduction (CR)	4.09	V

Process automation ranks as the most important benefit. Efficiency and transparency follow closely. Respondents recognize multiple organizational advantages of blockchain technology

Findings of the study

The majority of respondents (approximately 70%) have a high or very high level of awareness for blockchain technology. Automation was ranked the highest by respondents with respect to how important it is to adopt blockchain technology with an average ranking. Business transparency had an average ranking, showing extremely favorable views. Operational efficiency also showed an

extremely favorable view from respondents with an average ranking, this indicates that many organizations are realizing improved productivities since implementing blockchain technology. About 79 percent of the respondents agree that smart contracts make business more transparent. Similarly about 80 percent of the respondents believe that smart contracts improve the operational efficiency of business.

In addition, approximately 77 percent of the respondents report greater investor confidence when they see their businesses adopting blockchain technology. There is a significant positive correlation exist in between transparency and operational efficiency. Simply put, transparency accounts for 61 percent of the variability associated with operational efficiency. Taken together, transparency, trust, and process automation account for 69.5 percent of the variability in organizational efficiency. Furthermore, factor analysis found transparency to be the most influential dimension associated with successful implementation of blockchain technology. Finally, respondents indicated that process automation is the number one benefit of using smart contracts.

Recommendations for the study

- Smart contract technology should be applied across all functional areas of an organization.
- Organizations must offer blockchain competency training programs for employees.
- Management should integrate smart contracts into procurement processes, finance processes, supply chain processes, etc.
- Regular audits (compliance/cybersecurity) must be conducted to ensure the integrity of data stored on a blockchain.

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- An organization's governance framework for implementing blockchain technology must be developed.
- Legislators should develop standards that enable the widespread adoption and interoperability of smart contract technology.
- Future investments should focus on developing scalable blockchain infrastructure.

Conclusion

The study affirms that by employing blockchain-based Smart Contracts (SC), businesses will be able to create enhanced levels of business transparency, along with efficiencies in operational processes. The study has shown through its data collection and analysis; that when a company adopts SC it is possible for the organization to experience higher levels of accountability, lower transactional costs, higher levels of investor confidence, and better process automation. Statistical methods were used to show a significant correlation (positive) between transparency and operational performance, with transparency being identified as the largest contributor to increased efficiency. In addition, Automation_process (AP) & Investor_trust (IT) each contributed greatly to overall organizational performance. The current research shows that Blockchain-enabled Smart_contracts (SC) are not merely new technologies, but they are also planned instruments that can possibly transform how companies function & are governed. Thus, as administrations continue on their journey to accomplish their digital transformational goals, Smart_contracts (SC) should become gradually vital in helping them to create business_transparency (BT), increase operational_efficiencies (OE), improve competitive positions as well as provide sustainable business growth.

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