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Identifying the Dimensions, Components, and Indicators of the Model for Applying Digital Currencies in Corporate Liquidity Management

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Abstract

The present study was conducted with the aim of identifying the dimensions, components, and indicators of a model for applying digital currencies in corporate liquidity management. The participants in the qualitative section of this study included experts, managers, and analysts in the field of digital currencies in corporate liquidity management, as well as university faculty members who had conducted scientific and research activities in the field of digital currencies. Using the snowball sampling method, semi-structured interviews were conducted with 24 experts, professors, and specialists in the field. After theoretical saturation was reached from the twenty-second participant onward, the qualitative data were collected. To collect data on the theoretical foundations and research literature of the subject, library sources, articles, required books, and the World Wide Web were used. To collect data and information for analysis within the framework of field studies, the interview method was employed. The duration of each interview varied between 60 and 90 minutes. With the consent of the participants, the interviews were recorded using an audio recorder and then transcribed verbatim. Participants were assured of the confidentiality of their information. The interviews were conducted in two rounds: first to collect information and second to confirm the information. The data analysis process was carried out in three stages: open coding, axial coding, and selective coding, ultimately leading to the extraction of 97 concepts and 20 axial codes. Among the axial codes, two categories, namely "the use of digital assets for diversifying cash reserves" and "optimization of cash flow management," were selected. The remaining categories were classified within the paradigmatic model as causal conditions with four categories, contextual conditions with four categories, intervening conditions with three categories, strategies with four categories, and consequences with three categories.

Keywords: paradigmatic model, digital currencies, liquidity management, grounded theory.

1. Introduction

In recent years, corporate liquidity management has entered a period of structural transformation as firms increasingly operate in financial environments characterized by technological acceleration, exchange-rate instability, global market interconnectedness, regulatory uncertainty, and intensified pressure to optimize working capital. Liquidity management has traditionally been understood as the managerial process through which organizations forecast, allocate, preserve, and mobilize cash and near-cash resources to ensure operational continuity, reduce financing costs, and maintain resilience under uncertainty. Classical perspectives on liquidity emphasize the trade-off between holding sufficient liquid assets and avoiding the opportunity

cost of idle funds, particularly when firms face costly refinancing conditions, uncertainty in dividend policy, or constraints in access to external finance (Barth & Moreno-Bromberg, 2019; Koussis et al., 2017). In emerging economies, liquidity management is even more complex because firms often encounter institutional constraints, financial market imperfections, credit rationing, and macroeconomic volatility that affect their ability to access timely and affordable funding (Laghari et al., 2022). Accordingly, contemporary liquidity management is no longer limited to cash holding decisions or short-term financing policies; rather, it increasingly involves dynamic portfolio design, technological integration, real-time risk assessment, and the strategic use of alternative financial instruments.

The growing importance of liquidity has also been reinforced by the relationship between liquidity performance and operational performance. Firms with stronger liquidity capacity are better positioned to respond to recessionary and expansionary phases of the business cycle, maintain supply-chain continuity, meet payment obligations, and protect operational efficiency during periods of market disruption (Yazdanpanah & Allahyari, 2023). Literature on corporate market liquidity further highlights that liquidity is not merely an internal treasury issue but a broader market condition that influences financing access, asset valuation, investor confidence, and corporate decision-making (Carvajal & Bebczuk, 2024). In this regard, market liquidity, capital access, reporting quality, and managerial behavior are closely connected. Evidence from accounting and capital-market studies suggests that integrated reporting, assurance mechanisms, earnings management, and market liquidity interact in shaping the credibility of firms and their access to capital (Donkor et al., 2025; Le et al., 2023). These insights imply that liquidity management should be examined as a multidimensional managerial phenomenon involving operational cash flows, financial reporting, institutional trust, and strategic responsiveness.

Against this background, digital currencies and blockchain-based financial technologies have introduced new possibilities for rethinking liquidity management. The emergence of cryptocurrencies, stablecoins, central bank digital currencies, tokenized assets, programmable money, and decentralized finance has created alternative channels for payment, settlement, value storage, and financial intermediation. Early discussions on electronic money and virtual money emphasized the legal, jurisprudential, and institutional questions surrounding the nature of digital monetary instruments and their legitimacy in financial transactions (Ahmadi Jashfaqani & Zahedian Varnosfaderani, 2018; Soleimanipour et al., 2017). Subsequent studies reviewed the historical development of blockchain and cryptocurrencies in electronic commerce and highlighted their growing relevance for financial transactions, accounting systems, and managerial decision-making (Bahram Arjmand et al., 2020; Mirfatemi & Farhoudinejad, 2020; Oveisi Kehkha & Alaei, 2019). These developments indicate that digital currencies are no longer peripheral technological artifacts; they are increasingly becoming components of financial infrastructure with implications for payment systems, treasury operations, auditing, business strategy, and organizational transformation.

Blockchain technology is central to this transformation because it enables distributed verification, immutable transaction recording, programmable execution, and potential reductions in transaction frictions. In accounting and auditing, blockchain has been discussed as a technology capable of improving transparency, traceability, and reliability of financial records (Alikhani & Ataei, 2025). Its application in supply-chain management also reflects broader organizational capacities for integrating blockchain into interorganizational coordination, future-oriented planning, and financial managerial decision-making (Adibizadeh Lanjani et al., 2025). Empirical and conceptual studies further suggest that blockchain adoption may influence financial performance in banking and other financial institutions by altering operational efficiency, transaction security, and reporting processes (Almadadha, 2025). At the same time, blockchain is increasingly converging with artificial intelligence, machine learning, and deep learning technologies, creating new possibilities for automated forecasting, smart contracts, financial reporting accuracy, and trust-based financial systems (Chatterjee, 2025; Hossain & Rana, 2026; Kafila et al., 2023). These capabilities are directly relevant to liquidity management because they can support real-time monitoring, cash-flow forecasting, automated settlement, and risk analytics.

Digital currencies also intersect with the broader digital transformation of organizations. The successful adoption of crypto-based liquidity instruments depends not only on the existence of external markets but also on internal organizational maturity, technological infrastructure, managerial readiness, and process automation. Digital transformation capability maturity models show that organizations require integrated capabilities, strategic alignment, technological readiness, and adaptive governance

to absorb new digital technologies effectively (Asdamarji et al., 2019). Similarly, the expansion of financial technologies has been associated with improved financial service performance, suggesting that FinTech adoption can reshape efficiency, accessibility, and service innovation in financial systems (Moghani et al., 2019). Organizational implementation models in electronic human resource management also demonstrate that digital transformation requires optimization across structures, processes, and human capabilities, a lesson that can be extended to financial and treasury functions (Sarfarazi et al., 2019). Therefore, the application of digital currencies in liquidity management should not be reduced to technical adoption; it must be examined as a managerial and organizational process embedded in capabilities, routines, governance systems, and managerial willingness to innovate.

From a treasury and transaction-banking perspective, the rise of tokenized and programmable value has intensified debates about whether traditional cash and liquidity management models remain adequate. New arguments suggest that tokenization can upgrade money by enabling programmable settlement, faster payment execution, and more flexible treasury operations (Bambalaite-Saliba, 2026). Stablecoins, particularly fiat-backed stablecoins, have become especially relevant for corporate treasury because they may provide faster settlement, lower transfer costs, and new liquidity channels, while simultaneously demanding bank-grade governance, risk controls, custody arrangements, compliance mechanisms, and operational safeguards (Shukanayev, 2026). These issues are highly relevant for firms seeking to integrate digital assets into liquidity reserves, because stablecoins may reduce some volatility concerns associated with conventional cryptocurrencies while still exposing firms to regulatory, counterparty, technological, and operational risks. Consequently, digital currency adoption in liquidity management requires an integrated framework that considers both opportunity creation and risk containment.

Central bank digital currencies represent another major development in the digital monetary landscape. Research on the determinants of issuing central bank digital currencies indicates that institutional, financial, technological, and macroeconomic factors shape central banks' decisions to explore or implement digital currencies (Alfar et al., 2023). Studies on optimal CBDC design for emerging economies emphasize that digital currency design must account for financial inclusion, monetary transmission, payment efficiency, banking stability, and policy constraints (Syarifuddin, 2023). In the Iranian context, studies examining the effects of issuing a national digital currency on monetary policy suggest that digital currency initiatives can alter liquidity control mechanisms, monetary governance, and policy implementation dynamics (Mahmoudi et al., 2024). These findings demonstrate that corporate liquidity decisions regarding digital currencies cannot be separated from state monetary policy, central-bank regulation, and national financial architecture.

At the macroeconomic level, digital currencies are also linked to shifts in the global financial order. Developments such as de-dollarization strategies, BRICS-related financial initiatives, and changing patterns of global reserve and settlement systems have created a broader context in which firms reassess dependence on traditional currencies and cross-border payment channels (Hani & Badawi, 2025). In addition, virtual economies and metaverse-based transactions have expanded the conceptual boundaries of digital value, suggesting that digital currencies may increasingly function within new forms of economic interaction, platform-based exchange, and digital asset ecosystems (Ariamand & Mohammadi, 2024). These changes have implications for corporate liquidity because firms exposed to international markets, cross-border settlement, or digital trade may seek instruments that provide speed, flexibility, and currency diversification. However, such opportunities are accompanied by uncertainty regarding regulation, valuation, accounting treatment, and long-term institutional acceptance.

One of the most significant challenges in applying cryptocurrencies to liquidity management is volatility. Empirical research has examined the relationship between cryptocurrencies and stock market indices, showing that digital assets may behave differently across market conditions and may not always provide stable diversification benefits (Gil-Alana et al., 2020). Liquidity and volatility are closely related in cryptocurrency markets, and cryptocurrency returns can be affected by liquidity shocks, market depth, and trading dynamics (Leirvik, 2022). Studies on the low-volatility anomaly in cryptocurrencies show that digital asset markets may exhibit distinctive risk-return patterns that complicate conventional portfolio assumptions (Burggraf & Rudolf, 2021). More recent evidence indicates that the hedge capacities of cryptocurrencies may disappear in downtrend markets, suggesting that firms cannot assume that crypto-assets will reliably protect liquidity portfolios under stress

conditions (Bossman et al., 2024). These findings reinforce the need for risk-sensitive models that identify when and how digital currencies can contribute to liquidity flexibility without exposing firms to excessive downside risk.

The expansion of decentralized finance has added further complexity to the liquidity debate. Constant function market makers, decentralized exchanges, and automated liquidity pools have created new financial mechanisms for pricing, exchange, and liquidity provision (Fabi & Prat, 2025; Moinas & Pouget, 2025). However, decentralized exchange mechanisms may also be vulnerable to strategic behavior, including probabilistic price manipulation, which can affect transaction reliability and liquidity outcomes (Son et al., 2025). Corporate Bitcoin holdings also raise questions about sectoral risk, regulatory influence, governance structures, and the strategic meaning of holding decentralized digital assets on corporate balance sheets (Kazemikhasragh, 2025). In addition, cryptocurrency accounting remains a critical unresolved issue, as financial reporting for cryptocurrency requires clear recognition, measurement, disclosure, and valuation practices that can influence transparency and comparability (Luo & Yu, 2024). These concerns show that the corporate use of digital assets must be governed by appropriate accounting, risk, and compliance frameworks rather than speculative enthusiasm.

In emerging and developing financial markets, the application of digital currencies also depends on user adoption, institutional trust, commercialization conditions, and market readiness. Systematic review evidence on user adoption of digital currency indicates that technological, contextual, consumer-related, and methodological factors shape acceptance and future research directions (Singh & Yadav, 2025). Trust is especially important in digital-currency-based transactions, and consumer confidence in e-commerce involving digital currency purchases depends on perceived security, reliability, transparency, and institutional support (Mehrabian et al., 2023). Studies on the commercialization of digital currencies identify economic, technological, legal, and market factors as important drivers of digital currency diffusion (Ebrahimizadeh, 2021). In the Iranian financial market context, research on the application and acceptance of digital currency, particularly with attention to the stock market, suggests that adoption is shaped by market actors' perceptions, regulatory signals, and the perceived usefulness of digital currency instruments (Einabadi & Talebi, 2024). These findings imply that corporate adoption in liquidity management is not only a financial calculation but also a trust-based and institutionally embedded decision.

Several Iranian studies have directly addressed the strategic, organizational, and managerial dimensions of cryptocurrency adoption. Research on the impact of digital currencies on Iran's economy has identified both opportunities and challenges, including payment innovation, investment diversification, regulatory uncertainty, and macroeconomic risk (Rahmani & Babajani Mohammadi, 2021). A causal model for identifying the necessary grounds for cryptocurrency use, with a focus on Bitcoin, highlights the importance of technological infrastructure, legal frameworks, public trust, and economic incentives (Sharj Sharifi & Zalaki Ghorbanpour, 2022). Studies ranking the factors affecting the use of digital currency in customs-related organizational contexts further indicate that administrative readiness, regulatory clarity, operational efficiency, and institutional support shape adoption in public and quasi-public environments (Shaver, 2020). A mixed-methods study on the impact of digital currencies on business strategy management also demonstrates that digital currencies can affect strategic planning, competitive positioning, transaction design, and managerial decision-making (Ghadamzan Jalali et al., 2023). These studies provide important foundations for examining corporate liquidity management as a specific managerial domain in which digital currencies may create both strategic opportunities and operational vulnerabilities.

The banking and portfolio-management literature provides additional support for examining digital currencies through a liquidity-risk lens. Designing liquidity management and risk forecasting models for banks has long been recognized as necessary for ensuring resilience in financial institutions (Esmailzadeh & Javanmardi, 2017). More recent research has proposed models for evaluating and optimizing risks associated with selecting bank currency portfolios combined with digital currencies, showing that digital assets can be incorporated into portfolio logic but require careful assessment of exchange-rate exposure, volatility, and risk optimization (Aghamohammadi et al., 2022). Such findings are directly relevant to corporate liquidity management because companies, like banks, must decide how to combine conventional cash, foreign currency, and digital assets under uncertainty. The challenge is to determine whether digital currencies can function as a complementary component of liquidity reserves, a settlement mechanism, a temporary cash-equivalent instrument, or a speculative asset class requiring strict limits.

Despite the growing body of research on cryptocurrencies, blockchain, digital transformation, CBDCs, accounting, adoption, and liquidity, important conceptual gaps remain. Much of the existing literature examines digital currencies from macroeconomic, technological, legal, consumer adoption, or financial-market perspectives, while fewer studies explain how firms can operationally and strategically integrate digital currencies into liquidity management. In particular, there is a need for a qualitative, model-building approach that identifies the causal conditions, contextual conditions, intervening factors, strategies, and consequences associated with applying digital currencies in corporate liquidity systems. Such an approach is especially necessary in environments where firms face simultaneous exposure to global financial pressures, exchange-rate volatility, banking-system constraints, regulatory ambiguity, and uneven levels of digital maturity. By focusing on the lived expertise of managers, analysts, specialists, and academic experts, a grounded model can clarify how digital currencies move from being speculative financial instruments to becoming potential components of strategic liquidity architecture.

Accordingly, the present study aims to identify the dimensions, components, and indicators of a paradigmatic model for applying digital currencies in corporate liquidity management.

2. Methods and Materials

In terms of research orientation, the present study is classified as a fundamental and interpretive study with an inductive approach. The research strategy is grounded theory. In terms of purpose, this study falls within the category of exploratory research. In terms of data type, this research is qualitative. The participants in this study included experts, managers, and analysts in the field of digital currencies in corporate liquidity management, as well as university faculty members who had conducted scientific and research activities in the field of digital currencies. The statistical sample was selected using theoretical sampling. Accordingly, in the qualitative section, interviews were conducted with a total of 24 experts, and theoretical saturation was achieved from the twenty-first interview onward. In this study, the point of data saturation was fully evident to the researcher. Sampling continued until the information obtained from the final samples could no longer add new information to the data already collected.

To collect data on the theoretical foundations and research literature of the subject, library sources, articles, required books, and the World Wide Web were used. To collect data and information for analysis within the framework of field studies, the interview method was employed. The duration of each interview varied between 60 and 90 minutes. With the consent of the participants, the interviews were recorded using an audio recorder and then transcribed verbatim on paper. Participants were assured of the confidentiality of their information. The interviews were conducted in two rounds: first to collect information and second to confirm the information.

One of the criteria for determining research credibility is prolonged and continuous engagement. In qualitative research, when the researcher feels that codes and concepts are being repeated rather than expanded, this may indicate an appropriate point for ending the study. In the present study, the data collection process was concluded based on this criterion. In this study, efforts were made to satisfy the criterion of persistent observation, and the documentation and note-taking of coding processes at different stages provide evidence of this claim. Presenting the data analysis process and interpretation of findings step by step to the supervisors and advisors, and incorporating their comments and feedback, represented an effort to demonstrate attention to the criterion of peer review. In addition, the findings of this study were reviewed by experts in digital currencies in corporate liquidity management, and the necessary feedback was obtained. In the present study, maintaining the feedback provided by supervisors, advisors, and experts was a way of demonstrating attention to the criterion of progressive subjectivity. Moreover, the findings obtained from the analysis of the collected data were confirmed by the research participants. Data collection should be carried out through multiple methods, such as observation, interviews, and document analysis. In this study, consistent with this principle, various sources were used for data collection, including document analysis and field research.

Today, amid debates and major changes that have emerged in the social sciences over the past few decades, three dominant approaches to grounded theory can be distinguished: the systematic approach, associated with the work of Strauss and Corbin (1998); the emergent approach, associated with the work of Glaser (1992); and the constructivist approach, supported by Charmaz (2000) (Lee, 2001). In this study, grounded theory with the systematic approach of Strauss and Corbin (1998) was used. Grounded theorists present their theory in three possible forms: first, a visual coding model; second, a set of propositions

or hypotheses; and third, a story written in narrative form (Creswell, 2005). In this study, the visual coding model was used. In this section of the study, MAXQDA software was used.

3. Findings and Results

All stages of grounded theory in the qualitative section of the study were carried out based on the approach presented by Strauss and Corbin (1998). In the present study, before beginning the data coding process, the researcher first transcribed all recorded interviews manually on paper and listened to each interview once again, comparing it with the handwritten transcript to ensure that no sentence had been omitted. The handwritten transcripts were then typed in Microsoft Word. The typed interview texts in Word were transferred to MAXQDA software, and the interviews were coded. A total of 213 initial open codes were obtained. After removing duplicate codes and merging similar codes, 97 final open codes were extracted. Table 1 presents the number of final open codes from each interview.

Table 1. Number of Open Codes from Each Interview

Open code	Interviewee code
Increased global competition in attracting capital	1-3-5-6-7-9-10-11-12-14-15
Liquidity being affected by international events	1-2-4-5-6-8-13-16-18
Volatility of the global cryptocurrency market	2-3-5-6-8-10-13-14-15-17-19
Penetration of speculative behaviors	1-4-5-7-9-10-11-14-15-20-22
Pressure of risk-taking on domestic financial firms	4-5-7-8-9-10-12-15
Threats to financial stability caused by global shocks	6-9-10-12-14-15
Effect of exchange-rate changes on the value of cryptocurrencies	1-3-5-6-7-9-10-11-12-14-15
Instability of the value of digital assets	3-5-6-8-10-13-16-24
Difficulty of converting cryptocurrency into reference currency	1-2-4-5-6-8-13-24
Gap between official and free-market exchange rates	3-5-6-8-10-13-14-15
Effect of currency fluctuations on corporate liquidity decisions	8-9-10-12-14-15
Excessive dependence on traditional banks	4-5-7-9-10-11-14-15
Limited access to interbank credit	3-5-6-8-10-13-15
Insufficient operating liquidity	6-9-10-13-14-15
Limitations on foreign-exchange credit lines	1-2-4-5-6-8-13-15
Legal gap in the field of cryptocurrency	1-2-4-5-6-7-13
Lack of a transparent regulatory framework	1-2-4-5-6-8-11-12-13
Conflict between banking policies and cryptocurrency innovations	1-3-5-6-7-9-10-11-12-14-15
Inefficiency of the licensing system for FinTech companies	1-2-4-5-6-8-13
Lack of anti-money-laundering procedures compatible with cryptocurrency	1-2-4-5-6-8-14
Risk management through crypto-assets	5-9-10-12-14-15
Capital allocation in a hybrid portfolio of cash and digital assets	3-5-6-8-10-13-15
Increased cash returns	2-4-7-12-16-19-21-23
Automation of cash management through blockchain	4-5-7-9-10-11-12
Online recording of cryptocurrency transactions	1-5-7-9-10-11-24
Acceleration of the collection and payment cycle	1-2-4-5-6-8-11-12-13
Optimization of cash forecasting	5-6-8-10-13-15
Integration of cryptocurrency into cash flow accounting models	3-5-6-8-10-16-18-23
Readiness level of corporate financial systems	3-5-6-7-9-10-17-19-20
Integration of digital payment systems with ERP	8-9-10-12-14-15
Development of AI-based modules	1-2-4-5-6-8-21-23-24
Level of financial process automation	6-9-10-12-14-15-22
Ability to analyze cryptocurrency data	7-9-10-11-12-14-21
Anti-cryptocurrency orientation in monetary policy	5-6-8-10-13-14-19
Liquidity control and its effect on the incentive to invest in cryptocurrency	4-5-6-8-11-12-13
Relevant foreign-exchange and tax regulations	2-3-5-6-7-10-11-12
Prohibitions or facilitations in cryptocurrency transactions	1-4-7-8-9-13-14-16
Role of the central bank in cryptocurrency regulation	1-2-4-5-6-8-13-17
Existence of enterprise blockchain infrastructure	6-9-10-12-14-18
Data security	1-3-5-6-7-9-10-11-12-14-15
Domestic electronic payment systems	3-5-6-8-10-13
Secure storage of digital assets through an organizational wallet	1-3-5-11-12-14-15

Bandwidth capacity and API connectivity to exchanges	3-5-6-8-16
Positive attitude toward modern financial technologies	2-3-5-6-8-10
Financial managers' risk-taking in accepting cryptocurrency	6-9-11-13-14-18
Previous experience in innovative projects	1-2-4-5-6-8-14
Support for digital change and transformation	3-5-6-8-10-13-15
Encouraging the finance team to test new technologies	1-3-5-7-9-10-12-14-17
Uncertainty regarding the legal status of cryptocurrency	1-2-5-6-7-9-10
Possibility of cyber theft of digital assets	2-4-7-12-19
Irreversibility of funds in erroneous transactions	1-3-7-12-14
Lack of insurance or risk coverage	5-6-7-10-11-12
Difficulty of tracing cryptocurrency-related crimes	10-13-14-15-20
Intensity of short-term volatility	4-5-6-8-11-12-13
Lack of stable forecasting patterns	8-10-13-14-15
Damage to corporate profit caused by price declines	4-5-6-8-22-24
Dependence of digital asset value on the global Bitcoin price	9-10-12-14-15
Ambiguous views of regulatory bodies	4-5-6-8-11-21-23
Differences of opinion between the central bank and the stock exchange organization	11-12-17-20
Legislators' fear of capital flight	5-6-7-9-10
Security institutions' concerns about cryptocurrency	5-6-8-10-13-15
Slow regulatory process	3-5-6-8-10
Combining cryptocurrency with cash to increase flexibility	3-5-6-8-10
Determining the optimal ratio of digital assets	2-3-5-6-8-10
Scenario analysis of portfolio risk and return	6-9-11-13-16-18
Use of volatility hedging instruments	1-2-4-5-6-8-14
Testing stablecoin-based liquidity composition	3-5-6-8-10-13-15
Reducing volatility through backed cryptocurrencies	1-3-5-7-9-10-12-14-15
Rapid international settlement with stablecoins	1-2-5-6-7-9-10
Use as a temporary cash-holding instrument	2-4-7-12-15
Replacement of virtual dollars in trade	1-3-7-12-14
Increasing the reliability of cryptocurrency in corporate accounting	5-6-7-10-11-12
Use of exchange APIs for automatic settlement	10-13-14-15
Cooperation with reputable domestic and foreign platforms	4-5-6-8-11-12-13
Negotiation to reduce fees	8-10-13-14-15
Creation of an encrypted payment channel	4-5-6-8-16-17
Participation in joint FinTech projects	9-10-12-14-20-21
Designing a cryptocurrency risk assessment framework	3-5-6-8-18-19
Use of hedging in the digital portfolio	2-3-5-6-8-10
Real-time monitoring of liquidity risk	6-9-11-13-14-24
Preparing monthly cryptocurrency risk reports	1-2-4-5-6-8-14
Establishing a technological risk control committee	3-5-6-8-10-13-15
Use of cryptocurrency for rapid settlement of obligations	1-3-5-7-9-10-12-14-15
Possibility of immediate conversion of digital assets into cash	1-2-5-6-7-9-10
Removal of time constraints in payments	2-4-7-12-22
Increasing the company's responsiveness in liquidity crises	1-3-7-12-23
Reducing dependence on banking intermediaries	5-6-7-10-11-12
Gaining profit from short-term cryptocurrency trading	10-13-14-15
Use of cryptocurrency as a high-yield cash fund	2-3-5-6-8-10
Reducing fund transfer costs	6-9-11-13-14-15
Maximizing the return on current assets	1-2-4-5-6-8-14
Enhancing ancillary financial revenues	3-5-6-8-10-19-20
Complete recording of transactions on the blockchain	9-10-12-14-15
Improvement of real-time reporting	2-5-6-7-9-10
Increasing accountability of financial managers	7-12-21-23-24
Reducing human error	3-5-6-8-20-18-19
Integration of cryptocurrency data into management dashboards	6-9-11-13

Axial coding is the second stage of analysis in grounded theory. The purpose of this stage is to establish relationships among the categories generated during open coding. Table 2 presents the axial coding of the research data.

Table 2. Axial Coding of the Data

Axial code	Open codes
1. Global financial market pressures	Increased global competition in attracting capital; liquidity being affected by international events; volatility of the global cryptocurrency market; penetration of speculative behaviors; pressure of risk-taking on domestic financial firms; threats to financial stability caused by global shocks
2. Exchange-rate volatility	Effect of exchange-rate changes on the value of cryptocurrencies; instability of the value of digital assets; difficulty of converting cryptocurrency into reference currency; gap between official and free-market exchange rates; effect of currency fluctuations on corporate liquidity decisions
3. Liquidity constraints in the banking system	Excessive dependence on traditional banks; limited access to interbank credit; insufficient operating liquidity; limitations on foreign-exchange credit lines
4. Relative deregulation of financial technologies	Legal gap in the field of cryptocurrency; lack of a transparent regulatory framework; conflict between banking policies and cryptocurrency innovations; inefficiency of the licensing system for FinTech companies; lack of anti-money-laundering procedures compatible with cryptocurrency
5. Use of digital assets for diversifying cash reserves	Risk management through crypto-assets; capital allocation in a hybrid portfolio of cash and digital assets; increased cash returns
6. Optimization of cash flow management	Automation of cash management through blockchain; online recording of cryptocurrency transactions; acceleration of the collection and payment cycle; optimization of cash forecasting; integration of cryptocurrency into cash flow accounting models
7. Level of financial technology maturity	Readiness level of corporate financial systems; integration of digital payment systems with ERP; development of AI-based modules; level of financial process automation; ability to analyze cryptocurrency data
8. Government monetary policies	Anti-cryptocurrency orientation in monetary policy; liquidity control and its effect on the incentive to invest in cryptocurrency; relevant foreign-exchange and tax regulations; prohibitions or facilitations in cryptocurrency transactions; role of the central bank in cryptocurrency regulation
9. Corporate digital infrastructures	Existence of enterprise blockchain infrastructure; data security; domestic electronic payment systems; secure storage of digital assets through an organizational wallet; bandwidth capacity and API connectivity to exchanges
10. Financial managers' willingness toward innovation	Positive attitude toward modern financial technologies; financial managers' risk-taking in accepting cryptocurrency; previous experience in innovative projects; support for digital change and transformation; encouraging the finance team to test new technologies
11. Legal and security risks	Uncertainty regarding the legal status of cryptocurrency; possibility of cyber theft of digital assets; irreversibility of funds in erroneous transactions; lack of insurance or risk coverage; difficulty of tracing cryptocurrency-related crimes
12. Cryptocurrency price volatility	Intensity of short-term volatility; lack of stable forecasting patterns; damage to corporate profit caused by price declines; dependence of digital asset value on the global Bitcoin price
13. Attitudes of legislators and regulatory authorities	Ambiguous views of regulatory bodies; differences of opinion between the central bank and the stock exchange organization; legislators' fear of capital flight; security institutions' concerns about cryptocurrency; slow regulatory process
14. Designing a hybrid liquidity portfolio	Combining cryptocurrency with cash to increase flexibility; determining the optimal ratio of digital assets; scenario analysis of portfolio risk and return; use of volatility hedging instruments; testing stablecoin-based liquidity composition
15. Use of stablecoins	Reducing volatility through backed cryptocurrencies; rapid international settlement with stablecoins; use as a temporary cash-holding instrument; replacement of virtual dollars in trade; increasing the reliability of cryptocurrency in corporate accounting
16. Cooperation with digital payment platforms or exchanges	Use of exchange APIs for automatic settlement; cooperation with reputable domestic and foreign platforms; negotiation to reduce fees; creation of an encrypted payment channel; participation in joint FinTech projects
17. Development of risk management policies	Designing a cryptocurrency risk assessment framework; use of hedging in the digital portfolio; real-time monitoring of liquidity risk; preparing monthly cryptocurrency risk reports; establishing a technological risk control committee
18. Enhancement of liquidity flexibility	Use of cryptocurrency for rapid settlement of obligations; possibility of immediate conversion of digital assets into cash; removal of time constraints in payments; increasing the company's responsiveness in liquidity crises; reducing dependence on banking intermediaries
19. Improvement of short-term returns	Gaining profit from short-term cryptocurrency trading; use of cryptocurrency as a high-yield cash fund; reducing fund transfer costs; maximizing the return on current assets; enhancing ancillary financial revenues
20. Increasing corporate financial transparency and agility	Complete recording of transactions on the blockchain; improvement of real-time reporting; increasing accountability of financial managers; reducing human error; integration of cryptocurrency data into management dashboards

In this study, open coding was used to generate concepts and their characteristics. An attempt was then made to determine how the concepts changed across the identified dimensions. In this study, 20 axial codes were classified into 6 selective codes. The MAXQDA software output at this stage was used to extract axial and selective codes.

Table 3. Causal Factors of Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Causal factors of applying digital currencies in liquidity management	Global financial market pressures	Increased global competition in attracting capital; liquidity being affected by international events; volatility of the global cryptocurrency market; penetration of speculative behaviors; pressure of risk-taking on domestic financial firms; threats to financial stability caused by global shocks
Causal factors of applying digital currencies in liquidity management	Exchange-rate volatility	Effect of exchange-rate changes on the value of cryptocurrencies; instability of the value of digital assets; difficulty of converting cryptocurrency into reference currency; gap between official and free-market exchange rates; effect of currency fluctuations on corporate liquidity decisions
Causal factors of applying digital currencies in liquidity management	Liquidity constraints in the banking system	Excessive dependence on traditional banks; limited access to interbank credit; insufficient operating liquidity; limitations on foreign-exchange credit lines
Causal factors of applying digital currencies in liquidity management	Relative deregulation of financial technologies	Legal gap in the field of cryptocurrency; lack of a transparent regulatory framework; conflict between banking policies and cryptocurrency innovations; inefficiency of the licensing system for FinTech companies; lack of anti-money-laundering procedures compatible with cryptocurrency

The causal factors of applying digital currencies in corporate liquidity management are mainly rooted in the dynamics and pressures of the global financial system. Global financial market pressures have caused companies, in the face of international competition, cryptocurrency volatility, and risks arising from speculative behaviors, to require more agile instruments for liquidity management. At the same time, exchange-rate volatility, by creating uncertainty in asset values and difficulties in converting cryptocurrencies into reference currencies, has pushed companies toward diversifying their liquidity instruments. On the other hand, liquidity constraints in the country's banking system, including excessive dependence on traditional institutions and limited access to foreign-exchange credit lines, constitute an important driver of the shift toward new financial technologies. Finally, relative deregulation in the field of FinTech and legal gaps related to cryptocurrencies have allowed financial innovation to grow without a transparent control framework, leading companies to use cryptocurrency instruments experimentally and, at times, through trial and error. The combination of these causal factors indicates that the inclination toward cryptocurrencies is not merely a technological choice, but a strategic response to financial, currency-related, and institutional pressures at the macro level.

The central phenomenon of this study is the application of digital currencies in corporate liquidity management, which reflects a fundamental paradigm shift from the traditional liquidity system toward intelligent and hybrid liquidity. In this context, the use of digital assets for diversifying cash reserves creates a new approach to liquidity risk management, such that companies, by allocating part of their capital to cryptocurrencies, can maintain liquidity while achieving higher potential returns.

Table 4. Central Phenomenon of Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Central phenomenon of applying digital currencies in liquidity management	Use of digital assets for diversifying cash reserves	Risk management through crypto-assets; capital allocation in a hybrid portfolio of cash and digital assets; increased cash returns
Central phenomenon of applying digital currencies in liquidity management	Optimization of cash flow management	Automation of cash management through blockchain; online recording of cryptocurrency transactions; acceleration of the collection and payment cycle; optimization of cash forecasting; integration of cryptocurrency into cash flow accounting models

On the other hand, the optimization of cash flow management through blockchain technologies leads to greater transparency, speed, and accuracy in the transfer of funds and shortens the collection and payment cycle. These two axes, in interaction with each other, form a new concept of digitalized liquidity; a concept in which cryptocurrencies do not function as a complete substitute for official money, but rather as a strategic complement in the portfolio of corporate cash resources. Accordingly, the central phenomenon represents the convergence of financial innovation and strategic liquidity management, which constitutes the core of the theoretical model of the study.

Contextual conditions represent the organizational and institutional setting within which the phenomenon of applying digital currencies in liquidity management takes shape. First, the level of financial technology maturity determines the extent to which a company is capable of adopting and integrating cryptocurrency instruments. The more integrated digital payment systems are with ERP systems and artificial intelligence, the greater the efficiency of using digital assets in the cash cycle. Second, the monetary policies of the government and the central bank, through their restrictive or facilitative orientations, strongly affect

corporate decision-making, particularly when foreign-exchange and tax regulations create hesitation or opportunities regarding cryptocurrency use. Third, corporate digital infrastructures are critical factors in the security, speed, and sustainability of cryptocurrency use. The existence of enterprise blockchain, electronic payment systems, and the capacity for secure storage of digital assets are necessary conditions for the effective and sustainable application of these instruments.

Table 5. Contextual Conditions of Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Contextual conditions of applying digital currencies in liquidity management	Level of financial technology maturity	Readiness level of corporate financial systems; integration of digital payment systems with ERP; development of AI-based modules; level of financial process automation; ability to analyze cryptocurrency data
Contextual conditions of applying digital currencies in liquidity management	Government monetary policies	Anti-cryptocurrency orientation in monetary policy; liquidity control and its effect on the incentive to invest in cryptocurrency; relevant foreign-exchange and tax regulations; prohibitions or facilitations in cryptocurrency transactions; role of the central bank in cryptocurrency regulation
Contextual conditions of applying digital currencies in liquidity management	Corporate digital infrastructures	Existence of enterprise blockchain infrastructure; data security; domestic electronic payment systems; secure storage of digital assets through an organizational wallet; bandwidth capacity and API connectivity to exchanges
Contextual conditions of applying digital currencies in liquidity management	Financial managers' willingness toward innovation	Positive attitude toward modern financial technologies; financial managers' risk-taking in accepting cryptocurrency; previous experience in innovative projects; support for digital change and transformation; encouraging the finance team to test new technologies

Finally, financial managers' willingness and attitude toward innovation constitute a soft yet decisive variable that determines the company's direction of movement. If financial managers have an open and risk-tolerant mindset, the path toward adopting cryptocurrency in liquidity management will be followed more naturally and systematically. Overall, these contextual conditions serve as the foundation and catalyst for digital transformation in the liquidity system.

Intervening conditions are a set of inhibiting and indirectly influential factors that can slow, limit, or even divert the process of applying digital currencies in liquidity management. First, legal and security risks are the main challenge in the path toward cryptocurrency adoption, because the lack of a clear legal framework, the possibility of cyber theft, and the absence of compensation mechanisms for erroneous transactions threaten companies' confidence. On the other hand, severe cryptocurrency price volatility causes the value of digital assets to fluctuate sharply in the short term, reducing managers' motivation to hold cryptocurrency in the cash portfolio.

Table 6. Intervening Conditions of Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Intervening conditions of applying digital currencies in liquidity management	Legal and security risks	Uncertainty regarding the legal status of cryptocurrency; possibility of cyber theft of digital assets; irreversibility of funds in erroneous transactions; lack of insurance or risk coverage; difficulty of tracing cryptocurrency-related crimes
Intervening conditions of applying digital currencies in liquidity management	Cryptocurrency price volatility	Intensity of short-term volatility; lack of stable forecasting patterns; damage to corporate profit caused by price declines; dependence of digital asset value on the global Bitcoin price
Intervening conditions of applying digital currencies in liquidity management	Attitudes of legislators and regulatory authorities	Ambiguous views of regulatory bodies; differences of opinion between the central bank and the stock exchange organization; legislators' fear of capital flight; security institutions' concerns about cryptocurrency; slow regulatory process

In addition, the attitudes of legislators and regulatory authorities are still marked by ambiguity and caution. Differences of opinion between the central bank and capital market institutions, concerns about capital flight, and the absence of a clear policy have created a dual space between opportunity and threat. Therefore, in the model extracted from this study, intervening conditions function as institutional brakes and perceived risks that influence the intensity and direction of the effect of causal factors and contextual conditions on the central phenomenon.

The strategies adopted for applying digital currencies in liquidity management reflect companies' efforts to transform technological and volatility-related threats into functional opportunities and financial stabilization. First, designing a hybrid liquidity portfolio serves as the main axis of these actions. Companies increase their financial flexibility by combining cash and digital assets and determine the optimal ratio of crypto-assets through scenario analysis of portfolio risk and return. Next, the use of stablecoins is proposed as a moderating strategy that reduces price volatility while enabling rapid international settlement and replacing part of cash dollars, thereby creating greater confidence in accounting and reporting. In addition, cooperation with digital payment platforms or exchanges makes the technical and operational integration of cryptocurrency

into the liquidity cycle possible, ranging from the use of APIs for automatic settlement to participation in joint FinTech projects, which leads to lower transaction costs and increased payment security.

Table 7. Strategies for Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Strategies for applying digital currencies in liquidity management	Designing a hybrid liquidity portfolio	Combining cryptocurrency with cash to increase flexibility; determining the optimal ratio of digital assets; scenario analysis of portfolio risk and return; use of volatility hedging instruments; testing stablecoin-based liquidity composition
Strategies for applying digital currencies in liquidity management	Use of stablecoins	Reducing volatility through backed cryptocurrencies; rapid international settlement with stablecoins; use as a temporary cash-holding instrument; replacement of virtual dollars in trade; increasing the reliability of cryptocurrency in corporate accounting
Strategies for applying digital currencies in liquidity management	Cooperation with digital payment platforms or exchanges	Use of exchange APIs for automatic settlement; cooperation with reputable domestic and foreign platforms; negotiation to reduce fees; creation of an encrypted payment channel; participation in joint FinTech projects
Strategies for applying digital currencies in liquidity management	Development of risk management policies	Designing a cryptocurrency risk assessment framework; use of hedging in the digital portfolio; real-time monitoring of liquidity risk; preparing monthly cryptocurrency risk reports; establishing a technological risk control committee

Finally, the development of cryptocurrency risk management policies represents the complementary link in these strategies, because real-time monitoring, the preparation of risk reports, and the formation of specialized committees strengthen stability and trust in liquidity decisions. Thus, the identified strategies show that organizations manage the transition to digital liquidity systematically by combining financial innovation, risk hedging, and technological cooperation.

The consequences of applying digital currencies in liquidity management indicate an improvement in corporate financial efficiency, responsiveness, and transparency; three components that objectively reveal the identity of digitalized liquidity. First, the enhancement of liquidity flexibility enables companies to respond more rapidly when faced with time constraints or cash crises and to settle obligations directly and instantly by reducing dependence on banking intermediaries. Second, improvement in short-term returns is achieved through the use of cryptocurrency trading opportunities, reduction of fund transfer costs, and holding part of cash in the form of high-yield digital assets. In this way, the dynamism of current resources increases and working capital efficiency is strengthened. Third, increased corporate financial transparency and agility are achieved through the recording of all transactions on the blockchain, real-time reporting, and integration of cryptocurrency data into management dashboards, which in turn enhance accountability, internal control, and intelligent decision-making.

Table 8. Consequences of Applying Digital Currencies in Liquidity Management

Selective code	Axial code	Open codes
Consequences of applying digital currencies in liquidity management	Enhancement of liquidity flexibility	Use of cryptocurrency for rapid settlement of obligations; possibility of immediate conversion of digital assets into cash; removal of time constraints in payments; increasing the company's responsiveness in liquidity crises; reducing dependence on banking intermediaries
Consequences of applying digital currencies in liquidity management	Improvement of short-term returns	Gaining profit from short-term cryptocurrency trading; use of cryptocurrency as a high-yield cash fund; reducing fund transfer costs; maximizing the return on current assets; enhancing ancillary financial revenues
Consequences of applying digital currencies in liquidity management	Increasing corporate financial transparency and agility	Complete recording of transactions on the blockchain; improvement of real-time reporting; increasing accountability of financial managers; reducing human error; integration of cryptocurrency data into management dashboards

These consequences show that the intelligent application of digital currencies is not merely a technological change, but a structural transformation in the corporate financial decision-making system that leads to increased resilience, efficiency, and transparency in liquidity management.

This stage also includes drawing a diagram called the coding model. The coding model illustrates the relationships among causal conditions, strategies, contexts, intervening conditions, and consequences. In examining this model, six boxes or categories of information exist:

Causal conditions: categories related to conditions that affect the central category;

Context: specific conditions that affect strategies;

Central category: a mental representation of the phenomenon that forms the basis of the process;

Intervening conditions: general contextual conditions that affect strategies;

Strategies: specific actions or interactions resulting from the central phenomenon;

Consequences: outcomes resulting from the employment of strategies.

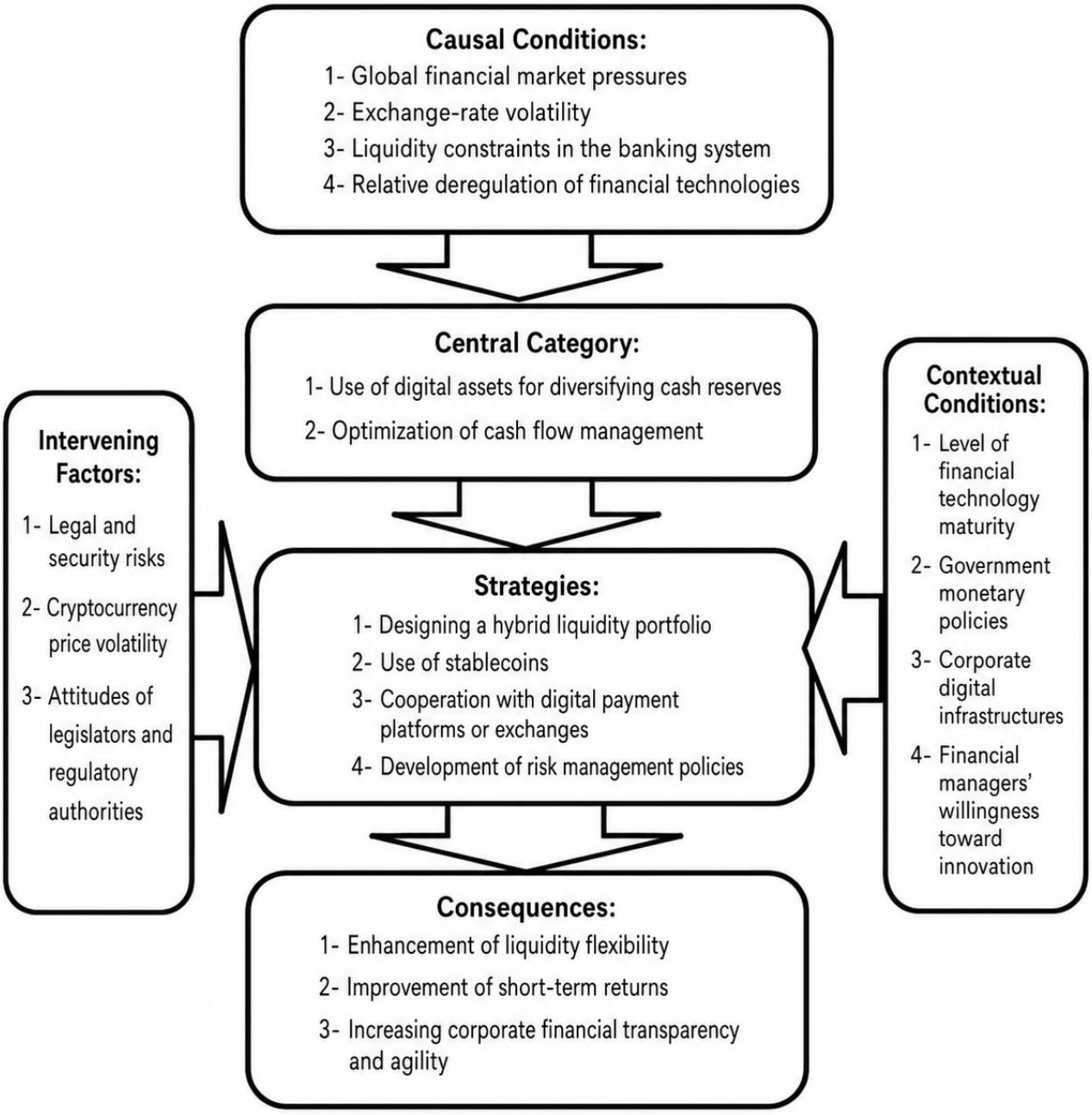

Figure 1. Paradigmatic Model of the Dimensions of Applying Digital Currencies in Corporate Liquidity Management

4. Discussion and Conclusion

The findings of the present study led to the identification of a paradigmatic model for applying digital currencies in corporate liquidity management. Through open, axial, and selective coding, 97 final concepts and 20 axial codes were extracted and organized into six major dimensions: causal conditions, central phenomenon, contextual conditions, intervening conditions, strategies, and consequences. The central phenomenon consisted of two core categories: the use of digital assets for diversifying cash reserves and the optimization of cash flow management. This result indicates that digital currencies are not perceived merely as speculative instruments, but as potential components of corporate liquidity architecture that can support cash reserve diversification, transactional flexibility, and more dynamic financial resource allocation. This interpretation is consistent with recent arguments that tokenized and programmable value can reshape conventional cash and liquidity management by creating faster, more flexible, and more automated treasury mechanisms (Bambalaite-Saliba, 2026). It also aligns with studies

emphasizing that blockchain-based assets and digital payment mechanisms are increasingly becoming part of corporate financial strategy rather than remaining peripheral technological innovations (Adibizadeh Lanjani et al., 2025; Ghadamzan Jalali et al., 2023).

The first major finding concerned the causal conditions of digital currency application in liquidity management, including global financial market pressures, exchange-rate volatility, liquidity constraints in the banking system, and the relative deregulation of financial technologies. These factors show that the movement toward digital currencies is partly a response to macro-financial instability and institutional constraints. Firms facing restricted access to bank liquidity, volatile foreign-exchange markets, and global financial uncertainty may search for alternative instruments to preserve purchasing power, accelerate settlement, and diversify liquid resources. This finding is consistent with research showing that corporate liquidity decisions are strongly affected by uncertainty, refinancing costs, financial constraints, and market imperfections (Barth & Moreno-Bromberg, 2019; Koussis et al., 2017; Laghari et al., 2022). It also supports studies indicating that in emerging economies, firms must manage liquidity under conditions of restricted credit access, weak financial depth, and macroeconomic volatility (Carvajal & Bebczuk, 2024). In the Iranian context, previous research has similarly emphasized that digital currencies create both opportunities and challenges for the economy, particularly under monetary, exchange-rate, and regulatory pressures (Mahmoudi et al., 2024; Rahmani & Babajani Mohammadi, 2021).

The identification of exchange-rate volatility as a causal driver is particularly important. The findings suggest that fluctuations in currency value, differences between official and market exchange rates, and difficulties in converting cryptocurrencies into reference currencies influence corporate liquidity decisions. This supports prior research on bank currency portfolios combined with digital currencies, which shows that digital assets may be considered within risk-optimization models when firms or financial institutions face currency exposure and exchange-rate uncertainty (Aghamohammadi et al., 2022). It also corresponds with international evidence showing that cryptocurrency markets are closely connected with volatility, liquidity dynamics, and broader financial market movements (Gil-Alana et al., 2020; Leirvik, 2022). However, the present findings also indicate that such volatility does not automatically prevent adoption; rather, it creates the need for hybrid portfolio design, risk limits, hedging mechanisms, and selective use of more stable digital instruments. This interpretation is aligned with research showing that the risk-return behavior of cryptocurrencies is complex and cannot be managed through conventional assumptions alone (Bossman et al., 2024; Burggraf & Rudolf, 2021).

The second major finding concerned the central phenomenon, namely the application of digital assets for diversifying cash reserves and optimizing cash flow management. This result suggests that digital currencies may contribute to liquidity management through two complementary mechanisms: portfolio diversification and operational process improvement. On the one hand, firms may allocate a controlled share of liquid resources to digital assets in order to increase return potential or reduce dependence on conventional banking channels. On the other hand, blockchain and digital currency infrastructures may improve settlement speed, transaction recording, cash forecasting, and payment-cycle efficiency. This finding is supported by studies emphasizing the role of blockchain in improving accounting transparency, auditing reliability, financial reporting accuracy, and trust in financial information (Alikhani & Ataei, 2025; Hossain & Rana, 2026; Luo & Yu, 2024). It is also consistent with research on blockchain and artificial intelligence in FinTech, which highlights the capacity of smart contracts, machine learning, and automated systems to enhance financial efficiency and decision-making (Chatterjee, 2025; Kafila et al., 2023). Therefore, the central phenomenon identified in this study reflects both a financial asset logic and a financial process innovation logic.

The contextual conditions identified in the model included the level of financial technology maturity, government monetary policies, corporate digital infrastructures, and financial managers' willingness toward innovation. These findings demonstrate that digital currency adoption in liquidity management depends heavily on organizational readiness and institutional environment. Firms with stronger ERP integration, payment automation, data security, blockchain infrastructure, and analytical capability are better positioned to use digital currencies effectively. This result aligns with studies on digital transformation capability maturity, which emphasize that successful technological adoption requires organizational readiness, strategic alignment, process integration, and technological capacity (Asdamarji et al., 2019). It also supports research showing that financial technology expansion can improve financial service performance when organizations possess the necessary

infrastructure and adaptive capabilities (Moghani et al., 2019). Moreover, the role of managers' willingness toward innovation is consistent with adoption-focused studies showing that digital currency use is shaped not only by technology, but also by trust, perceived usefulness, risk perception, and institutional confidence (Ebrahimizadeh, 2021; Mehrabian et al., 2023; Singh & Yadav, 2025).

Government monetary policies emerged as another important contextual condition. This finding indicates that corporate adoption of digital currencies cannot be understood independently from the regulatory and monetary-policy environment. Central-bank positions, taxation rules, foreign-exchange regulations, and restrictions or facilitations in crypto transactions influence whether firms perceive digital currencies as feasible liquidity instruments. This is consistent with studies on central bank digital currency issuance, which show that regulatory, monetary, and institutional factors shape the development and acceptance of digital monetary systems (Alfar et al., 2023; Syarifuddin, 2023). It is also supported by Iranian research showing that national digital currency issuance may affect monetary policy transmission, liquidity control, and the broader financial governance structure (Mahmoudi et al., 2024). In addition, global discussions of de-dollarization and changes in the international financial architecture indicate that firms may increasingly seek alternative settlement and liquidity instruments in response to shifts in global monetary relations (Hani & Badawi, 2025). Thus, the contextual role of government policy in the present model is theoretically and empirically well supported.

The intervening conditions identified in this study were legal and security risks, cryptocurrency price volatility, and the attitudes of legislators and regulatory authorities. These factors function as inhibitors that may weaken or redirect the effect of causal and contextual conditions on the central phenomenon. The finding is consistent with earlier legal and conceptual studies emphasizing that electronic money, virtual money, and cryptocurrencies raise unresolved legal, jurisprudential, and regulatory questions (Ahmadi Jashfaqani & Zahedian Varnosfaderani, 2018; Soleimanipour et al., 2017). It also supports research on the commercialization and adoption of digital currencies, which indicates that legal ambiguity, lack of trust, and insufficient regulation can slow diffusion (Ebrahimizadeh, 2021; Sharj Sharifi & Zalaki Ghorbanpour, 2022; Shaver, 2020). The security dimension is also consistent with blockchain and accounting studies that emphasize the importance of auditability, secure storage, transaction traceability, and reliable internal controls when digital assets are used in organizational settings (Alikhani & Ataei, 2025; Oveisi Kehkha & Alaei, 2019). Therefore, although digital currencies may improve liquidity flexibility, their adoption requires strong governance and risk-control structures.

The strategies extracted from the data included designing a hybrid liquidity portfolio, using stablecoins, cooperating with digital payment platforms or exchanges, and developing risk management policies. These strategies show that firms should not approach digital currencies through unstructured experimentation; instead, adoption should be based on portfolio logic, operational partnerships, risk monitoring, and governance mechanisms. The emphasis on hybrid liquidity portfolios is consistent with studies showing that digital assets can be integrated into portfolio and risk optimization models when their volatility, liquidity, and correlation characteristics are carefully assessed (Aghamohammadi et al., 2022; Kazemikhasragh, 2025). The use of stablecoins as a liquidity strategy is particularly aligned with recent treasury and transaction-banking research, which argues that fiat-backed stablecoins may support faster settlement and programmable treasury operations, provided that bank-grade risk and control frameworks are established (Shukanayev, 2026). Cooperation with digital payment platforms and exchanges also aligns with the growing literature on decentralized exchanges, constant function market makers, and automated liquidity mechanisms (Fabi & Prat, 2025; Moinas & Pouget, 2025; Son et al., 2025). However, the risks of manipulation and market instability confirm the need for strict due diligence before relying on such platforms.

Finally, the consequences identified in this study included enhancement of liquidity flexibility, improvement of short-term returns, and increased corporate financial transparency and agility. These consequences suggest that when digital currencies are applied through appropriate strategies and under supportive contextual conditions, they can improve the speed, responsiveness, and informational quality of corporate liquidity management. The finding concerning liquidity flexibility is consistent with research emphasizing that liquidity management affects operational continuity, capital access, and resilience under uncertain market conditions (Carvajal & Bebczuk, 2024; Yazdanpanah & Allahyari, 2023). The finding concerning short-term returns is aligned with studies showing that digital assets may create return opportunities, although these

opportunities are accompanied by volatility and downside risk (Bossman et al., 2024; Burggraf & Rudolf, 2021; Leirvik, 2022). The finding concerning financial transparency and agility is supported by research on blockchain-based reporting, integrated reporting, earnings management, and market liquidity, which collectively suggests that transparent financial information and reliable reporting systems can strengthen investor confidence and financial decision-making (Donkor et al., 2025; Le et al., 2023; Luo & Yu, 2024). Overall, the results indicate that the application of digital currencies in liquidity management represents a structural shift in corporate financial management, combining technological innovation, strategic treasury design, and risk-governed financial transformation.

This study has several limitations that should be considered when interpreting the findings. First, the research was qualitative and exploratory; therefore, the extracted model reflects expert interpretations and cannot be statistically generalized to all companies or financial institutions. Second, the study relied on semi-structured interviews with a specific group of experts, managers, analysts, and academic specialists, and the findings may be influenced by their professional experiences, assumptions, and perceptions of digital currency markets. Third, the regulatory environment surrounding digital currencies is highly dynamic, and changes in monetary policy, taxation rules, legal recognition, or exchange-platform regulation may alter the relevance of some categories over time. Fourth, because digital currency application in corporate liquidity management remains an emerging phenomenon, some participants may have based their views on limited practical implementation rather than extensive organizational experience.

Future studies should test the proposed paradigmatic model using quantitative methods and larger samples of firms across different industries. Researchers may develop measurement scales for the identified dimensions and examine the relationships among causal conditions, contextual conditions, intervening factors, strategies, and consequences through structural equation modeling. Comparative studies across countries or regulatory environments would also be useful for understanding how institutional differences affect the adoption of digital currencies in liquidity management. Future research can also examine specific instruments separately, such as Bitcoin, stablecoins, central bank digital currencies, and tokenized deposits, because each instrument has different implications for volatility, accounting treatment, settlement speed, and regulatory risk. Longitudinal research is also recommended to investigate how corporate use of digital currencies changes as markets mature and regulations become clearer.

Corporate financial managers should approach digital currencies as controlled and strategically governed liquidity instruments rather than as speculative assets. Before adoption, firms should assess their technological infrastructure, accounting capacity, cybersecurity readiness, regulatory exposure, and internal risk governance. A hybrid liquidity portfolio should be designed with clear limits on digital asset allocation, defined conversion procedures, approved counterparties, and real-time monitoring mechanisms. Firms should also prioritize stable and transparent digital instruments, cooperate only with reputable exchanges and payment platforms, and establish specialized committees for technological and cryptocurrency risk control. In addition, companies should integrate cryptocurrency transaction data into management dashboards and financial reporting systems to improve transparency, accountability, and decision-making quality.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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