



## Dark Technology and Financial Management: Iraq as a Mediating Factor

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**Annotation:** Dark technology affects financial resource management, with Iraq as a mediating component. Dark Technology, the illegal use of technology, hinders financial systems. Technology has benefited financial management in both directions. Technology has benefited chiefly the financial sector in the previous study. Thus, shadow technology's negative repercussions, especially in unsavoury places like Iraq, are poorly understood. Based on an in-depth analysis, dark technology significantly impacts Iraq's financial management practices. It illuminates financial institution issues like money laundering, cybercrime, and fraud. Iraq's legislative climate and institutional weaknesses help spread dark technologies. Socio-economic issues worsen dark technologies in financial management. This study suggests dark technology-related financial management improvements. Research challenges inspired these suggestions. It recommends improving regulatory frameworks, technology infrastructure, and financial sector awareness and training. It also highlights the need for stakeholder coordination, international cooperation, and dark technology-specific forces. This report helps researchers understand how dark technologies might harm financial management, which is crucial in corrupt Iraq. The findings and recommendations educate financial institutions and policymakers on mitigating the negative effects of dark technologies and creating a safer and more transparent financial ecosystem in Iraq.

**Key words:** Dark Technology, Financial Management, Mediating Factor.

### 1. Introduction

Because of the rapid technological developments in recent years, the process of managing financial resources has been subjected to substantial upheaval [1]. The use of technology in different parts of financial procedures, including transactions, data management, risk assessment, and decision-making, has resulted in a revolution in those procedures [2]. Even though there have been many positive effects that technology has had on financial management, there is a growing concern about the negative aspects of technology and the possible damage that it could cause to financial institutions [3, 4]. This research aims to provide a comprehensive analysis of how the prevalence of "dark technology" in Iraq influences financial management. Previous research has shed much light on the positive benefits that technology has had on financial management [5-7]. These studies have highlighted technology's role in strengthening overall performance, decreasing expenses, and improving operational efficiency [8-10]. On the other hand, there hasn't been a lot of focus on the negative ramifications that come along with using dark technology. The term "dark



technology” refers to the unethical and malevolent use of technology for illegal activities such as cybercrime, money laundering, fraud, and other forms of illegal financial operations [11, 12]. These actions present serious challenges to the integrity, security, and stability of financial institutions, which in turn undermines the faith and confidence of the general public [13].

This research is made more difficult and pressing by considering the specific situation of Iraq. Corruption has been a persistent problem in Iraq for a long time, making the dangers posed by using dark technology in financial management much more severe [14]. Because corruption provides a fertile foundation for the spread of illicit financial operations, Iraq is particularly susceptible to the negative impacts that come with the use of dark technologies [15]. As a result, it is of the utmost importance to do exhaustive research into the implications of dark technology within the context of the socio-economic and institutional structure of Iraq [16, 17]. In light of the quantity of research that already exists, it is abundantly obvious that there is a pressing need to address various research gaps and locate areas for improvement in empirical, methodological, theoretical, and conceptual domains [18, 19]. There is a dearth of thorough research on the negative repercussions of dark technology, particularly in the setting of a corrupt country like Iraq [20-23]. Previous studies have shed light on the beneficial elements of technology in financial management; however, there is a lack of research on the bad consequences of dark technology [24, 25].

### **1.1. Research Questions**

To address these gaps and contribute to the existing knowledge, the researchers will focus on answering the following research questions:

First, how does the prevalence of shadowy computing in Iraq’s various approaches to financial management stand out? With this research, we hope to learn more about how dark technology is used in the financial sector, namely in areas like online banking, digital payments, and the administration of financial data. To what extent are financial institutions in Iraq vulnerable to the risks posed by dark technology, and what challenges must they overcome to mitigate them? To lessen the risks associated with dark technology, financial institutions face several obstacles that will be examined here. The question is narrowly focused on challenges faced by financial organizations. Thirdly, how does Iraq’s current legislative framework facilitate the proliferation of dark technology in financial management? This research aims to learn how well Iraq’s banking sector’s current laws and practices deal with the challenges provided by dark technology. Is using dark technologies in Iraq’s financial systems the result of inherent weaknesses in the country’s institutions? Finally, this query investigates the dangers within the Iraqi institutional structure, such as the country’s inability to deal with crimes involving shadowy technologies, its lax enforcement of laws, and its shaky management of public affairs. Why and how has extensive usage of shady technologies in Iraq’s financial management come about, and what are the underlying socio-economic factors? In this study, we look at how income inequality, a lack of computer skills, and the influence of social norms all play a role in spreading underground tech.

This research aims to examine the impact of dark technology on financial management processes in Iraq and to form judgements about the significance of those findings. This study aims to shed light on the difficulties faced by financial institutions operating in a corrupt environment by addressing the abovementioned concerns in the research literature. The study’s overarching goal is to illuminate the factors influencing the presence and impact of dark technology in financial management in Iraq, including but not limited to regulatory frameworks, institutional deficiencies, and socio-economic factors, which will take place within the framework of the government of Iraq. Findings from this study will help policymakers, financial institutions, and other essential players better manage threats from dark technologies and fortify the financial system’s resilience. The findings of the study will serve as the basis for this advice.



## 2. Literature Review

The literature review provides a comprehensive assessment of previous studies that have investigated the impact of dark technology on financial management and the moderating role played by Iraq. Research into the connection between the two was conducted in other countries, such as Iraq, which served as a moderator. In this section, we will analyze the existing literature on the issue at hand to identify its central themes, key findings, and unanswered questions.

### 2.1. Dark Technology and Financial Management

Numerous studies have examined how technology improves the field of financial management, with a focus on how it may make processes more streamlined, accurate, and accessible. On the other side, there is a growing corpus of studies that reveal the possible adverse effects that black technology may have. For instance, Park, et al. [26] looked into how cybercrime is becoming more common and how it affects the economy. Money laundering, fraud, and other unethical financial practices were the focus of research by Tiwari, et al. [27]. The writers focused on how money stolen online could be hidden from authorities. These reports highlight the need for further research into the risks associated with using technology in financial management.

### 2.2. The Context of Iraq

Iraq’s unique socio-economic and institutional framework further complicates the effects of dark technology on financial management. Several reports indicate that corruption is a significant problem in the country, greatly increasing the risks associated with black technologies. For instance, Ali [28] examined the role that corruption plays in aiding illegal financial transactions in Iraq and cited some examples. In addition, Wang and Shi [29] investigated how the presence of corruption affects the efficiency of financial organizations. It is indispensable to have a complete understanding of the specific environment of Iraq in order to analyze the influence that dark technology has on financial management.

### 2.3. Mediating Role of Iraq

According to the findings of recent research, Iraq, in its function as a mediating element, plays an essential part in dark technology which has effect on financial management. For example, Wang and Shi [29] investigated the vulnerabilities that exist inside Iraq’s financial system as well as the difficulties that exist in the fight against cybercrime. In addition, Kraidi, et al. [30] investigated the regulatory frameworks and policies that have been put into place in Iraq in order to reduce the hazards that are linked with dark technology. These studies highlight the necessity of investigating dark technology’s specific ramifications within Iraqi politics and society. The following table summarizes the key studies reviewed in the literature.

Table 1 Summary of Key Studies

Study	Key Findings
[31]	Increasing incidence of fraudulent activity in online financial systems.
[32]	The utilization of technology in connection with illegal financial activity.
[33]	The part that corrupt practices play in the facilitation of illegal financial transactions.
[34]	The influence that bribery and other forms of corruption have on the efficiency of financial institutions.
[35]	There are flaws in Iraq’s monetary system and obstacles to overcome in the fight against cybercrime.
[36]	The establishment of regulatory frameworks and policies in Iraq to mitigate the risks related to dark technology.



The analysed studies offer helpful insights into the effects that dark technology has on financial management and bring to light the particular difficulties and vulnerabilities within the setting of Iraq. This study intends to expand upon previous research findings and fill the research gaps to contribute to a more in-depth understanding of the subject matter by analyzing the available literature.

### **3. Methodology**

The technique that was used in this research consisted of conducting a systematic review in order to collect and examine relevant papers that discussed the impact of dark technology on financial management, with a particular emphasis on Iraq as a mediating factor [37-40]. The subsequent sections provide an overview of the databases, selection criteria, and systematic review process utilized in this study. Scopus was the major database that was utilised for the process of conducting the systematic review. Scopus was selected as the database of choice because of its extensive coverage of scholarly literature in various fields, such as business, technology, and the social sciences. It gives users access to a wide variety of research publications, conference proceedings, and journals subjected to peer review. Scopus's well-deserved reputation and comprehensive coverage in the subject area lend credence to the decision to use it as the primary database. Specific selection criteria were created to guarantee that only applicable articles would be included. The standards consisted of:

1. Articles written within the last decade covering all the most recent events.
2. Articles are written in English for the sake of readability and critical evaluation.
3. Financial management in the shadow economy from an Iraqi perspective is explored in these articles.
4. Research, case study, theoretical framework, and conceptual analysis articles.

The aforementioned criteria for inclusion were implemented in order to optimise the search process and ensure that only the most pertinent articles were incorporated into the synthesis.

#### **3.1. Procedure for Systematic Reviews**

The steps involved in conducting a systematic review were as follows:

First-step articles from the Scopus database were retrieved using keywords related to the research topic at this stage. Some of the keywords used were "dark technology," "financial management," and "Iraq," as well as other permutations of these three. The initial search was conducted to find as many applicable articles as possible. Articles that did not pass the screening procedure in Stage 2 of the selection process were discarded. In addition, we got rid of the database's duplicates. Articles were screened by looking at their titles and abstracts to see if they were relevant to the study's topic. The papers chosen in Phase 2 were reviewed in detail for eligibility in Phase 3. The articles' full texts were read in detail to check if they were suitable for inclusion. Non-eligible articles were not included in the analysis. Articles in Phase 4 (Ready for Analysis) and Phase 3 are now complete so that the remaining papers can be analysed. The data analysis and synthesis were based on these articles.

A flowchart was developed to illustrate the steps in conducting a systematic review. The number of articles found, screened, and included at each stage of the review process is depicted graphically in the flowchart. This flowchart clarifies the research team's decision-making and the final set of articles included in the analysis. Content analysis was used as the qualitative way of data analysis in this probe. The most relevant themes, findings, and insights from the chosen publications may be systematically extracted and interpreted using content analysis. Analysis of the textual data yielded answers to the research questions. Overall, the systematic review method



used in this study ensured a rigorous and transparent article selection and analysis process, allowing for a comprehensive look at how shadow technology affects financial management, focusing on Iraq as a moderating element.

#### 4. Results

In this section, we will analyze and discuss the commonalities between studies. These results pertain to Iraq's mediating role in the connection between dark technology and financial management. In addition, this section discusses Iraq's function as a peacekeeper in the fight. In order to improve the readers' comprehension, the most important takeaways and discoveries from the literature review will be given. The findings are going to be broken down into the following sections:

##### **Result 1: The Impact of Dark Technology on Financial Management**

According to the findings, dark technologies present substantial difficulties for the administration of financial resources, such as increased instances of cybercrime, money laundering, and fraudulent activity. Several studies stress the necessity for effective cybersecurity measures, increased legal frameworks, and technological breakthroughs in order to manage the risks connected with dark technology.

##### **Result 2: Iraq as a Mediating Factor in Dark Technology's Impact on Financial Management**

The situation in Iraq, marked by a high level of corruption and poorly developed financial systems, exacerbates the detrimental effects of dark technology on financial management. In order to adequately address the difficulties brought by dark technology in Iraq, previous research has shown how important it is to fight corruption, improve governance, and strengthen institutional frameworks.

##### **Result 3: The Role of Technology in Advancing Financial Management in Iraq**

Technology has the potential to improve significantly financial management practices in Iraq despite the many obstacles that must first be overcome. According to many studies, the utilization of technology has the potential to improve financial processes in terms of transparency, accountability, and efficiency, thereby lowering the risks associated with dark technology.

#### 5. Discussion

In the section under "Discussion," we will attempt to evaluate and understand how the findings from the previous section, the literature review, relate to the study questions and goals. It will be divided into three subsections, namely:

##### **Discussion 1: Implications of Dark Technology on Financial Management**

This section will explore the consequences of dark technology on financial management, considering the unique difficulties organisations in Iraq face. It will investigate the potential repercussions of poor cybersecurity measures, including the impact on financial stability, investor confidence, and trust.

##### **Discussion 2: The Mediating Role of Iraq in Dark Technology's Impact**

The discussion will focus on the distinctive elements specific to Iraq's environment that contribute to Iraq's mediating function concerning dark technology's impact on financial management. It will address the issues provided by corruption, poor regulatory frameworks, and the requirement for institutional reforms to manage the dangers linked with dark technology correctly.





### **Discussion 3: Leveraging Technology for Improved Financial Management in Iraq**

This section will investigate the possibilities and approaches for using technology to improve the methods now employed in financial management in Iraq. The importance of embracing modern technologies, developing secure digital platforms, and cultivating a culture of innovation will be covered in this section. These are all necessary steps to take in order to overcome the obstacles posed by dark technology.

#### **6. Recommendations**

Following are some recommendations that have been formulated based on the systematic review:

In order to defend financial institutions from the dangers posed by dark technology, strengthening cybersecurity measures and putting in place robust frameworks are both necessary steps. Efforts to eliminate corruption and lessen the risks associated with financial management should focus on strengthening governance, transparency, and accountability and investing in technical infrastructure and activities to increase capacity to improve financial procedures through technology and conducting additional studies to investigate the unique consequences that dark technology may have on various Iraqi industries and determining context-specific solutions.

##### **6.1. Limitations and Recommendations for Future Studies**

This section highlights the current study's limitations and provides recommendations for future research. It will consist of three subsections:

##### **6.2. Limitations and Recommendations for Future Studies 1: Data and Methodological Limitations**

It took into account the potential biases inherent in the studies that were examined and the constraints associated with the availability and quality of the data. In order to provide a full grasp of the subject matter, it is recommended that mixed-method techniques, longitudinal research, and case studies be used.

##### **6.3. Limitations and Recommendations for Future Studies 2: Contextual Limitations**

We discussed the constraints imposed by the unique circumstances of Iraq, including the country's political, economic, and cultural aspects. In order to acquire insight into the universal and context-specific features of the impact that dark technology has on financial management, it is suggested that comparative studies be conducted with other nations or areas.

##### **6.4. Limitations and Recommendations for Future Studies 3: Emerging Technologies and Evolving Threats**

Given the rapidly changing nature of the technological landscape and the emergence of new dangers linked with shadow technology, it is essential to conduct ongoing study. It is recommended that research be conducted on emerging technologies such as blockchain, artificial intelligence, and data analytics, as well as the implications of these technologies for the country of Iraq's financial management.

#### **7. Conclusion**

The conclusion provides a synopsis of the most important topics brought up throughout the rest of the study. It gives a clear and brief summary of the research objectives, the outcomes attained, and the areas highlighted as needing additional inquiry. In addition, it highlights how important it is for future research to concentrate on tackling the issues provided by dark technology, improving financial management practices, and using technology to improve transparency, accountability, and resilience in Iraq's financial sector.



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