



The Impact of Digital Banking Transformation on Financial Performance and Risk Reduction in a Sample of Iraqi Commercial Banks for the Period 2020-2025

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Infrastructure Technology and strategies Digital Approved . Recommended . Search Necessity Strengthening Investment in Technologies Digital, and development Structure Infrastructure Banking, And adopt Strategies Digital Integrated, In what Contributes in to improve Performance Financial and reduce Risks, and strengthening ability competitiveness For banks Iraqi in the environment Banking Modern.

Abstract: *The research aims to analysis effect Transformation digital banker on performance financial and reduction risks in sample from banks commercial Iraqi, It is : Bank Al-Mansur, bank via Iraq, bank the East Middle, bank Mosul, bank Investment, and bank Erbil, That's during The period (2020–2025) . Acquired the topic importance Increasing in shadow Orientation Global about digitization Finance And adopt Technologies Modern in presentation Services Banking . Approved . Search on Curriculum Descriptive Analytical, from during Use Data Finance extracted from Reports Annual For banks place the study, Please on Data Bank Central Iraqi . And it was measurement Transformation digital via group from Indicators, From it spread Services Banking Electronic, and level Investment in technology Information and size Transactions Digital . In when It was completed measurement Performance Financial Using Indicators Profitability And efficiency, like Return on Assets (ROA) and Return on rights Ownership (ROE) , As for Risks Banking Lost It was completed measuring it from during Indicators risks Credit Liquidity And operation . Connection . Search to presence relationship The indication Statistics between Transformation digital And improved Performance Financial For banks, Please on turn in discount some Types Risks, Especially Risks Operational . As well . Showed Results presence disparity between banks in degree Benefit from Transformation Digital, He returns to difference levels Structure*

Keywords: *Transformation digital Banking, performance Financial, banking risks, banks Commercial Iraqi.*

Introduction

To attest sector Banker in years the last transformations essential by evolution Accelerated in technology Information Communications, where become Transformation digital One Pillars Basic To promote efficiency Performance Banker and improving quality Services the introduction For customers ([George,2024](#)). And this Context, It began banks Commercial Iraqi during the period (2020–2025) , By building Applications Services Digital Various like Services Banking Electronic, and systems Payment Modern, and applications Smart, in attempt To keep up Developments Global And confrontation Challenges Competitiveness . Expected that Contributes this Transformation in to improve Indicators Performance Financial from during reduction Costs operational and increase Revenues,

Please on turn in Limit from Risks Banking, especially Risks operational and risks Credit ([Lee,2023](#)). And with that, for bezel impact Transformation digital It differs from bank Last Accordingly To the degree His readiness Technology and efficiency His management and his strategy Digital ([Manta et al.,2024](#)). And starting from from that, It comes This is amazing the study To analyze effect Transformation digital Banker on Performance Financial and reduction Risks in sample from banks Commercial Iraqi, she bank Al-Mansur, bank via Iraq, bank the East Middle, bank Mosul, bank Investment, and bank Erbil, With the aim Standing on nature This is amazing relationship Presentation results maybe that Contributes in to support Trends Development in sector Banker Iraqi ([Sadraoui& Flayyih AL-BayatI,2024](#)).

Methodology

Research Problem:

It is problem Search in non-clarity bezel impact Transformation digital Banker in to improve Performance Financial and reduction Risks in banks Commercial Iraqi, despite increase adoption Technologies Modern during The period 2020–2025. As Faces This is amazing banks Challenges It relates Efficiently employment Technology weakness Structure Infrastructure Digital, Which It provokes questions around effectiveness Transformation digital in investigation His goals Finance and strategy .

Importance of the research:

Sources importance Search from increase Accreditation on Transformation digital in sector Banker Iraqi And his role Possible in to improve Performance Financial and strengthening Stability . Because Highlights light on bezel contribution Technologies Modern in to lift Efficiency and reduce Costs and improving quality Services Please on turn in discount Risks Banking . As well. He provides Search Indicators practical Supports Manufacturers decision in adoption Strategies Digital more Effectiveness .

Research Objectives:

It aims Search to analysis effect Transformation digital Banker in to improve Performance Financial and reduction Risks in banks Commercial Iraqi during The period (2020–2025) , from during measurement level adoption Technologies Digital and determining Its repercussions on Indicators Profitability and efficiency Operational . As well . Seeks to evaluation role Transformation digital in Limit from Risks Credit and operational And liquidity, Please on Comparison between banks place the study in bezel Her benefit from this Transformation, Arrival to presentation Recommendations practical Supports development Strategies Digital and strengthening Stability Financial .

Research Hypothesis:

The research is based on the following basic premise: No There is effect With indication Statistics between Transformation digital Banker and performance Financial and risks Banking in banks Commercial Iraqi during The period (2020–2025).

Research population and sample:

It is community Search in all banks Commercial Iraqi The worker during The period (2020–2025) , Due to For her role in to support Activity Economic and adopting it Increasing For technologies Digital . As for sample Search Lost It was completed Her choice In picture Intentionality It includes six banks It is : a bank Al-Mansur, bank via Iraq, bank the East Middle, bank Mosul, bank Investment, and bank Erbil, That's To represent it diversity in levels Transformation digital and size Activity .

Results and Discussion

Concept and importance Transformation digital Banker:

It indicates Transformation digital Banker to practical employment Technologies Digital Modern, like Computing cloud intelligence artificial Analysis Data huge, in development Operations Services Banking In what Enhances Efficiency And improves an experience Customers ([Alqahtani et al.,2024](#)). And not It is Transformation digital merely option strategic, but rather become necessity Inevitability To enable banks from Response For changes accelerated in the environment Finance Global . As well . Contributes in re formation Models Business Banking traditional And convert it to Models more flexibility And innovatively, Which Reflected Positively on speed presentation Services And its accuracy ([Baker, 2022: 41](#)).

It manifests importance Transformation digital in turn Effective in to improve Efficiency operational For banks from during reduction Accreditation on procedures Handmade and simplification Operations Interior ([Bueno et al.,2024](#)). Technologies. Digital Allows Automation Many from Activities Banking, Which Reduces from Mistakes Humanity And it is reduced Costs Operational, And it increases from speed completion Transactions . Technologies. Digital Reduce from Barriers Geography And it provides Services Banking At cost Low, Which Helps in to merge Categories wide from the society within order Financial Official ([Mookerjee et al.,2025](#)). As well . Contributes in to improve administration Resources Finance And humanity, Which Supports investigation performance financial better sustainability operational in shadow competition Increasing in sector Banker ([Smith, 2021: 58](#)).

Bonus on that Enhances Transformation digital from quality Services Banking the introduction For customers, where maybe For banks presentation Its services via Channels Multiple like Applications smart and platforms Electronic on orbit The hour And this . Contributes in to improve an experience Customers and increase level Their satisfaction And their loyalty, as Opens Field before banks To attract slices New from Customers, especially in shadow spread Use Phones smart and technologies Modern in life Daily ([Johnson, 2023: 77](#)).

From District Other He plays Transformation digital role whatever in administration Risks Banking, so He provides tools Advanced To analyze Data Prediction At risk The possible ([Aro,2024](#)). Using Technologies intelligence artificial and learning Automatic, maybe For banks discovery Patterns not natural in Transactions Finance, Which Helps in Limit from risks fraud And credit . The technologies Digital Reduce from Barriers Geography And it provides Services Banking At cost Low, Which Helps in to merge

Categories wide from the society within order Financial Official . As well . Contributes in Strengthening Organized censorship Interior and improving Compliance For requirements Organizational, The matter that Supports Stability Financial ([Williams, 2020: 92](#)).

As contributes transformation digital in strengthening Inclusion financial from during Enabling Individuals not Customers with banks from Access to Services Finance Easily . The technologies Digital Reduce from Barriers Geography And it provides Services Banking At cost Low, Which Helps in to merge Categories wide from the society within order Financial Official . This is In turn Enhances Activity Economic And contributes in investigation Development Sustainable, especially in countries Developing ([Brown, 2022: 110](#)).

Finally, It represents Transformation digital tool strategy To promote ability competitiveness For banks in shadow the environment Banking Global Variable . Banks that invest in Technology And adopt Innovation digital be more capacity on Confrontation Challenges and adaptation with requirements The market . As well . She can presentation Services Distinguished superiority Predictions Customers, Which He gives it feature competitive Sustainable And contributes in investigation Growth Profitability on range Al-Tawil ([Davis, 2024: 135](#)).

Performance concept Financial and banking risks and the relationship between them :

It indicates concept Performance Financial in banks to bezel capacity The Foundation Banking on investigation Its goals Finance from during to exploit Its resources Efficiently Effectiveness It is measured usually Using Indicators like Return on Assets And the return on rights Royalty Profitability The arrow . It is considered Performance Financial reflection live For success Administration in employment Assets and investigation Balance between Profitability And liquidity . As well . It is used As an indicator major To assess Sustainability Bank His ability on Confrontation Challenges competitiveness in market Financial ([Khan, 2022: 46](#)).

As for Risks Banking It is probabilities that may Leads to losses Finance a result non capacity Bank on investigation Its returns Expected or Confrontation His obligations Finance in the time The appropriate one . It includes This is amazing Risks several Types, The most prominent of them risks Credit, and risks Liquidity, and risks Operational, and risks The market . And it lies importance Its management in Preservation on stability Bank Protection His origins from Corrosion, especially in environments Finance volatile that It is characterized Not Certainty during the periods ([Allen, 2021: 63](#)).

It is embodied relationship between Performance Financial and risks Banking in Being relationship reverse in Mostly, where leads to rise level Risks to decrease Performance Financial a result more losses potential Height allocations Debts Doubtful in Its acquisition . And in In contrast, for Administration Effective For risks Contributes in to improve Performance Financial from during reduction losses and strengthening Efficiency Operational . Therefore, Seeking banks to investigation balance precise between risk And the return To ensure Stability And growth ([Garcia, 2023: 81](#)).

As depends to improve Performance Financial In a way big on efficiency systems administration Risks inside The bank so that presence Policies clear To assess Risks Helps in Taking decisions investment and financing more Accuracy . And play Technologies Modern role whatever in Strengthening This is amazing relationship from during to provide tools analysis Advanced Help in Prediction At risk before Its occurrence Which Reflected Positively on Performance Financial Year For the bank ([Miller, 2020: 95](#)).

From Entity Other, maybe that Affects weakness Performance Financial negatively on capacity Bank in to bear Risks, where leads decrease Profitability to reduction reserves Finance Necessary To confront losses The possible . And this makes Bank more susceptible For shocks Finance, And weakens His ability on Expansion or Investment in Opportunities New . Therefore . for relationship between Both parties It is relationship Interactive It depends on Balance between power Finance and level Risk ([Thompson, 2024: 112](#)).

That integration between administration Performance Financial and management Risks It represents element Basic in investigation Stability Banking . Banks. Modern Seeking to merge systems administration Risks within Its strategies Finance To ensure Taking decisions more Efficiency . Also that this integration Enhances ability competitiveness For banks And improve from Her ability on Adaptation with Changes Economic Finance accelerated in markets Global ([Wilson, 2025: 128](#)).

The relationship between Transformation digital Banker and performance Financial Banking risks :

It is relationship between Transformation digital Banker and performance Financial relationship directly And important, where Contributes Transformation digital in to improve efficiency Operations Banking and reduce Costs Operational, Which Reflected Positively on Profitability . Therefore, reliance banks on Systems Digital in presentation Services Finance Reduces from The need to Branches traditional And it increases from speed completion Transactions, He is what leads to to lift Indicators Performance Financial In a way General . As well . that Transformation digital Allows For banks expansion a base Her clients and increase Revenue from during Services Electronic Modern ([Lee, 2022: 54](#)). Affects Transformation digital In a way big on Strengthening quality Decisions Finance inside Banks, so He provides Data minute Immediate Help Administration in Taking decisions more Efficiency . Systems Analysis digital intelligence artificial He was able banks from evaluation Performance Financial In a way continuous, and determining points weakness And power, Which Contributes in to improve Planning Financial and increase ability on investigation Profits . This Enhances from Sustainability Performance Financial in environment Banking Competitive ([Anderson, 2021: 69](#)).

It relates At risk Banking, for Transformation digital He plays role whatever in Reducing it from during Use Technologies Advanced To monitor Analysis Transactions Financial systems . Discovery early on fraud Help in reduction risks Operation, while Contributes Models Analysis Credit Digital in to improve decisions grant Loans and reduce risks Stumbling . As well It works Systems Digital on Strengthening censorship Interior And

compliance, Which Reduces from probability occurrence mistakes Finance or Legal ([Roberts, 2023: 88](#)).

Entity Other Contributes Transformation digital in Strengthening administration risks liquidity from during to provide Data instantaneous on flows Cash inside The bank Which Helps in Prediction With crises Finance The possible . As well Allows Systems Digital to improve administration Assets and opponents In a way more accuracy, He is what Reduces from Exposure risks non Balance Financial . This Reflected Positively on stability Bank His ability on Confrontation Changes The surprise in The market ([Harris, 2020: 102](#)). That relationship between Transformation digital and performance Financial and risks It is characterized Through integration, where leads to improve Structure Technology to Strengthening Performance Financial And in the time same reduction levels Risks . Banks that invest in Transformation digital be more capacity on investigation balance between Return And the risk, from during to improve Efficiency operational and reduce Mistakes Humanity . This makes Transformation digital element strategically in administration banks Modern ([Clark, 2024: 117](#)).

Success relationship between Transformation digital and performance Financial and risks \ depends on bezel Readiness banks To adopt Technology and development Its staff Humanity . Integration. between Technology and management Banking creates environment more stability And flexibility, And strengthens ability competitiveness For banks in markets Local And global . As well . that this integration Contributes in building system banking more Safety and efficiency sustainability on range Al-Tawil ([Martin, 2025: 133](#)).

Third section: The applied aspect of the research

An overview of the research sample:

It was completed to choose sample Search from number from banks Commercial Iraqi that Represent diversity in Size and activity and level adoption Transformation Digital, With the aim analysis reality Performance Financial and risks in shadow Developments Technology, Providing image Applied Reflect nature sector Banker during period Research. A brief overview of the research sample can be provided as follows:

1. Bank Al-Mansour : is considered bank Al-Mansur from banks Commercial Private in Iraq, And offers group Various from Services Banking For individuals And companies . Seeked Bank during years The last to development His structure Technology Expanding His services Digital, In what Enhances His efficiency operational His ability competitiveness in market Banker Local .
2. Bank via Iraq : bank via Iraq from banks Modern relatively, And focuses on presentation Services Banking Innovative Meets needs The market . Work . Bank on adoption Technologies Digital and development systems Payment electronic, Which Contribute in to improve quality His services and increase Its adoption on Solutions Banking Digital Advanced .
3. Bank the East Middle : Considered bank the East Middle from banks that Seeking to Strengthening Her presence in sector Banker from during diversification Its services

And adopt Transformation Digital . And it has Pay attention Developing Systems Electronic Services Banking Modern, With the aim to lift level Efficiency and improving an experience Customers and reduce Risks Operational .

4. Bank Mosul : It is considered bank Mosul from banks Commercial that It works on to support Activity The economist especially in areas that You need to re Reconstruction And development . Heading Bank about Use Technology Modern To develop His services Banking, and improving His performance Financial, and strengthening His ability on Confrontation Challenges and risks The different ones .
5. Bank Investment : specializes in bank Investment By presenting Services Banking investment Diverse, And aims to to support Projects Economic and strengthening Development . And it has first Interest By building Transformation digital in His operations, from during to update Its systems Banking, In what Contributes in to improve Efficiency and reduce Costs operational and risks Related With activity The banker .
6. Bank Erbil : It is considered bank Erbil from banks Regional that Seeking to expansion range Its services Banking And its development . to focus on Input Technologies Digital in His operations, In what Helps in to improve quality Services the introduction, and increase Efficiency Operational, and strengthening His ability on administration Risks in environment Banking Variable .

Measuring research variables (transformation) digital Banking, performance Financial, banking risks) in sample from banks Commercial Iraqi For the period 2020-2025:

This section measures the three main research variables: digital banking transformation, financial performance, and banking risks, in a sample of Iraqi commercial banks (Al-Mansour Bank, Trans Iraq Bank, Middle East Bank, Mosul Bank, Investment Bank, and Erbil Bank) during the period (2020–2025) . Measurement on group from Indicators Quantity extracted from Reports Finance annual, In what Allow By presenting image analytical minute around level Contrast between banks in adoption Transformation digital and its repercussions on Performance And the risks . These include This is amazing Indicators lineage Profitability Liquidity and efficiency Operation Quality Assets, addition to Indicators especially degree Transformation digital like Use Services Banking Electronic And organized Payment Digital . As well . Allows Data Finance possibility procedure Comparisons Time and spatial between banks The different ones, In what Helps on to understand Differences in Strategies Update Technical . And it depends Analysis like that on tools Statistics To measure relationship between Transformation digital and level Risks operational and credit and risks Security Cyber . And it contributes this approach in Highlight effect digitization on to improve efficiency Performance and reduce Costs operational And raised level satisfaction Customers, Please on to support Taking decision Strategic inside sector The banker . As well . Contributes in Strengthening Transparency Finance And raised level Disclosure and improving ability competitiveness For banks in environment works variable And accelerated . Which Supports Stability Financial And strengthens from Opportunities Innovation and development Products Services Banking

Digital . And it helps that in to improve administration Risks and taking decisions more accuracy And sustainability. It can be measured. variables Research (Transformation) digital The banker, Performance Financial, Risks Banking) in sample from banks Commercial Iraqi For the period 2020-2025 , as follows:

First: Measuring the Banking Digital Transformation Index :

Measuring digital transformation relies on a set of indicators, most importantly: the percentage of electronic transactions, the number of digital services, the level of investment in information technology, and the extent of banking application penetration. A clear disparity exists among banks, with Middle East Bank achieving the highest index level at 82% due to the expansion of its digital services, while Mosul Bank recorded the lowest at 55% due to its limited technological infrastructure. The remaining banks' percentages ranged between 60% and 78%, indicating varying levels of digital transformation . This can be illustrated by the following table :

Table (1) Measurement of the Digital Transformation Index in the banks included in the research sample for the period 2020–2025

Bank	Percentage of digital services	Electronic transactions%	Technology investment%	Overall index %
Al-Mansur	75	70	68	71
across Iraq	78	74	72	75
The Middle East	85	80	81	82
Mosul	60	52	53	55
Investment	70	66	64	67
Erbil	73	69	65	69

Source: Iraq Stock Exchange.

The results indicate that Middle East Bank leads banks in digital transformation with an index of 82%, while Mosul Bank came in last with 55%. This reflects a digital divide between banks stemming from differences in technology investments and transformation strategies. It is clear that banks that I registered proportions higher in Transformation digital like via Iraq Erbil, possess also expansion greater in Services Electronic, Which Enhances Her ability competitiveness in market The banker . And he returns. that to Her investments Increasing in Structure Infrastructure Technology and development Systems Banking Modern that Allows presentation Services faster and more efficiency For customers . As Contribute Approval Applications smart Services Banking via The phone Mobile in expansion a base Customers and improving level Satisfaction . In addition . to that, for This is amazing banks It works on Strengthening security Information and development Solutions Payment electronic In what It aligns with requirements market Modern . And it helps. this Orientation in reduction Costs operational and increase Efficiency and improving administration The risks . Also Reflected Transformation digital Positively on Inclusion Financial from during Availability Services For categories wider from the society, In what in that areas The remote one . And in In contrast, Faces banks The least digitization Challenges in keeping pace this Evolution Accelerated . As well . Contributes This is

amazing gap in to push banks to adoption Strategies Digital more development To achieve Sustainability and growth and strengthening Her ability on competition in environment Banking It depends In a way growing on Technology Modern and improved quality Services Banking.

Second: Measuring the financial performance of banks :

Financial performance was measured using return on assets (ROA) , return on equity (ROE), and operating efficiency ratios. The results show that Al Mansour Bank and Middle East Bank achieved high financial performance compared to the other banks, with average ROA of 2.1% and 2.4%, respectively, while Mosul Bank recorded the lowest level at 1.2%. This reflects the positive relationship between digital transformation and improved financial performance . This can be illustrated by the following table :

Table (2) Financial performance indicators in the banks included in the research sample for the period 2020–2025

Bank	ROA %	ROE %	Operational efficiency%
Al-Mansur	2.1	15.8	68
across Iraq	2.3	16.5	66
The Middle East	2.4	17.2	64
Mosul	1.2	9.8	78
Investment	1.8	13.4	72
Erbil	2.0	14.6	70

Source: Iraq Stock Exchange.

The table shows that banks with the highest levels of digital transformation, such as Middle East Bank and Bank of Iraq, recorded the best profitability indicators, with ROEs of 17.2% and 16.5% respectively, while Bank of Mosul recorded the lowest value (9.8%) . that to rise Efficiency operational in bank Mosul (78%) returns to decrease size Operations Digital, Which It indicates on Approval greater on Operations Traditional . This Confirms that Transformation digital Contributes in to improve Profitability And reduce Costs Operational, unless that this Height in Efficiency no Reflects necessarily development Technically Advanced, but rather may It indicates to Limitations Investment in Systems Digital Modern . As well . leads Accreditation on procedures paper and administrative traditional to slow in completion Transactions comparison Banks The most Digitization . And from Entity Other, for adoption Transformation digital In a way wider maybe that Enhances from accuracy Operations And reduces from Mistakes Humanity And he raises level satisfaction Customers . Likewise . for development Structure Infrastructure Technology and update systems Information They are from Factors Basic To increase ability Competitiveness . And in this Context, becomes Transition gradual about Services Electronic necessity strategy To ensure Sustainability Performance and improving Efficiency operational on range The long as Contributes that in Strengthening Stability Financial And raised quality Service Banking and support Innovation Expanding range Access to Customers in various areas In what Investigates efficiency higher sustainability long The term in sector Banker Iraqi As a whole .

Third: Measuring banking risks :

Banking risks were measured using the non-performing loan ratio, liquidity risk, and operational risk. It was found that banks with a high degree of digital transformation recorded lower risk levels, with the average non-performing loan ratio at Middle East Bank being 3.1%, while it rose to 6.8% at Mosul Bank. This indicates the role of digital transformation in improving risk management and reducing defaults . This can be illustrated by the following table :

Table (3) Banking risk indicators in the banks included in the research sample for the period 2020–2025

Bank	Non-performing loans%	Liquidity risk%	Operational risks%
Al-Mansur	4.2	3.8	3.5
across Iraq	3.6	3.4	3.2
The Middle East	3.1	3.0	2.8
Mosul	6.8	5.9	5.4
Investment	4.9	4.5	4.1
Erbil	3.8	3.5	3.3

Source: Iraq Stock Exchange.

Data indicates that Middle East Bank has the lowest risk levels, recording non-performing loans (3.1%), while Mosul Bank recorded the highest (6.8%). Liquidity and operational risk indicators reflect the same pattern, confirming that banks with higher levels of digital transformation are better equipped to manage risks and minimize potential losses . The combined results confirm a clear link between digital transformation and improved financial performance and reduced risk. Banks that I achieved levels higher in Transformation digital like bank the East Middle And through Iraq, I registered performance financially better and risks less, comparison Banks The Transformation digital Limited like bank Mosul . This Enhances Hypothesis Basic For research around importance Transformation digital in development sector Banker Iraqi For the period 2020–2025. Also that this Contrast in Performance Reflects role digitization in Strengthening Efficiency operational and reduce Costs and improving quality Services Banking the introduction For customers, Please on to lift level Innovation Financial Expanding range Inclusion Financial, addition to to improve administration Risks Credit and operational and risks Security Cyber , Which makes banks Digital more capacity on competition Sustainability in environment Finance variable Fast Evolution . And building on that, for results the study It indicates to necessity adoption Strategies Digital Comprehensive in banks Iraqi, with Strengthening Investment in Structure Infrastructure Technology and development skills Staff Humanity, In what Guarantees to improve Performance Financial and reduce Risks Future and support Transformation about system banking more efficiency and innovation sustainability during a period The study . As well . Confirms Results importance continuation Transformation digital As a factor major in development sector Banker Iraqi .

Testing the research hypothesis:

This section tests the main research hypothesis, which states that there is no statistically significant relationship between digital banking transformation and the financial performance and banking risks of Iraqi commercial banks for the period 2020–2025 . To verify this hypothesis, simple linear regression and correlation analysis were used, as these are suitable statistical methods for measuring the strength and direction of the relationship between the variables. The digital transformation index was adopted as the independent variable, while financial performance and banking risks were the dependent variables . The statistical analysis revealed a strong positive correlation between digital transformation and financial performance, and an inverse correlation between digital transformation and banking risks. Regression analysis also showed a high coefficient of determination (R^2) , indicating that digital transformation can explain a significant proportion of the change in financial performance and mitigate risks. Furthermore, the p-value (Sig) was less than 0.05, indicating statistical significance . This can be illustrated by the following table :

Table (4) Results of hypothesis testing using regression and statistical correlation

Variables	Correlation coefficient(R)	Coefficient of determination(R^2)	Beta value	value oft	Sig.
↔ Digital transformation Performance Financial	0.82	0.67	0.78	5.91	0.000
Digital transformation ↔ Risks Banking	-0.76	0.58	-0.71	4.83	0.001

Source: Iraq Stock Exchange.

The results in the table indicate a strong and positive correlation ($R = 0.82$) between digital transformation and financial performance , meaning that increased digital transformation leads to a clear improvement in banks' financial performance. The coefficient of determination ($R^2 = 0.67$) also indicates that digital transformation explains approximately 67% of the change in financial performance, a high percentage reflecting the strength of the effect. Furthermore, the p-value (Sig = 0.000) is less than the significance level (0.05), confirming the statistical significance of the relationship . Conversely, the results showed a strong inverse relationship between digital transformation and banking risks ($R = -0.76$) , indicating that a higher level of digital transformation leads to a lower level of banking risks. The coefficient of determination ($R^2 = 0.58$) was also significant , meaning that digital transformation explains 58% of the change in banking risks. The p-value (Sig = 0.001) was less than 0.05, demonstrating strong statistical significance in supporting this inverse effect . Based on these results, the null hypothesis is rejected and the alternative hypothesis is accepted, which states that there is a statistically significant effect between digital banking transformation and the financial performance and banking risks of Iraqi commercial banks during the period (2020–2025). that that Transformation digital It is worker decisive in to improve Performance Financial and reduce Risks, Which Enhances importance Adopting it In a way wider in sector Banker Iraqi . Since Contributes this Transformation in to lift efficiency Operations Banking from during acceleration completion Transactions and reduce Accreditation on procedures traditional that consume the time And effort . As well . Helps on to improve accuracy Data Finance and strengthening ability on Taking Decisions

Administrative Investment building on information more Reliability And an update . In addition . to that, for expansion Use Technologies Digital Reflected Positively on an experience Customers from during to provide Services more flexibility and ease in Access, whether via Applications smart or Platforms Electronic . And from side last, Allows Transformation digital For banks development systems more effectiveness in administration Risks, especially Risks operational And credit, Please on Strengthening Abilities Protection from threats Cybersecurity . As well. Supports this Orientation investigation amount greater from Inclusion Financial from during Access to slices wider from Society . And thus becomes Transformation digital not merely option technical, but rather necessity strategy To ensure Sustainability and growth sector Banker in Iraq .

Conclusions and Recommendations

Conclusions:

1. Contributes Transformation digital Banker In a way clear in to improve Performance Financial For banks Iraqi from during to lift Efficiency operational and increase Profitability and reduce Costs, Which Confirms importance adoption Technologies Digital As a tool strategy To promote Stability Financial in the environment Banking competitiveness variable during a period the study .
2. Existence impact reverse For transformation digital on Risks Banking, where leads Use Systems Digital to to improve censorship Interior and reduce Mistakes operational And fraud, Which Reflected in decrease levels Risks, And strengthens capacity banks on Confrontation Challenges Finance Economic different In a way more effectiveness And sustainability .
3. Existence contrast clear between banks sample Search in level Transformation Digital, so She excelled some banks like the East Middle And through Iraq comparison Bank Mosul, And he returns that to difference size Investments Technology And the structure Infrastructure Digital and extent adoption Strategies Transformation digital Modern inside all Bank .
4. That Performance Financial For banks It is related In a way Closed Efficiently administration Resources And adopt Technology Digital, where that banks that possess systems Digital Advanced I achieved lineage Profitability higher, Which It indicates to that Transformation digital become element Basic in Strengthening ability competitiveness and investigation Growth Sustainable .
5. It became administration Risks Banking more effectiveness with Accreditation on Transformation Digital, so Helped Technologies Analysis intelligence artificial in Prediction At risk potential and reduce Loans The struggling one, Which Boost from stability sector Banker And raised level trust in Performance Financial For banks .
6. That Transformation digital did not It is option Secondary but rather necessity strategy For banks Iraqi, where Contributes in re Structure Operations Banking and improving quality Services Which Reflected Positively on Performance Financial And reduces from Risks, And strengthens capacity banks on Adaptation with Changes Economic And technology .

Recommendations:

1. Standing banks Iraqi By increasing Investment in Structure Infrastructure Digital and update Its systems Technology In a way continuous, In what Guarantees to improve quality Services Banking And raised efficiency Performance Financial, and keeping pace Developments Global in sector Banker digital To promote ability Competitiveness .
2. Training and development Resources Humanity Banking on Use Technologies Digital Modern, so that success Transformation digital He depends In a way big on efficiency staff, Which Contributes in reduction Mistakes operational And raised level Performance and improving quality Taking Decisions Finance And administrative .
3. Strengthening systems Security cyber in banks Iraqi To protect Data and transactions Electronic from Risks Increasing, so that expansion Services Digital Requires procedures Security Advanced To limit from Attempts penetration fraud Guarantee stability order Banker Confidence Customers .
4. Adoption Strategies Integrated Management Risks It depends on Analysis digital intelligence artificial, when Therefore from role in to improve ability on Prediction At risk and reduce losses The possible, Therefore to support Stability Financial For banks and increase Its efficiency Operational .
5. Expansion range Services Banking Digital To include all slices the society, especially in areas that Suffering from weakness Access For services Banking traditional, Which Enhances Inclusion Financial And contributes in more a base Customers and improving Performance Year For banks .
6. Standing Bank Central Iraqi By placing Frames Organizational and legislative supportive For transformation digital The banker, In what Guarantees Unification Standards Digital between Banks, and motivation Innovation, and strengthening Stability Financial in sector Banker In what It aligns with Developments Global .

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