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The impact of minimizing the risks of electronic transactions on improving the financial performance of the Algerian banking sector (2011-2018)

Melikaoui Hadjila[1], Hamadi Nabil[2]

[1] sustainable local development laboratory, Yahya Fares Medea University (Algeria)
Melikaoui.hadjila@univ.medea.dz

[2] sustainable local development laboratory, Yahya Fares Medea University (Algeria)

prfhamadinabil@gmail.com

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Abstract:

this study aim to clarify the impact of minimizing the risks of electronic transactions on improving the financial performance of the Algerian banking during the period 2011-2018 for 28 public and private banks, By testing a multiple regression model between electronic banking risk as independent variables and financial performance as a dependent variable.

The study model showed that there is a positive direct relationship between risk reduction and financial performance improvement at the 5% error level. Therefore, the study recommended the necessity of providing the necessary requirements to reduce the risks of electronic transactions through banking supervision and control over all electronic transactions

Keywords: electronic banking risks ; financial performance.

JEL Classification Codes: G2, Y1.

ملخص:

تهدف هذه الدراسة إلى توضيح أثر تقليل مخاطر المعاملات الإلكترونية على تحسين الأداء المالي للمصارف الجزائرية خلال الفترة 2011-2018 لـ 28 بنكًا حكوميًا وخاصة، من خلال اختبار نموذج الانحدار المتعدد بين المخاطر المصرفية الإلكترونية كمتغيرات مستقلة والأداء المالي كمتغير تابع.

أظهر نموذج الدراسة أن هناك علاقة طردية موجبة بين تقليل المخاطر وتحسين الأداء المالي عند مستوى خطأ 5%، لذلك أوصت الدراسة بضرورة العمل على توفير متطلبات تقليل مخاطر المعاملات الإلكترونية من خلال الإشراف الفعال والرقابة على جميع المعاملات الالكترونية

كلمات مفتاحية:مخاطر التعاملات المصرفية الإلكترونية،أداء المالي.

تصنيفات JEL: G2 ،Y1

Corresponding author:*Melikaoui Hadjila*, ***e-mail:*** *Melikaoui.hadjila@univ.medea.dz*

1. Introduction

The banking sector is considered one of the most important economic sectors in developed and developing countries due to its contribution to the growth, support and development of the economy through the role of mediation between savers and investors in terms of depositing and reinvesting money.

In light of the continuous changes in the economic and electronic environment, banks are exposed to many risks represented in credit risks, liquidity and Capital risks, and the risks of electronic transactions provided by electronic banking services, which carry with it many risks corresponding to this development, as it has become necessary to monitor the level of these risks surrounding electronic work and to establish the necessary supervisory procedures to control and manage their negative effects in a proper manner.

in view of this, and considering that the Algerian banking system is a modern electronic transaction compared to other developed countries, the matter calls for diagnosing the reality of these risks and the means of controlling them and reducing them in order to minimize the costs associated with them, and then achieve a positive impact on the financial performance of our banking institutions.

Thus, the problem of our research is summarized in answering the following question:

How can reducing the risks of electronic banking transactions affect the improvement of the financial performance of Algerian banks ?

Depending on the main problems, the following sub-questions can be elicited:

- What is the reality of both the risks of electronic banking transactions and the financial performance of Algerian banks ?
- What is the nature of the relationship between reducing the risks of electronic banking transactions and improving the financial performance of the Algerian banking sector?

In order to answer these questions, the following hypotheses were adopted:

- The risks of electronic banking transactions for Algerian banks may increase due to the recent experience, which could lead to a decline in the liquidity and financial return of Algerian banks;
- Reducing the risks of electronic banking transactions (legal and strategic) will have a statistically significant effect (at the level of a=0.05) to improve the financial performance of the Algerian banking sector.

In order to achieve the desired goal of this study, we use the descriptive and analytical approach, and based on the nature of the data to be collected and the approach followed, it was found that the most appropriate tool to achieve the objectives of this study is calculating indicators to measure the risks of electronic banking transactions as well as indicators of financial performance and then estimating and testing model of their relationship.

To answer the questions of the study, we divided it into a theoretical part and an applied part, where the theoretical part includes some studies that dealt with the relationship between electronic banking services and the financial performance of banks, then provide an overview of the risks of electronic transactions and how to reduce them, in addition to how to improve the financial performance of banks. In the applied part we will analyze and test the relationship between the risks of electronic banking transactions and the financial performance of Algerian commercial banks, the most important findings and suggested recommendations

2. The literature review

2.1Previous studies:

I showed a study (2016 Md. Nur Alam SIDDIK-) Effects of electronic banking on the performance financialFor thirteen banks in Bangladesh during the extended period 2003 to me 2013 Measures and analyzes return on efficiency, return on assets and net interest margin. The study concluded that electronic banking services begin to contribute positively to the banks' return on shareholders' equity, with a two-year period, while a negative impact was found in the first year of adopting the empirical results of this study. The researcher tried to study the effects of electronic banking on financial performance. It deals with the impact of the risks of this business on the financial performance of banks, and this is what we seek in our current study.

In the following year came a study (2017Abood Saleh Ahmad AL-) Knowing the level of quality of electronic banking services in Jordanian banks And its impact on the performance of these banks, Bit Ally resolution distributed to (320) it will be answered From top and middle management. Our study agrees with this study in the same goal, which is to improve the financial performance of banks, but there is a difference in the independent variables. In this study, the independent variable is the quality of banking services, while in our study it is the electronic banking risks.

For the study (Sarah bin Ghaida, 2018) aimed to study the problematic of electronic banking risk management mechanisms and its impact on the banking service. Improving its banking services During the positive effect between the study variables.

In the same context, a study showed (AshaAhmed, 2018) that the security of online banking services and strategies to mitigate banking threats via the Internet reap positive benefits for the financial performance of commercial banks. studying You did not find there The impact of online banking risk management practices on the performance of banks, However, it recommended that Invest in better interest risk management practices in order to reduce risk and make meaningful investments To develop Jobs and Operations Banks Online.

Interested studying (Jalaliya Abdul Jalil, 2019) with the factors that helped to rely on electronic banking as an option in the banking industry, and mentioned its most important services and channels for providing them, as well as the risks to which electronic banking is exposed.

It also included (Sabah Shaer and others, 2019) a survey study for a number of Iraqian private banks, in order to know the impact of electronic banking in achieving the market value of the bank, the study used the questionnaire as a tool for data collection, and after conducting appropriate statistical analyzes of the data, and concluded that the use of electronic banking is available in Iraqi banks To a very high degree.

Our study agrees with previous studies in several aspects, represented in the study of electronic banking and its most important risks, and differs with them in that the study studies the impact of minimizing the risks of electronic banking transactions on improving financial performance, and given the absence of similar studies previously conducted in Algeria directly related to the subject (As far as the researcher knows), we found it necessary to make a new addition in this field, by presenting a study entitled The impact of minimizing the risks of electronic banking transactions on improving financial performance, by calculating indicators that measure the risks of electronic banking transactions using quantitative methods to provide recommendations to the bank for good management of these risks**.**

2.2Minimizing the risks of electronic banking transactions

Most banking transactions are done electronically. Which using Technologies media and contact new, whether it depends swipe or by payment or credit or by conversion or by dealing in a money bills or not that from business banks, and in shade this style from banking no he is client forced to move to the bank, He can do with some operations with bank and he is in his home or office, which means transcending the dimensions of space and time(sabah Shaer and others , 2019, p. 193)

In view of that All banks seek to provide their services using information and communication technology, to take advantage of the following advantages of electronic banking transactions: (Shafi, 2007, p. 155)

✓ These operations are characterized by flexibility, ease and speed, which allows expanding the circle of dealing with them within banking and financial institutions and others, which ensures protection and integration between information and electronic banking services.
✓ Ease of communication between inside and outside through the advanced technological communication network, which allows to overcome geographical and time obstacles in the completion of banking, commercial and financial transactions in general.
✓ Credit and debit cards when transacting electronically enable customers to obtain discounts from retail outlets ;(Chovatiya, 2014, p. 175)
✓ Enable customers to obtain money at any time through ATMs, and to pay via the Internet for the purchase of various commodities; (Kuldeep, 2019, p. 21)
✓ Providing the cost of the resources needed for traditional banking services, which improves the financial performance of the bank(Tegu Kjur, 2015)

The significant growth in electronic banking activities has created new challenges for banks and regulators in light of the lack of management and bank employees with sufficient experience to follow the rapid developments in communication technology, in addition to the escalation of fraud and fraud on open networks such as the Internet, as a result of the absence of traditional practices. Through which the identity and legitimacy of the customer was ascertained, the Basel Committee on Banking Supervision referred to the importance of banks setting policies and procedures that allow managing the risks of electronic banking through their evaluation, control and follow-up.

At the forefront of these risks are the strategic risks, where Banks need to develop a strategy for using online distribution channels in order to provide information to dictate and also carry out the operations they request. There is no doubt that the increased intensity of competition between banks and the different nature of the accompanying strategies may expose banks to great risks in the event that the planning and implementation processes of the electronic banking strategy are not sound(Ghaida, 2018, p. 668)**,** Strategic risks affect long-term investment profits due to improper long-term business decisions of banks **.**(marjan, 2007, p. 6)

Strategic risks are estimated through several indicators, the most important of which is the net output index compared to banking burdens, and it can be minimized through effective supervision by the bank's management of all electronic banking operations activities. And carry out comprehensive operations to control and monitor security. And comprehensive interest in everything related to and resulting from the relationships that link the administration with external suppliers and other parties, and comprehensive interest in everything related to and resulting from the relationships that link the administration with external suppliers and other parties (Abdul Jalil Jalaliya, 2019) .

In the second level comes the operational risks associated with the use of technologies and systems, which makes these risks more important for electronic banking transactions, due to the heavy reliance on technologies in all aspects of these services. Operational risks arise from insufficient insurance of systems resulting from the possibility of unauthorized penetration Bank accounts systems with the aim of identifying and exploiting the customers' components, or the inadequacy of the systems design, work completion or maintenance, as well as the result of customer misuse.

Operational risk can be measured by the indicator total assets compared to the number of workers, and to lower it (Khaled Qashi, 2010, p. 246)It is possible to implement communications security measures, such as a "firewall", passwords, encryption technology, and user authentication. It is necessary to test for "vulnerability" of the system, constantly checking the system for viruses. The risks of system design Its implementation and maintenance have an important impact on the development of electronic banking and electronic money. The risks that may be manipulated in this part are stopping or slowing down the system, which may have negative consequences for the bank's customers. It is not uncommon for banks to take on foreign providers Experts in implementation, operation and support, providing seamless management of e-banking and e-money activities. One potential risk to system design, implementation, and maintenance, employees and management who accept innovation can be more challenging. Technology can bring about changes very quickly, so the management and employees of the bank have not been fully able to understand the nature of new technologies (Tijana Rdojevic, 2010, p. 108)

As for the reputational risk resulting from the exposure of the bank's reputation to severe damage, in case Non Provide Bank transactions via the internet on standards Safety and confidentiality and accuracy and timing continuity and response immediate needs and requirements his clients, And from okay protection the bank from Verse modes negative can that it causes reputation damage, van This bank should He has to develop censorship and follow up the performance with regards for activities banking e (Hassan Salah, 2010, p. 26) **.**

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Unforeseen events, including the internal and external establishment of the system that may affect the provision of electronic banking services(Tijana Rdojevic, 2010, p. 109)

The bank may be exposed to legal risks in the event of a violation of established laws or rules and controls, especially those related to combating money laundering operations, or as a result of the lack of clear definition of rights and legal obligations resulting from electronic banking operations, including the lack of clarity about the availability of rules to protect consumers in some countries due to the lack of Knowing the legal status of some concluded agreements using electronic mediation.

Measuring the legal risks of electronic banking transactions through the indicator of the ratio of rejected and authorized low and rejected and unauthorized ones the low legal risks is necessary for ensuring adequate information ones provided on private web pages customers to empower them From verifying the identity of the bank's regulatory status before entering into electronic banking transactions. As a formal system, the complaints is based on suspicious accounts(Tijana Rdojevic, 2010, p. 108)

In addition, the electronic banks are also exposed to credit risks, liquidity risks and market risks by practicing electronic banking operations, with different severity depending on the nature of the operation, such as: recovery risks within the framework of lending risks, exchange rate fluctuations in international electronic transactions within the framework of market risks, and risks. The incompatibility of the assets and liabilities calculated for electronic banking business within the context of liquidity risk, and the risks arising from taking wrong decisions or incorrect implementation of the drawn policies and failure to adapt to the emerging changes in the banking arena within the framework of strategy risks

2.3 Improving the financial performance of banks

The banking sectors plays a major role in supporting and developing our economy. The process of evaluating and improving its performance is an urgent necessity, because of its paramount importance in achieving the efficient use of the resources available to the bank, and judging its success in achieving the planned objectives.

Financial performance is considered financial status tool for the bank; It also contributes to making decisions, avoiding gaps and obstacles, and working to motivate management to achieve better results and standards at all levels through specific formulas with numerical and quantitative values that determine the level of performance accurately.(Aboud salah, 2017, p. 152)**.**

Improving the financial performance of the bank by achieving high growth rates and large returns after deducting the cost of capital from profits after taxes, and facing the financial risks resulting from the use of debt and third party funds to finance the bank's uses, that is, achieving two main dimensions: high profitability and low risk(Abdel Halim, 2008, p. 161).

Bank performance is evaluated using qualitative and quantitative criteria (Yahya Saidi, 2013, p. 148)**,** The first relates to the quality of banking services, such as the volume of customer complaints, whether as a result of errors or poor banking service, and the significant expansion in the use of banking services technology. As for quantitative standards It is related to linear programming to study the extent of maximizing the returns of banking services and minimizing their burdens, statistical estimation tools, and financial analysis.

Using financial ratios in financial analysis is one of the most important means that help to know the bank's liquidity position and the position of the funds available for employment, as well as the solvency of capital and the profitability of banks; rate of return on equity; Return on Assets and Profit Margin Rate(Tariq Abdel AAl, 1999, p. 79).

David Cole also worked on deducing the return on equity model in 1972, which shows the interrelationship between profitability and risk based on ROI and risk indicators. As for recent research, such as CAMALS model which is considered as a quick indicator of familiarity with the financial position of any bank, and the economic value-added model EVA which are measuring the financial performance and efficiency system in banking management.

To improve the financial performance of the bank, it is necessary to plan well in a systematic way in terms of operational, administrative and financial terms and to use certain strategies and to provide a number of models and methods that can be summarized as follows: (Muhammad Shaban Hassan, 2020)

- ✓ Increasing the volume of services offered to maximize the value achieved for shareholders,
- ✓ making banks more oriented towards customers and the banking market;
- ✓ assets Optimization, which is used as a measure of assets ROI;
- ✓ Specify best mix desired in it from the findings, And that It includes Specify the size the appropriate from capital and debts, Type Investments Occasion whether she was short or long term;
- ✓ Strengthen durability and flexibility Finance for banks and for the device bank As a whole;

✓ adaptation Banks with variables and the global data environment.

Improving the financial performance of the Algerian banks need to perform the practical side by identifying the reality of electronic banking risks transactions, as well as the reality of its financial performance, and then estimate and test the study model that looks at how the minimization of banking risks affects the improvement of the financial performance of Algerian banks.

3. The empirical study

By determining how to minimize the electronic transactions risks and improve financial performance for banks in theory, we shall test this finding on the Algerian banking sector by defining the methodology of the study, the reality of the variables in a formal study model

3.1 Methodology of the study:

. Presenting the study model need to analyse the impact of the minimization of the risks of electronic banking transactions on the financial performance of Algerian banks. The statistical method used by representing by the multiple linear regression of the variables after testing its validity, as well as the statistical program SPSS to measure and analyze the risk indicators and the financial performance of the financial statements of banks, which will be obtained from the reports of the Bank of Algeria.

The asking study targets the Algerian financial sector community, and the sample was represented in the Algerian banking sector, which includes all public and private banks in Algeria for the period 2011-2018, and then measure the risks of legal and strategic electronic transactions using quantitative indicators and considering them as independent variables, while the financial performance represents the dependent variable.Measured by financial ratios of return and bank liquidity.

3.2 The reality of the study variables

3.2.1 reality of the risks of electronic banking transactions

Our analysis will depend on each of the legal, strategic risks of electronic banking transactions as follows

3.2.2- Legal risks of electronic banking:

Analyzing the asking risks through the convergence indicator between the data contained in the electronic clearing system for payments for the general public (ATCT) with those on the central card unpaid receivables.

Measuringthe legal risk index lies in the value of the rejected instruments in the electronic clearing, which are not authorized by the central banks due to insufficient balance, compared to the value of the rejected instruments authorized to the central in the same year that are in the reports of the Bank of Algeria (the central receivables are not paid), as shown in the following table

Table 01 : Legal risks of the Algerian banking sector for the period 2011-2018

1 billion Algerian dinars

the years	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Rejected checks in electronic clearing	-	46825	49538	57035	64699	62621	68364	64030
Rejected and authorized electronic clearing	-	34817	37909	4346	51032	51041	39921	53049
Legal risks	%70.19	%74.36	%76.52	%76.20	%78.90	%81.50	%58.39	%82.85
Legal risk growth rate	-	%4.17	%2.90	%-0.41	%3.5	%3.29	%28.35	%41.89

Source : Prepared by researchers based on the reports of the Bank of Algeria for the year 2011-2018

3.2.3 Strategic risks of electronic banking transactions:

Strategic risks are related to the extent to which the strategy of electronic banking transactions contributes to maintaining the competitiveness and profitability of banks. Net output to bank charges, as shown in the table below:

Table 02: Evolution of the Strategic Risk Index 2011-2018

1 billion Algerian dinars

the years	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
bank output	**-**	337	348	330.43	416.68	473.35	501.75	575
bank output	-	-	%3.26	%-5.04	%26.10	%13.6	%6	%14.6
bank charge	**-**	198	190	160	190	175	200	180
bank charge			%-0.04	%-15.78	%18.75	%-7.89	%14.28	%-10
Strategic risks	%1.50	%1.70	%1.83	%2.06	%2.19	%2.70	%2.50	%3.19

Source: Prepared by researchers based on the reports of the Bank of Algeria in 2018, pp. 92-95.

We notice that the banking sector during the year 2018 recorded a total banking output of approximately 575 billion dinars, an increase of 14.6% In 2018 for 6% In 2017, this is a result of the increase in the interest margin on the one hand and the sharp decrease in the costs of other operations.

As for bank charges, we notice an upward trend from 2014 to 2016, where the banking sector recorded an increase in banking burdens, and in 2018 it witnessed a decreasedue to the decline in general exploitation ,and provisions fordepreciation.

As we can see from the tablethe increase in strategic risks during the years studied, as the greater the increase in bank output, the greater the bank burden, as the largest percentage was recorded in 2018 with 3.19.%.

3.2.4 Evaluating the financial performance of the Algerian banking sector

The financial performance of the banks will be evaluated by calculating and analyzing the liquidity and return index based on the reports of the Bank of Algeria, which include financial statistics on public and private commercial banks in Algeria for the period 2011-2018, as follows:

Liquidity of a bank refers to its ability to meet or meet its obligations, instantly, by converting any of its assets into liquid cash quickly and without cost, that is the ratio of liquid assets to total assets.

Profitability is an indicator of the banks' ability to make profits, that is, their ability to exploit the available financial resources to generate profits. In this study, we relied on two indicators to measure profitability, namely the rate of return on assets and the rate of return on capital. for banks for the period 2011-2018.

The following table shows the liquidity ratios, return on assets and return on capital for the Algerian banking sector 2011-2018

Table 03: Return indicators for the Algerian banking sector (2011-2018)

The years	Liquidity	return on assets	return on capital
2011	50,16%	2.10%	17,89%
2012	45,90%	1.93%	16,11%
2013	40,50%	1.7%	19%
2014	37,96%	1.99%	23.75%
2015	27,14%	1.92%	21.48%
2016	23,52%	1.83%	17.89%
2017	23.51%	2.05%	18.84%
2018	19,84%	2.42%	22.38%

Source: Prepared by researchers based on reports from the Bank of Algeria for the period 2011-2018

4. Results and Discussion

As shown, it is possible to analyze the liquidity of the banks, as the liquid assets of the banks are known (80% of which belong to public banks), a decreasing pace over the last five years, to reach its lowest level in 2018, the liquid assets of the Algerian banking sector decreased by 8.1% In 2018, which led to a decline in the “liquid assets / total assets” ratio.

The profitability of the banks calculated through two rates: return on assets and return on capital equity. The return on assets indicator for banks, measured by the ratio of output / total assets, was known to increase in the years under study

2011-2018, as the return on assets was recorded as amicable. ambulatory height of 1.9 % in 2016 to 2 % In 2017, and in 2018, it rose, whether in public or private banks, and it rose to record, respectively 3.4 % in 2018 for %26 in 2017 for private banks, and to %23 in 2018 vs. 2.0% In 2017, for public banks.

Regarding the return on capital index, it fluctuated, as it witnessed a significant increase in 2018, moving from 18.8% In 2017 to % 22.3 in 2018 thanks to the good growth of the output 30% Average Capital Ratio 9.5%The return on capital (return on capital) recorded an increase in all public banks as well as private banks, reaching, respectively % 22.68 in 2018 and %20 In 2017, at public banks, and%21.21 in 2018 vs. %14.69 in 2017 with private banks.

To increase the level of liquidity, internal control and periodic review of liquidity management practices are necessary. Improving the profitability of Algerian banks requires the need for Algerian banks to adopt various electronic banking services that achieve high profitability, and work to attract deposits and grant loans to customers so that the banks ensure the provision of various services to the largest number of customers.

4. Results and Discussion

The model of study:

The study model includes the indicators of the risks of electronic banking transactions as independent variables, while the indicators of the financial performance of the banks as dependent variables.

4.1 Definition of the model: risks of electronic banking transactions – Financial performance

To determine the variables of the model, a significant test was conducted for it and its value was 0.003, meaning that the independent variables of the study (legal and strategic risks) were statistically significant according to Test t (at significance level: 0.10 P ≤) for only one dependent variable for the financial performance of the banks of the study sample, which is liquidity. Thus, the risks of electronic transactions for the study are considered a real explanation for liquidity, while they are not considered as an explanation for the indicators of the return of the Algerian banking sector.

In order to know the relationship between financial performance through the liquidity indicator, as a dependent variable, and the risks of electronic banking transactions represented by strategic risks and legal risks as independent variables, the standard error of the estimate was calculated Std, Errir Of hteEstimat Which measures the dispersion of the values of the variables of this model, to make sure that there is a linear relationship between the variables of the model, so that its value reached4.33, which is a small value and reflects the reduction of errors between variables. Hence, the multiple linear regression model is the most appropriate for the variables of the phenomenon studied, as shown in the following table:

Table No. (04): Definition of the electronic banking and liquidity risks model

Electronic banking and liquidity risk model: $$\widehat{\mathrm{PF}} = f(\widehat{\mathrm{R}}_i) = f(\widehat{\mathrm{R}}_1, \widehat{\mathrm{R}}_2) = \mathrm{P}F_0 - Y_1 \widehat{\mathrm{R}}_1 - \mathrm{Y}_2\widehat{\mathrm{R}}_2$$
$\widehat{\mathrm{PF}}$: The value of the dependent variable "banks' financial performance" estimated by the liquidity index:
PF_0: Liquidity level when there is no risk of electronic banking transactions;
$\widehat{\mathrm{R}}_1, \widehat{\mathrm{R}}_2$: The two independent variables for liquidity are Straight TheLegal risks and strategic risks for electronic banking transactions;
γ_1 : marginal slope NSFor strategic risk, which means that the lower the strategic risk by 1% Liquidity improved by γ_1 ;
γ_2: marginal slope NSof legal risk, which means that the lower the legal risk by 1% Liquidity improved by γ_2 .

Source: Prepared by researchers based on the hypotheses of the study and previous studies

4.2 Estimating and testing the electronic banking risk model - liquidity:

The following table summarizes the results of estimating the parameters of the electronic banking and liquidity risk model:

Table (05): The results of estimating the parameters of the electronic banking and liquidity

risk model $\widehat{\mathrm{PF}} = \mathrm{f}(\widehat{\mathrm{R}}_1, \widehat{\mathrm{R}}_2)$

	parameter value	**Liquidity impact value**	**Effect ratio on liquidity**	**Test (T-test)**	**The coefficient of determination R2**	**Test (F - test)**
$\mathrm{P}F_0$	63.99	2147.50	23.82%	0.010	0.89	0.003
λ_1	19.92-	43.82-	- 247.99%	0.001		
λ_2	0.182	13.62	2.27%	0.448		

Source: Prepared by researchers based on program outputs spss

The effect value represents the value of the marginal slope multiplied by the arithmetic mean of the values of the variables, while the effect on liquidity represents (the effect value on the liquidity / the total value of the variables) x 100.

ThroughTable No. (05)The estimated model of the relationship: risks of electronic banking transactions - liquidity can be formulated as follows:

$$\widehat{\mathrm{PF}} = f(\hat{\mathrm{R}}_i) = f(\hat{\mathrm{R}}_1, \hat{\mathrm{R}}_2) = 63.99 - 19.92\hat{\mathrm{R}}_1 + 0.182\hat{\mathrm{R}}_2$$

-The initial liquidity value PF_0 in the absence of risks of electronic banking transactions equals 63.99 billion Algerian dinars;

-λ_1= 19.92 : whenever decreased Risks Strategy by 1 billion Algerian dinars, the level of liquidity improved by 2.27 1 billion Algerian dinars annually;

-λ_2 = 0.182 : means that when the legal risks decrease by one billion Algerian dinars, the level of liquidity improved by0.182 billion Algerian dinars annually;

- Test(t-test): We conclude from the previous table that the risks of the strategy were statistically significant according to the t-test (at the level of significance: $P \leq 0.10$), that is, it is considered a real explanation for the changes in the liquidity of Algerian banks. While the second variable, the legal risk is considered an insignificant variable (At morale level: $P \leq 0.10$) so this variable is considered unexplained to improve liquidity of Algerian banks. The sub-hypothesis The second for the main question In the introduction to this topic, it is correct, that is, there is a positive direct relationship between Minimizing the risks of electronic banking transactions and improving financial performance;

- The coefficient of determination R^2 reach 0.89, which means that the independent sub-variables Electronic banking risks (Strategic) will up to explain 91 % of the changes in improve financial performance, the rest 11% It is due to other random factors;

- Test (F - test): error accompanying the statistic F reach 0.003 It is less than the value 0.005, which confirms the overall acceptability of the model and the high explanatory power of the model .

5. Conclusion

The main objective of this study was to determine the impact of minimizing the risks of electronic banking transactions on improving the financial performance of the Algerian banking sector. The results of the study were as follows:

Through the reality of the study variables, the first hypothesis can be proven, It is noticeable that Throughout the study period a continuous increase in the risks of electronic banking transactions (legal and strategic) and a decline in the level of financial performance (liquidity and return).

The second hypothesis was accepted with respect to strategic risks only (because the associated error amounted to 0.003 which is less than the accepted error value 0.005), so when legal risks decrease by one billion Algerian dinars, the financial performance of the Algerian banking improved by 0.182 billion Algerian dinars annually.

Based on the previous results, the study recommended the following to reduce the risks of electronic banking transactions and improve the financial performance of the Algerian banking:

- Effective supervision by the bank’s management of all activities of electronic banking operations, and carrying out comprehensive operations to control and monitor security, and comprehensive attention to everything related to and resulting from the relationships that link the administration with external suppliers and other parties;

- Reducing the rate of declaration in electronic clearing and enacting clear laws and legislation to reduce electronic risks Ensure adequate information is provided on private web pages customers to empower them From verifying the identity of the bank’s regulatory status before entering into electronic banking transactions;

- Expansion of financial investment, especially securities, to increase banking output, prepare feasibility studies for projects and increase credit interests on credit facilities;

- Increasing the volume of electronic services and the returns achieved from discounting bills of exchange, and any capital gains resulting from the bank’s sale of one of its assets at a price higher than its book value;

- Reducing banking burdens by reducing the debit interest on deposits that banks pay, and the debit commissions that banks pay to financial institutions in return for providing services to the banks themselves;

- Adopt an appropriate policy, strategy and procedures for liquidity management in line with the amount of risks that the Bank may bear;

- Optimal management of banks' assets and liabilities, and minimizing risks related to banking operations;

- Full knowledge of banking laws and legislation, especially those related to electronic aspects.

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