






“The impact of selected internal factors on the profitability of commercial banks in Jordan”

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THE IMPACT OF SELECTED INTERNAL FACTORS ON THE PROFITABILITY OF COMMERCIAL BANKS IN JORDAN

Abstract

This paper analyzes the impact of internal factors on the profitability of commercial banks in Jordan in the period of 2009–2019. Bank size, capital adequacy, bank loans, bank and liquidity risk are taken as explanatory variables, with the rate of return on assets as a dependent variable. EViews software was used for regression analysis. This study highlights a significant and positive effect of f-statistics for SGBJ Bank, Kuwait Bank, Capital Bank, ABC Bank, and Arab Bank – 11.34, 5.46, 5.11, 5.14 and 5.62, respectively. This means that internal factors affect their profitability, there is a positive effect of internal factors on the profitability of SGBJ, Kuwait Bank, ABC Bank, and Arab Bank. SGBJ's R-squared was 88%. This indicates that any change in the bank's profitability is 88% due to a change in internal factors, while R-squared of Kuwait Bank, Capital Bank, ABC Bank and Arab Bank was 78%, 77%, 77%, and 77%, respectively, indicating that changes in the banks' profitability were caused by internal factors. This is due to the bank loan ratio, where SGBJ's ratio 48.6 and the bank loan rate were 79% of total assets. Kuwait Bank 29.1, so bank loan rate is 56% of total assets, Cairo Bank 36.3, ABC Bank 11.8, and Capital Bank 16.37; f-statistics of Alethead Bank, Invest Bank, Arab Invest Bank, Housing Bank, Ahli Bank, Commercial Bank, Cairo Bank, and Jordan Bank were 0.75, 2.17, 1.61, 2.48, 2.26, 3.25, and 2.72, respectively. This indicates that internal factors do not affect the profitability of these banks.

Keywords internal factors, commercial banks, profitability, Jordan

JEL Classification G21, G29

INTRODUCTION

An efficient banking sector leads to increased economic growth by enhancing capital accumulation through credit supply. Banks play many roles as financial intermediaries, providing people with investment alternatives and financial services. Financial performance of banks is important to maintain public trust and can be measured by their profitability (Widyastutiet al., 2017).

Internal factors like risk management, bank size, and expense management directly affect the profitability of banks. Other internal determinants such as liquidity or risk are related to the management of a bank, especially management of risk, which is an important need in the banking sector. Poor liquidity and low quality of assets are the two important reasons for the failures of banks. The effects of these factors on the profitability of banks have been studied (Almazari, 2014).

The banking sector plays a vital role in enhancing economic growth and is of paramount importance for the Jordanian economy. It has become one of the most important aims of Jordan's financial reforms.

Efficiency and profitability are challenges that the banks face enhancing the financial positions in Jordan (Almazari, 2014).

The importance of the study lies in the main goal of commercial banks, which is the profitability and the ways to maximize it, it is the primary objective commercial banks aim to achieve, which greatly affects their ability to maintain their continuity, so there are many factors that affect the achievement of the objectives of commercial banks, including internal factors.

Commercial banks face many challenges that prevent them from achieving their goals, so the problem of the study revolves around knowing the impact of internal factors on the profitability of commercial banks, it emerges by asking the following question: Do internal factors affect the profitability of commercial banks?

1. LITERATURE REVIEW

Due to the significance of internal factors in enhancing the profitability of commercial banks, the literature review concentrates on analyzing studies that test the effects.

Koroleva et al. (2021) analyzed the internal determinants of state-owned commercial banks' profitability in China during the period 2007–2019 by using pooled regression, fixed effect, and random effect models. The study shows a positive effect of internal factors such as size, liquidity, and credit quality on profitability.

In their work Ngweshemi and Isiksal (2021) studied the relationship between internal factors and commercial banks' profitability in Tanzania for the period 2013–2019. The study uses the GMM method and finds a positive and significant effect of capital adequacy, loan composition, asset quality, and cost efficiency on profitability.

Hosen (2020) tested the impact of internal factors on the profitability of 23 commercial banks in Bangladesh during the period 2014–2018. The study uses simple regression analysis and demonstrates a positive effect of the internal policy of commercial banks on profitability.

In turn, Jadahet al. (2020) tested the effect of internal factors on 18 commercial banks' profitability in Iraq for the period 2005–2017 by depending on the fixed-effects approach. The study finds that the bank size, total loans to total assets ratio, and equity to total assets ratio have positive and significant effects on bank

profitability, while credit risk has a negative and significant effect on bank profitability.

The effect of internal factors on state-owned commercial banks' profitability in Bangladesh for the period 2014–2018 using multiple regression analysis was analyzed by Ullahet al. (2020). The study concludes a negative and significant effect of liquidity on bank profitability, while bank size has a positive and significant effect.

Chiet al. (2018) analyzed the internal factors for 9 banks in Vietnam for the period 2008–2016 using the Ordinary Least Squares model. The study shows that loan and capital size have positive and significant effects on bank profitability, while bad debts, liquidity risk, deposits, and asset size have negative and significant effects.

In their work Rehman et al. (2018) estimated the internal determinants of banks' profitability in Pakistan during the period 2007–2015 by using the fixed-effects model. The study demonstrated a significant effect of bank size and asset composition on bank profitability.

Suganya and Kengatharan (2018) studied the impact of internal factors on the profitability of commercial banks in Sri Lanka for the period 2006–2015. The study depends on simple regression analysis. It reaches a positive and significant effect of capital adequacy on bank profitability, and a negative and significant effect of non-performing loans and operating cost efficiency on bank profitability.

In turn, Widyastutiet al. (2017) studied the effect of internal factors on the profitability of commer-

cial banks in Indonesia during the period 2010–2015. The study uses the Ordinary Least Squares model and finds that liquidity, net interest margin, and operating efficiency have positive and significant effects on bank profitability.

Study of Menicucci and Paolucci (2016) was aimed at testing the effect of internal factors on profitability in 28 European banks from 2006 to 2015 using regression analysis. The study finds that size and capital ratio have positive and significant effects on bank profitability, while asset quality has a negative and significant effect.

In their work Rudhaniet al. (2016) analyzed the effect of internal factors on the profitability of commercial banks in Kosovo for the period 2010–2014 by using SPSS 21 version. The study reaches a positive effect of the level of bank loaning and other investment on bank profitability and a negative effect of managing risk and liquidity on bank profitability.

Petriaet al. (2015) tested the internal determinants of bank profitability in EU27 banking systems during the period 2004–2011. The study highlights a significant effect of credit and liquidity risk and management efficiency on bank profitability.

In turn, Jaber and Al-khawaldeh (2014) aimed to test the effect of internal and external factors on bank profitability in Jordan from 2007 to 2012 using a multivariate model. The study finds a significant effect of internal factors such as capital adequacy, size, and liquidity ratio on bank profitability.

Gremi (2013) studied the effect of internal factors on bank profitability in Albania for the period 2005–2012 for 12 commercial banks by depending on regression analysis and the fixed-effects model. The study finds that a few internal factors have significant effects on bank profitability.

Ani et al. (2012) analyzed the internal factors of bank profitability for 15 banks in Nigeria for the period 2001–2010 by using the Pooled Ordinary Least Squares model. The study shows that capital, asset composition, and bank size are the main internal determinants of bank profitability.

Previous studies have shown the importance of internal factors on the profitability of commercial banks as all of them study the existence of internal determinants of bank profitability such as capital size, liquidity risk, deposits, and asset size in different countries and periods and by depending on various models.

2. RESEARCH METHODOLOGY

This study focuses on estimating the effect of internal factors on the profitability of 13 commercial banks in Jordan for the period 2009–2019. It explores whether these effects are significant or not and the causes of these effects. The internal factors include bank size, capital adequacy, bank loans, bank risk, and liquidity risk. It is noted that a strong banking sector is capable of confronting damaging shocks and ensures the stability of the financial system.

The study aims to analyze the effect of internal factors on the profitability of commercial banks in Jordan for the period 2009–2019 by utilizing multiple regression analysis:

$$Y = \beta_0 + \beta_1 BS + \beta_2 CA + \beta_3 BL + \beta_4 LR + \mu, \quad (1)$$

where Y – Return on assets; BS – Bank Size; CA – Capital Adequacy; BL – Bank Loans; LR – Liquidity Risk; and μ – Coefficient of errors.

Research variables:

The independent variables are as follows:

- Bank Size (BS) = Natural logarithm of total assets;
- Capital Adequacy (CA) = Total equity (TE) / Total assets (TA);
- Banks Loans (BL) = Total loans (TL) / Total assets (TA);
- Liquidity Risk (LR) = Total loans (TL) / Total deposits (TD);
- The dependent variable is the rate of return on assets.

This study uses data obtained from the annual bulletins and reports of commercial banks in Jordan for the period 2009–2019.

3. RESULTS AND DISCUSSION

Due to the importance of internal policy for the profitability of commercial banks in previous studies, this part analyzes the period 2009–2019.

Table 1 shows that the return on assets for Aletihad Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.710 in 2011, and a maximum of about 1.390 in 2010, and the annual average value during the study period was about 1.06. The annual average values of bank size and capital adequacy during the study period were about 9.36 and 0.13, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.53 and 0.7.

Table 1. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Aletihad Bank in Jordan

Source: Annual reports and bulletins of Bank al Etihad (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.120	9.163	0.1574	0.47	0.63
2010	1.390	9.187	0.1528	0.46	0.62
2011	0.710	9.165	0.1539	0.50	0.71
2012	0.840	9.243	0.1343	0.48	0.68
2013	1.170	9.285	0.1308	0.53	0.74
2014	1.170	9.353	0.1206	0.55	0.69
2015	1.210	9.378	0.1228	0.54	0.67
2016	1.140	9.408	0.1211	0.54	0.70
2017	0.970	9.553	0.1037	0.58	0.76
2018	1.060	9.587	0.0974	0.59	0.74
2019	0.830	9.661	0.0846	0.58	0.71

Table 2 shows that the return on assets for SGBJ Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.490 in 2018, and a maximum of about 1.430 in 2009, and the annual average value during the study period was about 0.96. The annual average values of bank size and capital adequacy during the study period were about 8.86 and 0.21, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.97 and 0.54.

Table 2. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for SGBJ Bank in Jordan

Source: Annual reports and bulletins of SGBJ Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.430	8.478	0.4459	2.82	0.61
2010	1.340	8.535	0.3731	2.36	0.57
2011	0.900	8.557	0.3715	1.80	0.59
2012	0.990	8.681	0.2783	1.19	0.54
2013	1.090	8.807	0.1991	0.67	0.46
2014	1.060	8.938	0.1402	0.37	0.51
2015	0.830	9.083	0.0928	0.18	0.54
2016	0.840	9.115	0.0808	0.13	0.52
2017	0.580	9.131	0.0445	0.10	0.51
2018	0.490	9.231	0.0336	0.08	0.56
2019	0.590	9.234	0.0308	0.09	0.90

Table 3 shows that the return on assets for Invest Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 1.090 in 2009, and a maximum of about 1.690 in 2015, and the annual average value during the study period was about 1.48. The annual average values of bank size and capital adequacy during the study period were about 8.93 and 0.18, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.61 and 0.8.

Table 3. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Invest Bank in Jordan

Source: Annual reports and bulletins of Invest Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.090	8.824	0.266	1.01	0.87
2010	1.610	8.831	0.2573	1.02	0.91
2011	1.390	8.84	0.2514	0.93	0.94
2012	1.590	8.85	0.2287	0.76	0.86
2013	1.530	8.891	0.1974	0.58	0.77
2014	1.540	8.906	0.1807	0.57	0.79
2015	1.690	8.927	0.1641	0.51	0.76
2016	1.640	8.978	0.1417	0.43	0.86
2017	1.470	9.031	0.1225	0.33	0.72
2018	1.390	9.061	0.0932	0.30	0.70
2019	1.370	9.071	0.0791	0.25	0.58

Table 4. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Arab Investment Bank in Jordan

Source: Annual reports and bulletins of Arab Jordan Investment Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.340	8.904	0.2456	1.02	0.48
2010	1.360	8.94	0.2237	0.86	0.48
2011	1.280	8.967	0.2143	0.81	0.49
2012	1.450	9.014	0.1928	0.73	0.50
2013	1.390	9.079	0.1669	0.61	0.50
2014	1.390	9.243	0.1127	0.40	0.50
2015	1.290	9.254	0.0773	0.21	0.43
2016	1.250	9.258	0.0743	0.22	0.47
2017	0.930	9.264	0.0705	0.18	0.44
2018	0.830	9.308	0.0635	0.16	0.47
2019	0.760	9.329	0.0587	0.14	0.47

Table 5 shows that the return on assets for Housing Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.990 in 2019, and a maximum of about 1.680 in 2016, and the annual average value during the study period was about 1.4. The annual average values of bank size and capital adequacy during the study period were about 9.87 and 0.13, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.45 and 0.55.

Table 5. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Housing Bank in Jordan

Source: World annual reports and bulletins of Housing Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.090	9.785	0.1754	0.68	0.64
2010	1.320	9.825	0.1536	0.64	0.66
2011	1.440	9.841	0.1532	0.61	0.66
2012	1.470	9.851	0.1428	0.57	0.66
2013	1.480	9.859	0.1371	0.48	0.55
2014	1.630	9.881	0.1297	0.36	0.45
2015	1.570	9.899	0.1227	0.34	0.47
2016	1.680	9.893	0.1216	0.34	0.48
2017	1.540	9.911	0.1152	0.31	0.47
2018	1.140	9.919	0.1109	0.30	0.47
2019	0.990	9.926	0.1056	0.28	0.50

Table 6 shows that the return on assets for Ahli Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.220 in 2016, and a maximum of about 1.470 in 2014, and the annual average value during the study period was about 0.8. The annual average values of bank size and capital adequacy during the study period were about 9.41 and 0.11, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.49 and 0.66.

Table 6. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Ahli Bank in Jordan

Source: Annual reports and bulletins of Ahli Bank (2009–2019).

Years	Return on assets	Size of banks	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	0.83	9.353	0.1364	0.61	0.68
2010	0.910	9.401	0.1196	0.57	0.71
2011	0.890	9.418	0.117	0.57	0.74
2012	0.900	9.423	0.1142	0.55	0.68
2013	0.590	9.432	0.116	0.45	0.68
2014	1.470	9.366	0.1328	0.52	0.73
2015	0.920	9.397	0.114	0.48	0.75
2016	0.220	9.45	0.0953	0.45	0.64
2017	0.490	9.436	0.0928	0.43	0.57
2018	0.760	9.445	0.0875	0.38	0.53
2019	0.800	9.441	0.0777	0.36	0.54

Table 7 shows that the return on assets for Kuwait Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.95 in 2017, and a maximum of about 2.510 in 2010, and the annual average value during the study period was about 1.63818. The annual average values of bank size and capital adequacy during the study period were about 9.41 and 0.16280, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.55545 and 0.71818.

Table 8 shows that the rate on assets for Commercial Bank during the period (2009–2019) ranged between two limits, the lowest of which amounted to about –0.170 in 2011, and a maximum of about 1.060 in 2015, and the annual average value during the study period was about 0.51. The annual average values of bank size and capital adequacy

Table 7. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Kuwait Bank in Jordan

Source: Annual reports and bulletins of Jordan Kuwait Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	2.100	9.33	0.2148	0.74	0.78
2010	2.510	9.319	0.2138	0.78	0.81
2011	1.750	9.357	0.2059	0.69	0.74
2012	1.930	9.382	0.1908	0.60	0.69
2013	1.860	9.407	0.1757	0.54	0.62
2014	1.790	9.417	0.1655	0.50	0.65
2015	1.390	9.454	0.1422	0.47	0.67
2016	1.100	9.438	0.1365	0.52	0.79
2017	0.950	9.452	0.1224	0.44	0.71
2018	1.550	9.435	0.1193	0.43	0.75
2019	1.090	9.44	0.104	0.40	0.69

during the study period were about 9.03 and 0.12, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.56 and 0.64.

Table 8. Return on assets, size of banks, capital adequacy, bank loans, and bank risk and liquidity risk for Commercial Bank in Jordan

Source: Annual reports and bulletins of Commercial Bank (2009–2019).

Years	Return on assets	Size of banks	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	0.880	8.799	0.2209	1.06	0.72
2010	0.570	8.882	0.1757	0.95	0.72
2011	-0.170	8.904	0.1866	0.90	0.66
2012	0.240	8.927	0.1727	0.75	0.63
2013	0.300	9.023	0.1308	0.57	0.49
2014	1.010	9.066	0.1033	0.45	0.55
2015	1.060	9.172	0.0767	0.35	0.60
2016	0.740	9.102	0.0818	0.35	0.67
2017	0.270	9.141	0.0664	0.30	0.64
2018	0.370	9.131	0.0696	0.29	0.65
2019	0.380	9.142	0.0656	0.23	0.70

Table 9 shows that the return on assets for Capital Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.05 in 2015, and a maximum of about 1.96 in 2013, and the annual average value during the study period was about 0.98. The annual average values of bank size and capital adequacy during the study period were about 9.24 and 0.16, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.49 and 0.67.

Table 9. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Capital Bank in Jordan

Source: Annual reports and bulletins of Capital Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	0.120	9.031	0.2733	0.91	0.69
2010	0.430	9.081	0.238	0.74	0.69
2011	0.100	9.145	0.2089	0.66	0.70
2012	1.370	9.206	0.1729	0.60	0.71
2013	1.960	9.276	0.1428	0.48	0.65
2014	1.760	9.314	0.1368	0.39	0.57
2015	0.050	9.298	0.133	0.34	0.54
2016	0.800	9.303	0.1113	0.31	0.60
2017	1.370	9.301	0.102	0.33	0.65
2018	1.540	9.293	0.1047	0.34	0.78
2019	1.320	9.34	0.0914	0.26	0.79

Table 10. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Cairo Bank in Jordan

Source: Annual reports and bulletins of Cairo Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.460	9.242	0.2003	0.92	0.68
2010	1.880	9.266	0.1825	0.89	0.72
2011	1.890	9.288	0.1735	0.79	0.70
2012	1.740	9.306	0.1613	0.67	0.71
2013	1.840	9.345	0.139	0.52	0.59
2014	1.890	9.372	0.124	0.43	0.55
2015	1.630	9.403	0.1043	0.38	0.59
2016	1.390	9.396	0.0968	0.40	0.67
2017	1.070	9.446	0.08	0.34	0.61
2018	1.010	9.468	0.0702	0.28	0.56
2019	0.880	9.496	0.0565	0.23	0.51

Table 11 shows that the return on assets for Jordan Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 1.330 in 2009, and a maximum of about 2.050 in 2014, and the annual average value during the study period was about 1.7. The annual average values of bank size and capital adequacy during the study period were about 9.35 and 0.15, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.53 and 0.66.

Table 11. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Jordan Bank in Jordan

Source: Annual reports and bulletins of Jordan Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.330	9.281	0.2172	0.74	0.68
2010	1.630	9.294	0.2092	0.75	0.73
2011	1.780	9.312	0.2112	0.70	0.76
2012	1.650	9.305	0.2011	0.61	0.70
2013	1.750	9.317	0.1744	0.55	0.68
2014	2.050	9.34	0.1533	0.50	0.65
2015	1.820	9.344	0.1437	0.47	0.64
2016	1.800	9.369	0.1182	0.40	0.59
2017	1.780	9.409	0.101	0.41	0.64
2018	1.570	9.418	0.0819	0.37	0.61
2019	1.490	9.433	0.0711	0.32	0.57

Table 12 shows that the return on assets for ABC Bank during the period 2009–2019 ranged between two limits, the lowest of which amounted to about 0.170 in 2019, and a maximum of about 1.520 in 2015, and the annual average value dur-

Table 12. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for ABC Bank in Jordan

Source: Annual reports and bulletins of ABC Bank (2009–2019).

Years	Return on assets	Size of banks	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.510	8.786	0.2568	1.02	0.74
2010	1.490	8.843	0.2299	0.88	0.74
2011	1.490	8.88	0.2114	0.79	0.71
2012	1.330	8.918	0.1899	0.67	0.66
2013	1.220	8.981	0.1598	0.55	0.66
2014	1.220	9.041	0.1336	0.46	0.58
2015	1.520	9.012	0.1298	0.47	0.66
2016	1.260	9.047	0.1174	0.42	0.80
2017	1.150	9.052	0.1047	0.35	0.70
2018	0.850	9.059	0.093	0.27	0.61
2019	0.170	9.057	0.0845	0.25	0.67

ing the study period was about 1.2. The annual average values of bank size and capital adequacy during the study period were about 8.97 and 0.16, while the average of bank loans and bank risk and liquidity risk during the study period were about 0.56 and 0.69.

Table 13. Return on assets, bank size, capital adequacy, bank loans, and bank risk and liquidity risk for Arab Bank in Jordan

Source: Annual reports and bulletins of Arab Bank (2009–2019).

Years	Return on assets	Bank size	Capital adequacy	Bank loans	Bank risk and liquidity risk
2009	1.080	10.364	0.1643	0.52	0.61
2010	0.620	10.368	0.1574	0.52	0.64
2011	1.100	10.379	0.1484	0.50	0.66
2012	1.090	10.379	0.1464	0.47	0.62
2013	1.410	10.39	0.1434	0.46	0.58
2014	0.840	10.413	0.1376	0.43	0.57
2015	0.600	10.413	0.153	0.41	0.60
2016	0.880	10.385	0.1598	0.41	0.58
2017	0.800	10.387	0.1565	0.41	0.58
2018	1.700	10.407	0.1482	0.39	0.61
2019	1.610	10.42	0.1444	0.39	0.63

The tables above show that Jordan Bank had the highest average return on assets, which is about 1.695455, while Arab Bank had the highest average bank size about 10.39136.

Then, Invest Bank had the highest capital adequacy 0.180190, bank loans 0.60818 and the highest liquidity risk about 0.79636.

Here the impact of internal factors on the profitability of 13 commercial banks in Jordan during

Table 14. Results of the impact of internal factors on 13 commercial banks' profitability in Jordan during the period 2009–2019 using multiple regression analysis

Source: Results using the EViews software.

Banks	Coefficients				Intercept	R-squared	Adjusted R-squared	Standard error	F statistic
	BS	CA	BL	LR					
Alethad	-0.19	3.25	5.51	-4.26	4.79	0.33	-0.11	0.21	0.75
SGBR	-0.23	-2.21	48.6	2.57	6.48	0.88	0.81	0.13	11.34
Invest	-0.14	4.28	4.59	-1.08	1.91	0.59	0.32	0.14	2.17
Arab investment	-1.26	-10.75	0.99	7.37	25.98	0.52	0.20	0.22	1.61
Housing	0.77	1.5	2.612	-2.91	-16	0.62	0.37	0.18	2.48
ahli	-1.65	17.68	1.49	-1.17	36.18	0.6	0.33	0.25	2.26
Kuwait	-4.11	5.34	29.1	-2.64	90.13	0.78	0.64	0.29	5.46
Commercial	1.03	30.59	8.38	-0.05	-20.22	0.68	0.47	0.27	3.25
Cairo	-1.36	25.29	36.3	0.39	29.49	0.88	0.8	0.17	11.1
Jordan	-1.57	9.01	5.99	-2.6	32.92	0.64	0.41	0.15	2.72
ABC	1.19	65.11	11.8	-5.97	-29.47	0.77	0.62	0.24	5.14
Arab	13.24	66.06	17.25	-5.47	-330.14	0.77	0.62	0.23	5.02
capital	2.16	32.02	16.37	5.02	-45.65	0.77	0.62	0.44	5.11

the period 2009–2019 is summarized. Multiple regression equation was calculated by measuring the relationship between the independent variables (X's) of the size of banks, capital adequacy, bank loans, and bank risk and liquidity risk and dependent variable (Y) of the return on assets.

Table 14 shows that f-statistics for SGBJ Bank, Kuwait Bank, Capital Bank, ABC Bank and Arab Bank were 11.34, 5.46, 5.11, 5.14 and 5.62, respectively, which means that internal factors affect their profitability; there is a positive effect of internal factors on the profitability of SGBJ, Kuwait Bank, ABC Bank, and Arab Bank in Jordan for the period 2009–2019. The R-squared of SGBJ Bank was 88%. This indicates that any change in the bank's profitability is caused by 88% of the change in the internal factors, while R-squared of Kuwait Bank, Capital Bank, ABC Bank and Arab

Bank were 78%, 77%, 77%, and 77%, respectively. This indicates that the change in the banks' profitability, 78%, 77%, 77% and 77%, is caused by internal factors. This result is due to the coefficient of bank loans (BL), where the coefficient of SGBJ 48.6 and the rate of bank loans were 79% from total assets as shown in Table 2. Kuwait Bank has 29.1, and the rate of bank loans is 56% of the total assets, Cairo Bank 36.3, ABC Bank 11.8, and Capital Bank 16.37, while f-statistics for Alethad Bank, Invest Bank, Arab Invest Bank, Housing Bank, Ahli Bank, Commercial Bank, Cairo Bank and Jordan Bank were 0.75, 2.17, 1.61, 2.48, 2.26, 3.25, 2.72, respectively. This indicates that internal factors have no impact on the profitability for these banks. The results of this study were found to be similar to those of other studies such as Hosen (2020), Ullah et al. (2020), and Rehman et al. (2018).

CONCLUSION

Internal factors play a vital role in enhancing the profitability of commercial banks and hence economic growth. In this context, this study aims to assess the effect of internal factors on the profitability of 13 commercial banks in Jordan during the period 2009–2019 using simple regression analysis.

The results show that bank size beta coefficient for Housing Bank, Commercial Bank, ABC Bank, Arab Bank, Capital Bank, capital adequacy beta coefficient for Alethad Bank, Invest Bank, Housing Bank, Ahli Bank, Kuwait Bank, Commercial Bank, Cairo Bank, Jordan Bank, ABC Bank, Arab Bank, Capital Bank, bank loan beta coefficient for SGBR Bank, Invest Bank, Housing Bank, Kuwait Bank, Cairo Bank,

Jordan Bank, ABC Bank, Arab Bank, Capital Bank, and liquidity risk beta coefficient for SGBR Bank, Arab Investment Bank, Cairo Bank, and Capital Bank are bigger than 0, so there is a positive relationship between the internal factors and the profitability of the above mentioned banks.

This study recommended reinforcing the importance of internal policies in boosting bank profitability and hence economic growth. It also recommended to pay attention to the internal factors that determine the profitability of banks.

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