“The effect of working capital management and credit management policy on Jordanian banks’ financial performance”

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INTRODUCTION

The study clarifies that credit management is a borrowing policy, which is the term of debt to another body to lend in the sense that the creditor (bank) gives the debtor (borrower) a period when the debtor (borrower) is obliged at the end of the debt plus the agreed interest (Seyoum, 2021). CMP varies widely from organization to organization. Credit policy’s impacts are either acceptable to create development and earnings or negative enough to resist bending losses. This resemblance is due to each manager’s goal of efficiently and successfully collecting contributions while boosting cash flow (Otuya & Eginwin, 2017).

Jordanian banks faced a financial crisis during the COVID-19 pandemic, which negatively affected their financial performance. An interview conducted with ten bank managers disclosed that the financial performance of banks declined due to the COVID-19 pandemic. Therefore, it was considered, according to previous studies and the results of personal interviews with managers, that it is important to examine the impact of WC and CMP on Jordanian banks’ financial performance (JBFP).

Due to a large amount of working capital in the business, WCM and control are complicated and demand attention. Annual accounting
can be used to manage current assets, which are turned into cash obligations and current liabilities payable. WCM and the link between assets and current obligations are critical for the sleek operation of a business. Furthermore, WC is vital to the continued operations of companies involved in various activities. When it is no longer circulated, it ceases to exist (Mburu et al., 2020).

Additionally, WCM influences the organizations’ FP, therefore robust management is needed to achieve balance between the performance and risks of not financial obligations meeting (Wambia & Jagongo, 2020). Current liabilities and current assets have a varied impact on a company’s performance or profitability. For example, a high amount of short-term assets can harm a company’s FP. Otherwise, a low level of short-term assets might result in lower liquidity and inventory levels, making it difficult to maintain adequate working capital (Aydin, 2021).

Financial management, mainly WCM, is critical to the success of banks and institutions, and inefficiencies in financial management can have a negative effect on their performance. Furthermore, when a company’s financial management is effective, it creates value for its shareholders, which is a critical aspect of its overall strategy. Furthermore, an enterprise’s level of WCM, which is vital to the foundation, impacts performance (Nazir & Afza, 2009).

WCM is a crucial component of a company’s overall strategy to increase the value of its assets. WCM also assists a firm in improving its operational performance and achieving short-term liquidity. Businesses will aim to maintain an ideal amount of working capital to optimize their worth. In addition, effective WCM is vital for businesses, since it substantially impacts their performance and liquidity. WCM’s fundamental purpose is to achieve the best possible balance between its many components (Mathuva, 2010).

1. LITERATURE REVIEW

1.1. Working capital management

WCM is a critical component of financial management. It is primarily focused on the conduct of liabilities’ liquidity components and current short-term assets (Niresh, 2012). Consequently, current liabilities, cash accounts receivable and store inventories, which contain accrued liabilities, accounts payable, liabilities, taxes, short-term debt like commercial invoices, and current liabilities provisions like dividends declared but not yet paid, are the most commonly traded assets. Additionally, to that, WCM is determined by the current assets level relative to the current obligations level, which is a key aspect of working capital.

In fact, Liquidity is more crucial because if it is too high, banks will have too much working capital and will be forced to accept the cost of this money. On the other hand, if liquidity is too low, it will be unable to satisfy its present financial obligations (Taani, 2012). WCM is determined by the current assets level relative to the level of current obligations, which is a key aspect of working capital.

In previous literature, Lazaridis and Tryfonidis (2006) showed there is insignificant negative association between a company’s performance and a global inventory period. In contrast, Alavinasab and Davoudi (2013) asserted there is a significant and negative association between the inventory time and profitability evaluated by return assets at the industrial enterprises listed on Istanbul securities. Furthermore, the worship experimental result demonstrates that the total inventory period and total firm operating income have a statistically significant relationship; this result indicates that businesses may be active with less benefit as a result of decreasing sales because the firm’s inventory volume is expanding. In other literatures, Lazaridis and Tryfonidis (2006) found a negative association between company profitability measured by total operational profit and receivable collection period. In this case, companies can break their profitability by reducing credit restrictions supplied to clients. Furthermore, the Deloof and Jegers (1996) reveals that the assessed profitability, which includes total operating income and an average of the accounts, has a good quality and competency relationship. Therefore, Boisjoly (2009) confirmed that the account management has been
stressed on many companies for over 15 years. Besides that, Raheman and Nasr (2007) verify that the profitability assessed by return on assets has a strong and negative association with the creditor’s calculation time, illustrating the association between CMP and Small and medium companies (SMEs) in Spain. According to Abuzayed (2012), cash capital management assessed by receivables, the currency conversion cycle, and credit account maintenance have a significant beneficial impact on organizational performance as evaluated by both return on assets and return on investment. However, as evaluated by the inventory conversion period, working capital management has a statistically significant and favorable impact on investment returns, but a minimal influence on the performance of sample enterprises in Ethiopia as measured by asset returns.

### 1.2. Credit management policy

Policy depends on the projected track of work. Jordanian banks have possessed policy giving credit, although credit is always an issue of verdict applying popular feel in the light of one’s experience. Also, credit policy contains solidity and safety of purse invested for achieving a bank’s profitability. Support for most of small loans is best than condensation in a particular species of advances, which safeguard appropriate liquidity with lower happening of bad debts; this method will support Jordanian banks’ financial performance. As we know, credit policy in Jordanian banks have aims such as: giving loan guidelines, fast echo to customer needs, reducing proceedings of grant of loans and decreasing the work volume from top management. Many researchers studied CMP and arrived to significant results: Gatuhu (2013) studied the effects of shareholder wealth on providing funding to clients between 1971 and 2006. Data was collected from a wide sample of US corporations, and it was found that using commercial credit as a tool for assessing financial patterns actually hampers sales growth. Not long ago, Ezejiofor et al. (2015) examined the association between CMP and the growth of profitability in Nigerian manufacturing companies. Panel data were used to develop a syndrome technology; the study revealed a positive link between the cash transfers cycle and collections and manufacturing company growth, as well as a negative relationship between payment periods. According to the findings, non-compliance with credit management firms may stymie their growth and sustainability. Also, the cash transfer cycle has a significant influence on the growth of industrial enterprises in Nigeria. Moreover, credit management contributes to the performance of small intermediate institutions. Not too long ago, Mathuva (2010) measured the association between CM and the success of Pakistani small and medium-sized businesses. The researcher used regression analysis; the findings revealed that the number of days counted for days arrested, the number of inventories today, the conversion cycle and flow were all directly related to profitability, whereas the number of days counted for days arrested, the volume of growth, and packages were all directly related to profitability. Furthermore, Fidelis and Umoffong (2020) examine the influence of CM on manufacturing company profitability; the study used five businesses listed on the Nigeria Securities Exchange. Data were obtained from the firms’ financial statements. The findings show that liquidity management and credit policy have a large negative association with return on assets, whereas the debtor’s rotation rate has a strong positive relationship with active return. The study by Jibrin et al. (2013) looked at the components of credit policy, such as credit conditions, recovery attempts, credit period, and credit standards. The study used a sample of 81 manufacturers, a descriptive analysis was employed to collect data. The study discovered that the way loan policies are developed has an impact on the profitability. Salem and Bilal (2016) investigated the impact of liquidity risk management on consumer goods’ FP to discover consumer goods concerns in cash break management. The study found a significant relationship between liquidity risk management and consumer goods’ FP. Also, the research found that firms’ liquidity risk management has an impact on consumer goods firms’ FP. Al-Husainy and Jadah (2021) examined the impact of liquidity and credit risks on the profitability of Iraqi commercial banks using a sample of eighteen banks listed on the Iraqi stock market for the period from 2015 to 2020. It was found that liquidity risk has a significant positive relationship with bank profitability. At the same time, credit risk has a significant negative relationship with a bank’s profitability. This study participates in the argumentation of risk management...
and bank performance determinants across several dimensions. This study is the first to discuss the effects of liquidity risk on the performance of Iraqi banks. Also, it is the first to examine the impact of credit risk on the performance of Iraqi banks. It is expected the study outcomes can resolve the literature gap in terms of the relationship between liquidity risk, credit risk and bank performance. Munangi and Bongani (2020) studied the impact of credit risk on the financial performance of eighteen South African banks from 2008 to 2018. They found a negative correlation of credit risk with financial performance. The higher the non-performing loan ratio, the lower the bank’s profitability, and also, the growth had a positive impact on financial performance. This indicates the improvement of productive capacity through the development of banks, and the research discovers that capital adequacy is positively related to FP. While the ratio of higher capital adequacy may instill the dependability of investors and owners and encourage the banks making competitive. On the contrary, we see a higher capital role because there is a lack of resource that could provide better returns in alternative investments. Finally, the study has shown that bank leverage and FP are negatively correlated. The result of the study is that at the level of micro loans, banks must follow reasonable and rigorous credit policies to minimize the outcrop of non-performing loans. At the macro level, regulators should strengthen supervision in order to ensure that banks manage credit risk in accordance with the regulations and thus reduce the risk of bank failure.

1.3. Financial performance

Financial performance (FP) is the results of all of the Jordanian banks’ operations and strategies. Measuring financial performance provides banks with information to develop their strategic plans. Wheelen and Hunger (2002) confirmed that the right performance measurement is necessary to climacteric for accounting objectives but remains a focal worry for most banks. The measurement of performance will provide banks with bases to improve their strategic plans, estimate achievement of objectives and reward managers (Ittner & Larcker, 1998). Previous literature used two methods to measure financial performance. Corporate governance can also influence the performance of a company (Almasria, 2018; Almasria et al., 2021). The first approach used is firms’ own, it subjectively measures the performance of firms based on their own evaluation, anticipation and comparison with competitors. The second measure is financial ratios (Appiah-Adu, 1998). The study used financial ratios to measure the study variables.

1.4. Criteria to determine the provision of credit facilities to a customer

It is worth mentioning here some of the criteria considered by a bank to determine the possibility of granting a customer credit facilities or not, namely, character is the most important criterion considered by a bank and is the main pillar on which the bank relies on to grant facilities, whether or not this factor is related to the reputation of the client, his personality, his desire to pay the facilities and his honesty in the purpose for which he wishes to obtain facilities. Also, Capacity and Cash flow means the ability of a client (economic activity) to create cash flows capable of fulfilling the client’s obligations to others. Further to that, Capital: One of the core elements that reduce the credit risk and the extent of worker participation in economic activity in which they work, the increased participation of workers in economic activity, the less risk of the activity, the care workers, the most in the success of the project. In reality, the Collateral is safeguards proposed for the facilities required, and the greater the risk in economic activity, the greater the required guarantees, which may include personal sponsorship partners to the network, mortgages, cars, insurance, cash, credits received, the bank guarantee. This may also include a second source of payment, such as salary. Finally, Conditions are general and special circumstances surrounding the client (i.e. the economic activity in which he works), such as the prevailing economic conditions in the country, the conditions of the economic sector in which the client works, the prevailing legislative and legal frameworks in the country.

Consequently, when a bank studies these criteria together, it becomes able to reach a credit decision to grant facilities, whether or not this decision is often closer to health, and shows here the urgent need to provide a customer with all the data and
information that will help the bank to make the right decision, which in turn ensures the creation of a positive continuous relationship between the client and the bank. The trade-off model is a theory that explains why high-level account receivables management should use an effective credit management technique that balances the tradeoff between liquidity and profitability. Good credit management in manufacturing organizations, according to Jibrin et al. (2013), is critical and cannot be overstated due to its capacity to influence financial performance, presence, full growth, and sustainability of businesses. Companies are embracing trade credit as a key technique in the field of financial management as the dynamics of corporate organizations alter. The control measures produce reliable financial reporting for companies (Almasria et al., 2021).

In Jordan, there was a considerable link in Jordanian banks between WCM and a bank’s success. Abuzayed (2012) showed that some of the strategies utilized by managers in practice to make working capital decisions did not rely on financial principles; instead, they relied on their own experiences, which were based on shaky models. Therefore, Jordanian banks require appropriate resources to ensure the continuation of their operations, and those resources must be used efficiently to boost overall performance (Odhiambo, 2011). Given the consequences of inefficient WCM in Jordanian banks, the sector requires an extensive study, and it has attracted the attention of many Jordanian bank investigators. However, little research has been conducted on the subject, and the problem has received little attention, leaving a research gap in this area. Managers of various Jordanian banks manage their working capital according to tradition, which entails restricting the cash conversion in order to improve a bank’s profitability or performance. In line with that, Mbu-Ogar et al. (2017) showed that the Profit is a standard indicator for evaluating a bank’s financial performance, since profit maximization is one of the most important objectives for any business venture and determines the short-term profitability.

This study aims to discover how WCM and CMP affect the Jordanian banks’ financial performance by examining the relationships among Financial performance and Return on investment, Net loans to total assets, Deposits to total assets, Cash Asset Ratio, Asset Turnover, Operating Cash Flow to Total Assets, Rate of Bank’s Ability to Return Deposits, Cash Conversion Cycle, Equity ratio to risky assets and Average Collection Period.

2. DATA, HYPOTHESES AND METHODS

This study used secondary data such as financial ratios from financial statements of 62 Jordanian banks listed on the ASE from 2017 to 2020. This study used panel data analysis. Multiple regression was used to test hypotheses (Alawaqleh, 2020). The measure used for financial performance is the ROI ratio, while the first independent variable (Working Capital Management) was measured by using deposits to total assets, cash to assets, asset turnover, net loans to total assets, and current assets to total assets. The second variable (Credit Management Policy) was measured by using the equity ratio to risky assets, rate of bank’s ability to return deposits, average collection period and cash conversion cycle.

The following hypotheses were formulated based on the analysis of panel data using the SPSS software:

H1: There is a relationship between WCM (net loans to total assets, asset turnover, cash asset ratio, deposits to total assets and operating cash flow to total assets) and FP of Jordanian banks listed on the Amman Stock Exchange.

H2: There is a relationship between CMP (rate of a bank’s ability to return deposits, equity ratio to risky assets, cash conversion cycle and average collection period) and FP of Jordanian banks listed on the Amman Stock Exchange.

This implies that a different hypothesis exists:

Ha: \( \beta \neq 0 \) versus null hypothesis.

Hb: \( \beta = 0 \), where \( \beta \) is the coefficient of regression for the following functions:
The regression equations are presented to explain the impact of WCM and CMP on Financial Performance to complete the purpose of the study. The study has one dependent variable, FP; it was measured by the ROI ratio. While two IVs were measured as follows: the first variable is Working Capital Management (WCM) measured by deposits to total assets, cash to assets, asset turnover, net loans to total assets, and current assets to total assets. The second variable is Credit Management Policy (CMP) measured by equity ratio to risky assets, rate of a bank’s ability to return deposits, average collection period and cash conversion cycle. The study depended on Alawaqleh and Almasria (2021) to use multiple regression to test the hypotheses.

The research population represents all Jordanian banks registered on the Amman Stock Exchange. The study considered all Jordanian banks that consists of 16 banks between 2017 and 2020

3. RESULTS

Descriptive statistics was used for each variable. The descriptive statistics of the independent and dependent variables connected with the research sample of 16 banks listed on the Amman Stock...
Exchange from 2017 to 2020 are shown in Table 3. The data was evaluated using descriptive statistics to identify measures of central tendency and measures of dispersion. The results are presented in Table 3.

The study used multiple regression to test hypotheses. To test the first hypothesis, the independent variable of working capital management (Net loans to total assets, Deposits to total assets) and the dependent variable of Return on Investment in Jordanian banks is discussed (Table 4).

For the second hypothesis, multiple regression was used to test the independent variable of CMP (in terms of the rate of a bank’s ability to return deposits, equity ratio to risky assets) with the dependent variable ROI in Jordanian banks. The results are shown in Table 5.

### 4. DISCUSSION

To explain the research findings, multiple regression results of WCM were as follows: The regression model has a statistically significant value at the 5% level, the correlation coefficient (R) was 0.583, and the determination coefficient was 0.341, which describes the ability of IVs (WCM and CMP) to influence the dependent variable (FP). The results also showed that the test value (F) was 1.288. On the other hand, the results showed that the regression model in Anova test was significant (0.00) at the significance level of α ≤ 0.05,
which shows that there is a variation in the ability of independent variables (IVs) to influence the dependent variable (DV). The result of Beta Standardized Coefficients reveals the variable of deposits to total assets is more significant than from net loans to total assets. It has been concluded that the success of any enterprise depends on the ability to efficiently manage the components of working capital, which is positively reflected on the profitability and growth of an enterprise (Singh et al., 2013). Previous research focus on large industrial companies, Alawaqleh (2020) found that earnings management and trading volume had a positive relationship with accounting information quality. Also, García-Teruel and Martínez Solano (2007) confirmed the significant role of WCM in SMS firms.

Consequently, to explain the findings presented in Table 5, multiple regression results of credit management policy were as follows: The regression model has a statistically significant value at the 5% level, the correlation coefficient (R) was 0.646, and the determination coefficient was 0.418. The ANOVA test revealed that the regression model was significant because the calculated value of F was 0.574, and it was statistically significant, as shown by the value of (sig), which was 0.026; it was less than the level of significance of 0.05. The results showed that the equity ratio to risky assets is more significant on financial performance than rate of a bank’s ability to return deposits. In this regard, the results are consistent with Otuya and Eginiwin’s (2017) study that highlights that credit risk policy and collection policy have an influence on liquidity. This literature studied the effect of WCM on companies’ performance and profitability. The study by (Uguru et al., 2018) aimed to identify the influence of WCM on the profitability of companies listed on the Nigerian stock market for a sample of 7 food production companies from 2008 to 2012.

Finally, the study results indicated the rejection of the first null hypothesis and the acceptance of the alternative hypothesis that there is a statistically significant relationship between working capital management and Jordanian banks’ financial performance. This result depended on the outcomes of the independent variable WCM that was able to explain 34.1% of changes in the dependent variable. Moreover, null hypothesis 2 was rejected and the alternative hypothesis was accepted, according to which there is a statistically significant association between credit management policies and the financial performance of Jordanian banks. In this regard, IV was able to explain 41.8% of changes in the dependent variable.

**CONCLUSION**

This study aimed to examine the influence of WCM and CMP on the financial performance of Jordanian banks from 2017 to 2020. For this purpose, the study collected a panel data consisting of 64 financial reports from 16 Jordanian banks for the period 2017–2020.

In reality, the study showed a positive statistically significant relationship between WCM and JBFP. Also, the result showed that there is a positive statistically significant association between credit management policies and the financial performance of Jordanian banks. The result showed that WCM and CMP are mostly important in the case of Banks’ Financial Performance. Most of bank assets are in the form of current assets. Also, current liabilities are one of their main sources of outside finance. In this case, the purpose of this study was to provide empirical evidence about the effects of WCM and CMP on the Jordanian Banks’ Financial Performance. The study also found that the effect of WCM and CMP was significant on Jordanian banks’ stability in financial markets in terms of its high financial performance.

The study concluded that there is a positive relationship between average collection period (ACP), turnover ratio (CR) and company size and profitability, and there is a negative relationship between inventory turnover period (ITP) and average payment period and profitability in companies. The study found that to support a bank’s performance, the bank may need to lengthen client credit terms, prolong the cash transfer cycle, and require a longer payment period when making judgments on financial performance of Jordanian banks.
AUTHOR CONTRIBUTIONS

Conceptualization: Abdulnafea Al Zararee, Nashat Ali Almasria, Qasim Alawaqleh.
Data curation: Abdulnafea Al Zararee, Nashat Ali Almasria, Qasim Alawaqleh.
Formal analysis: Abdulnafea Al Zararee, Nashat Ali Almasria, Qasim Alawaqleh.
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Writing – review: Abdulnafea Al Zararee, Nashat Ali Almasria, Qasim Alawaqleh.

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