

The Impact of Financial Planning on the Financial Performance of Companies listed on the CAC 40 Index

L'impact de la planification financière sur la performance financière des entreprises incluses dans l'indice CAC 40

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Abstract: This study aims to measure the impact of financial planning on the financial performance of 15 companies included in the CAC 40 Index during the period 2015-2022, based on Panel data.

The results found that there is a positive statistically significant effect of the fixed assets ratio on the financial performance of the companies under study, while there is no effect of working capital on financial performance. The study also found a positive effect of size and financial leverage on financial performance.

Keywords: Financial Planning; Financial Performance; CAC40 Index; Panel data.

Jel Classification Codes : G32, G39, G30, G15.

Résumé : Cette étude vise à mesurer l'impact de la planification financière sur la performance financière de 15 entreprises incluses dans l'indice CAC 40 au cours de la période 2015-2022, sur la base des données du panel.

Les résultats ont révélé qu'il y a un effet positif statistiquement significatif du ratio des immobilisations sur la performance financière des entreprises étudiées, tandis qu'il n'y a pas d'effet du fonds de roulement sur la performance financière, L'étude a également trouvé un effet positif de la taille et du levier financier sur la performance financière

Mots clés : Planification Financière ; Performance Financière ; Indice CAC 40 ; Données de panel.

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1. INTRODUCTION

Economic institutions are the core of economic activity and the basic unit of any economy. With the rapid changes in the environment in which they operate, the need to strengthen their ability to adapt to these transformations has increased and face the growing challenges such as market globalization and intense competition, especially with technological development. This has led to a search for ways to enable them to perform their functions in order to ensure the continuity of their operations and the achievement of their objectives. Hence, the planning function has been prioritized as the foundation for the success of other functions.

Financial planning is an integrated strategic approach based on precised analysis of financial and economic data with the aim of determining a clear and sustainable financial path for the company. By setting priorities, directing and allocating financial resources, companies can achieve their financial goals and enhance their competitive capabilities in the market.

When respecting, implementing the plans, and applying the control system's procedures orderly, the organization can achieve high performance rates. This performance is an indicator of its ability to achieve its goals and make optimal use of its resources. It is like a mirror that reflects the organization's status from all its aspects, where all members of the organization strive to achieve optimal performance. Based on this the following problem can be raised:

Is there an impact of financial planning on the financial performance of Companies listed on the CAC 40 Index?

To answer this problem, hypotheses can be formulated as follows:

H1: There is a statistically significant impact of working capital on the financial performance of a sample of companies included in the CAC40 index.

H2: There is a statistically significant impact of the fixed asset ratio on the financial performance of a sample of companies included in the CAC40 index.

The research focuses on analyzing the impact of financial planning on financial performance, relying on indicators such as working capital and

fixed assets ratio as measures of financial planning, and return on assets as an indicator of financial performance. The advantage of this research depends on its reliance on panel data, which allows the relationship to be analyzed over time and in different contexts. This enhances the accuracy and comprehensiveness of the results. To answer the problem of our study, the Conceptual framework and literature Review were reviewed first, followed by the methodology that was used, then the results were analyzed and discussed, finally setting a conclusion about the most important results and recommendations.

2. Conceptual framework and Literature Review

The literature on financial planning and financial performance has provided important insights into how financial resources can be used effectively to enhance the financial performance of companies, especially in volatile economic environments.

2.1 Conceptual Framework

Financial planning is considered a fundamental core of financial management. It is an ongoing process of directing, allocating and effectively using financial resources to achieve specific goals and objectives (Kang'aru & Tirimba, 2018, p. 600). It includes the analysis of a company's financial flows, forecasting the consequences of different financing, investment, and dividend decisions and weighting the effects of different alternatives (Amaraveni & Susruth, 2021, p. 88). Briefly, financial planning covers forecasting and budgeting, working capital management, financing decisions, and risk management.

Financial planning aims to ensure the long-term sustainability of the organization's financial situation and requires coordination of long-term goals with short-term strategic plans. The financial planning process involves using an organized approach to collecting information on the Organization's vision and setting long-term goals, as well as specific objectives and strategic actions which aim at enhancing the financial performance of the Organization (Ariyo, Onileowo, & Oke, 2020, p. 33820). The budgetary control system usually provides an effective basis for controlling plans, as actual activities are monitored, their results

assessed, and compared with the plan. Significant deviations are then identified, analyzed, and corrective actions are taken (Akikaya & Makokha, 2019, p. 57).

In the same context, financial performance is an indicator of the Organization's ability to use assets from its core activities to generate revenue and expand its operations. Its importance lies in evaluating the organization's performance from several aspects in a way that serves the interests of the users of the organization's data, through the information provided by financial performance in order to rationalize their financial decisions. In addition to that, it enables the follow-up of the institution's work and its conditions and levels of performance comparing with the available resources and goals.

There is a relationship between financial performance and financial planning, as planning is considered an element of effective management and governance. It helps managers focus their efforts towards achieving the organization's goals, defines those objectives in advance, and directing the course of action, with an emphasis on prioritizing and making the right decisions at the right time. All this enhances the organization's efficiency and contributes to achieving sustainable results (Akikaya & Makokha, 2019, p. 57). In addition, financial planning, project cash flow management and budgeting practices are essential resources since they enable organizations to make optimal use of their resources, address potential risks, and enhance their financial operations if they are designed and implemented effectively. Financial practices help the organization deal with uncertainties and leveraging emerging opportunities, which enhances its financial performance (Zia, Shakeel, & Nag, 2024, p. 71)

2.2 Literature Review

Many studies have examined the relationship between financial planning and financial performance, and the majority of them have shown a positive relationship between them in various sectors. For example, Amaraveni & Susruth (2021) showed that financial planning had a positive impact on the financial performance of pharmaceutical companies in India. This study relied on regression analysis to analyze the relationship between financial planning (measured by working capital, fixed assets, and earnings

before interest and taxes - EBIT) and financial performance. Hussein Ali (2019) also showed a positive relationship between the three main aspects of financial planning (organization goal, risk management, allocation of resources) and financial performance.

In a similar context, Ariyo, Onileowo, & Oke (2020) examined in their study the relationship between financial planning and financial performance of SMEs in Ekiti State, focusing on the three main aspects of financial planning: risk management, cash budgeting, and cash control. The study found a positive relationship between risk management and financial performance, but this relationship was not statistically significant. On the other hand, the study showed a positive impact of the cash budgeting, and cash control on financial performance. Akikaya & Makokha (2019) also assessed the impact of financial planning, specifically financial forecasting, on the performance of banks in Trans-Nzoia County. Their study revealed that financial forecasting, financial management, and Customer satisfaction have an impact on the performance of these banks.

In a related context, Tharmini & Lakshan (2021) analyzed the effect of financial management practices on performance of SMEs in Sri Lanka. Their study confirmed that working capital management and Financial reporting significantly impact on their performance, while financial planning and accounting information systems had not significantly affected their performance. In addition, Abbas & Abu Martins (2019) showed the positive relationship between financial control mechanisms and the profitability performance of manufacturing companies in Nigeria.

Finally, the study of Nakhaei & Jafari (2015) showed that capital structure has an inverse and significant relationship with a company's financial performance criteria and its size. The study also showed a direct and significant relationship between free cash flow and a company's financial performance criteria and its size.

Our research contributes to enriching this literature on financial planning and financial performance, by exploring the relationship between them in the context of the French economy, which is a model of an advanced economic environment.

3. Methodology

3.1 Sample of study

The study population consisted of 40 companies included in the CAC40 index, during the period from 2015 to 2022. After excluding financial institutions (banks and insurance companies), companies that underwent merger or acquisition, as well as excluding companies for which insufficient financial data were available during the study period, a sample of 15 companies was selected. This sample constituted a balanced database with 120 observations. Financial data was collected from the annual reports published by these companies on their websites during the period from 2015 to 2022. To achieve the goal of the study, which is to measure the impact of financial planning on financial performance, a model was developed based on Panel Data. The statistical programs Gretl and Eviews12 were used to conduct various tests and estimate the model.

3.2 Study Model

This study uses a multiple regression model based on Panel Data to examine the relationship between financial planning and financial performance. The following model has been adopted:

$$ROA_{i,t} = \beta_{0i} + \beta_1 FRNG_{it} + \beta_2 TANG_{it} + \beta_3 Lev_{it} + \beta_4 SIZE_{it} + \varepsilon_{it}$$

Where:

$T = 1, 2, \dots, 8$: This is the study period from 2015 to 2022.

$\beta_1, \beta_2, \beta_3, \beta_4$: The regression coefficients

$ROA_{i,t}$: Return on assets of the company i in the period t .

$FRNG_{it}$: Working capital of the company i in the period t .

$TANG_{it}$: Fixed asset ratio for the company i in the period t .

Lev_{it} : Financial leverage of the company i in the period t .

$SIZE_{it}$: Size of the company i in period t

3.3 Definitions and Measurement of Variables

The following table shows: the variables of the study, the method of measurement, and some studies that have adopted the same method of measurement.

Table N°1: Variables Descriptions and the methods of measurement

Variables	Abbr.	Measures	Studies
Dependent variable			
Return on assets	ROA	$\frac{\text{Net Income}}{\text{Total Assets}}$	Iqbal & Usman (2018), Amaraveni & Susruth (2021)
Independent variables			
Working Capital	FRNG	Permanent Funds – Fixed Assets	Amaraveni & Susruth (2021)
Fixed asset ratio	Tang	$\frac{\text{Fixed assets}}{\text{total assets}}$	Al-Slehat (2020) , Chinaemerem & Anthony (2012)
Control variables			
Financial Leverage	Lev	$\frac{\text{Total debt}}{\text{Total assets}}$	ANTON (2016) Augustine & Chinwe (2017)
Company' size	Size	Natural logarithm of total assets	Rafindadi & Bello (2019) Onanjiri & Korankye (2014)

Source: Prepared by authors

4. Results and discussion

4.1 Descriptive statistics

The study was applied to a sample of 15 companies during the period from 2015 to 2022, so the number of observations is 120. Table N°2 provides an overview of the descriptive statistics for the study variables.

Table N°2: Descriptive statistics

Variable	Mean	Median	SD	Min	Max
ROA	0.0405	0.0400	0.0260	0.0001	0.1000
FRNG	3.2925	1.9015	6.1074	-8.4050	28.2430
TANG	0.6195	0.6300	0.1345	0.2200	0.8700
LEV	0.6240	0.6000	0.1264	0.2900	0.9900
SIZE	4.7770	4.6400	0.5000	4.1500	7.7500
N	120	120	120	120	120

Source: authors' calculations

As shown in Table N°2, the statistical results indicate that the average return on total assets was 0.04, with standard deviations estimated at 0.026, and the mean values for the independent variables (working capital, fixed asset ratio) were 3.2925 and 0.6195 respectively, and standard deviations were estimated at 6.1074 and 0.1345 respectively. The mean values for the control variables (size and financial leverage) were also estimated at 4.7770 and 0.6240 respectively, and their standard deviations were 0.50 and 0.1264 respectively.

4.2 Correlation matrix

The main results of the correlation between the study variables can be summarized in the table N°3:

Table N°3: The correlation matrix

Correlation					
	ROA	FRNG	TANG	LEV	SIZE
ROA	1				
FRNG	0.0893	1			
TANG	0.4256	-0.0753	1		
LEV	-0.4904	-0.0068	-0.3266	1	
SIZE	-0.0668	0.2754	0.0273	0.0076	1

Source: authors' calculation

The correlation matrix helps detect the presence of multicollinearity among the explanatory variables. According to many researchers, when correlation coefficients exceed 0.8, this indicates the presence of multicollinearity. In our study, as shown in Table N°3, the highest correlation coefficient is 0.32, indicating that there is no multicollinearity among the study variables.

4.3 Estimating the regression model

To estimate the study model, three types of panel data models were used for comparison to select the most suitable one for the study. These types include the Pooled Regression Model (PRM), the Fixed Effects Model (FEM), and the Random Effects Model (REM). Table N°4 shows the estimated results of the three models.

Table N°4: results of the estimated models

ROA									
	PRM			FEM			REM		
	Coef	Std. Error	T Statistic	Coef	Std. Error	T Statistic	Coef	Std. Error	T Statistic
C	0.0782*** (0.0020)	0.0246	3.1689	-0.0152 (0.2983)	0.0145	-1.0449	-0.0043 (0.8355)	0.02093	-0.2081
FRNG	0.0006* (0.0771)	0.0003	1.7839	0.0003 (0.2381)	0.000298	1.1867	0.0004 (0.1649)	0.0003	1.3977
TANG	0.0605*** (0.0002)	0.0155	3.8950	0.0181 (0.1331)	0.0120	1.5141	0.0357** (0.0252)	0.0157	2.2681
LEV	-0.0794*** (0.0000)	0.0164	-4.8256	0.0319** (0.0493)	0.0160	1.9898	-0.0002 (0.9899)	0.0182	-0.0126
SIZE	-0.0057 (0.1605)	0.0040	-1.4124	0.0048** (0.0149)	0.0019	2.4763	0.0044 (0.1739)	0.0032	1.3683
R ² : 0.3427 Adj R ² : 0.3199				R ² : 0.8421 Adj R ² : 0.8139			R ² : 0.0673 Adj R ² : 0.0349		
F-Stat.=14.9939 Prob (F-Stat.) = 0.0000				F-Stat.=29.92527 Prob(F-Stat.) = 0.0000			F-Stat.=2.0772 Prob (F-Stat.) = 0.0882		

*** Significance Level 1% ** Significance Level 5%, * Significance Level 10%,

Source: Prepared by researchers based on Eviews12

The appropriate model for the study is selected by comparing the three models PRM, FEM, and REM presented in Table N°4. This comparison is based on a set of tests: the Fisher test for comparing PRM with FEM, the Lagrange Multiplier LM test for comparing PRM with REM, and the Hausman test for comparing FEM with REM. The results of these three tests are shown in Table N°5.

Table N°5: Results of the F-test, LM test, and Hausman test

Test	Results	
Fisher test	F Calculated value	P (value)
	14.2925	(0.0000)
LM test	chi-square value	Probability value
	65.8944	(0.0000)
Hausman test	chi-square value	Probability value
	24.6868	(0.0000)

Source: Prepared by the researchers based on Gretl

The results of the Fisher test in the table N°5 shows a p-value is (0.0000), which is less than 0.05. Therefore, we accept the alternative hypothesis that the fixed effects model is more appropriate. The LM test also shows a p-value equal 0.000, which is less than 0.05. Thus, we accept the alternative hypothesis that the random effects model is more appropriate.

The Hausman test indicates that the fixed effects model is better than the random effects model, as the p-value is 0.000, which is less than 0.05.

Based on the results of the previous tests, it is clear that the fixed effects model is the most appropriate for the study. Table N°4 shows the F-Statistic for the fixed effects model, which is significant at the 5% level, with a Prob (F-Stat) value of 0.0000 and it is less than 5%. The table N°4 also shows that the R^2 for the fixed effects model is 84.21%. This high percentage indicates a strong correlation between the explanatory variables and the dependent variable. It also indicates that the independent variables, used in the model, explain 84.21% of the variation in financial performance, while the remaining 15.79% is attributed to other factors.

To ensure that the fixed effect model doesn't suffer from problems of autocorrelation and heteroscedasticity, we conduct some tests presented below:

- **Autocorrelation Test:** the Wooldridge Test show the p-value is equal to 0.118546 is greater than 0.05 .Thus, we accept the null hypothesis, indicating that there is no autocorrelation of the errors.

Null hypothesis: No first-order autocorrelation ($\rho = 0$)

Test statistic: $t(14) = 2.76528$
with p-value = $P(|t| > 2.76528) = 0.118546$

- **Heteroskedasticity test:** The Wald test shows the p-value is equal to 0.0000, less than the significance level of 5%, indicating the acceptance of the alternative hypothesis. This means there is heteroskedasticity for the cross-sectional units in the fixed effects model.

Distribution free Wald test for heteroskedasticity:

Chi-square (15) = 210.76, with p-value = 0.0000

According to these results, the fixed effects model has a standard problem related to the heteroskedasticity. Therefore, this problem must be addressed using the White diagonal standard errors & covariance method. Table N°6 shows the results of the corrected fixed effects mode.

Table N°6: Corrected Fixed Effects Model

Dependent Variable: ROA			
Variable	FEM		
	Coef	Std. Error	t-Statistic
C	-0.0250** (0.0479)	0.0125	-2.0030
FRNG	0.0001 (0.5753)	0.0002	0.5621
TANG	0.0215** (0.0387)	0.0103	2.0945
LEV	0.0391*** (0.0076)	0.0143	2.7261
SIZE	0.0056*** (0.0005)	0.0015	3.6022
R ² : 0.779536			
Adjusted R ² : 0.740245			
F-statistic=19.84024			
Prob(F-statistic)= 0.000000			

*** Significance Level 1% ** Significance Level 5%

Source: Prepared by researchers based on Eviews12

4.4 discussion

The results in Table N°6 show that there is no statistically significant effect of working capital on financial performance, as measured by the return on total assets of companies listed in the CAC 40 index. This can be explained by several factors, including the company's capital composition and how to finance its activities, as well as how assets and liabilities are managed. Meanwhile in some cases surpluses of working capital may not necessarily contribute to improving asset return. Therefore, hypothesis H1 is rejected.

The results showed a statistically significant positive effect of the fixed asset ratio (TANG) on the return on assets (ROA) as an indicator of the financial performance of the companies studied. This means that if the

fixed assets ratio changes by one unit, the return on assets (ROA) changes in the same direction by 0.0215. This result can be explained by the fact that increased investments in fixed assets may increase the company's ability to generate revenue in the long term, thereby increasing the rate of return on assets, especially as they have been used effectively for greater profits. Therefore, hypothesis H2 is accepted.

The results indicate a statistically significant positive effect of the financial leverage on the return on assets. Which means that for every one-unit change in the financial leverage, the ROA changes in the same direction by 0.0391. This reveals that relying on more debts (both short and long-term debts) contributes to reduce the total cost of capital by benefiting from tax savings resulting from this funding source. This contributes to improve the company's financial performance and achieving high profitability rates.

The results showed a significant positive impact of size of the company on the return on assets. As the size of the bank changes by one unit, the ROA changes in the same direction by 0.005. This can be explained by the fact that enterprises with a larger share of assets have a relatively better performance, as they enjoy easier access to capital markets and investment opportunities not available to small-scale enterprises. Large companies are also characterized by having capabilities, resources, qualified and highly efficient workers. They can also achieve economies of scale, use advanced technology in their investments and obtain funds at lower costs. Thus, these companies can exploit economies of scale to implement investment projects with high returns, making them more efficient.

5. CONCLUSION

In this study, we aimed to measure the impact of financial planning on financial performance of companies by estimating basic panel models. After comparing these models, the fixed effects model was adopted for the analysis, as it was found to be the most suitable for the study based on a series of statistical tests.

Through this study, we have reached a set of conclusions:

- Financial planning is a process of forecasting and assessing an organization's financial needs, using a toolkit to achieve the stated objectives;
- Financial performance is a tool for identifying an organization's financial situation in a given period;
- Evaluating financial performance is a process for measuring results achieved or expected based on specific financial criterion;
- There is no significant impact of working capital on the return on assets as an indicator for measuring financial performance;
- There is a positive and statistically significant impact of the fixed asset ratio on the financial performance ;
- The study demonstrates that there is a positive impact size and Financial Leverage on the financial performance.

Based on the findings, this study recommends that:

- It is necessary for the institutions in question to conduct studies to ascertain the various factors affecting their financial performance;
- Work for the permanent coordination of financial management functions (financial planning, financial control and decision-making), in order to achieve the enterprise's objectives and enhance its market position, especially with changes in the business environment;
- Conducting many studies with sample sizes larger than those in our current study to enhance the quality of statistical results and assist decision-makers in investing in one of the companies under study.

6. Bibliography List:

- Abbas, U. I., & Abu Martins, M. (2019). Impact of Financial Control Mechanisms on Profitability Performance: A Case of Manufacturing Firms in Nigeria. *International Journal of Managerial Studies and Research*, 7(3), 1-10.
- Akikaya, R. O., & Makokha, E. N. (2019). Effects of financial planning on banks performance (a survey of banks in Trans-Nzoia country). *International Journal of Recent Research in Commerce Economics and Management*, 6(2), 56-63.
- Al-Slehat, Z. A. (2020). Impact of Financial Leverage, Size and Asset Structure on Firm Value: Evidence from Industrial Sector, Jordan. *International Business Research*, 13(1).

- Amaraveni, P., & Susruth, M. (2021). Impact of Financial planning on Financial performance-A study of select undertakings. *Journal of Research in Business and Management*, 9(5), 88-95.
- ANTON, S. G. (2016). The Impact Of Leverage On Firm Growth. Empirical Evidence From Romanian Listed Firms. *Review of Economic and Business Studies*, 9(2), 147-158.
- Ariyo, C. O., Onileowo, T. T., & Oke, M. O. (2020). The Impact of financial planning on the financial performance of small scale business firms in Ekiti State. *International Journal of Development Research*, 10(2), 33818-33826.
- Augustine, N. O., & Chinwe, G. O. (2017). Impact of Financial Leverage on dividend Policy of selected Manufacturing Firms in Nigeria. *International Digital Organization for Scientific Research*, 2(1).
- Chinaemerem, O. C., & Anthony, O. (2012). Impact of capital structure on the financial performance of Nigerian firms . *Arabian Journal of Business and Management Review*, 1(12).
- Hussein Ali, A. (2019). The Impact of Financial Planning and Financial Performance Case Study Commercial Banks Mogadishu Somalia. *International Journal of Science and Research (IJSR)*, 8(1), 47-49.
- Iqbal, U., & Usman, M. (2018). Impact of Financial Leverage on Firm Performance. *SEISENSE Journal of Management*, 1(2).
- Kang'aru, P. N., & Tirimba, I. (2018). Effect of Financial Planning Practices on the Financial Performance of Non Profit Making Health Organizations in Kiambu County, Kenya. *International Journal of Scientific and Research Publications*, 8(5), 599-623.
- Nakhaei, M., & Jafari, S. . (2015). Survey of the Relationship between Capital Structure and Free Cash Flow with Financial Performance of Companies Listed in Tehran Stock Exchange. *Indian Journal of Science and Technology*, 8(27).
- Onanjiri, R., & Korankye, T. (2014). Dividend Payout and Performance of Quoted Manufacturing Firms in Ghana. *Research Journal of Finance and Accounting*, 5(15).
- Rafindadi, A. A., & Bello, A. (2019). Is Dividend Payment of any Influence to Corporate Performance in Nigeria? Empirical Evidence from Panel Cointegration. *International Journal of Economics and Financial Issues*, 9(2), 48-58.
- Tharmini, T., & Lakshan, A. M. (2021). Impact of Financial Management Practices on Performance of Small and Medium Enterprises –

Legitimacy Theory Perspectives. *Kelaniya Journal of Management*, 10(1).

Zia, S., Shakeel, S., & Nag, I. J. (2024). The Impact of Financial Planning, Budgeting Practices, and Project Cash Flow Management on Organizational Financial Performance. *Journal of Humanities, Health and Social*, 2(3), 68-81.