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Analysis of the Profit Allocation and Distribution Policy of a Group of Algerian Economic Institutions During the period (2017-2022)

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Abstract:

The study examines the impact analysis of a specific set of factors that determine dividend distribution policy within a sample of 06 Algerian economic institutions from 2017 to 2022. This investigation employs panel data analysis, utilizing six financial variables including the ratio of distributed profits per share as the dependent variable. Additionally, factors such as profitability, liquidity, growth, financial leverage, and risk size serve as explanatory variables.

The findings reveal a statistically significant relationship between profitability, liquidity, and financial leverage with the ratio of distributed profits. However, other explanatory variables, namely growth and risk size, fail to exhibit statistical significance in explaining variations in the dependent variable within the institutions sampled in the study.

Keywords: Dividend distribution, profitability, growth opportunities, liquidity, financial leverage.

(JEL) Classification : G35 ،G32, O40, G31, G21.

1. Introduction:

Dividend distribution policy is crucial for any company, as it serves as a mechanism to signal external stakeholders with information about the firm's stability and growth prospects. It involves determining the portion of profits to be distributed to common and preferred shareholders and the timing of these distributions. Hence, it stands as a significant issue in financial management due to its interplay and reciprocal impact with both investment and financing decisions within an organization. This, in turn, reflects on the stock price in the market.

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Despite the fact, that setting the distribution ratio is a significant part of dividend distribution policy within a company; there are other equally important factors that should be taken into account when determining this policy. Thus, when planning dividend distribution policy, companies should consider their own interests and aim to maximize the wealth of their shareholders, which necessitates distributing profits in a manner that satisfies these shareholders.

Based on the above.

1.1. Research Problematic:

the research problem can be formulated as follows: **What are the determinants of dividend distribution policy in Algerian economic institutions?**

To further clarify and simplify the raised issue, it is essential to pose the following sub-questions:

- Is there a statistically significant effect of the determinants represented by profitability, liquidity, growth, and financial leverage?
- How is the risk level of dividend distribution policy determined?
- How is the model evaluated from both statistical and economic perspectives?

1.2. Research Aims:

The primary objective of this study is to analyze the profit allocation and distribution policy within a cohort of Algerian economic institutions spanning the period from 2017 to 2022.

This study assumes a statistically significant impact of determinants such as profitability, liquidity, growth opportunities, financial leverage, and risk size on dividend distribution policy.

The significance of this research lies in providing an analytical study for investors and stakeholders regarding equity investment metrics. It aims to establish a model that allows shareholders to predict dividend amounts, enhancing their understanding of the investment landsca

The significance of researching the determinants of dividend distribution policy in Algerian economic institutions can be highlighted as follows:

- Enhanced Decision-Making for Institutions.

- Investor Confidence: A clear understanding of the determinants of dividend policy enhances investor confidence.
- Economic Stability: The research contributes to the overall economic stability of Algeria by fostering sound financial practices within economic institutions. Consistent and well-calibrated dividend distribution policies can positively impact the national economic landscape.
- Policy Formulation and Regulation: Insights from the research can influence the formulation of dividend distribution policies and regulations at the institutional and governmental levels.

1.3. Search Plan:

To address this issue, four main dimensions were tackled as follows :
In the first axis, we delved into the theoretical framework of previous studies that either adopt a dividend distribution policy or attempt to maintain it unchanged. Regarding the second axis, we discussed the factors influencing dividend distribution policy. Moving on to the third axis, a comprehensive study was conducted using panel data analysis to identify and measure these influencing factors. Finally, in the fourth axis, we aimed to provide an economic and statistical analysis of the studied model.

2. The Theoretical Framework and Previous Studies:

The dividend distribution policy involves deciding whether to distribute profits to shareholders, retain them for reinvestment, or issue new shares. This significant financial decision weighs options between current distributions and future profitability through reinvestment (Hachem , 2008). It divides earnings into retained profits for various purposes. Board approval determines the timing of distribution. The policy reflects the balance between retained profits, cash dividends, and new shares. Overall, it influences the allocation of fiscal year profits, impacting share prices (hafedh taha, 2017).

2.1. The study by researchers Farman, Ali Khan; Nawaz, Ahmed:

Numerous studies have been conducted to identify the influencing factors on dividend distribution policy. A study has examined (farman & nawaz, 2017), the Impact of Profitability, Growth Opportunities, Risks, Liquidity, Company Size,

Financial Leverage, and Taxes on Dividend Payout Ratio for the Period 2009-2014 of Pharmaceutical Companies in Pakistan. The results revealed that Liquidity, Growth Opportunities, and Profitability are the main determinants of dividend distribution. Other indicators have a minor influence on dividend distribution decisions in the mentioned institutions.

2.2. The study by researchers Abu manneh, marwan ; Nasser, kamal:

In a similar vein (abu manneh & nasser, 2015), the researchers sought to establish the relationship between dividend distribution policy and the characteristics of non-financial companies listed on the Abu Dhabi Securities Exchange for the period 2010-2012. The findings indicated a significant positive correlation between dividend distribution policy and the profitability, risks, liquidity, and company size. Conversely, there was a significant negative correlation with the financial leverage level of the companies.

2.3. The study of the researcher Huyen, Thi Huyen:

Similarly (huyen, 2016) study aimed to analyze the impact of variables such as return on assets, return on equity as a measure of profitability, financial leverage, asset growth, and company size as independent variables on the dividend payout ratio. This analysis was conducted on a sample of 152 companies listed on the Ho Chi Minh Stock Exchange in Vietnam from 2009 to 2013. The study concluded the existence of three significant factors correlated with the dividend payout ratio: return on assets, financial leverage, and company size.

2.4. The study of the researcher Demirgunes, kaetal:

The study by (demirgunes, 2015) ,investigated the short-term and long-term effects of factors related to profitability, liquidity, growth, risk size, and taxes on dividend distribution ratios. The research focused on a sample of 20 Turkish companies listed on the stock exchange during the period 2002 - 2012. The findings indicated that in the long term, factors associated with profitability, growth, and corporate taxes significantly influence dividend distribution ratios.

2.5. The study of the researcher Jozwiak, pk:

The results of the study conducted by (jozwiak, 2014), regarding the impact of financial leverage, liquidity, profitability, company size, and risk on dividend distribution policy of non-financial companies listed on the Warsaw Stock

Exchange in Poland revealed that highly profitable companies tend to pay lower dividend distributions to retain capital for future investments.

2.6. The study of the researchers Bostanci, Faruk ; Kadioglu, Eyup ; Sayilgan, Guven:

The study conducted by (bostanci, kadioglu, & sayilgan, 2018), aimed to analyze the impact of previous year's profits, company size, liquidity, and market-to-book ratio on dividend distribution policy of a sample of 106 firms listed on the Istanbul Stock Exchange during the period 2009-2015. The study concluded that there is a positive relationship between the independent variables and the dividend distribution ratio.

3. The Factors Affecting Dividend Distribution Policy :

Below is an explanation and clarification of the aforementioned factors and how they influence dividend distribution policy:

2.7. Profitability (Profit Margin):

Companies with higher profitability tend to have more funds available for distribution among shareholders as dividends. Higher profits imply a stronger financial position to allocate dividends (abu manneh & nasser, 2015).

2.8. Liquidity:

Companies with higher liquidity levels possess readily available funds to meet short-term obligations, making it easier for them to allocate dividends without jeopardizing their operational needs (Shabayek & Bakry, 2009).

2.9. Financial Leverage (Debt Ratio):

Higher financial leverage indicates that a company relies more on debt for financing. In such cases, the company may prioritize using its earnings to service debt rather than distributing dividends (Mehraj & Helmi Qalab, 2019), aligning with a negative impact on dividend distribution.

2.10. Growth:

Rapidly growing companies may choose to reinvest their earnings to fuel further growth, rather than distributing them as dividends. Hence, growth can have a negative impact on dividend distribution (abu manneh & nasser, 2015). Thus, growth's negative influence on distribution arises from these dynamics.

2.11. Risk Size:

Companies facing higher risks might need to retain more earnings to cover potential losses. Such companies may opt for lower dividend payouts to maintain financial stability (abu manneh & nasser, 2015). As a result, the risk variable typically correlates with reduced dividend distribution.

3. Standard Study :

3.1. Presentation of Study Data:

3.1.1. Study Methodology: The methodology of the study relies on using panel data (cross-sectional time-series data) to measure the factors affecting dividend distribution policy in a sample of Algerian economic institutions. The study utilizes the Eviews 10 software for the analysis and estimation of the study model.

3.1.2. Sample and Study Period: The study period extends from the year 2017 to the year 2022. The reason for choosing this period is the availability of data related to the variables under consideration. The study sample included six Algerian economic institutions: Alliance Insurance, Saidal Group, Orascom Group, Rouiba Group, Biofarm, and Sonelgaz.

3.1.3. Data Sources: The data for the study variables were obtained from the database of the (Algerian Stock Exchange, s.d.)website, in addition to the National Commercial Registry Center (The National Commercial Registry Center, s.d.).

3.1.4. Study Variables: The study variables include a dependent variable and five independent variables, as follows:

3.1.5. Dependent Variable: This variable encompasses

A. DIV_{it}: Represents the ratio of distributed profits, calculated by dividing the distributed profits by the net income achieved by the Algerian economic institutions forming the study sample.

3.1.6. The independent variables are as follows:

A. $PROF_{it}$: Represents a measure of the economic institutions' profitability (Return on Total Assets). It is calculated by dividing the net profit by the total value of assets.

B. LIQ_{it}: Represents the liquidity ratio per share and is calculated by dividing current assets by current liabilities.

C. GRO_{it} : Represents the growth rate of the institution and indicates the percentage change in total assets from the current year to the previous year.
D. LEV_{it} : Represents financial leverage and is calculated by dividing the total debt by total assets.
E. PE_{it} : Represents risk and is calculated through the annual change in net profit size.

3.1.7. The Model Used : The study relies on a standard model that illustrates the relationship between the dependent variable, which is the distributed profit ratio, and the following independent variables : profitability, liquidity, company growth, financial leverage, and risk size. This relationship can be formulated as follows:

$$DIV = f\ (PROF, LIQ, GRO, LEV, PE)$$

The regression equation specific to the study's model has been formulated as follows :

$$DIV_{it}=\beta 0+\beta 1PROF_{it}+\beta 2LIQ_{it}+\beta 3GRO_{it}+\beta 4LEV_{it}+\beta 5PE_{it}+e_{it}$$

Where :

- **i** : Represents the number of institutions in the study (six economic institutions).
- **t** : Represents time (2017-2022).
- **β0** : Represents the constant value in the model, which is the value of dividend distributions without considering the impact of the determining factors of dividend policy.
- **β1, ..., β5 :** Represents regression coefficients.
- e_{it} : Represents the residual or random error of the estimated model.

3.2. Descriptive Statistics for Study Variables :

Table (01) presents the statistical description of the study variables, including the mean, standard deviation, minimum, and maximum values for each variable.

Table (01): Descriptive Statistics for Study Variables

Variables	Number of Observations	Mean	Standard Deviation	Minimum Value	Maximum Value
DIV	36	0.376737	0.271388	0.000000	0.985916
PROF	36	0.171079	0.184987	-0.080808	0.922660
LIQ	36	1.599733	0.791855	0.669262	3.475565
GRO	36	0.228584	0.386401	-0.024302	1.112730
LEV	36	0.751512	0.336474	0.307763	1.964152
PE	36	-0.169755	1.270180	-6.376758	1.170692

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 software.

The results shown in the table above indicate that the Profitability ratio (PROF) has the lowest standard deviation value of 0.184987, making it the centered axis of the studied sample. On the contrary, the Risk Size ratio (PE) shows the highest standard deviation value of 1.270180, indicating the highest dispersion in the sample.

As evident from the table, the average Dividend Distribution ratio (DIV) for the studied institutions is 37.67%. This ratio ranged from a minimum of 0% to a maximum of 98.59%. This variation confirms that the institutions under study follow different distribution policies. This variation could be attributed to the profit levels achieved by each institution, the management's decisions regarding distribution, retention, or utilization of profits as needed, and also for meeting financial obligations. Moreover, the nature of the business activities and strategies adopted by these institutions could play a role in these policies.

The average Leverage ratio (LEV) was calculated at 75.15%, with a range of 30.77% as the minimum and 196.41% as the maximum. This indicates a diversity among the mentioned institutions in terms of their use of debt for financing investments. This variation could be due to differences in company sizes, growth rates, or the preference of some institutions to raise funds through stock issuance rather than borrowing.

The average Liquidity ratio (LIQ) for the same studied institutions was 159.97%, with a range of 66.92% as the minimum and 347.55% as the maximum. This variation reflects significant differences in cash retention policies among companies, possibly due to variations in dividend distribution policies. It's also noticeable that the standard deviation of the Growth rate (GRO) is 0.3864, which is slightly higher compared to some other indicators. This indicates notable diversity among the studied institutions regarding investment opportunities.

3.3. Matrix of Correlations between Variables:

Table (02): Matrix of Correlations between Model Variables

Corrélation Probabilité	DIV	PROF	LIQ	GRO	LEV	PE
DIV	1.000000					
PROF	0.813289*	1.000000				
LIQ	0.785479*	0.189591	1.000000			
GRO	-0.321725*	-0.458818*	-0.322680**	1.000000		
LEV	-0.754926*	-0.436084*	-0.265806	0.690605*	1.000000	
PE	0.358859*	0.329858*	0.166054	-0.619550*	-0.335659*	1.000000

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.
Note: (*) and (**) indicate statistical significance at the 5% and 10% significance levels, respectively.

Table (2) indicates the Pearson correlation values between the study variables. It is evident from the table that there is a strong correlation relationship among three independent variables (PROF, LIQ, LEV) and the dependent variable (Div). Conversely, the correlation relationship between the remaining independent variables (LEV, PE) is weak. The table also demonstrates that the correlation relationship among the independent variables is relatively low, not exceeding 0.70. This implies the absence of multicollinearity issues among these variables (MEKID, 2007). These results are further confirmed by the Variance Inflation Factors (VIF) test, which indicates that all central VIF values are less than 10 for the independent variables, implying the absence of multicollinearity among them (Mohamed & Hamdoun, 2007).

3.4. Test for Model Specification: This test is referred to as the homogeneity test, in which the type of the appropriate panel data model for the study data is determined (patrick, 2002). The study employed the (POOLED OLS), (FIXED EFFECTS), and (RANDOM EFFECTS) models using the panel data methodology. By applying these models with the EViews 10 software, the results presented in the following table were obtained:

Table (03): The results of estimating the panel data model using the three methods are as follows

Variables	Aggregate Effect	Fixed Effects Model	Random Effects Model
Constant	0.465821 (6.553791)*	0.330522 (3.905622)*	0.465821 (4.803123)*
PROF	0.531339 4.956119)*	0.587667 (5.231313)*	0.531339 (3.632226)*
LIQ	0.059778 2.593316)	0.145829 (4.204121)*	0.059778 (1.900582) ***
GRO	-0.202415 -2.629584)	-0.091020 (-1.086302)	-0.202415 (-1.927162)***
LEV	-0.309864 -4.230547)*	-0.357064 (-4.520686)*	-0.309864 (-3.100471) ***
PE	-0.020742 (-1.178562)	-0.009034 (-0.466579)	-0.020742 (-0.863741)
R-SQUARED	0.775228	0.899394	0.775228
SQUARED- ADJUSTED R	0.737766	0.859152	0.737766
PROB (F -STATISTIC)	0.000000*	0.000000*	0.000000*
DW	1.39	2.32	1.39

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.

Note:

- The statistical values of t.Statistic.
- *, ** , *** : The significance value of t.Statistic is at the 1%, 5%, and 10% significance levels, respectively.
- The p-value of the F-statistic in all three models used indicates statistical significance for each model.

- The significance value of R-squared indicates that the independent variables explain more than 77% of the variation in the dependent variable in all three models. After estimating the three forms of the studied model, we proceed to use model selection methods among these three models through the restricted F-test and the HAUSMAN test.

3.4.1. Fisher Test for Comparing the Pooled and Fixed Effects Models: The usual approach begins by confirming the presence of those insignificant effects, meaning whether there are indeed differences between the institutions or across the time periods of the study. This is achieved through the estimation of Panel FEM and REM methods. Here, the choice is made between a model with individual intercepts for each institution versus a model with a common intercept. The null assumption is the homogeneity assumption (common intercept).

H0 :μ1=μ2…….=μN

H1 :*y*1=*y*2…..…=*y*T

The null assumption is tested using the F-statistic according to the following formula :

$$\mathbf{F(N-1, N\times T-N-K)} = \frac{(R^2_{FEM}-R^2_{PM})/(N-1)}{(1-R^2_{FEM})/(NT-N-K)} \longrightarrow F\ (\alpha,\ N\text{-}1,\ N\times T\text{-}N\text{-}K)$$

Where (K) represents the number of estimated parameters, (T) represents the number of years, R²FE is the coefficient of determination when using the Fixed Effects model, and R²PM represents the coefficient of determination when using the Pooled OLS model (greene, 2005).

When calculating the F-statistic, the results were as follows :

F (α , N-1, N×T-N-K)=F (0.05, 6-1,36-6-5)=F (0.05, 5,25)=2.60.

$*

3.4.2.Hausman Test for Differentiating Between Fixed Effects and Random Effects Models: In order to determine the nature of this effect, we employ the Hausman test to choose between the fixed effects and random effects models (gujarati, 2004). We will test one of the following hypotheses :

H0 : The hypothesis of no difference when the random effects model is appropriate, and in this case, the Generalized Least Squares (GLS) method is adopted.

H1 : The alternative hypothesis when the fixed effects model is appropriate, and in this case, the Ordinary Least Squares (OLS) method is adopted.

The test formula is as follows :

$$H= (\hat{B}OLS-\hat{B}GLS)'[VAR (\hat{B}OLS-\hat{B}GLS)]^{-1}(\hat{B}OLS-\hat{B}GLS).$$

Where H follows a Chi-squared (χ^2) distribution with degrees of freedom (K-1), where K is the number of independent variables. If the calculated test statistic value is greater than the critical value, the null hypothesis supporting the superiority of the random effects model is rejected, and the alternative hypothesis stating that the fixed effects model is preferred is accepted. The following table illustrates the results of the HAUSMAN test :

Table (04): The results of the Variance Inflation Factor (VIF)

The Value Of The Test Chi-Square. Statistic	P-VALUE
30.854600	0.0000(*)

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.

Note:

(*) Test significance at 5%.

From the table, it is evident that the calculated statistical value for the (CHI-SQUARE) test based on the HAUSMAN test is 30.8546. Upon comparison with the critical value at degrees of freedom 10v= and a significance level of 0.05, which is determined as 18.307, the null hypothesis for this test is rejected. Thus, the use of the fixed effects model is appropriate and preferable for the studied data.

3.5. Results of Estimating Dividend Policy Determinants Using the Fixed Effects Model:

The parameters were estimated using EVIEWS 10 software, utilizing the fixed effects model as the preferred approach for panel data analysis. Employing this method helps alleviate issues related to multicollinearity, heteroscedasticity, and

obtains optimal results by utilizing the maximum available observations for the model variables (R'TIAA, 2014). The following table presents the regression results using the fixed effects model for the study sample.

Table (05): Results of the Regression Using the Fixed Effects Model for the Study Sample.

The dependent variable DIV :		
Period : 2017-2022;Number of observations: 36;(T): 5 ;(N): 6		
Variables	**Coefficient**	**Prob**
Constant	0.330522	0.0006*
PROF	0.587667	0.0000*
LIQ	0.145829	0.0003*
GRO	-0.091020	0.2877
LEV	-0.357064	0.0001*
PE	-0.009034	0.6448
R-squared	89.93%	
(Adjusted R-squared)	85.91%	
Prob (F-statistic)	0.000000*	
Durbin-Watson stat	2.322847	

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.

Note : (*) Significant at 5% level.

The results from the previous table can be summarized in the following estimated equation :

$\mathbf{div_{it}} = 0.33+0.58\ PROF_{it}+0.14\ LIQ_{it}-0.35\ LEV_{it}-0.09GRO_{it}\ -0.35PE_{it}$

(0.0006)* (0.0000)* (0.0003)* (0.0001)*(0.2877) (0.6448)

Number of observations: 36. Number of groups :6.R^2=89.93% .Dw:2.32

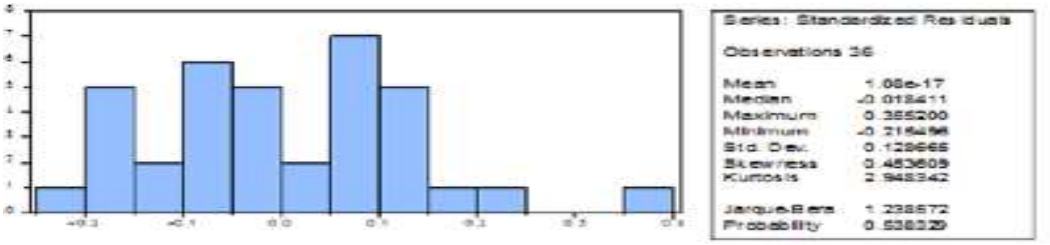
3.6.Model Diagnosis :

Before adopting this model for use in estimation, it is important to ensure the quality of its performance. This is achieved by conducting the following diagnostic tests :

3.6.1.Normality Test for Random Errors (Normality Test): Below is the Jarque-Bera normality test for the random errors of the fixed effects model. To test the normality distribution of the random errors, we formulate two hypotheses.

H0 : The residuals follow a normal distribution ; **H1** : The residuals do not follow a normal distribution.

Figure(01): The results of the normality test



Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.

From the previous results, it can be observed that : 0.05 < 0.5383 = (JARQUE-BERA) PROB, which means the null hypothesis that the residuals follow a normal distribution is accepted.

3.6.2. Autocorrelation Test for Residuals:

Table (07): Autocorrelation Test for Residuals

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.244	0.244	2.3258	0.127
		2	-0.170	-0.244	3.4935	0.174
		3	-0.272	-0.182	6.5648	0.087
		4	-0.175	-0.108	7.8718	0.096
		5	-0.032	-0.056	7.9166	0.161

Source: Prepared by the researchers relying on the Outputs of EVIEWS 10 Software.

From the previous table, it is evident that all the probability values (PROB) are greater than the significance level of 0.05. Therefore, we accept the null hypothesis (H0), indicating that there is no significant autocorrelation present in the residuals.

3.7. Model Evaluation and Interpretation: In this section, we assess and interpret the estimated model.

3.7.1. Statistical Model Evaluation: In this part, we evaluate the model statistically.

Total Statistical Significance of the Model : The table (Table 5) indicates that the p-value for the "F" statistic is (0.000 < 0.05), indicating that at least one of the independent variables (PROF, LIQ, GRO, LEV, PE) can explain the dependent variable. Moreover, comparing the computed "F" value (53.58) with the critical value (22.349) confirms the overall significance of the model.

Statistical Significance of Model Coefficients: To evaluate the statistical significance of the coefficients of the independent variables in the Fixed Effects model, a t-test (t-Student) is conducted at a degree of freedom (v) and a significance level of (0.05).

Upon comparing the computed values from this test (as shown in Table 3) with the critical values, the results are as follows :

- The **PROF** indicator (=2.042, tcrit, tcal = 5.231313) indicates that the coefficient is statistically significant.
- The **LIQ** indicator (=2.042, tcrit, tcal = 4.204121) indicates that the coefficient is statistically significant.
- The **LEV** indicator (=2.042, tcrit, tcal = 4.520686) indicates that the coefficient is statistically significant.
- The **GRO** indicator (=2.042, tcrit, tcal = 1.086302) indicates that the coefficient is not statistically significant.
- The **PE** indicator (=2.042, tcrit, tcal = 0.466579) indicates that the coefficient is not statistically significant.

These results indicate that the coefficients of the independent variables (PROF, LIQ, LEV) are statistically significant, implying that they are objective and have statistical credibility. On the contrary, the coefficients of the indicators (GRO, PE) are not statistically significant, suggesting that they are subject to random factors and lack statistical credibility. Moreover, their influence on the dependent variable is weak, as seen from their low coefficients (0.09102, -0.009034).

From the results presented in Table (05), it is evident that the overall correlation between the dependent variable and the explanatory variables is strong (R =

0.9483). However, this strong correlation is primarily due to the strong correlation among the three independent indicators (PROF, LIQ, LEV). On the other hand, the correlation between the indicators (GRO, PE) is weak.

The high value of the adjusted determination coefficient (R2) at 89.93% indicates that the independent variables explain about 89.93% of the variation in the behavior of the dependent variable, the dividend payout ratio. The remaining 10.07% is attributed to other variables not included in the model, represented as (eit). This strong impact is primarily attributed to the role of the three indicators (PROF, LIQ, LEV).

Comparing the calculated values of the Durbin-Watson test (1.39, 2.32, 1.39) for the three models with the critical value range (dL=1.18, dU=1.80), it's evident that these values fall within the region of no autocorrelation. From an application perspective, the presence of serial correlation is usually rejected in this case.

3.7.2. Economic Evaluation of the Model: The theoretically acceptable sign The results indicate a strong and logically positive relationship between the profitability index (PROF) and the dividend distribution ratio. It shows that for every one-unit increase in profitability, there is a 0.58 unit increase in the dividend distribution ratio. This suggests that companies with high and sustainable profits are more likely to increase dividend distributions to shareholders. These findings align with economic theory and reinforce the main hypothesis of the research.

- The results indicate a logical and positive relationship between the liquidity index (LIQ) and the dividend distribution ratio. Specifically, a one-unit increase in the liquidity index corresponds to a 0.14 unit increase in the dividend distribution ratio. This implies that companies with substantial cash liquidity are more inclined to increase dividend payouts to shareholders. These findings align with modern trends in business and finance, emphasizing the significance of maintaining cash liquidity to reduce agency costs. Furthermore, these results are statistically supported, consistent with previous studies, and validate the research hypotheses.
- Regarding the GROWTH indicator, which represents growth, the statistical analysis revealed that this indicator is not statistically significant. The correlation relationship with the dependent variable is weak, and it doesn't contribute

significantly to explaining the behavior of the dependent variable - dividend distribution policy in the studied institutions. This is evident from its weak coefficient value (-0.09). For every unit increase in asset size, there is a decrease of 0.09 units in dividend distribution. The researchers suggest that these institutions lack profitable investment opportunities that would incentivize them to retain profits to increase asset size, sales, and profits.

These findings contrast with the study of (demirgunes, 2015) and (farman & nawaz, 2017) but align with the study of (bostanci, kadioglu, & sayilgan, 2018). This contradicts the main hypothesis of the research, which is rejected in this aspect.

- Regarding the Financial Leverage indicator (LEV), it is statistically significant, indicating an inverse relationship between debt levels and dividend distribution, which is economically plausible. The coefficient value of this indicator (-0.35) reflects its strong inverse impact on the dependent variable. An increase in debt and financial burdens by one unit leads to a decrease of 0.35 units in the amount of distributed dividends, under the assumption that other explanatory variables in the model remain constant.

The researchers suggest that heavily indebted institutions require more liquidity to settle debt obligations, leading them to reduce dividend payments to shareholders. This finding is in agreement with the study of (jozwiak, 2014) and (abu manneh & nasser, 2015). This aligns with the main hypothesis of the study, which has been accepted.

- As for the Risk Size indicator (PE), it is not statistically significant, indicating that this variable is not a significant factor in influencing dividend distribution policies in the studied institutions, given its coefficient value in the model (-0.009). This also reflects its weak impact on the amount of distributed dividends.

This finding is in agreement with the study of (farman & nawaz, 2017) and differs from the study of (abu manneh & nasser, 2015). This contradicts the main hypothesis of the research in this aspect.

4. Conclusion:

The study aimed to analyze and measure the impact of a set of factors influencing dividend distribution decisions within a sample of Algerian economic

institutions during the period (2017-2022). The model was estimated using panel data models that combine the individual dimension (economic institutions) and the time dimension (time period), Through this model, the following results were obtained :

- The estimated models and difference tests revealed that the Fixed Effects model is appropriate for the study, indicating the presence of constant individual differences among the economic institutions in the study sample.
- There is a significant positive relationship between profitability, liquidity, and dividend distribution decisions in the sample institutions.
- There is a significant negative relationship between financial leverage and dividend distribution decisions in the same sample.

4.1. Recommandations : Based on the study's findings, recommandations can be formulated as follows :

- Company management should prioritize expansion and investment when deciding on dividend distribution, following the surplus theory by retaining profits for future growth.
- The necessity for companies to conduct surveys to gather the opinions of their shareholders regarding their preferences towards dividend distribution theories.

4.2. Study Perspectives: Through this study and its results, several future perspectives can be identified :

- Expanding the Timeframe : Extending the time horizon to gain a broader perspective on the impact of factors influencing dividend distribution decisions.
- Constructing a Standard Model with a Larger Number of Explanatory Variables.
- Investigating the Impact of Non-Financial Factors on Dividend Distribution Policy.

5. Bibliography List :

1. (s.d.). (A. S. Exchange, Producteur) Consulté le 07 16, 2023, sur https://www.cosob.org/

2. (s.d.). (T. N. Center, Producteur) Consulté le 08 01, 2023, sur http://www.cnrc.org.dz/

3. (s.d.). Consulté le 07 16, 2023, sur Algerian Stock Exchange: https://www.sgbv.dz/ar/

4. (s.d.). Consulté le 08 01, 2023, sur The National Commercial Registry Center: https://sidjilcom.cnrc.dz/en/accueil
5. abu manneh, m., & nasser, k. (2015). "Determinants of Corporate Dividend Policy: Evidence from an Emerging Economy". international journal of economics and finance, 07(07), 229-239.
6. bostanci, f., kadioglu, e., & sayilgan, g. (2018). déterminants of dividende payout : décision : Adynamic panel data analysis of turkish stock markat. international journal of financial studies, 6(4), 1-16.
7. demirgunes, k. (2015). diterminants of dividende payout ration ,A Panel autoressive distributed laganalyesis. international journal of economics and financial, 5(2), 418-426.
8. farman, a. k., & nawaz, a. (2017). "Determinants of Dividend Payout: An Empirical Study of Pharmaceutical Companies on Pakistan Stock Exchange (PSX)". Journalial Studies & Research, 2017(2017), 02-16.
9. greene, w. (2005). économétrie (éd. 5). (T. Azomahou, & N. Coudec, Trads.) paris: française dirigée par Didier Schlacther , IEP Paris.
10.gujarati, d. n. (2004). Econométrie (éd. 4). paris: université de Bruxelles.
11. Hachem , H. (2008). Factors influencing dividend distribution policy in joint-stock companies. Baghdad College of Economics Journal.(17), 209-230.
12.hafedh taha, a. (2017). "The Impact of Dividend Distribution Policy on Earnings Quality in Joint-Stock Companies Listed on the Iraq Stock Exchange.". Journal of Economic and Administrative Sciences., 27(104), 473-502.
13.huyen, t. h. (2016). Factors Affecting the Dividend Payment Policy of Companies on the Ho Chi Minh Stock Exchange, Chuan Streets. (12), 1-24.
14.jozwiak, p. (2014). déterminants of dividende Policy, Evidence frome polish listed compagnies. procedai economics and finance, 23, 473-477.
15. Mehraj, M. A., & Helmi Qalab, F. (2019). The Impact of Financial Performance on Dividend Distribution Policy. Journal of Tishreen University, 41(3), 93-119.
16.MEKID, A. (2007). Econometrics: Lessons and Solved Problems. Algeria: University Press Department.
17. Mohamed, Y. M., & Hamdoun, A. M. (2007). Diagnosis of Multicollinearity and the Use of Stepwise Regression in Selecting Variables of Agricultural Investment Function in Iraq for the Period 1980-2000. Tikrit Journal of Administrative and Economic Sciences, 3(8).
18.patrick, s. (2002). économétrie des données de Panel. paris : dunod.
19.R'TIAA, M. (2014). Using panel data models to estimate the economic growth function in Arab countries (Vol. 2). The Algerian Journal of Economics and Finance.
20. Shabayek, M. H., & Bakry, A. (2009). The contribution of corporate governance to rationalizing dividend distribution policy. Journal of Financial and Accounting Studies(9), 101-133.