Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

IDENTIFYING THE METHODS OF ADAPTING THE BEHAVIOR OF CASH FLOWS TO THE VARIATIONS OF THE RELEVANT FINANCIAL-ECONOMIC INDICATORS IN MULTIPLE CRISIS CONDITIONS

Veronica GROSU
Stefan cel Mare University of Suceava, 720229, Romania
veronica.grosu@usm.ro
Mădălina TĂNĂSOAIA
Stefan cel Mare University of Suceava, 720229, Romania

Abstract
The phenomenon of globalization manifests itself in the internationalization of markets, of companies whose products or services are sold all over the world and are available to customers irrespective of their country of origin, but also of financial markets, as the role of international finance and lending is central. In this context, the purpose of this paper is focused on the analysis of the importance that economic entity gives to permanent accounting, supervision and control of cash flows to ensure business continuity and sustainability. The objectives set are focused on: O 1 - identification of the ways to use the financial resources in the organization of business sustainability and O 2 - identification of cash flow behaviors according to the related activities. The results obtained are materialized in the development of a model to evaluate the cash flow behavior for entities listed on a regulated stock exchange, affected by overlapping crises.

Keywords: *cash flow; profit; resources; supervision; sustainability*

JEL Classification: *E22; E64; M41*

I. INTRODUCTION

Competition between businesses requires constant adaptation to changing conditions. All technological improvements that cause significant capital investment, inflation, changes in interest rates, tax laws, have a great influence on the movement of capital in the firm. Therefore, it is necessary to effectively manage the movement of capital within the enterprise. Cash is the most liquid part of assets, and a high degree of liquidity helps the firm to choose its next moves more easily. The production and commercial business cycle begins and ends with cash flow. The profit-making activity of the enterprise requires that funds are transferred to various assets that are converted into receivables in the process of selling products. When cash flows are collected, performance is achieved and a new production cycle can be started, ultimately aiming at profit. All these elements argue for the importance of continuous cash flow studies.

Thus, *the purpose* of this paper is focused on the analysis of the importance that economic entity gives to permanent accounting, supervision and control of cash flows to ensure business continuity and sustainability of the business. The established objectives are oriented on: O 1 - identifying the ways of valorization of financial-value resources in the organization of business sustainability is intended to present the consequences of the events of the last period, such as the health crisis, the geopolitical crisis, the energy crisis, in the conditions of foreshadowing a future food crisis and O 2 - identifying the behavior of cash flows depending on the related activities", focused on the study of a sample of companies, listed on the Bucharest stock exchange, in dynamics, for seven financial years. The aim was to analyze the structure, behavior and impact of cash flows, by related activities, on company performance. *The results* obtained are materialized in the development of a model to evaluate the behavior of cash flows for entities listed on a regulated stock exchange affected by overlapping crises.

II. LITERATURE REVIEW

There are numerous studies in the literature in which the authors are concerned with how to relate cash flows to financial performance. These studies usually seek to emphasize the importance of cash flows for decision makers because they provide insights into the state of financial position, earnings and market value. (Mia & Santosa, 2019) and that firm solvency, flexibility and performance capability are associated with the firm's ability to produce positive cash flows from operating, investing and financing activities (Turcas, 2011). Previously, Bragg (2002) emphasized that investors have an interest in identifying the ability of firms to conduct business that will

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

enable them to generate cash flows to repay debt. In addition, Bingilar and Oyadonghan (2014) stated that a company's cash flow is a crucial factor that improves its operations.

Based on the researches, findings and studies already conducted by experts in the field related to cash flow, this study complements them by examining the behavior of cash flow according to the related activities of entities. Effective management of enterprise cash flows ensures predictable activities in a modern organisation. The issue of balancing and timing of cash outflows and inflows and their equivalents is important for any enterprise. The importance increases considerably with complex economic processes that create significant risks and difficulties in achieving a balanced cash flow management and profit-making policy (Greshko, Kharabara and Tretyakova, 2021). The assessment of financial stability is an important task for an enterprise, as it ensures the independence of the company and its ability to generate cash flows. The availability and ability of firms to use financial resources, determines their survival and development in the market. Money is a scarce resource, which is why it is essential to develop an effective method of managing it.

In order to talk about cash flows and their approaches in accounting, we must first define the term. Cash flows can be described as the amount of money that an entity holds, and which ensures its market efficiency, financial stability, solvency, liquidity and image. If the firm is financially balanced, it means that it has an optimal amount of cash flow. An excess of these can lead to the depreciation of financial resources, and a cash deficit can reduce performance indicators, diminish the financial situation, and in the worst cases lead to the bankruptcy of the company (Soboleva et al., 2018). Cash flows essentially show the inflows, in the form of revenues, and outflows, in the form of expenses, that a firm has during a reporting period. Unfortunately, entrepreneurs can distort the true picture of their cash flows. By extending the time to make payments invoices and keep cash on hand, on the one hand, and collecting receivables from customers in a shorter time, on the other hand, companies maintain an optimal level of liquidity and a good image for potential investors (Ali, Ormal and Ahmad, 2018).

Every business, regardless of size, business purpose or form of organisation, needs cash flow to operate. Cash flows are the result of cash inflows and outflows (Emmanuela et al., 2019). Throughout this sub-chapter, our focus is on the first component of cash flows, namely inflows. Cash inflows are the result of core business, investment, financing activities in the form of loans received from banks, shareholder investments, interest from savings and investments (Emmanuela et al., 2019). In turn, cash flows, when presented in annual financial statements, should be grouped for firms that are required to prepare them into: cash flows from operating activities, cash flows from investing activities and cash flows from financing activities. By studying cash flows from operating, investing and financing activities, we explore the effect of these different cash flows on firm value, and hence, the characteristics of the dependent variables (Yensen et al., 2019).

Operating activities are the entity's main revenue-producing activities. However, a distinction must be made between them and investment or financing activities. The most important source of accumulating cash inflow is the sale or provision of services to customers (Kania, 2005). Sometimes, operating cash flows may originate from transactions which, at first sight, do not belong to the operating category. We take the clear example to support the hypothesis stated above. Suppose we acquire land. At first glance, we consider this transaction to be associated with investment activity. However, before we can evaluate and categorize this flow, we need to know what business practices the firm is engaged in. If the entity regularly acquires land that it uses to build or sell further on, we can classify this transaction in the cash flow generating class related to the operating activity because this is the activity that generates its income, and not in the one related to the investment activity (Găban, 2016).

To study cash flows from operating activities, companies can use either the direct method or the indirect method. When the direct method is used, the main categories of receipts and payments are presented in gross form. In addition, the profit before tax and cash generated by operating activities are shown. In the case of the indirect method, profit or loss is adjusted using the effects of non-cash transactions, using delays or accruals, cash flows from investing or financing activities (Găban, 2016).

The preparation of cash flow statements is an important process for every company. Cash flow statements are often used to describe the company's ability to meet the company's operating costs and obligations, so in order to generate additional profits, the company must have cash to reinvest (Tjandrakirana & Budiman, 2022).

In order to run a business effectively, it must have funds. The accumulated funds are used to buy fixed assets, produce goods and services, purchase materials for production and sale, etc. It is necessary to use the flows in such a way that they generate high returns from the investment made. The allocation of these funds is based on proper planning so that the use of funds can be optimally reinvested (Tjandrakirana & Budiman, 2022). Cash flow is described as cash inflow and cash outflow. While in the first sub-chapter, the focus was on describing the components that belong to the category of cash inflows, in the remainder of this sub-chapter we will discuss cash outflows or cash payments. Payment flows follow the same structure as cash receipts in order to make connections between them. Thus, we will have payment flows related to operating activity, payment flows related to financing activity and payment flows related to investing activity.

Cash outflows from operating activities refer to expenses that the company incurs in the course of its core business. Normally, the largest costs a company incurs are incurred in carrying out its core business. Included in this category are cash outflows for payments to suppliers, employee salaries, advance payments, taxes payable to

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

state budgets and interest due on loans obtained (Anghelache et al., 2012). Financing activities represent cash inflows from issuing shares, issuing debt securities. Correspondingly, cash outflows related to financing activities are materialized in expenses for share buybacks (treasury shares), payment of lease liabilities or dividends to shareholders. Cash outflows from investment activities, indicate that firms aim to maximize their market value, thus taking into account, capital expenditures for the firm (Yensen et al., 2019). The following items belong to this category of cash outflows: repayment of intercompany loans an7d other loans, only if the entity does not have borrowing of funds as its main activity, payments for purchases of real estate, intangible assets and other long-term assets.

There can be no effective management if it is not constantly concerned with determining and tracking cash flows. Without this monitoring, decisions can be flawed in terms of the ongoing financing of the business.

Impediments to understanding the need to prepare cash flows

The concept of cash flow forecasting is of interest and importance to business, investors, lenders and financial analysts. When a company is able to determine its cash flow correctly, users of its financial statements are able to assess the liquidity, financial flexibility and risks of the company (Mulenga & Bhatia, 2017). Money needs to circulate, and to ensure that it circulates efficiently, entrepreneurs should take all the necessary steps so that they can achieve an outcome whereby the money that will flow into the company is equal to, and hopefully more than, the money that will leave the firm's assets.

Many companies believe that money is power, but are unable to estimate correctly the cash they will have to finance the business. Failure to plan inflows and outflows and the misconception that a rapid increase in cash would be the solution to solve problems in the firm, greatly affects the firm's survivability (Mulenga & Bhatia, 2017). Building a cash flow will help the company visualize what inputs will form the basis for future expenses and investments. At the same time, those who prepare such statements have the advantage that they are prepared, to some extent, for outflows that may occur unforeseen because, they are aware, at all times of the cash they have available (Mungal & Garbharran, 2014)

The notion of cash flow is often confused by entrepreneurs, especially small business owners, for whom the term is new, with company profit. Ignorance of the meaning and importance of this term, makes them, once seen with a positive balance, decide to invest, not taking into account the deferred expenses that the company may have, which must be paid from the positive balance obtained (Mungal & Garbharran, 2014). Another aspect that firms that do not prepare their cash flows, do not take into account, is that they do not prioritize expenses. As cash is a limited and vital resource to be able to operate, managers are responsible for determining the expenses to be incurred and determining the order of payments, according to importance and due date. Any cash outflow that is not necessary and prioritized can leave the firm without liquidity to pay urgent debts (Mungal & Garbharran, 2014).

III. RESEARCH METHODOLOGY

As outlined in the introductory part, the aim of the paper is to analyze the effects of cash flow behavior according to the type of activity of the entities, i.e. operating activities, investing activities and financing activities. Another objective pursued, through the analysis of cash flow statements, is to demonstrate the importance of the cash flow statement to maintain and forecast performance. The rationale for choosing this topic for discussion, in addition to its topicality, is the need to gain an in-depth understanding of the need for proper cash flow management to ensure the resilience of a business in a volatile market.

The paper was based on studies compatible with the topic, and as an applied part, a database, on which we applied our knowledge and theories to achieve the desired objectives. The research was carried out on a sample composed of fifty-four Romanian companies, listed on the Bucharest Stock Exchange, For the companies chosen as support, we went through the annual financial statements, published by them, for the years 2015-2017. The purpose of this review was to gather information relevant to our research. In particular, we focused on the cash flow statements in the financial statements. The collected information formed the basis for the database on which we conducted our research. The data are divided by year, each year separately, are distributed by columns, for each firm, and by lines, each type of information, to streamline data processing and querying. By processing the data, in a program specially used for such analyses, SPSS 26, information was modelled and obtained which, after interpretation, aimed to show how much influence the independent variables selected in the model had on the dependent one. The aim was to determine which components influence cash flows in terms of increase or decrease. The sample on which we conducted the analysis was composed of fifty-four Romanian companies listed on the Bucharest Stock Exchange. The fields of activity of the sampled firms are from different industries of the economy (mining, agriculture, construction, catering industry, etc.). The time period over which we conducted the research spans seven financial years, for the years 2015-2021. For the companies chosen as support, we have gone through the annual financial statements, published by them, for all years. The purpose of this review was to gather information relevant to our research. In particular, we focused on the cash flow statements in the financial statements. The information collected formed the basis for the database on which we conducted our research. The

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

data are divided by year, each year separately, are distributed by columns, for each firm, and by lines, each type of information, to streamline data processing and querying. The following information is presented by line for each firm and for each year: rate of return, nominal value of the firm's shares, number of shares, value of share capital, value of equity, total assets, dividends paid and provisions made. Then follows the section of interest to our study, the cash flow statements, divided into: cash flows from operating activities, cash flows from investing activities and cash flows from financing activities. For each type of flow, we have data on cash inflows and cash outflows. Next, the database has information on firm performance (turnover, operating income, operating expenses, operating result, financial expenses, financial income, financial result, gross result, net result and average number of employees). The last section of the database is intended to present the stock market indices for each firm.

IV. RESULTS AND DISCUSSIONS

The relevance of cash flows to the conduct of operations and business performance encourages managers to develop appropriate combinations of flows in order to maximize their value. In order for cash flows to be well structured and used effectively, a business company must be able to devise various ways of selecting the best components of its cash flows to be used in the operation of the company to enhance its productivity or to achieve performance (Bingilar & Oyadonghan, 2014). This process should be based on well-developed criteria by the financial manager. In order to better understand cash flows, in the following, we will study their behavior according to the type of activity from which they originate.

Modelling cash flows

For the analysis and modelling of cash flows we have built a database, starting from a sample of fifty-four listed companies. They come from different sectors of activity such as agriculture, mining and quarrying, construction, hotels and restaurants, communications, technical and scientific activities, and prepare cash flow statements. The processed data led us to results that were used to design an econometric model to establish a pattern between all requested variables entered and total cash flow variable. IBM SPSS Statistics 26 software was used to analyze the data and validate the regression model. Table 1, Variables analyzed includes the variables used to build the model:

Table 1. Variables analyzed

Variables Entered/Removed[a]

Modell	Variables Entered	Variables Removed	Method
1	Net turnover, DIVY, Average number of employees,, PER , PBV , Net profit, Total assetsb . Enter	.	Enter

a. Dependent Variable: Total Cash Flows
b. All requested variables entered.

Source: Annual Reports 2015-2021, own processing

The analysis presented below was performed to determine the dependence relationship of cash flows on the dynamics of several influencing factors of integrated reporting using the multiple linear regression model of the type:

$$Total\ cash\ flow = \alpha + \beta 1 * \text{Net turnover} + \beta 2 * \text{DIVY} + \beta 3 * \text{average number of employees} + \beta 4 * \text{PER} + \beta 5 * \text{PBV}\ \beta 6 * \text{net income} + \beta 7 * \text{total assets}\ \varepsilon$$

Where:

- Total cash flows - is the dependent variable of the model,
- Net turnover, DIVY, average number of employees, PER, PBV, net result, total assets- are the independent variables,
- α, β1, β2, β3, β4, β5, β6, β7 - are the parameters of the regression model,
- ε is the random error variable.

At this stage of the research, we aim to demonstrate that the determined model describes the analyzed economic problem and has a high degree of confidence. Specifically, we want to determine the extent to which the dependent variable is sensitive to changes in the other elements.

Figure 1 shows the development of the dependent variable in relation to the independent variable, turnover, for the period under analysis:

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

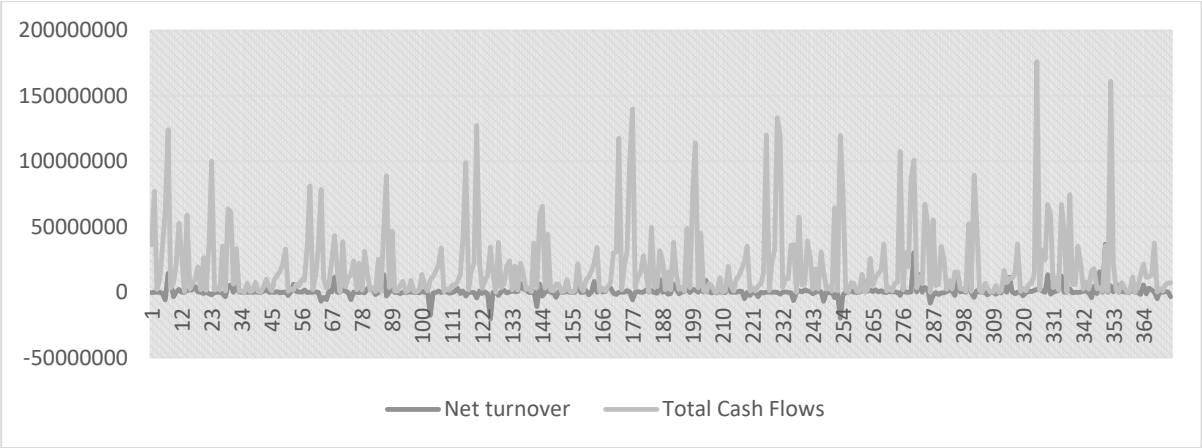

Figure 1 - Variation of the dependent variable with respect to the independent variable net turnover
Source: Annual reports 2015-2021, own processing

Net turnover is associated with the proceeds from operating activities, which account for the largest share of total cash flows. Although at a first analysis of the previous graph one would assume that there is no dependence between the two variables due to the high differences on the axis, it should be noted that turnover only includes receipts, whereas cash flow represents the difference between receipts and payments. With this information in mind, a closer look at the graph shows that in periods when turnover is high, cash flows are positive and on an upward trend. Consequently, when turnover was low, cash flows were close to zero or even negative, which justifies the dependence of the variable cash flows on the independent variable turnover.

Figure 2 shows the evolution of the dependent variable cash flows in correlation with the independent variable DIVY for the period analyzed:

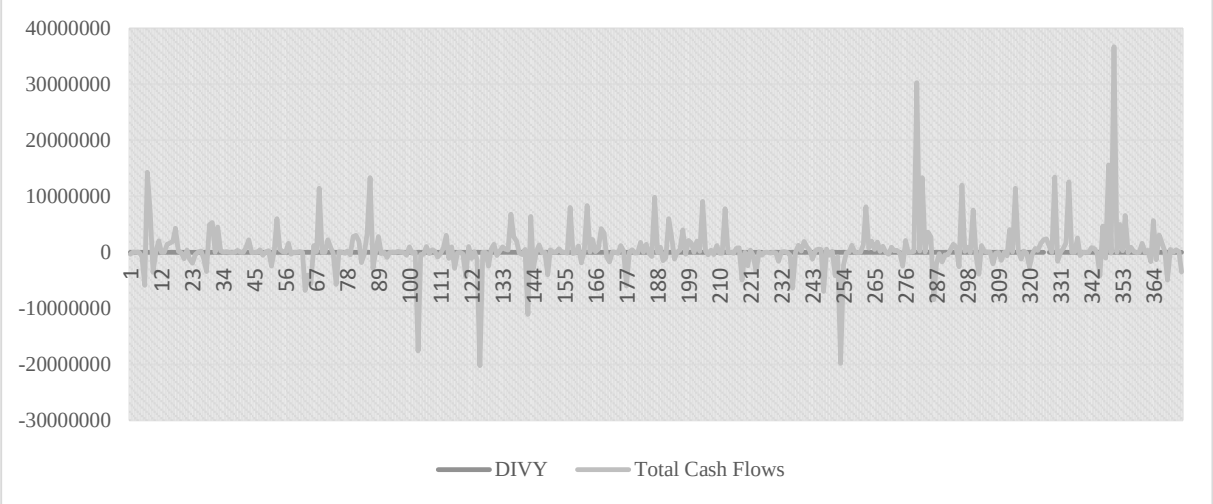

Figure 2 - Variation of the dependent variable with respect to the independent variable DIVY
Data source: Annual Reports 2015-2021, own processing

DIVY- dividend yield remains relatively constant throughout the period under analysis. Compared to this, it is observed that cash flows fluctuate significantly. This shows that companies do not decide to pay higher dividends when cash flows are on an upward trend, they use the surplus cash for other investments. There is no significant influence between the independent variable and the dependent variable.

Figure 3 shows the evolution of the dependent variable cash flows in relation to the independent variable average number of employees for the period under analysis. The number of employees remains relatively constant from one period to another. Since 2020, when the measures imposed by the authorities to stop the pandemic were felt, a decrease in the average number of employees can be observed for the sample analyzed. Also, sales and cash flow have visibly suffered from the same period onwards, so there is a dependency between the two elements.

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

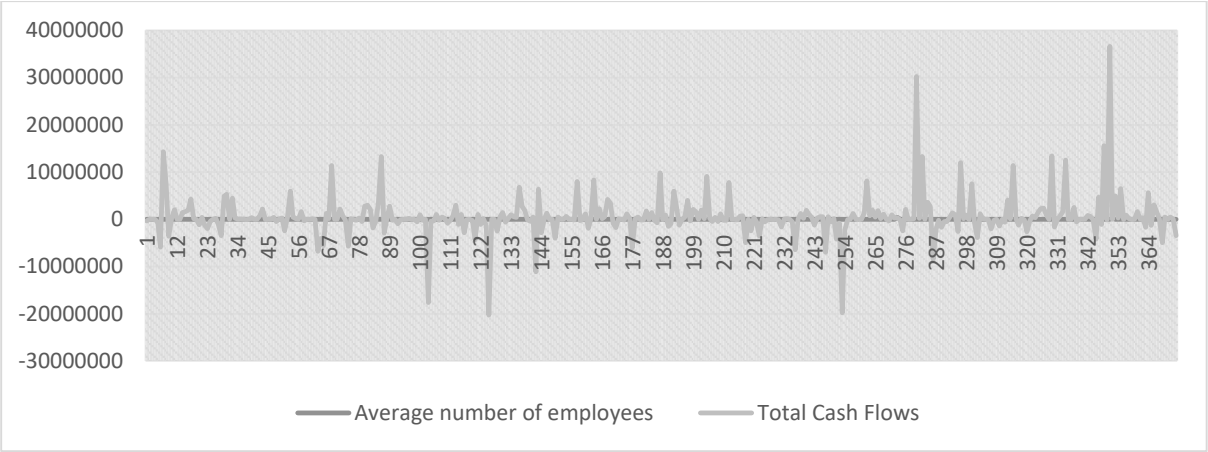

Figure 3 - Variation of the dependent variable from the independent variable average number of employees
Source: Annual reports 2015-2021, own processing

Figure 4 shows the evolution of the dependent variable cash flows in relation to the independent variable, PER, for the period analyzed:

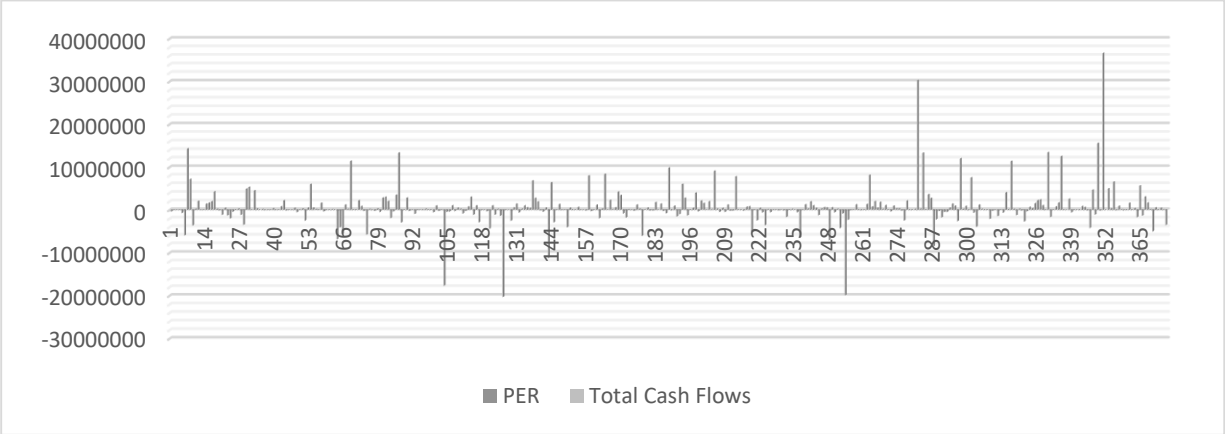

Figure 4 - Variation of the dependent variable from the independent variable PER
Source: Annual Reports 2015-2021, own processing

PER abbreviation used to determine the ratio between the price of a share on the stock exchange and the earnings per share recorded by the issuer. A company's profit is influenced by the cash flow it earns. Based on this statement, the definition of the P/E indicator and the graph above, we conclude that indirectly the two are interrelated and influence each other.

Figure 5 shows the link between the dependent variable cash flows and the independent variable PBV:

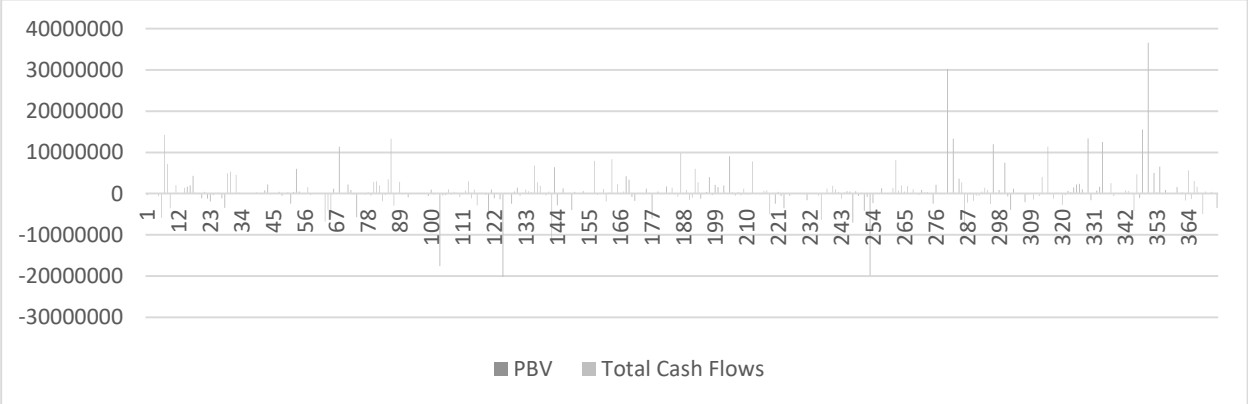

Figure 5 - Variation of the dependent variable from the independent variable PBV

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

Source: Annual Reports 2015-2021, own processing

PBV is an indicator that calculates the ratio between the price of a share and the equity value per share. This indicator does not influence the dependent variable cash flows significantly.

Figure 6 shows the relationship between the dependent variable cash flows and the independent variable net income:

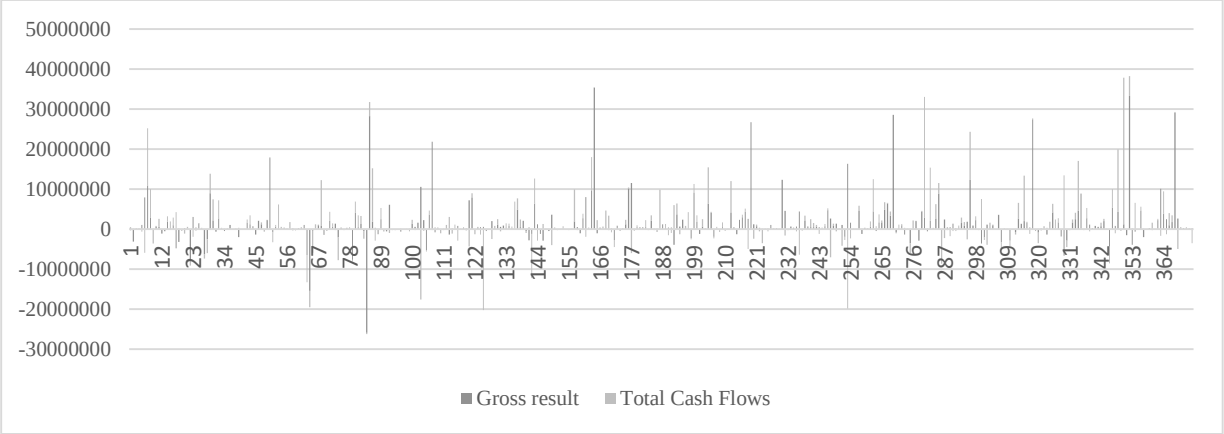

Figure 6 - Variation of the dependent variable from the independent variable net result
Data source: Annual Reports 2015-2021, own processing

The cash flow variable contributes to net result, which is why there is a correlation between them. As can be seen in Chart 6. the two vary, in most cases in the same direction, thus showing a dependency link between them.

Figure 7 shows the relationship between the dependent variable cash flows and the independent variable total assets:

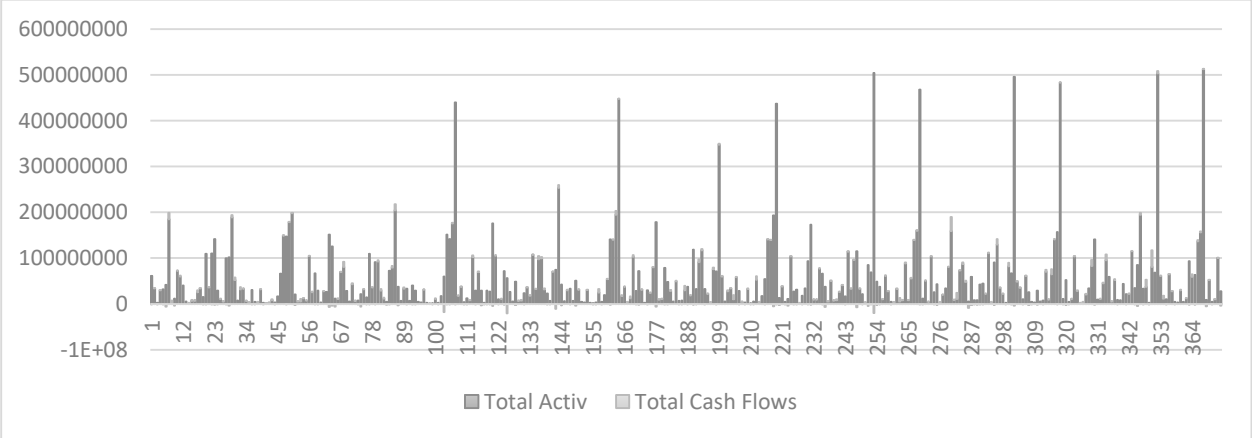

Figure 7 - Variation of the dependent variable from the independent variable total assets
Data source: Annual reports 2015-2021, own processing

The two variables are dependent on each other. Assets held are influenced by the cash flows an entity records. After analyzing the data, we made a model to determine the correlation ratio values for the Summary model in Table 2.

Table 2. Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.440	.470	7223.372036854777000

a. Predictors: (Constant), Net turnover, DIVY, Average number of employees, PER , PBV , Net profit, Total assets

b. Dependent Variable: Total Cash Flows

Source: Own processing in SPSS 26

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

The value of the correlation ratio of the Summary model determined in Table 3. is 0.599 validating the model obtained in 95%. Therefore, there is an average relationship between the variables of the model for the firms analyzed. The dependent variable, cash flows, represents the difference between receipts and payments and is influenced in modest percentages by the independent variables used to support the analysis. Payments and receipts for each type of activity have the largest influence on cash flows. According to the determination ratio of 0.440 we have 44% of the variation in ROE explained by the variation in the variables.

The Anova test econometrically validates the multiple linear model and is presented in Table 3.

Table 3. ANOVA test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	266093241518310.000	7	38013320216901.430	12.068	.003[b]
Residual	6452941232471276.000	351	18384447955758.620		
Total	6719034473989586.000	358			

a. Dependent Variable: Total Cash Flows

b. Predictors: (Constant), Net Turnover, DIVY, Average Number of Employees, PER , PBV , Net Income, Total Assets

Data source: Own processing in SPSS 26

According to Table 3. the variance components have the values: estimated explained variance 266093241518310.000, estimated residual variance 6452941232471276.000 and estimated total variance 6719034473989586.000. The Fisher coefficient value is very large, F = 12.068, and the Sig. value for the F-test is less than 0.05, so the constructed model explains the significant dependence between ROE and independent variables by a multiple linear relationship. From a statistical point of view if the sig. value is less than 0.05 the multiple linear model is 95% validated.

Table 4. Model coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	636418.559	323276.229		1.969	.050
	PBV	16198.998	70289.369	.012	.230	.518
	PER	70.237	874.396	.004	.080	.436
	DIVY	-27497.370	10151.443	-.144	-2.709	.007
	Average Number of Employees	1.433	9.712	.008	.148	.083
	Net Income	.157	.062	.175	2.530	.002
	Total Activ	-.008	.004	-.156	-2.097	.001
	Net turnover	.016	.010	.098	1.629	.044

a. Dependent Variable: Total Cash Flows

Data source: Own processing in SPSS 26

Finding the regression parameters of the model leads to the determination of the estimated equation, i.e. the rewriting of the turnover according to the factors analyzed. The model equation has the form:

$$Total\ cash\ flow = 636418.559 + 16198.998 * \text{PBV} + 70.237 * \text{PER} - 27497.370 * \text{DIVY} + 1.433 * \text{average number of employees} + 0.157 * \text{net income} - 0.008 * \text{Total assets} + 0.016 * \text{Net turnover}$$

The econometric interpretation of the model obtained gives us the following information on how the variation in total cash flows is influenced by the influencing factors considered. If PBV increases by 1% and the other variables remain constant, then total cash flow will increase on average by 1,6198.998%. If PER increases by 1% and the other variables remain constant, then total cash flow will increase on average by 70,237%. If the DIVY rate increases by 1%, and the other variables remain constant, then total cash flow will decrease on average by 27497.370%. If the average number of employees increases by 1% and the other variables remain constant, then total cash flow will increase by 1,433%. If net income increases by 1% and the other variables remain constant, then total cash flow will increase on average by 0.157%. If total assets increase by 1%, and the other variables remain constant, then total cash flow will decrease on average by 0.008%. If turnover increases by 1%, and the other variables remain constant, then total cash flow will increase on average by 0.016%.

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

Analyzing the model obtained, it can be seen that total cash flow is partially influenced by the independent variables analyzed. Rather, the dependent variable influences the independent variables because it is used as a factor in estimating market value, net income, PEV, PER, DIVY. Turnover, part of operating cash flow, has an impact on cash flow because total receipts from operating activities represent the largest part of cash flow, and the direction that turnover takes can impact cash flow.

Table 5, Residuals Statistics gives us information about residual values. The lowest residual value is -21032380.00 and the highest value is 36284412.00.

Tabel nr. 5 - Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-9223.372036854777000	9223.372036854777000	9223.372036854777000	9223.372036854777000	359
Residual	-21032380.000000000000	36284412.000000000000	-.000000000005188	9223.372036854777000	359
Std. Predicted Value	-10.989	4.188	.000	1.000	359
Std. Residual	-4.905	8.462	.000	.990	359

a. Dependent Variable: Total Cash Flows

Data source: Own processing in SPSS 26

The histogram is skewed and shifted to the right and the P-P Plot has shifts from the specific theoretical distribution representing Henry's right due to overlapping crises (health crisis, geopolitical conflict, economic crisis, food crisis) that have led to adverse consequences in revenue, resulting in low revenues and inability to maintain business, employees and achieve performance.

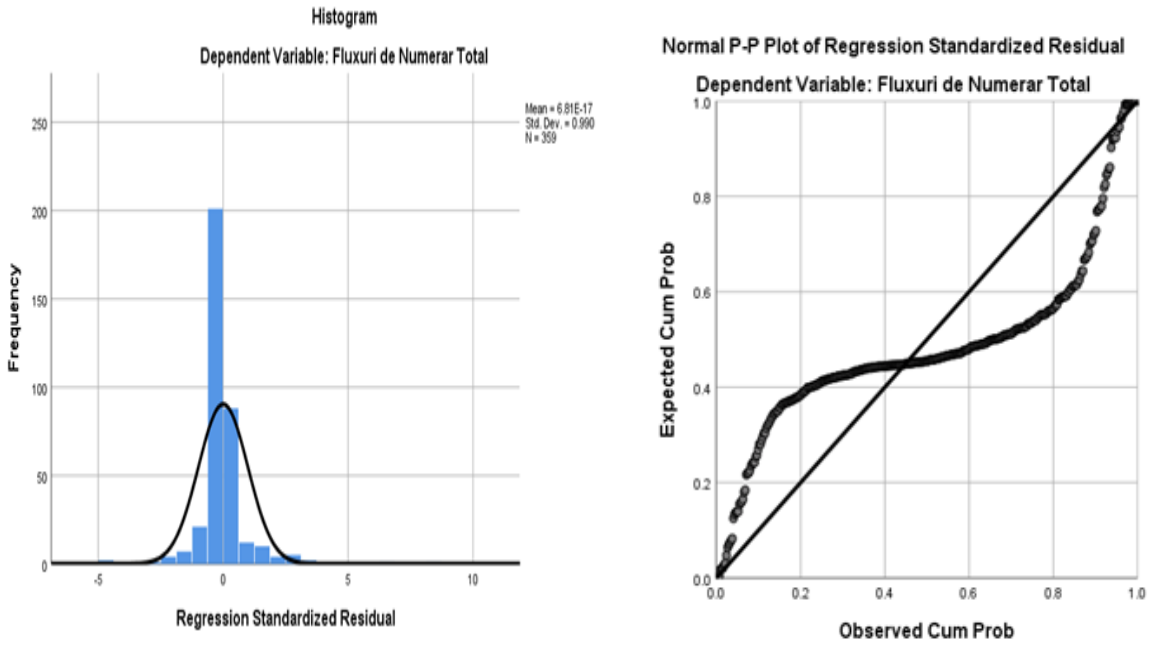

Figure 8 - Histogram and P-P Plot
Data source: Own processing in SPSS 26

Operating cash flow behavior

Cash receipts from operating activities are the most significant source of profit for firms, and profits indicate the success or failure of a company in implementing its strategies, business plan, and combination of operating activities (Elahi, Ahmad, Shamas Ul Haq & Saleem, 2021). Cash flow from operations is the sum of funds generated by the firm from its core operations. It indicates the efficiency and sufficiency of generating positive cash flow from the entity's operations. The volatility of operating cash flows, taken into consideration, is intended to control and manage the income that may manifest the same behavior as the flows (Shoaib, Siddiqui & Saeed, 2021). The flows resulting from operating activities represent the majority percentage of the total flows, whether

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

we are talking about the cash receipts or payments flows, for all the years analyzed. A positive percentage of cash flow from operating activities influences performance, profit, share value, etc. in the same way. The companies analysed are from several fields of activity. The amount of cash flow from operating activities differs from one company to another, depending on sales made and payments made. There was a decrease in net cash flow from operations due to the pandemic for 2020 as it put the economy and therefore the firms' activities on hold. 2021 saw an economic boom, increased sales and revenues for the companies. However, the current year is expected to be poorer than the previous year due to inflation setting in and economic recovery measures.

The hypothesis resulting from our research work that flows from operating activities are the majority of total flows and influence performance was not first stated in this study. Multiple other papers have shown and argued that operating activities change cash flow behavior most significantly. In a 2013 study, Cai argued that firms with higher free cash flows from operating activities show stronger evidence of survival. Also in the same study, he pointed out that if cash flows are trending upward, managers will engage in excessive investment, abusing a limited resource. Over-investment will reduce a company's efficiency by using up funds, distorting the allocation of resources and therefore reducing cash flows through significant outflows. Similarly, Adil, Zafar and Yaseen (2011) argued that an increase in operating cash flow will negatively impact the dividend payout ratio as they are of the view that firms with higher operating cash flows choose to retain the inflows in order to declare higher profits, thus forgoing to remunerate shareholders, and hence having outflows of cash flows.

Operating cash flows help distinguish financially healthy firms from financially troubled ones. The behavior of cash flows from operations has a greater ability to determine financial distress relative to other financial information. The operating cash flow rate is an important indicator of whether or not a firm can recover from a difficult period. A successful business generates positive net operating cash flows, then this surplus cash is used for financing and investment activities, which further enhances the financial stability of a business. Also in the same study, Adil, Zafar and Yaseen, found that low cash flow from operating activities in the hands of an unprepared manager will lead the firm to face excessive investment decisions. Therefore, the decision to invest should be well controlled to avoid unnecessary decreases in operating cash flows that will fail to generate constructive increases in investment flows (Nguyen, Dang & Do, 2020). Another study conducted on this topic (Liu, 2018) talked about the behavior of operating cash flows and supported the importance of this category of flows on profitability and the fact that an increase in current assets and current liabilities, part of net accounting which are also components of accrual accounting, supports the growth of net operating assets, leading to increased sales.

Recently, Satjawathee and Insaeng (2021) conducted a study analyzing cash flows. Their conclusion also reinforces our finding on the major importance of cash flows from operations. They stated that firms with positive operating cash flows have a similarly significant effect on stock prices. In 2014, Bingilar and Oyadonghan mentioned that cash flows from operations statistically increase a company's performance. A one unit increase in operating cash flows leads to a 75.79 unit increase in profits in companies in the food and beverage sectors in Latin countries, they said in that study. Two years later, in 2016, Asif, Mubarak, Ali, Kashif and Akbar, looked at the same topic and found that firms with positive operating cash flows were trading at a higher price than a previous period or even other companies with lower earnings. In contradiction to our findings in this study, but also to other studies, Vedd and Yassinski (2015) concluded that cash flows relative to stock returns, lead to negative relationship, for Latin American countries.

Although they remain in the majority and influence the behavior of cash flows in the same way. The analysis of the cash flow statements, for the sampled firms, shows a considerable decrease in operating cash flows, for the years 2019-2020. The main consequence of this is the decrease in sales due to the pandemic outbreak. Unfortunately, this downward trend is expected to continue in the future. The crisis we will face, inflation, rising prices of consumables and raw materials, and a drop in consumer purchases in the coming period will force companies to increase prices and reduce production due to lack of funds.

Cash flow behavior of investment activity

Investing activities are that type of activity which generates and provides certainty of a continuous flow of income. Compared to cash flows from operating activities, cash flows from investing activities are significantly lower (Bingilar & Oyadonghan, 2014). The sampled firms realize this type of cash flow, to a small and often negative extent. It is concluded that a higher market valuation of investment cash flows will occur when the firm has a relatively larger amount of positive net present value investment opportunities. The investment cash flow inflows of entities with growing earnings justify the return on securities. Consequently, investment cash flows of low-growth firms are valued in line with the "over-investment" of the firms' managers. It could also be observed in our sample that managers do not pay attention to investment flows. They invest in fixed assets only if absolutely necessary because they do not want to decrease their profit by investing. If necessary, they decide to lease the assets they need, which will affect their cash flow by paying interest. Flows from investment activity have a negative trend in almost all periods evaluated. 2021 is the year in which positive results are observed. This is due to the fact that many firms have had to invest in new equipment to cope with the measures imposed by the authority on pandemic prevention.

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

Related to cash flows from investing activities, Mia and Santosa, in 2019, argued that the cash used for investment flows will affect the entity's share returns. The lower the investment flows, the higher the return on equity. Investment flows policy from the perspective of researchers Nguyaen et al. (2020), argues, for firms that over-invest, the culprits for these results are managers. Cash flow behavior is ultimately influenced by decisions made by entrepreneurs. Their belief that cash flow is higher than reality will lead them to make investments that cannot be backed up by cash receipts. Study by Wu, Hua and Lu (2022), argues the low level of cash flow related to investment by the fact that in emerging economy countries, the capital market faces problems and there are difficulties in obtaining the flows from financing and operating activities needed to invest. They also argued through practical research the hypothesis that investment cash flows significantly affect the stock market returns of listed companies.

In contradiction to my research findings and other research, Khanji and Siam (2015), argue that cash flows are not a defining factor on the impact they have on stock returns. It should be noted that they conducted the study on Jordan, the possibility of extrapolating this theory is quite difficult to other countries. However, also of the same opinion, were Ernayani and Robiyanto (2016), who, in a study, showed that operational cash flow and financial cash flow have a role and consequences on stock returns, and about cash flows related to investment activity, they concluded that they do not influence stock returns in any way. They also stated that the rate of investment flows will be higher when investment funds are used to maximize the entity's profit.

Also about cash flows, in a study conducted in 2021, Wiranti and Bakti, drew conclusions on the fact that in order to make investments, firms need to earn income from operating and financial activities. These investments, will change the value of shares and increase their return. Firms analyze the market before they invest and will look to invest in companies that in turn make investments. This will increase the demand for the shares, which will encourage the price of the share to rise. This conclusion comes as a complement to our research and was made by Wahyuningsih (2020). Of the same opinion, four years ago, were Rizal and Ana (2016), who at the end of a research paper on this topic, concluded that cash flows from investment will accrue to firms that exhibit financial performance.

Behavior of cash flows from financing activities

The final component of cash flows is the cash flow from financing activities. There is a positive and significant relationship between cash from operating activities, cash from financing activities and the size of firms' profit after tax. Many studies have been conducted to analyze financial decisions and flows, including this study. As a result of our analysis, we have come to the following conclusions about cash flows from financing activities. This type of flow is often not of significant relevance to the firm. However, if a company decides to borrow to make an investment or to support its business, the cash flow from financing will have a relevant impact on performance. In general, the sampled firms show negative financing cash flows, with the main outflow being the repayment of debt for loans received. Because sales have decreased considerably over the last two years, leading to lower operating cash flows, there has been an upward trend in financing cash flows as the only solution managers have found to cope has been to resort to bank loans. This decision will lead to cash outflows in future financial years.

The topic of cash flows from financing activities has been addressed and debated by researchers in several academic papers. In a paper this year, Ugo and Egbuhuzor (2022), argued that firms with cash flow values from financing activities positively influence performance. Liman and Mohammed (2018), also in a study on this topic, concluded that there is a significant impact of cash flow management on firms' financial performance. The study's finding contradicts the results arrived at by Eton (2019) who analyzed and concluded that, in fact, cash flow management of financing activity-related flows, has insignificant consequences on financial performance.

Leon (2022), argued that the debt policy is a defining part of the funding for financing for each activity of the company. The decision to take on debt, creates obligations for firms and leads to reduced cash flows from financing activity and profits. Institutional ownership has no effect against leverage policy, asset structure positive influence against leverage policy, and company size negative influence against leverage policy. In a practical research paper on a sample of firms in Pakistan, Azhar Farooq, M., Sheikh (2021) demonstrates exactly the conclusion we have reached, namely that there is a high degree of dependence between financial decisions, which influence flow behavior, and stock price declines. He showed how, paying off a large loan led to a decrease in dividends by a significant percentage, thus justifying the interdependence of the two elements.

Proper asset allocation can be advantageous in an economy under pressure. Assets should be placed in such a way as to maintain a balance between the risks the firm will take and the return those risks should have on profits. This is due to the need to balance current financial obligations with future cash flows. If current liabilities increase, a decrease in exposure to short-term risky investments is required to fund these activities. While, on the other hand, taking on risky assets is advantageous in the current circumstances to take advantage of market volatility to maximize the benefits of future cash flows from financing activity. Basically, the conclusion reached by Hanlon (2022) is that flows from investments, can bring significant benefits to the firm if used consciously and taking advantage of market opportunities. Another study, on this topic, in line with the conclusions we also reached, by Sari, Sadiyah and Ainum (2022) showed that free cash flow alone achieves an effect on firm performance.

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

Companies use internal resources, resulting from operational activity, which they use for financial investment, so that the company's performance can manage cash flow to finance the assets held by the company.

Another study on this topic was carried out by Nangih, Ofor and Onuorah (2020). The results of their study established that cash flow from operating and investing activities had a negative and insignificant relationship with profitability, while cash flow from financing activities had a positive and significant influence on firm performance in the oil and gas sector. They suggested that it is necessary for firms to evaluate strategies to have flows that allow them to meet daily needs, invest, finance and make profit. Also of the same opinion, that there is no significant relationship between cash flows from financing activities and return on equity (ROE) and return on assets (ROA), are Tariverdi, Amanolahi and Faal (2014).

V. CONCLUSIONS

After analyzing and modelling the data in the database, we obtained information on the behavior of cash flows related to operating, investing and financing activities. It was found that the independent variables chosen for the modelling carried out in this research do not have a significant impact on cash flows. However, we have deduced from the study that they are influenced in high percentages by the decisions taken by the entrepreneurs, the correct management of production, sales, investments made or payments made. They can be used to identify and quantify a company's strengths and weaknesses, assess its financial position and uncover risks or unfavorable implications for the company. Cash flow analysis can help implement plans to improve a company's profitability, liquidity and financial structure.

The results showed that cash flows from operating activities are the most relevant flows. A positive cash flow from operations, in the hands of a good manager, can increase the firm's performance because it will make conscious investments that will bring future income to the company. A positive cash flow from operations increases the image of the company in the market, which will attract more investors, more funds from investments. Last but not least, firms that manage to generate enough revenue internally will not have to borrow to sustain their business. This avoids financial cash outflows to repay loans.

For the firms analyzed, it was found that they have low cash flows from investment and financing activities.

REFERENCES

1. Ali Shah, Z. S., Ullah, W., Hasnain, B., (2011). Impact of Ownership Structure on Dividend Policy of the Firm (Evidence from Pakistan), In *2010 International Conference on E-business, Management and Economics*, 3, 547-555.
2. Ali, U., Ormal, A., Ahmad, F., (2018). Impact of free cash flow on profitability of the firms in automobile sector of Germany, *Journal of Economics and Management Sciences*, 1(1), 1-3.
3. Anghelache, C., Marinescu, R. T., Manole, A., Mitruț, C., (2012). Methods and Models for the Analysis of Cash Flows, Retrieved on June, 2022 from *Revista Română de Statistică – Supliment Trim II* , available at https://www.revistadestatistica.ro/suplimente/2012/2/srrs2_2012a68.pdf
4. Asif M., Kashif, A., Muarak, S. M., Ali, J., Akbar W., (2016). Impact of accounting information on share price: Empirical evidence from Pakistan stock exchange, *International Finance and Banking*, 3(1), 124-135.
5. Azhar Farooq, M., Sheikh, N. A. (2021). Impact of Operating Cash Flow on Financial Decisions: Evidence from Non-Financial Firms Listed on PSX. *Journal of Business & Economics*, 13(2), 68-86.
6. Bingilar, P. F., Oyadenghan, K. J. (2014). Cash flow and corporate performance: A study of selected food and beverage companies in Nigeria, *Journal of Business Management*, 14(3), 10-24.
7. Bragg, S. M. (2002). *Business ratios and formulas: A Comprehensive guide*, Irwin, New Jersey, John Wily & Sons Inc.
8. Cai, J.-F., (2013). Does corporate governance reduce the overinvestment of free cash flow? Empirical evidence from China, *Journal of Investment and Finance Analysis*, 2(3), 97-126.
9. Elahi, M., Ahmad, H., Shamas Ul Haq, M., Saleem, A., (2021). The impact of operating cash flows on financial stability of commercial banks: Evidence from Pakistan, *Journal of Asian, Finance, Economics and Business*, 8(11), 225.
10. Emmanuela, D. O, Ambimbola, W., David, J. E., Wellington, D. T., (2019). Contractors perceptions of the effects of cash flow on construction projects, *Journal of Engineering, Design and Technology*, 18(2), 2.
11. Ernayani, R., Robiyanto, R., (2016). The effect of cash flow, gross profit and company size on Indonesian stock returns (a study on the chemical and basic industry companies during periods of 2009-2014), *International Journal of Applied Business and Economic Research*, 14(3), 1.
12. Găban, L., (2016). Cash Flows in Romanian small and medium enterprises, *Annals of the „Constantin Brâncuși"*, University of Târgu Jiu, Economy series, 4, 47.
13. Greshko, R., Kharabara, V., Tretyakova, O. (2021). Theoretical and methodological principles of cash flows of enterprises, *International Scientific Journal Internauka, Economic sciences*, 4(48), 79.
14. Kania, E., (2005) Cash inflow forecasting management in a service company operating internationally, *Unpublished PhD thesis, Tampere University of Applied Sciences*, Finland.
15. Khanji, I. M., Siam, A. Z., (2015). The effect of cash flow on share price of Jordanian commercial banks listed in Amman stock exchange, *International Journal of Economics and Finance*, 7(5), 109-115.
16. Hanlon, R. (2022). The Financial Shock from Covid-19 to Canadian University Endowments: The Reaction, Response, and Implications. Revue YOUR Review (*York Online Undergraduate Research*), 9, retrieved on July 30 from https://yourreview.journals.yorku.ca/index.php/yourreview/article/view/40720

DOI: 10.4316/EJAFB.2022.1026

Volume **10** / 2022 ISSN 2344-102X
Issue 2 / **June** 2022 ISSN-L 2344-102X

17. Leon, H., (2022). The influence of institutional ownership, asset structure and company size on debit policy (empirical study on food and beverages sub-sector companies listed on the Indonesia stock exchange, *Journal of Asian Multicultural for Economy and Management Study*, 3(1), 42-51.
18. Liman, M., Mohammed, A. S., (2018). Operating cash flow and corporate financial performance of listed conglomerate companies in Nigeria, *IOSR Journal of Humanities and Social Science* (IOSR-JHSS), 23(2), 1-11.
19. Liu, M., (2018). Accruals, managerial operating decisions and firm growth implications for test earnings management, *Journal of Management Accounting Research*, 1(25), 40-61.
20. Mia, K., Santos, P. W., (2019). The effect of earning information, cash flow components, and financing decision on stock returns: Empirical evidence from Indonesia stock exchange, *Journal of Economics, Business, and Accountancy Ventura*, 22(2), 157-166.
21. Mulenga, M., Bhatia, M., (2017). The Review of Literature on the Role of Earnings, Cash Flows and Accruals in Predicting of Future Cash Flows, *Accounting and Finance Research*, 6(2), 1.
22. Mungal, A., Garbharran, H. L., (2014). The Perceptions of Small Businesses in the Implementation of Cash Techniques, *Journal of Economics and Behavioral Studies*, 6(1), 75-83.
23. Nangih, E., Ofor, T. N., Onuorah, J. K. J., (2020). Cash flow management and financial performance of quoted oil and gas firms in Nigeria, *Journal of Accounting and Financial Management*, 6(4), 1-11.
24. Nguyen, D. V., Dang, D. Q., Do, D. K., (2020). Influence of overconfidence and cash flow on investment in Vietnam, *Journal of Asian Finance, Economics and Business*, 7(2), 96-106.
25. Rizal, N., Ana, S. R., (2016). The Effect of Accounting Profit and Cash Flow and Company Size on Stock Returns (Empirical Study on Banking Companies listed on the IDX in 2012-2014), *Journal SPREAD*, 6(2), 70-79.
26. Sari, T. A. M., Sadiyah, H., Ainum, M., (2022). Financial resource and corporate performance, *Sustainable Journal Akuntasi*, 2(1), 98-116.
27. Satjawathee, T., Insaeng, C., (2021). The Relationship of Selected Financial Ratios and Cash Flows on Stock Prices in The Thailand Sustainability Investment Companies, *The Clute Institute Virtual Conferences Spring*, 133(11), 16-23.
28. Shoaib, A., Siddiqui. M. A., Saeed, M. B., (2021, October 9). *Leverage, firm fundaments and earnings management under nonlinear assumptions*: Evidence from Apta economics, retrieved July 30 from leverage, firm fundamentals and earnings management under nonlinear assumptions: evidences from apta economies (worldscientific.com).
29. Soboleva, Y.P., Matveev, V.V, Ilminskaya, S.A., Efimenko, I.S., Rezvyakova, I.V., Mazur, L.V., (2018). Monitoring of bussinesses operations with cash flow analysis, *International Journal of Civil Engineering and Technology*, 9(11), 234-244.
30. Tariverdi, Y., Amanolahi, G. F., Faal, F., (2014). The effect of components of a 4 parts model of cash flow statement on the operational performance of firms enlisted in the Tehran Stock Exchange, *Indian Journal of Science Research*, 7(1), 241-250.
31. Tjandrakirana, R., Budiman A. I., (2022). Assistance in Compiling Cash Flow Reports for Small Businesses in Kerinjing Village, Sricommerce: *Journal of Sriwijaya Community Services*, 1(51-56), 1-3.
32. Turcas, M. (2011). The cash flow-Instrument for company's analysis and forecast. *Unpublished PhD thesis, Academy of Economic Studies, Bucharest*.
33. Ugo, C., Egbuhuzor, A. (2022). Effect of cash flow management on financial performance; Evidence from the pharmaceutical industry in Nigeria, *African Journal of Accounting and Financial Research*, 6(1), 2022, 1-15.
34. Vedd, R., Yassinski, N., (2015). The effect of financial ratios, firm size, & operating cash flows on stock price: Evidence from The Latin America industrial sector, *Journal of Business and Accounting*, 8(1), 15-26.
35. Wahyuningsih, S., Sudaryanti, D., Sari, A. F. K., (2020). Analysis of stock portfolio performance based on methodsharpe, Treynor and Jensen for investment health (case of study of manufacturing companies listed on the Indonesia stock exchange for the 2014-2018 period), Fakultas Ekonomi dan Bisnis Universitas Islam Malang 2020, 9(9), 17-21.
36. Wiranti, M. E., Bakti, M. H., (2021). Impact of cash flow components, net income and company size on stock return, *Economic Sciences Research Journal*, 5(1), 17-23.
37. Wu, X., Hua, Y., Lu, H., (2022). The influence mechanism of different cash flow availability on R&D investment: Evidence from China", Hindawi *Complexity*, 2022, 1-14 .
38. Yensen, N., Paoyu, H., Pinhi, C., Yulu L., (2019). Cash flow statements and firm value: Evidence from Taiwan, *The Quarterly Review of Economics and Finance*, 71(280), 16.

DOI: 10.4316/EJAFB.2022.1026