Finance and Business Economics Review | **Volume 7/ Number4 / December 2023 / p 153-165**

The Impact of Financial Ratios on Financial Performance of Saudi Food Production Companies

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***Received**: 18/10/2023* ***Accepted**: 31/12/2023* ***Published**: 31/12/2023*

Abstract:

This study aimed to identify the impact of financial ratios on the financial performance of Saudi food production companies, measured by return on sales for the period 2019 - 2022. The statistical program E-VIEWS was used, the study sample consisted of all Saudi food production companies which was (15) companies listed on Saudi Exchange Market (Tadawul).

The results of the study indicated that there was significantly and positively relationship between company's financial performance from one side and company's debt ratios, company's current ratio, company's productivity, and customer's satisfaction from the other side, the study also found negative relationship between the company's financial performance and company's size.

Keywords: Financial performance; Ratios on financial performance; Saudi food production companies; Company's debt ratios; Company's productivity

(JEL) Classification: XN2 ،XN1.

1. Introduction:

The growth and the progress in food production companies will be reflected positively on all company's sector in general, as necessary financing and human capital are available, due to the increase in the number of graduates from universities, and this will be reflected in the growth and the progress in Saudi Arabia economy.

Due to the importance of the food production companies in Saudi Arabia, this study will address the impact of financial ratios on the financial performance of food production companies, which represents an important part of the Saudi economy. The following independent factors; company's size, company's debt

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ratio, company's current ratio, company's productivity, customer's satisfaction were studied to determine its impact on dependent variable; financial performance.

1.1 Research Problematic:

The problem of the study is to identify the impact of financial ratios on the financial performance (FP) of food production companies in Saudi Arabia for the period (2019 - 2022). The following factors; company's size, company's debt ratio, company's current ratio, company's productivity, customer's satisfaction were studied to identify its impact on the financial performance. This problem can be clarified by answering the following questions:

1- What is the impact of company's size on its (FP)?
2- What is the impact of company's debt ratio on its (FP)?
3- What is the impact of the company's current ratio on its (FP)?
4- What is the impact of the company's productivity on its (FP)?
5- What is the impact of company's customer satisfaction on its (FP)?

1.2. Research Aims:

Financial performance considered as important financial indicator of company's success by using available resources. Therefore, this study aims to identify the impact of several factors on financial performance of Saudi food production companies, these factors are company's size, company's debt ratio, company's current ratio, company's productivity, customer's satisfaction were studied to identify its impact on the company's financial performance.

The objectives of this study illustrated as following:

A- Identify the impact of company's size on its (FP).
B- Identify the impact of the company's debt ratio on its (FP).
C- Identify the impact of the company's current ratio on its (FP).
D- Identify the impact of the company's productivity on its (FP).
E- Identify the impact of the customer's satisfaction on its (FP).

1.3. The Importance of the Research:

This study focuses on a developing Saudi economy, which has distinct economic, legal, and cultural contexts from those of Western economies, where

the majority of earlier studies have been undertaken, this study adds knowledge on the concept of corporate governance.

1.4. Search Plan:

This article is organized as follows; Section one the research introduction, the research problem and sub-questions, as well as research aims, and Section two the study plan, and formulate hypotheses. Section three follows, in which how the study data and methodology are used and explained. Experimental results are presented in Section four along with a discussion, and concluding results are presented in Section five.

2. Literature Review:

Evaluating financial performance is important in most economies, as the majority of accounting and administrative studies and research have focused on it, due to the relative scarcity of the company's financial resources compared to its financial needs. Accordingly, the continuity, sustainability and development of the company considered extremely important.

The company's performance is measured by its ability to achieve profits at the lowest possible cost. Therefore, financial performance aims to evaluate the company's performance among several aspects to determine the strengths and weaknesses in order to make appropriate decisions. (Titman and Wessels, 1988).

2.1. The importance of financial ratios:

Financial ratios are the relationship between the numbers in the financial statement and income statement, provided that the relationship between the variables explained it (Al-Zubaidi, 2004). Financial indicators of companies can be used through financial percentages to make it easier to understand changes and results of financial performance. There are many percentages to understand financial statements, including those related to profitability ratios, liquidity ratios, and activity ratios. The importance aspects of financial ratios (Matar, 2004) are:

1. Determine the company's ability to meet current obligations.
2. Measuring the company's growth.
3. Providing the necessary information to make appropriate decisions.
4. Measuring the company's performance by exploiting its resources to achieve profitability (Siddiq, 1987).

2.2. Previous studies:

The most important studies related to the subject of the study are:

2.2.1. Sajini study (1995) entitled "The relationship between the company's size and profitability in Saudi industrial companies." This study aimed to find out the relationship between company's size and profitability rates in Saudi industrial companies and the extent of the effect of the size of the company on the profitability rate in these companies. The variables of total assets and total sales are used as measures of the size of the company. Net profit attributable to total assets and net profit attributable to property rights are used as measures expressing the profitability rate. Two correlation coefficients are used, namely the Pearson correlation coefficient and the Spearman correlation coefficient for ranks, to show the type of relationship between the size of the company, and the profitability rate. The sample was made up of eight industrial companies with complete data chosen from a community consisting of eleven industrial companies, whose shares are dealt on the stock exchange market in the Kingdom of Saudi Arabia. The study covered a five-year period (1989-1993). The results showed that there is an inverse relationship between the size of the establishment and profitability rates, whether using total assets or total sales as a measure of the size of the company, and using net profit attributable to total assets or the rate of return on equity as measures expressing the profitability rate.

2.2.2. Ozkan study (2001) entitled: "Determinants of the capital structure of British Public Shareholding companies." This study aimed to test the determinants of the capital structure of these companies. The study sample consisted of (390) companies, which used the statistical multiple regression method in testing the impact of independent variables on financial leverage. These variables are tax savings, company size, liquidity, profitability, and growth rate. The study concluded that there is a negative, statistically significant relationship between profitability, liquidity, and growth rate with the level of debt, and a positive, statistically significant relationship between the size of the company and its financial leverage.

2.2.3. Shergill study (2003) entitled: "The relationship between the type of industry and the determinants of capital structure" This study aimed to determine

the relationship between the type of industry and the determinants of capital structure and their impact on the company's profitability and growth in New Zealand company's financial performance listed on the New Zealand Stock Exchange. The sample included (74) companies. The results of study indicated that the influence of industry and company characteristics play an important role on profitability, but they have no effect on company growth.

2.2.4. Bogazci study (2005) entitled: "Financing Structure in Emerging Markets." This study aimed to know the financing structure in industrial companies in Turkey for the period (1992-1998). The study analyzed the relationship between the capital structure and the financial capacity of these companies. The study concluded that industrial companies use ownership instruments as a main source of financing, and companies that used equity instruments as a source of financing achieved better profits than those companies that relied on debt.

2.2.5. Gharaibeh and Al-Najjar study (2007) entitled: "Capital Determinants" the study aimed to research the issue of capital structure in developing countries by studying the case of Jordanian companies. Information was obtained from the Jordanian Industrial Companies statements for the period (1996 – 2000). The study used multiple regression analysis and the dependent variables were financial leverage using total liabilities to total assets, total liabilities to equity, and short-term debt to total assets. The independent variables were the ratio of market value to book value, profitability, and company size. The study found that there is a statistically significant negative relationship between financial leverage and profitability, and there is a statistically significant positive relationship between financial leverage and the size of the company.

2.3. Operational definition of variables:

Variables of the study were divided into the following

2.3.1. Dependent variable: Company's financial performance (FP); Return on sales (ROS) was used to measure company's (FP), It was calculated by dividing net profit by net sales; Return on sales (ROS) = net income / net sales

2.3.2. Independent variables: Include the following:

a. Company's size: It was measured by total sales.

b. Company's debt ratio: It was measured by dividing the total liabilities by total assets.

c. Company's Current ratio: It was measured by dividing total current assets by total current liabilities.

d. Company's productivity: It was measured by calculating asset turnover ratio; by dividing total sales by total assets.

e. Customers satisfaction: It was measured by calculating growth rate in sales; by subtracting sales for the previous year from sales of current year divided by sales for the previous year.

2.4. Hypotheses of the study:

Based on the problem of the study, and the information available from previous studies, and in order to achieve the objectives of the study, the following hypotheses were designed:

H01: There isn't any relationship between the company's financial performance (FP) and its size.

H02: There isn't any relationship between the company's (FP) and its debt ratio.

H03: There isn't any relationship between the company's (FP) and its current ratio.

H04: There isn't any relationship between the company's (FP) and its productivity.

H05: There isn't any relationship between the company's (FP) and its customers' satisfaction.

2.5. Terminology of the study:

Table(01) Shows the independent variables, the dependent variable, and their abbreviations.

Table (01): Terminology and abbreviations

Dependent Variable	**Abbreviations**
Financial Performance measured by Return On Sales	FP, ROS
Independent Variables	**Abbreviations**
Company's size	Comp. siz
Company's Debt Ratio	Debt R.

Company's Current Ratio	Current R.
Customer Satisfaction	C.Sat.
Productivity.	Prod.

Source: Prepared by the two researchers

3. Research design:

3.1 Data collection:

The study relied on primary and secondary sources in collecting data and information. The primary sources consist of annual financial reports and financial statements of Saudi food production companies from Saudi Financial Market (Tadawul) for the period (2019-2022). Secondary sources consist of books, university thesis, journals, and Internet sites were also used.

3.2. Sample of the Study:

The study sample consisted all Saudi food production companies which was (15) companies.

3.3. Measurement:

The study used the statistical program (E-VIEWS) as an analysis tool. The dependent variable; (FP) was measured by return on sales (ROS). The descriptive approach was also used in completing the theoretical aspect of the study and in presenting and interpreting financial results.

4. Results and Discussion:

After following the necessary steps for statistical processing using the modern statistical program (E-VIEWS), we reached the following results:

4.1. Data analysis:

The data were analyzed using multiple linear regression analysis for cross-sectional data using the modern statistical package (E-VIEWS) to test the relationship between the independent variables and the dependent variable at the significance level ($\alpha \leq 0.05$). This program was designed to deal with cross-sectional and series data, (Daoud, 2013).

4.2. Preliminary statistical tests:

Preliminary statistical tests were conducted on the study data, and the following applications of these statistical tests.

4.2.1. Autocorrelation Durbin-Watson test: This test is conducted using the (Durbin-Watson test), which is symbolized by the symbol (D-W), and comparing it with two values extracted from the table for this test at a significance level (α), the number of observations (n), and the number of variables (k). The two values are represented by the symbols (dl: lower limit) and (du: upper limit). If the value of (D-W) is greater than (du) this indicates that there isn't problem of autocorrelation, but if the value of (D-W) is less than (dl) this indicates the existence of an autocorrelation problem, but if the value of (D-W) falls between (dl) and (du), this is a non-decision zone (Montgomery et al. 2001).

Table(02): Autocorrelation

Hypothesis	dl	du	D-W	Results
H01	1.665	1.860	1.875	There isn't any autocorrelation
H02	1.655	1.865	1.870	There isn't any autocorrelation
H03	1.660	1.855	1.878	There isn't any autocorrelation
H04	1.670	1.855	1.888	There isn't any autocorrelation
H05	1.675	1.850	1.885	There isn't any autocorrelation

Source: Prepared by the two researchers based on the output of Durbin-Watson test

Table No. (2) Shows the results of Durbin-Watson test for all study hypotheses, where we note that the D-W values for the variables in all hypotheses are greater than (du), which indicates that the data is free of the problem of autocorrelation.

4.2.2. Multicollinearity Tests: In general, if correlation coefficient higher than (0.80) it is considered an indication of the presence of a Multicollinearity problem. High Pearson correlation coefficient values indicate the presence of a strong and almost perfect relationship between the variables, which makes the determination coefficient values unreal.

Table(03): Multicollinearity Tests- Correlations Matrix

Correlation Probability	Comp. size	Debt R	Current R	C. Sat.	Prod.
Comp. size	1.00				

Debt R	-0.03	1.00			
	0.35	---			
Current R	-0.01	-0.35	1.00		
	0.69	0.00	---		
C. Sat.	0.11	0.11	-0.07	1.00	
	0.04	0.01	0.08	---	
Prod.	0.61	-0.06	0.01	0.12	1.00
	0.00	0.13	0.90	0.01	---

Source: Prepared by the two researchers based on Pearson Multicollinearity Tests

Table No. (3) Shows the results of Pearson correlation coefficient test; Multicollinearity Tests between the independent variables. We note from the table that the highest correlation between the independent variables was between company's size and productivity, which is (0.61), while the correlation coefficients between the other independent variables were lower than that, this indicates the absence of a multiple linear correlation coefficient between the independent variables, so it can be said that the sample is free from the problem of Multicollinearity.

4.3. Testing Hypothesis:

The relationship between (ROS) the dependent variable; used to measure company's financial performance, and the independent variables; company size, debt ratio, current ratio, customer satisfaction, and productivity are represented in the following model:

ROS = a + β 1 comp size + β 2 debt ratio + β 3 Current ratio + β 4 Customer Satisfaction + β5 productivity + e

This model was estimated to test the hypotheses of the study, using the (Panel EGLS: Cross-section weights) method, where we obtained the results shown in Table No. (4) using the program (E-views).

Table No. (4) Shows the results of the regression equation, it is noted from the table that there is positive and significant impact of the independent variables on financial performance, where F equal (0.7057) and (Prob. = 0.0000) which less than level of statistical significance ($a \leq 0.05$). The value of the coefficient of determination R-squared (R^2) and Adjusted R-squared (R^2) reached (73.12 %) and (71.38 %) respectively, which means that the independent variables explains 73.12% of the changes in the company's financial performance. This result consistent with (Shergill study, 2003).

The results showed negative, but wasn't significant relationship between company size and company's financial performance, because the value of t-Statistic (-1.23389) and (Prob. = 0.132), which is greater than the level of statistical significance ($a \leq 0.05$), this result is consistent with (Sajini study, 1995).

The results showed positive and significant relationship between debt ratio and company's financial performance, because the value of t-Statistic (0.21127) and (Prob. = 0.035) which is less than the level of statistical significance ($a \leq 0.05$).

The results showed positive and statistically significant relationship between current ratio and company's financial performance, because the value of t-Statistic (1.18092) and (Prob. = 0.019) which is less than level of statistical significance ($a \leq 0.05$).

The results showed positive and significant relationship between productivity and company's financial performance, because the value of t-Statistic (1.05765) and (Prob. = 0.013) which is less than level of significance ($a \leq 0.05$).

Table(04): Results of the regression equation using return on sales (ROS)

Dependent Variable: ROS
Method: Panel EGLS (Cross-section weights)
Periods included: 4
Cross-sections included: 15
Total panel (unbalanced) observations: 60
White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Company size	-3.81390	2.36350	-1.23389	0.132c
Debt ratio	35.5920	12.6821	0.21127	0.035 b
Current ratio	67.3192	9.7842	1.18092	0.019 b
Productivity	64.5567	8.7605	1.05765	0.013 b
Customer satisfaction	1.66320	1.2 3520	1.4 1697	0.024 b
C	72.2341	12.8205	1.18116	0.290 c
R-squared	0.7312			
Adjusted R-squared	0.7138			
F-statistic	0.7057			
Prob. (F-statistic)	0.0000 a			
Durbin-Watson stat	1.7988			

Source: Prepared by the two researchers based on the output of (E-VIEWS) program

The results showed positive and significant relationship between customer satisfaction and company's financial performance, because the value of t-Statistic (1.4 1697) and (Prob. = 0.024) which is less than level of significance ($a \leq 0.05$), this result is consistent with (Ozkan study, 2001).

Thus there is positive and significant relationship between the company's (FP) and the variables: debt ratio, current ratio, customer satisfaction, and productivity.

5. Conclusion :

This study aims to identify the impact of financial ratios on the financial performance of food production companies in Saudi Arabia company for the period (2019 - 2022) which was (15) companies. The current study findings provide a fundamental knowledge of the connection between financial ratios and the financial performance.

Based on the results of the tests and statistical analysis, the study reached the following results:

There is significant impact of the independent variables on the financial performance.

There is positive and significant relationship between the company's financial performance and the variables: debt ratio, current ratio, customer satisfaction, and productivity.

There is negative but not significant relationship between the company's financial performance and company's size.

6. Research limitations/implications:

The authors are only using a few characteristics of the companies, but not all of them, to better understand its effect on company's performance, less conventional approaches may be required that don't rely on existing archive records.

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