

## Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

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**Abstracts:** The main objective of this study was to identify, evaluate, and to measure the attributes of the firm performance of Food Firms Listed in the Hanoi Stock Exchange (HNX). The study was based on professional interviews and by collecting data on ROA, ROE and ROS targets from 2015 to 2019 of 15 food firms listed in the HNX. Data was collected from reputable websites such as [cafef.vn](http://cafef.vn), [cophieu68.vn](http://cophieu68.vn). By using several statistical analytical tools, i.e. Cronbach's Alpha analysis, the study has identified and measured attributes of the firm performance of Food Firms. Based on the findings, some recommendations are given to improve the firm performance of Food Firms Listed in the HNX.

**Keywords:** firm performance, Food Firms, Hanoi Stock Exchange (HNX)

**JEL codes:** F65, G30, O16, M40

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### 1. Introduction

High firm performance is one of the most important goals of an enterprise. It is also one of the important criteria to evaluate the performance of enterprises. Researching firm performance of enterprises in a specific industry will contribute more basis for enterprise managers in selecting a reasonable capital structure to improve financial performance for enterprises. In addition, in order to improve the firm performance, the financial administrator must design a system of indicators for measuring and evaluating it.

Vietnam is considered one of the countries with great potential to develop the food industry, especially in cities and towns where living standards are improving. Consumption needs of people in big cities for food are more and more diverse, especially products of natural origin and nutrition. Along with that is an increase in fast food in Vietnam market, bringing great opportunities for consumption of food industry. On the other hand, the food industry has a lot of potential to increase purchasing power when the store chain is increasingly expanding in size and widespread, and has been helping enterprises in this industry to have more distribution channels, goods consumption.

Food firms have gradually met many essential products for the national economy, serving domestic demand, replacing imports and participating in exports with a variety of designs, types, and many products have been highly competitive in the domestic and international market. According to data of the Ministry of Industry and Trade in 2018, the food processing industry accounted for a significant proportion of the output of the industry in general and the gross domestic product (GDP) in particular; estimated annual food consumption always accounted for about 15% of GDP. In 2018, Vietnam's food processing industry grew by 15.7%, etc. However, the firm performance of food firms is uneven and has some shortcomings.

Food firms have applied financial solutions to improve firm performance. However, these financial solutions have not been implemented effectively, not really played an important role in improving the firm performance of enterprises; in a way, it's also formal. Therefore, evaluation of the firm performance of Food firms is necessary and meaningful.

# Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

## 2. Literature Review

Firm performance is one of the contents that many researchers in the world and in the country are interested. There have been many different views on the criteria used to evaluate firm performance, however, this study focuses on clarifying the view that firm performance is financial performance.

Mai (2001) affirmed that firm performance was merely financial performance of enterprises. The indicator reflecting the business performance of enterprises was the ratio of Return on Assets (ROA) (Zeitun and Tian, 2007; Nguyen, 2018); was the ratio of return on assets (ROA) and return on equity (ROE) (Onalapo and Kajola, 2010; Pouraghajan and Malekian, 2012). Hada (2013) stated that firm performance was the ability to create value of businesses, by producing goods and services that brought greater value than the cost of resources to produce volume of goods and services. Vo (2017) said that ROA and ROS indicators were used to evaluate firm performance as the main factor. Based on these points of view, Pham and Nguyen (2018) argued that firm performance was the ability to create value of businesses by producing goods and services that brought greater value than the cost of resources to produce that volume of goods and services. Accordingly, financial performance is one of the important contents of firm performance; the criteria that are often used to evaluate firm performance are profit, return on assets (ROA), return on equity (ROE). Tran & Nguyen (2019) measured the firm performance of enterprises by three indicators ROA, ROE and ROS. Financial performance is a very important issue, a premise to attract capital and minimize capital costs of businesses. A company with high financial performance would create credibility with investors (Nguyen and Nguyen, 2019).

Inheriting previous studies, this study analyzes, assesses and measures firm performance of food firms listed in the HNX with 3 indicators ROA, ROE and ROS.

## 3. Methodology

Food firms listed in the HNX are the sample of this study. Up to now, there are 15 food firms listed in the HNX. We collected data on ROA, ROE and ROS indicators of 15 food firms by accessing website directly, such as [cafef.vn](http://cafef.vn), [cophieu68.vn](http://cophieu68.vn). We have collected data for 5 years, from 2015 to 2019. We selected HNX because HNX is one of the leading stock exchanges in Vietnam.

Firm performance: The scales are measured by 5-point Likert scale; based on expert opinions, bank loan rates, etc; as follows:

ROA		ROE		ROS	
Description	Point Likert scale	Description	Point Likert scale	Description	Point Likert scale
ROA < 1%	1	ROE < 0%	1	ROS < 0%	1
1% <= ROA < 5%	2	0% <= ROA < 8%	2	0% <= ROA < 3%	2
5% <= ROA < 7.5%	3	8% <= ROA < 11%	3	3% <= ROA < 7%	3
7.5% <= ROA < 10%	4	11% <= ROA < 20%	4	7% <= ROA < 10%	4
10% <= ROA	5	20% <= ROA	5	10% <= ROA	5

To assess the reliability of scales, we used Cronbach's coefficient Alpha. After cleaning the collected data from 120 questionnaires, the data is entered into the computer via SPSS 22.0 statistical software. After coding and cleaning the data, we concluded that it is acceptable since according to Hair et al. (2014) using a Cronbach's Alpha coefficient with a Cronbach's Alpha coefficient of 0.6 or more is desirable.

## 4. Research Results

### 4.1. Firm performance of food firms listed in the HNX

The firm performance of food firms listed in the HNX is shown by 3 indicators ROA, ROE and ROS (see table 1).

**Table 1:** Firm performance of food firms listed in the HNX during the period 2015-2019

No	Stock code	2015	2016	2017	2018	2019
<b>ROA (%)</b>						
1	CAN	5.86	0.31	2.32	(1.00)	4.98
2	CAP	28.75	18.05	12.28	28.88	20.93
3	HAD	12.30	9.83	7.34	7.13	9.74
4	HAT	3.40	13.04	19.22	17.46	10.70
5	HHC	6.88	6.65	6.60	4.16	3.55
6	HKB	1.24	7.07	(9.11)	(25.20)	0.41

## Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

7	KTS	14.91	24.78	12.86	1.76	1.20
8	MCF	7.71	7.60	6.66	5.72	5.65
9	NST	(4.12)	3.01	3.24	3.28	2.76
10	SAF	19.12	17.98	19.77	20.33	19.83
11	SGC	15.68	17.11	18.52	14.14	18.40
12	SLS	30.02	34.05	17.83	8.25	4.86
13	THB	4.09	3.44	3.02	1.69	5.24
14	VDL	11.71	8.94	8.04	7.32	7.34
15	VTL	2.31	2.06	2.35	9.89	(9.54)
<b>ROE (%)</b>						
1	CAN	11.35	0.61	4.43	(2.24)	12.17
2	CAP	42.85	27.77	22.30	45.02	28.25
3	HAD	14.04	11.20	17.95	13.74	13.17
4	HAT	15.79	37.47	61.23	45.37	24.78
5	HHC	11.92	10.27	9.57	10.71	9.47
6	HKB	2.23	9.89	(12.76)	(37.06)	0.55
7	KTS	17.74	32.27	27.28	5.83	2.87
8	MCF	10.32	10.87	8.47	8.51	8.60
9	NST	(17.68)	9.59	8.61	7.44	8.18
10	SAF	26.37	27.08	28.27	31.77	30.52
11	SGC	20.51	24.53	25.17	22.57	27.18
12	SLS	39.81	56.28	38.79	24.24	12.55
13	THB	6.69	5.40	6.23	3.83	10.37
14	VDL	15.95	11.61	11.43	8.77	9.83
15	VTL	8.96	8.60	7.49	24.46	(33.97)
<b>ROS (%)</b>						
1	CAN	3.18	0.16	1.23	(0.51)	2.54
2	CAP	10.43	5.90	5.39	8.91	5.88
3	HAD	10.81	9.09	8.10	6.58	6.25
4	HAT	1.12	2.65	4.68	4.13	2.01
5	HHC	3.38	3.98	3.93	4.28	3.90
6	HKB	1.14	7.69	(48.43)	(625.86)	110.43
7	KTS	7.85	16.97	8.21	1.77	1.36
8	MCF	2.60	3.03	2.69	1.83	2.45
9	NST	(3.06)	1.88	2.64	2.18	1.45
10	SAF	3.59	3.40	3.53	3.98	3.95
11	SGC	9.58	10.81	10.33	7.96	10.24
12	SLS	14.26	26.33	30.35	19.30	7.21
13	THB	2.76	2.04	1.69	0.95	1.32
14	VDL	5.93	4.64	3.57	3.63	6.25
15	VTL	3.36	3.39	4.65	14.08	(16.62)

Table 1 indicates that,

### ROA

ROA tends to fluctuate strongly, the highest ROA is 34.05% of businesses with stock code SLS, the lowest ROA is -25.2% of businesses with stock code HKB, this shows that the quality of profitability of assets is always changing, some businesses do not use assets really effectively. The reason is that the fluctuation of general economic growth in this period has led to the fluctuation of food firms; the demand for clean and healthy food consumption would have positive changes in all segments accompanied with the move to the group of high-value food products in the future, promising growth opportunities for healthy food firms; quite high interest rates in the period of 2015 - 2019 affected the profitability of assets; size and performance of investment in firms;

## Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

cost management capacity in firms and food firms that have invested in modern production lines, etc. ROA > 10% in a row for many years was a result of a company with sufficient financial capacity and effective use of existing assets (Tran & Nguyen, 2019).

### ROE

In the period of 2015-2019, most food firms listed in the Hanoi Stock Exchange (HNX) were profitable, however, ROE tended to fluctuate sharply during this period at some companies and among companies; there was a big difference between the highest ROE of 61.23% in 2017 (stock code HAT) and the lowest of -37.06% in 2018 (stock code HKB). Firms with good ROE are CAP, HAT, SAF, SGC and SLS. ROE of some firms is only at an average level, even at a low level, such as HKB, NST, VTL. The use of equity to generate profits for businesses is vastly different. Enterprises have had many innovative policies to improve the performance of capital use in business. There are many reasons for the fluctuations in firm performance of food firms, including: Food firms are also affected by macro risks, economic growth slowdown, interest rates, etc.; the growth of domestic and regional markets; the development of new product lines; expanding existing market; developing new market segments and availability of skilled labor at competitive costs; Food firms' competitiveness is still weak, there is not yet enough effort in innovation and adaptation to integrate into the common "playing field" of trade.

### ROS

ROS of firms in the research sample has fluctuated sharply in the period of 2015 - 2019, the level of fluctuations decreased such as stock code HAD and stock code THB; ROS reached the highest level of 110.43% in 2019 (stock code HKB) and the lowest level was -625.86% in 2018 (stock code HKB). This reflects the impacts from difficulties of the macro economy, high interest rates in this period. The strong fluctuations of ROS also reflect the fiercer competition in the food industry.

ROS of most food firms is not high, suggesting that the food industry may be in a saturated phase. This makes competition in the industry become more intense. The group of firms with stable and quite stable ROS includes SLS, SGC, because these firms have a competitive advantage compared to other firms in the field of food processing. In addition, Vietnam is a country with abundant agricultural products and raw materials, which is very convenient for the supply of raw materials for food production and processing activities. On the other hand, with a population of over 96 million people, including over half of the population under the age of 30, Vietnam is rated as one of the most potential food consuming markets in the region.

## 4.2. Cronbach's Alpha

The firm performance of Food Firms Listed in the Hanoi Stock Exchange has been measured by the Cronbach's Alpha.

**Table 2.** Results of Cronbach's Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ROA: Cronbach's Alpha: .875				
2015	34.315	955.164	.777	.830
2016	33.377	1,041.099	.651	.861
2017	36.243	1,013.830	.858	.819
2018	38.051	900.928	.663	.870
2019	37.902	1,107.894	.651	.862
ROE: Cronbach's Alpha: .859				
2015	61.692	3,131.793	.667	.834
2016	57.919	2,984.890	.743	.815
2017	59.185	2,634.002	.834	.786
2018	62.618	2,573.185	.705	.827
2019	65.847	3,333.589	.476	.876
ROS: Cronbach's Alpha: .849				
2015	21.608	426.688	.823	.793
2016	20.288	327.963	.873	.751
2017	20.523	315.179	.905	.740
2018	21.374	441.183	.586	.836
2019	24.294	498.887	.248	.916

Table 2 show that,

## Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

All attributes of the ROA dependent variable have Cronbach's Alpha coefficients that are greater than 0.6; are smaller than Cronbach's Alpha's total and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the ROA dependent variables are statistically significant (Hoang and Chu, 2008; Hair et al. 2009).

Four (4) attributes of the ROE dependent variable have Cronbach's Alpha coefficients that are greater than 0.6; are smaller than Cronbach's Alpha's total and the correlation coefficients of 4 attributes are greater than 0.3. So, 4 the attributes of the ROE dependent variables are statistically significant. 2019 is excluded (the Cronbach's Alpha coefficient is 0.876 >0.859; Cronbach's Alpha's total is 0.859) (Hoang and Chu, 2008; Hair et al. 2009).

Four (4) attributes of the ROS dependent variable have Cronbach's Alpha coefficients that are greater than 0.6; are smaller than Cronbach's Alpha's total and the correlation coefficients of 4 attributes are greater than 0.3. So, 4 the attributes of the ROS dependent variables are statistically significant. 2019 is excluded (the Cronbach's Alpha coefficient is 0.916 >0.849; Cronbach's Alpha's total is 0.859 and Corrected Item – Total Correlation is 0.2480 <0.3) (Hoang and Chu, 2008; Hair et al. 2009).

### 5. Discussion and Implications

During 2019-2020, most food firms will face 5 main challenges including: (i) Quality of human resources; (ii) Product quality standards; (iii) Input source; (iv) Small scale and (v) Weak brands and simple designs. In addition, these firms also face a number of other difficulties, such as falling world markets and fierce competition in the domestic market (Quynh Anh, 2019).

Along with diversifying products to meet consumers' tastes, it is more important for food firms to increase product quality right from every stage of the production chain. Each member participating in the food supply chain: farmers, producers and processors needs to create products of stable quality, safety, meeting the needs of consumers. In particular, good cooperation between chain members is needed. This is a sustainable way to enhance the position of Vietnamese food.

In particular, during the industrial revolution 4.0 period, the focus on researching and using applications of big data and artificial intelligence (AI) is also considered an important strategy for food firms. The most potential trend that Big Data brings to the food industry is the ability to personalize data collected, share data and support automation. With the data collected on customers' body and health indicators, through big data analysis, food companies offer the most sensible nutrition and menu design with delivery services.

In addition, food firms needed to focus on investing in developing production technologies, improving product quality, and ensuring food safety; research user tastes; and invest more in marketing and brand recognition (Quynh Anh, 2019).

Expanding export markets is one of the long-term strategies that food firms need to target, especially potential markets such as Asia and Southeast Asia. This will be an advantage to help enterprises grow in the long term and not be dependent on the traditional market.

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## Evaluation of the Firm Performance: Evidence from Food Firms Listed in the Hanoi Stock Exchange

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