Determinants of Financial Performance Of Shrimp Processing Firms In The Mekong Delta

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Abstracts

This paper investigates the determinants of financial performance of shrimp processing firms in Mekong Delta. By using data collected from 35 shrimp processing firms in 11 provinces of Mekong Delta and appropriate statistical analysis, the findings showed that there are six of ten independent variables affecting on the financial performance of given firms. These are quick-liquidity ratio, payable to total liabilities, total debt to total asset, fixed asset turnover ratio, firm age and the educational level of firm head. Possible implications to improve the financial performance of the firms are related to the quick-liquidity ration and flexible capital structure of the firms.

Keywords: Financial performance, Shrimp processing firms, Mekong Delta.

I. INTRODUCTION

Firm performance is significant issue for different group of people. This can be explained all agents that have to make any financial decision about the firms are concerned with its financial provision (Vira, 2008). Therefore, modelling that help to analyse and predict the performance of the firms attracts the all agents such as managers, potential investors, banks and other financial institutions.

Profitability of a firm is an important consideration as it has the ability to absorb market shocks and contribute to the stability of the system in general and the firm in particular. Due to its significant duty on determining of financial performance of the firms, since investors and other stakeholders pay most of their attention on profitability before dealing with firms. Also, more profits will mean more future investments, which will generate employment opportunities and enhance the income of people. Nevertherless, some of firms have experienced the opposite of their stated objectives, thus for organizations to obtain their set objectives. Different types of firms performance management systems must be used (Kolawole, 2013) to determine the factors affecting on the firm's performance.

In the past, aquaculture, mining and processing, in the Mekong Delta (MD) was confirmed as the production of economic efficiency and high society, contributing to the changing economy of coastal and countryside. Besides the achievements, the quaculture and fisheries have difficulty growth under the certain potential. To maximize the potential and advantages of MD, the aquaculture and fisheries need basic solutions to enhance its sector in sustainable development. By decision No. 492/QD-on April 16, 2009 TT Prime Vietnam's approval of the project to establish the key economic region of the MD. According to the scheme by 2020, this key economic zone will focus on grain production, aquaculture, fishing and processing of aquatic products, contribute to agricultural and fishery exports of the country. With the approach of thinking about the construction of the groundbreaking policies of attracting foreign investment and management will be the key challenge the entire region aquaculture potential.

Particularly, to retain the current market and stable the growth rate in the future, it is nature that the aquacultural firms in the MD are required to determine the factors affecting on their performance (e.i, financial performance) so as to propose the possible solutions for the efficiency operation.

This paper is constructed into 5 parts. First part is the introduction. Second part illustrates the literature reviews on the firms' financial performance studies. Methodology is presented in the third part. Fourth part shows the findings. Conclusion and recommendations regarding to the the factors affecting on the financial performance of firms will be on the last part.

II. LITERATURE REVIEW

To determine the factors that influence performance of firms, Bala&Matthew (2005) suggest that performance of firms can be explained by various characteristics that could be firm specific or and industry specific. Consequently, certain factors are likely to either improve or impair a firm performance. Therefore, emphasis of firms performance cannot be over looked to a reasonable extent since the performance of firms could be and are most often used as yardstick or benchmark as well as comparison measures to know if the motives behind the establishment of these firms have been achieved or not.

Furthermore, performance has been explained by Sabine and Michael (1990), to be a multi-dimensional conception. It is also seen to be a complex trend and this has consequently increased the studying of firm performance and its determinants worldwide. In particular, Andreas (2010) suggested that determinants of firm's performance are measured as a well addressed research topic in the field of Industrial organization however, there seems to be no consensus as to the actual proxy and measurement of firms' performance.

Particularly, firm's performances over time have been measured differently by researchers' fewer than three major groupings: profitability ratios, growth rates and margins. According to given measurement, Kemp et al., (2003) concluded that performance can be defined and measured in several ways depending on the objectives and context of the research.

Recently, the use of model financial ratios as performance yardstick are best tool because they concern some degree of market risk and create more value as agaist classical financial ratios that provide information of firms' past performance (Kolawole, 2013 and Yana, 2010). Thus, the modern financial ratios are regarded more usefull when compared to the classical financial ratios. In particular, the return on assets, return on equity and return of security are considered and seen to be more efficient in determining the financial performance of a firm.

Wilson (2015) studied the role of capital market in the transformation of Rwanda economy. By using the data from firms listed at the Rwanda Stock Echange (RSE) he state the importance of the steady increase in capital both for firms and for economic growth. The study concluded that there are still only few listed companies and a slow growth of the stock market. It is recommended a study on effect of capital structure and corporate governance on performance of firms listed at the RSE as he concluded that listed company financing decisions were identified involving a wide range of policy issues and such decisions were affecting capital structure, corporate governance and profitability of firms.

In addition, Sritharan and Vinasithamby (2014) investigated the determinants of capital structure a study of listed banks finance & insurance companies in Colombo Stock Exchange in Sri Lanka. The corporate finance pattern of the company is vital significance for the financial well being of companies in any sector. Corporate finance decisions affect the various areas of corporate management, which determine the wealth of investors. Public sector of Sri Lankan corporate finance decisions accomplishments influences not only the financial soundness of the considered private equity but also the financial health of the nation as a whole, while these are primarily public investment decisions of the government and a number of Sri – Lankan Government agencies are involved in the process.

Surroca et al., (2010) suggested that there is a positive relationship between financial performance and Corporate Social Performance supporting the theory that slack resource availability and Corporate Social Performance are positively related. Corporate Social

Performance is also positively associated with future financial performance meaning that the good management and Corporate Social Performance are positively associated.

Most of studies have been conducted to investigate determinants of financial performance of firms. For exampe, a study was conducted by Adediran and Alade (2013) to build up the relationship between dividend policy and corporate profitability, Mwangi et al., (2014) studied the relationship between captital structure and financial performance on non-financial companies listed in the Bairobi Securities Exchange, Vintila and Nenu (2015) investigated the effect of transperancy and disclosure in reporting on financial performance of Bucharest Stock Exchange. No study has conducted on the aquacultural sector, especially for the Mekong Delta of Viet Nam. It is very meaningful to conduct this study tries to give the real finding for the policy markers and academic researchers.

III. METHODOLOGY

3.1. Data collection

Primary data was collected through interviews, email, postal mail and phone with 35 processing firms located in 11 provinces in the MD. The information collected includes the results of business activities off firms, the financial performance of firms, dividend policy and capital structure. Besides, the necessary information can also gathered from the secondary sources such as the Department of Provincial Aquaculture and The Department of Provincial Statistics in MD. The secondary data on capital structure (leverage), dividend policy (EPS), ROA, ROE and ROS was also gathered from the financial statement and annual reports of the firms.

3.2. Data analysis and presentation

Descriptive statistics was used to perform data analysis. The mean scores were used to rate the factors in order of their importance. Stata was used to produce frequencies, descriptive and inferential statistics which were used to obtain conclusions and generalization regarding the population.

A multiple linear regression model was used to link the independent variables to the dependent variable as follows

$$Y_i = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \ldots + b_kX_k$$

Where:

Y_i = financial performance of the firms

B_i = Estimate coefficients

X_k = Independent variables that are expected to affect on the financial performance of the firms.

Dependent variable Y_i is measured as return on equity (ROE); return after tax to net revenue (ROS) and return after tax to assets (ROA). The independent variables can be defined as:

X_1:   The educational level of firms' head.
X_2:   The experience year of firms' head.
X_3:   Operational years of the firms.
X_4:   Regular capital of the firms.
X_5:   Annual employment of the firms

X_6:   Short term debt/Total asset
X_7:   Fixed asset turnover ratio.

X_8: Total debt to total assets.

X_9: Payable to total equity ratio.

X_{10}: Quick-liquidity ratio.

Table 1. Variable measurement

Tên biến	Type	Measurement
Financial performance	**Dependent**	**ROA** **ROE** **ROS**
The educational level of firms' head	Independent	Dummy, 1 if the firms' head obtained the university degree and 0 otherwise.
The experience year of firms' head	Independent	Real experience years of firm head working in the aquaculture firm management.
Firm age	Independent	The timing operation of firm since established
Regular capital of the firms	Independent	The capital which the members, shareholders or donate commitment within a certain time limit and are recorded on the Charter.
Annual employment of the firms	Independent	Practical annual employment of the firms.
Short term debt/Total asset	Independent	Short debt to total asset
Fixed asset turnover ratio	Independent	Net sales to Total asset
Total debt to total asset	Independent	Total debt to total asset
Payable to total equity ratio	Independent	Payable to equity
Quick-liquidity ratio	Independent	Short asset to Short debt

IV. RESULTS AND DISCUSSIONS

4.1. Characteristics of the aquaculture firms

Table 2 illustrates the educational level of aquaculture processing firm's head in the MD. Among of 35 observations, the educational level of firms' head with university and upper degree is about 80 percent while those with lower degree accounts for 20 percent.

Table 2. The educational level of firms' head

	Observation	Percent
Lower than University	07	20,0
University and Upper	28	80,0
Total	**35**	**100,00**

Source: Survey data from 2015

In order to determine the factors affecting on the financial performance of shrimp processing firms, the overview of the factors needs to be taken into consideration by table 3.

Table 3. Independent and Dependent variables characteristics

Variables	N	Maximum	Minimum	Mean	S. Deviation
Experience of firms' head	35	23	2	10,3	5,9
Firm age	35	34	6	11,9	6,3
Annual Employment	35	9.604	116	1.497	1.686
Regular Capital	35	1.200	12	239,0	280,6
Short term debt/Total asset	35	0,87	0,10	0,65	0,18
Long-term debt/Total asset	35	0,90	0,13	0,35	0,18
Total asset turnover ratio	35	5,34	0,08	1,52	1,21
Fixed asset turnover ratio	35	24,19	0,09	7,05	6,76
Inventory rotation	35	13,00	0,04	4,86	3,73
Total Debt/Total equity	35	2,42	0,14	0,74	0,34
Payable to total liabilities	35	2,09	-1,42	0,33	0,46
Payable to total equity ratio	35	16,67	-11,44	2,50	3,80
Quick-liquidity ratio	35	5,78	0,04	1,15	0,90
ROA	35	0,06	-0,97	-0,03	0,18
ROE	35	0,19	-3,67	-0,15	0,70
ROS	35	0,20	-3,65	-0,16	0,70

Source: Survey data from 2015

Firstly, the internal sources of firms will be discussed. The average experience of firms' head in the study is about 10 years in which the shortest and longest experience of firms' head are 2 and 23 years, respectively. In addition, the average year in industry of the firms is about 12 years and the average annual employment for a firm is about 1.500 people. The variation of the employment is too large in which the maximum and minimum employment of firms are 116 and 9.604 people, respectively. The regular capital is about 239 million dongs.

Secondly, the operational ratios of the firms will be presented. Most of the operational ratios of the surveyed firms are positive, exception the ROE, ROA and ROS. The positive signs of given ratios meaning that the operational efficiency of given firms can be seen as in good

condition of their environment. Such may attracts the investors, stakeholders and all other related entities.

4.2. Determinants of financial performance of shrimp processing firms in Mekong Delta.

The factors afecting on the financial performance of shrimp processing firms representing by ROA, ROE and ROS, were depicted in table 4.

Table 4. Determinants of ROA, ROE, ROS.

Independent variables	ROA	ROE	ROS
The educational level of firms' head	*0,056***	*0,779***	-0,083
The experience year of firms' head	0,005	-0,002	0,009
Firm age	*-0,007***	0,001	-0,029
Annual employment of the firms	0,000	0,000	0,000
Regular capital of the firms	0,000	0,000	0,000
Short term debt/Total asset	*0,283***	0,304	*2,559****
Fixed asset turnover ratio	*-0,006****	-0,012	-0,016
Total debt to Total assets	-0,486	-0,415	*-1,403****
Payable to total liabilities ratio	*-0,011****	*-0,116****	*-0,036**
Quick-liquidity ratio	*-0,079****	*-0,248***	*-0,231***
Constants	**0,240***	**-0,912**	**0,173**
R²	**0,913**	**0,722**	**0,810**
Sig F	**0,000**	**0,000**	**0,000**

Source: The calculation outcomes from the survey data, 2015

Table 4 indicated that the financial performance of the firms are negatively significant influenced by the ratios of payable to total liabilities and quick liquidity from 1 percent to 10 percent significant levels. There are the effects of quick-liquidity ratio on shrimp processing firms' financial performance operating at negative sales growth, while the interpretation of the quick-liquidity ratio for the firms is negative related to ROA, ROE and ROS implying that firms are able to cover current liabilities taking advantages on the fluctuations of the business cycle. Liquidity relates to the management of current assets and current liabilities of a firm. The normal expectation is that a firm should always be liquid to meet financial obligations as they arise in order not to negatively affect performance. Yet, a firm cannot make profit and improve its performance if it keeps cash and its equivalent without investing such fund into profitable ventures. The result of this study represents a positive significant impact of liquidity on return on assets. This finding confirmed for the results and findings of Ben et al (2013); Victor et al (2013) and Zehra and Azam (2012). While the result of the present study, contradicts the findings of Qasim and Ramiz (2011); Amarjit and Neil (2011) and Abang (2012).

The estimator on debt ratio is found to be negatively signed and statistically significant for the sample on shimp processing firms operating at positive sales growth. The opposite results are obtained for the sample on the firms with negative sales growth. That is probably since the shrimp processing firms operating at positive sales growth are also holding more assets than debt, reinforcing the results of Arsov (2008). Furthermore, estimated results

presented in tables 4.3, exclude the effects of quick-liquidity ratio as a short-run indicator, turning the estimated parameter values on the debt ratio to be negatively signed for both samples operating at positive and negative sales growth. Taking in mind that debt ratio is also a measure on firms financial risk and the negative effects on return on assets it is likely that the shrimp processing firms in the long run are considering financial risk in their decisions on financial performance by accruing more assets than debt.

In addition, the relationship between firm age and ROA is showed. The result reveals that firm age has a positive significant impact on return on assets which meets our normal expectation. This implies that, as firm grows in age, it should be able to understand its strength, weaknesses, threats and opportunity. Consequently, such firm is expected to work on its opportunities to do better. The result from this study is supported by the study of Erasmus (2013), but this result contradicts the works of Sumit (1997); Alex et al (2006) whose studies reported a negative significant impact on return on assets. Even though, they have studied a larger number of firms, different domain but almost the same time period. The finding of a negative significant impact of age on return on assets by the above studies confirms the assumption that firm deteriorates as it grows older. That is, firm declines in its performance as it grows older as it is unable to solve collective action problem (Claudio and Urs, 2009). This assertion is further explained that why some firms will do better and improve their ROA as they age, others might not survive the future hence; they will go out of existence.

The relationship between the total debt to total asset (leverage) and ROS is also illustrated in the table 4. The result reveals that leverage is a determinant of financial performance of the firms as it has a negative significant impact on return on asset, though contradicts our expectation of a positive significant impact on return on assets. Since it is believed that when extra funds (leverage) are sourced, they should be invested to produce high profit to meet creditors' expectations (interest) and the shareholders. However, this study is in line with the findings of Lorpev and Kwanum (2012); Tih (2008) but not in line with the findings from the studies of Humera et al (2011); Laurent (2000) that found a positive significant impact of leverage on the firms' financial performance. But the findings on the overall,confirm that leverage cannot not be strictly considered as a variable that explains profitability since profitability is a source of internal financing.The difference in the findings from this study and other literatures considered, could be possibly explained from measurement variable of leverage, the domain considered data type and others. While this study used total debt (long term and short term debt) to total asset as are in line with the findings of Lorpev and Kwanum (2012) which could be as a result of the same country of study, hence country specific characteristics is considered to be very effective.

Last but not least, the financial performance (ROA and ROE) of shrimp processing firms are positively significant affected by the educational level of the firms' head. This can be explained that the firm head with higher educational level can know and obtain updated information on the production and market place that may be meaningfull for them in necessary decision-making. As a result, the financial performance of the firms can be improved. Other independent variables in the model are not significant impact of the financial performance of the firms.

V. CONCLUSIONS AND APPLICATIONS

5.1. Conclusions

This paper aims at investigate the determinants of financial performance of shrimp processing firms in Mekong Delta. The financial performance is influenced by a variety of factors, but in practice we can take into account only some of them, for which researchers attempted to determine the extent to which these variables explain the change of financial performance indicators. Selecting the most important factors that are in connection with corporate profitability has always been a point of interest in the scientific literature. By using data collected from 35 shrimp processing firms in 11 provinces of Mekong Delta and appropriate statistical analysis, the findings showed that there are six of ten independent variables affecting on the financial performance of given firms. These are quick-liquidity ratio, payable to total liabilities, total debt to total asset, fixed asset turnover ratio, firm age and the educational level of firm head.

5.2. Implications

Regarding to the findings, possible implications related to the independent variables need to be taken into account. Firsly, the quick liquidity ratio of a firm improves and impacts on financial performance. Nevertherless, sometimes high level of liquidity in a firm can limit performance, but this depends on the industries. It then means that policy on liquidity should be set base on the particular industry. For instance, firms in the auqacultural industry would be expected to be more liquid as they require liquid fund to meet customers' orders than a service industry that will often required liquid fund. Likewise, shrimp processing firms would be required to maintain a reasonable level of liquidity when compared to the service firms.

Secondly, it is expected that debt should increase performance. If debt has not increased financial performance, it means firms have engaged in unprofitable ventures using debt or leverage was considered as extra way to raise funds without considering the cost of capital in comparison with the investment. The pecking order pattern in the financial decision-making is found to be a proper capital structure strategy given a transition capital market environment, stimulating growth of the shrimp processing firms. As this study considers only the financial performance of the shrimp processing firms it would be interesting to investigate financial decisions for the entire certain sector including small-holders in order to more specifically analyse the asymmetries in the capital and credit market. The possible policy implication should be that only profitable projects should be encouraged otherwise, all benefits would accrue to the provider of capital who must always be settled at the due date for repayment of debt.

In short, the proposed policies for the paper are related and built on the stakeholders' theory as pioneered by Freeman (1984) and used in the study that all variables mentioned in the research work must be considered and maximized by agents and managers of the firms to meet the expectations of all groups that have a stake directly or indirectly in the financial performance of the firms.

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