

Research on formation mechanism of financing structure of ecological enterprises

Zhaoyun Yang

Fuzhou University of International Studies and Trade, Fuzhou 350202, Fujian, China

Abstract

The multiple regression method was used to econometric analysis of the financing structure and key influencing factors of eco-agriculture listed companies. The conclusion was found that: first, debt paying ability, growth ability, company size and profitability have significant positive cause and effect on the financing structure of eco-agriculture listed companies. Third, the influence of ownership structure on financing structure is not significant.

Keywords

Financing structure; Influencing factors; Multiple regression analysis; Ecological agriculture listed companies.

1. Introduction

With the strengthening of the government's protection of ecological environment, the emergence of ecological agriculture. As an advanced force of ecological agriculture, the listed company of ecological agriculture has some urgent problems to be solved at the same time of its rapid development. For example, the long-term debt ratio is too low, the financial risk is too large, the enterprise performance is not high, and so on. These problems seriously hinder the long-term, sustainable and rapid development of listed companies in ecological agriculture. Therefore, how to identify the key influencing factors of the financing structure of eco-agriculture listed companies is of great practical significance for the rapid, healthy and stable development of eco-agriculture listed companies.

2. Research design

2.1 Sample selection and data sources

According to Ba Ba Wu financial ecological agriculture concept stock, 37 listed ecological agriculture companies, such as Busen stock, Fubang stock, Kaidi ecology, Tianshan biology, Minhe stock, Huying agriculture, Hainan rubber, Shennong gene, Wellhope animal husbandry, Evergreen stock, Denghai seed industry, Daying agriculture and animal husbandry, were selected. The effective interval of data was from 2013 to 2017. The data of this paper are mainly from the economic and financial database of Guotai 'an and the annual reports of listed companies.

2.2 Variable selection

(1) Explained variables

The representative variable of mainstream financing structure can be replaced by asset-liability ratio. Therefore, this paper USES asset-liability ratio as the substitution variable of financing structure in this paper, namely explained variable (Y).

(2) Explanatory variables

According to literature review and relevant theoretical analysis, the following variables are selected as explanatory variables in this paper: solvency (X1), equity structure (X2), growth capacity (X3), company size (X4), and profitability (X5).

2.3 Research hypothesis

Generally speaking, the stronger the fund liquidity is, the stronger the solvency of the company is, and the stronger the asset liquidity is, the more optimized the financing structure will be. Therefore, the following hypothesis is proposed:

H1: there is a significant positive causal relationship between solvency and financing structure.

Agency theory holds that although the high concentration of equity can reduce the cost of agency to some extent, it is relatively unfavorable to the protection of the interests of creditors. In this way, it will increase the cost of debt financing and reduce the level of debt leverage. Therefore, the following hypothesis is proposed:

H2: there is a significant negative causal relationship between equity structure and financing structure.

If high-growth companies need external financing to expand their business scale, the total liabilities of those companies with high debt levels will increase significantly. Therefore, the following hypothesis is proposed:

H3: there is a significant positive causal relationship between growth and financing structure.

Large companies have a wide range of information sources, so creditors are more willing to cooperate with large companies due to their own interests. Therefore, the following hypothesis is proposed:

H4: there is a significant positive causal relationship between company size and financing structure.

Due to its strong profitability, it seldom needs external liabilities even when expanding its business or other expanding businesses. Therefore, the following hypothesis is proposed:

H5: there is a significant negative causal relationship between profitability and financing structure.

2.4 Establishment of regression model

Multiple regression analysis is used to establish the regression equation by using the combination optimization of multiple independent variables to predict the regression analysis of dependent variables. The general form of the model is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon$$

Y is called the dependent variable, namely the asset-liability ratio of the financing structure; X_1, X_2, \dots, X_k is called independent variable, which is the influencing factor of financing structure; ε is the random error; $\beta_0, \beta_1, \dots, \beta_k$ is the regression coefficient

3. Empirical analysis

Because of the existence of multicollinearity problem, this paper adopts the method of gradually reducing variables to carry out the stepwise regression of the model. See table 1 for details.

Table-1 Regression coefficient table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.008E-16	0.061		0.000	1.000
X1	0.288	0.066	0.288	4.380	0.000
X3	0.236	0.063	0.236	3.734	0.000
X2	-0.014	0.066	-0.014	0.208	0.835
X4	0.260	0.062	0.260	4.229	0.000
X5	-0.180	0.061	-0.180	-2.926	0.004

Note: Significance level is 0.1.

According to the above results of stepwise regression, it can be seen that:

Firstly, the p-value of debt paying ability on financing structure coefficient is 0.000, which is statistically significant.

Secondly, the P value of the influence coefficient of equity structure on financing structure is 0.835, which is not statistically significant.

Thirdly, the p-value of growth capacity's influence coefficient on financing structure is 0.000, which is statistically significant.

Fourthly, the p-value of the influence coefficient of company size on financing structure is 0.000, which is statistically significant.

Fifthly, the P value of the influence coefficient of profitability on financing structure is 0.004, which is statistically significant.

4. Conclusions and Suggestions

The multiple regression method is applied to econometric analysis of the financing structure and key influencing factors of eco-agriculture listed companies, and the conclusion is: first, debt paying ability, growth ability, company size and profitability have significant positive cause and effect on the financing structure of eco-agriculture listed companies. Third, the influence of ownership structure on financing structure is not significant. According to the above empirical analysis results, the following countermeasures are proposed.

Firstly, we need to attach greater importance to short-term solvency. At present, the proportion of current liabilities of listed ecological agriculture companies is too high and long-term liabilities are low. Therefore, listed eco-agriculture companies should adjust the relationship between short-term debt and long-term debt, and pay special attention to the negative impact of short-term debt on the financing structure.

Secondly, strengthen the importance of growth. Corporate growth is conducive to equity financing of listed eco-agriculture companies, and equity financing has a strong role in promoting equity financing, and this kind of transformation is beneficial to the optimization of corporate financing structure.

Thirdly, appropriately expand the size of the company. The larger the company, the stronger the ability to resist financial risk. Therefore, the listed company of ecological agriculture should appropriately expand its scale and reasonably select and determine the source of funds.

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