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New Versus Established companies: Which companies have better ESG performance?

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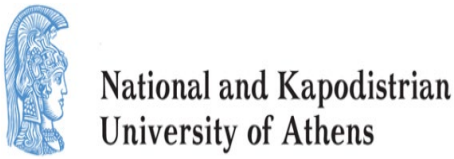

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Σημαντικοί Όροι: ESG, Sustainable Development, Firms age, Firms ESG Performance

Περίληψη

Αυτή η μελέτη εξετάζει τον αντίκτυπο της σταθερής αγοράς στην περιβαλλοντική, κοινωνική και διακυβερνητική (ESG) απόδοση της εταιρείας. Χρησιμοποιούμε μια συγκριτική ανάλυση του προφίλ της απόδοσης ESG μεταξύ νέων και εδραιωμένων εταιρειών στην αγορά, ελέγχοντας τη δυναμική της αγοράς και συγκεκριμένα χαρακτηριστικά των εταιρειών. Η εμπειρική μας ανάλυση βασίζεται σε ετήσια χρηματοοικονομικά δεδομένα και τις τιμές αγοράς για 1940 εισηγμένες εταιρείες των ΗΠΑ από το 2007 έως το 2016. Επικεντρωνόμαστε στη σχέση μεταξύ της βιωσιμότητας και της ηλικίας των επιχειρήσεων δοκιμάζοντας τον αντίκτυπο της ηλικίας των επιχειρήσεων στην απόδοση ως προς την ESG των εταιρειών. Επιπλέον, δοκιμάζουμε αυτήν την υπόθεση σε περιόδους κρίσης. Διαπιστώνουμε ότι οι παλαιότερες εταιρείες έχουν σημαντικά χαμηλότερη απόδοση στη βιωσιμότητα σε σύγκριση με τις νεότερες. Τα αποτελέσματά μας δείχνουν ότι οι νεότερες εταιρείες μπορούν να προσαρμοστούν πιο αποτελεσματικά στις σύγχρονες βιώσιμες επιχειρηματικές απαιτήσεις.

New Versus Established companies: Which companies have better ESG performance?

Keywords: ESG, Sustainable Development, Firms age, Firms ESG Performance

Abstract

This study examines the impact of firm market establishment on company's environmental, social, and governance (ESG) performance. We use a comparative analysis of ESG market profile between new and establish companies, controlling for market dynamics and firms' specific characteristics. Our empirical analysis is based on annual financial data and market prices for 1940 US listed companies from 2007 to 2016. We focus on the relation between sustainability and firms' age by testing the impact of firms' age on firms ESG performance. Moreover, we test this hypothesis in crisis periods. We find that older firms have significant lower sustainable performance compare to the newer ones. Our results indicate that newer firms can adapt more efficient in the modern sustainable business requirements.

Κατάλογος πινάκων/ List of Tables

1. Introduction

In recent years, more and more firms implement sustainability in their strategies, to address modern regulations for environment, management and climate change, and for the survival of the businesses themselves. Firms need to reform their strategies in order to reduce emission and to align with modern regulations. In a globally competitive environment for companies, survival, growth and enhancement of their performance and brand name is a complex affair in which sustainability has a dominant role at this time. Firms by developing a sustainable responsible approach, acquire competitive advantage which increases consumer loyalty and market establishment.

David Chandler (2008), documents that sustainable development "is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Our society consists of three main pillars, citizens, businesses and government. These three parts are in balance with consumers to be the driving force that power companies and governments to fulfill the modern sustainable needs of society. Transparency, fair-trade, green policies and respect to human, society and environment are protected by regulations. Businesses therefore need both legal coverage and social acceptance (social authorization) to survive. In a competitive market, sustainability issues have a potential impact on stakeholders. In environmental this generates possible future increase in taxes. In social consumers may boycott suppliers or companies and in governance firms with poor performance face high regulation fines. Sustainability plays a key role in this mechanism, as it is a burning issue for all three groups.

The three main parts of sustainability (ESG), Environmental, Social and Governance affect consumer and business behavior. In the environmental context, businesses need to use the proper resources for a sustainable growth model. They should also contribute to biodiversity and respect the ecosystem. With regard to society, businesses should contribute to health, education, human rights, gender equality, job creation and the overall well-being of the social environment. As far as governance reduces asymmetric information for investors and consumers increase transparency, avoid illegal practices and reduce conflicts of interest in the selection of board members.

The paper examines the impact of firm market establishment on company's environmental, social and governance (ESG) performance. We use a comparative analysis of ESG market

profile between new and establish companies, controlling for market dynamics and firms' specific characteristics.

There is a grown literature which examines factors that play role in firms ESG performance. However, there is no evidence related the impact of firm's market establishment on sustainability.

Firm ESG performance increase investor's awareness and help them understand better opportunities and risks. Clark & Viehs, 2014, Margolis, Elfenbein, & Walsh, 2009, document that there is dependence between business sustainability, firms' value and financial performance. A large part of the literature shows that the value of the business increases as ESG's activities increase (eg, Fatemi, Fooladi, & Tehranian, 2015; Malik, 2015). However, Friedman (1970) reports that ESG overperformance imposed burden the company financials and reduce profits.

Firms follow sustainable development policies in order to increase transparency and stakeholders' value (customers, suppliers, investors, employees, etc.). In addition, ESG play an important role in firms' market establishment by controlling firms' reputational issues and increase customer preferences. Companies through ESG practices increase transparency and reduce asymmetric information. Eemployee's enjoy a dynamic environment where they are more efficient, with better conditions, constantly trained and remain in the company's workforce for years. (see also Fatemi & Fooladi, 2013; Serafeim, 2014).

Margolis et al. (2009) and Horvathova, (2010) reports both negative and positive effect of ESG on firm's performance. In modern environment firms use ESG sustainability reports to increase their transparency and reputation (Khan, Serafeim, & Yoon, 2016). In this way firms signal their strategies, goals, actions and mitigate the risk that arises from ESG reputation issues (Cho & Patten, 2007).

2. Literature review

2.1. Sustainability ESG issues

Recent literature documents that ESG has a significant impact on firms' value and business consolidation. In addition, underlines its important effect on brand name and market establishment. Friedman, (1970) believes that the sole purpose of the business is to maximize profits and ESG is only a cost to the company. Some Investors may not support costly environmental protection, according to some recent researches (Fisher-Vanden & Thorburn, 2011; Lyon, Lu, Shi, & Yin, 2013).

Recent research documents that ESG performance is positive correlated with firm value and performance (Fatemi et al., 2015; Malik, 2015). Investors appear to prefer with high sustainability performance. Therefore, firms follow ESG strategies in order to reduce risk, overcame regulations, gain competitive advantage and enhance their performance (Fatemi & Fooladi, 2013).

Empirical literature documents a positive relationship between ESG and non-financial performance, energy efficiency, reduction and production efficiency (Aras & Crowther, 2008). There is evidence that companies who invest in ESG and disclose corporate social responsibility information attract better trained employees who remain in the company and are more productive (Bhattacharya, Sen, & Korschun, 2008). Furthermore, consumers seem to be more and more aware and are turning to products and businesses that comply with ESG principles (Albuquerque, Durnev, & Koskinen, 2015; Ramlugun & Raboute, 2015). Moreover, company's use ESG to increase their reputation and in many cases update them ESG profiles in order to reduce risk (Cahan, Chen, Chen, & Nguyen, 2015; Hsu, 2012)

Many studies have also examined the relationship between financial performance and ESG. Older researches report a negative relationship, as investing in ESG was considered an additional cost to the business and was based solely on regulatory compliance (Brammer, Brooks, & Pavelin, 2006). On the other hand, the latest studies underline ESG positive impact on the company's financial performance (eg, Bajic & Yurtoglu, 2017; Dimson, Karakas, & Li, 2015; Eccles, Ioannou, & Serafeim, 2014; Fatemi et al., 2015).

3. Data and Methodology

3.1. Sample selection and variable construction

The sample we used to motivate our empirical analysis is based on annual financial data and market prices for 1940 US listed companies, which were retrieved from Compustat and the Center for Securities Research (CRSP), respectively, while information on ESG came from the RepRisk database from 2007 to 2016. Table 1 documents the summary statistics of the dependent and independent variables. In Table A1 appendix we provide definitions for all variables that use to our research.

Table 1: Descriptive Statistics

Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ESG	15,135	91.92	11.692	26,33	100
Sales/Total assets	15,135	1.080272	.8855707	0	16.51584
(Sales/Total assets)2	15,135	1.951185	5.155815	0	272.773
Sales growth (%)	15,135	.5488927	29.27198	-2.307087	3701.467
Advertising	15,135	61.6156	356.8471	0	9729
Firm Age	15,135	.4830607	.4997246	0	1
Patents/Total assets (%)	15,135	.016647	.5760753	0	61.32076
TM/Sales (%)	15,135	.0228222	.9711799	0	100
Herfindahl dummy	15,135	.5318514	.4989961	0	1
Crisis	15,135	.1582553	.3649887	0	1

This table documents descriptive statistics for 1940 US firms of our sample. It provides the mean, standard deviation, minimum and maximum and the total number of observations.

Table 1 provides the descriptive statistics of our sample. On average firms ESG is equal to 91.92 in a scale of 0 to 100. The share of firm's sales to total assets is 1.08 million dollars. On average in our sample firms' patents share to total assets is equal to 0.1% of their economic value. In addition, their trademark activity is 2% of their economic value. *Herfindahl*-dummy is 0.53% which indicated that in our sample the market concentration is moderate. Last but not least on average firms, spent for advertising expenses 61.61 millions.

3.2. Econometric setup and results

In this thesis we focus on the relation between sustainability and firms' age by testing the impact of firms' age on firms ESG performance (H1). Moreover, we test this hypothesis in crisis periods. In order to investigate the above research questions, we use the following model:

$$\text{ESG} = a_0 + a_1 Firms\_Age_{it} + a_2 Controls_{it} + e_{it} \qquad (1)$$

where t and i are year and firm, respectively and ε_{it} is i.i.d. error term. The response variable is the firms ESG performance. We use the following explanatory variables to capture firm's innovation; (i) The share of sales (millions of dollars) to the total sales (Sales/ *Total Assets*) (ii) The share of firms Patent activity to total assets (*Pat/Total Assets*) (iii) The share of firms trademarks activity to sales (*TM/ Sales*) to capture firms market establishment. In sum, this is the first study in the literature that shed light on the effect of firms' age on ESG performance. We control for profitability trend by using sales growth (*Sales growth).* Finally, we control for firms marketing policies by using advertising expenses (*Advertising*), and for crisis periods (Crisis_dummy) as in Gompers (1995), Li (2008). All regressions include industry and firms fixed effects.

3.3. Results

Table 2: Results

Table 2

VARIABLES	(1) ESG	(2) ESG	(3) ESG
L.sale_at	0.658***	0.648***	0.658***
	(0.161)	(0.161)	(0.161)
L.square_sale_at	-0.014	-0.013	-0.014
	(0.020)	(0.020)	(0.020)
L.sales_growth	0.010	0.010	0.010
	(0.008)	(0.008)	(0.008)
L.advertising	-0.008***	-0.008***	-0.008***
	(0.001)	(0.001)	(0.001)
L.firm age	-2.025***	-2.030***	-2.025***
	(0.168)	(0.168)	(0.168)
L.pat_at	0.226***		0.226***
	(0.061)		(0.061)
L.trademarks_per_year_sale	0.145***	0.146***	
	(0.036)	(0.037)	
L. *Herfindahl* dummy	-0.788	-0.789	-0.788
	(0.497)	(0.498)	(0.497)
Crisis	92.781***	92.797***	92.781***
	(0.303)	(0.303)	(0.303)
Observations	15,135	15,135	15,135
R-squared	0.205	0.205	0.205
Year FE	YES	YES	YES
Sector FE	YES	YES	YES
ROBUST	YES	YES	YES

This table reports (Panel OLS) regression results with robust standard errors on the effect of firms' age on firm's sustainability performance. All estimates include industry and firms fixed effects. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

We document our estimations in the above tests in Table 2. In the first Column (1) we find that the coefficient of age is significant at the 1% level. Our results are also economically significant: a one standard deviation increase firm's age is associated with a -2.0% decrease in firms' sustainability performance. These findings suggest that older firms are associated with lower corporate sustainability (H1). In Columns (2) and (3) we further control for firm's innovation performance using the shares of patents and trademarks to total assets and sales respectively and our results remain unaltered. Our findings indicate that innovation has a

positive impact on sustainability which was expected since it can affect performance, generate competitive advantage and provide the tools for firms to increase their sustainable performance.

4. Conclusion

The central result of this paper is that new firms have significant higher sustainable performance compare to the older ones. Our results indicate that new firms can adapt more efficient in the modern sustainable business requirements and this is probably because they adopt the sustainable way from the very beginning of their operation and do not need to modify their entire production process like the older ones. We find that innovation has a positive impact on sustainability which was expected since it can affect performance, generate competitive advantage and provide the tools for firms to increase their sustainable performance.

APPENDIX

Table A.1. Variable names and definitions.

Variables	Definition
Dependent Variables:	
ESG	Sustainability index that reflects a company's performance in terms of environment, social and governance
Control Variables:	
Sales/Total assets	Firms' sales over total assets
(Sales/Total assets)2	A square term that shows companies' sales on total assets
Sales growth	The growth of firm's sales
Firm Age	The number of years since the company was originally founded until today.
Advertising	The natural logarithm of Firms advertising expenses measured in millions of dollars
TM/Sales	The number of trademarks of a company in proportion to total sales
Patents/Total assets	The number of patents of a firm in proportion to the total assets
***Herfindahl* dummy**	Herfindahl is a dummy file that takes value 1 when market concentration in above sample average, else zero.
Crisis	Dummy variable that takes the value of 0 in periods of regularity and the value of 1 for periods of financial crisis.

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