DOES AN ENVIRONMENTAL MARKETING STRATEGY INFLUENCE MARKETING AND FINANCIAL PERFORMANCE? A STUDY OF INDONESIAN EXPORTING FIRMS

UTJEČE LI MARKETINŠKA STRATEGIJA USMJERENA OKOLIŠU NA MARKETINŠKE I FINANCIJSKE UČINKE? ISTRAŽIVANJE INDONEZIJSKIH IZVOZNIH PODUZEĆA

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Roby Setiadi[a], Kardison Lumban Batu[b], Harry Soesanto[c]

[a)] STIE Cirebon, Brigjen Darsono Street No. 473, Kedawung, Cirebon, 45153 Central Java, INDONESIA, robysetiadi.psdie.undip@gmail.com

[b)] Politeknik Negeri Pontianak, Jenderal Ahmad Yani Street, Bansir Laut, Pontianak Tenggara, Pontianak, 78124 Kalimantan Barat, INDONESIA, kardisonbatu.undipstudent@gmail.com

[c)] Faculty of Business and Economics, Diponegoro University, Erlangga Tengah Street No. 17, Semarang, 50241 Central Java, INDONESIA, harryjogja99@gmail.com

Abstract

Purpose – Broadly speaking, the implementation of green practice leads to higher performance in exporting firms. To test this concept empirically, this study proposes environmental marketing strategy as an antecedent of product differentiation and cost leadership as a means to promote marketing and financial performance.

Design/Methodology/Approach – This study was conducted on 388 respondents serving as operational, production, and marketing managers of Indonesian exporting firms and used structural equation modelling (SEM) with AMOS 18 as an analysis technique.

Findings and implications – The findings revealed that environmental marketing strategy significantly influences product differentiation and cost leadership. More specifically, product differentiation simultaneously influences marketing and financial performance. However, cost leadership influences financial performance

Sažetak

Svrha – Općenito govoreći, provedba zelene prakse vodi većoj učinkovitosti poslovanja izvoznih poduzeća. Kako bi se empirijski testirao taj koncept, u istraživanju se predlaže marketinška strategija usmjerena okolišu kao prethodnica diferencijacije proizvoda i vodstva u troškovima te kao sredstvo za promicanje marketinškog i financijskog poslovanja.

Metodološki pristup – Istraživanje je provedeno na 388 ispitanika koji su operacijski, proizvodni i marketinški menadžeri indonezijskih izvoznih poduzeća pa je korišteno modeliranje strukturnih jednadžbi (SEM) sa softverom AMOS 18 za analizu podataka.

Rezultati i implikacije – Rezultati otkrivaju da marketinška strategija usmjerena okolišu značajno utječe na diferencijaciju proizvoda i na vodstvo u troškovima. Konkretnije, diferencijacija proizvoda istovremeno utječe na marketinške i financijske rezultate. Međutim, vodstvo u

but not marketing performance. This study implies the importance of environmental orientation in setting a firm strategy and promoting the performance of international firms.

Limitations – The measurement items proposed in this study were adopted from studies conducted in developed countries; they have not been proven appropriate for direct application in developing countries such as Indonesia.

Originality – This study is original in that it explores the importance of environmental studies in setting a firm strategy and promoting the performance of international business.

Keywords – green sensitivity, environmental culture, environmental marketing strategy, product differentiation, cost leadership, marketing and financial performance

troškovima utječe samo na financijske rezultate, ali ne i na marketinške. Istraživanje upućuje na važnost orijentacije prema okolišu u postavljanju strategije poduzeća i promoviranju poslovanja međunarodnih poduzeća.

Ograničenja – Mjerne čestice korištene u istraživanju preuzete su iz postojećih istraživanja provedenih u razvijenim zemljama, a nije dokazana njihova pogodnost za izravnu primjenu u zemljama u razvoju kao što je Indonezija.

Doprinos – Doprinos rada jest u istraživanju važnosti studija o okolišu u postavljanju strategije poduzeća i promociji djelovanja međunarodnog poslovanja.

Ključne riječi – zelena osjetljivost, kultura okoliša, marketinška strategija usmjerena okolišu, diferencijacija proizvoda, vodstvo u troškovima, marketinški i financijski učinci

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1. INTRODUCTION

Nowadays, the strategies of exporting firms to improve their performance in terms of international and domestic eco-friendly awareness have been bumped up by heightened competition intensity. The accelerated worldwide growth of the concept of ecology in recent decades has triggered excessive pressure in firms to explore green issues within management practices and strategies (Baker & Sinkula, 2005; Buysse & Verbeke, 2003). Even though green issues primarily focus on domestic markets (Leonidou & Leonidou, 2011), this has largely been practiced globally as a means of distinguishing products from competitors (Rugman & Verbeke, 1998; Varadarajan, 2014).

Ambec and Lanoie (2008) revealed the importance for firms of applying green practices, which lead to higher investment in technology-based green products. This practice enables them to target the increasingly eco-sensitive market and purposely reduce production cost (Menck & de Oliviera Filho, 2014). Moreover, green practice correlates with environmental sensitivity (Alteren, 2007; Flammer, 2012), profitability (Hao & Zhang, 2007), consumer awareness (Haytko & Matulich, 2008), firm competitiveness (Heart & Ahuja, 1997), environmentally friendly strategies (Kasavana, 2008; Lyon & Shimshack, 2015; Cooper, Gulen & Rau, 2009; Pujari, Wright & Peattie, 2003; Samarasinghe, 2012), and organizational performance (Ngniatedema & Li, 2014; Ottman, 2011; Prakash, 2002; Samarasinghe, 2012; Dechezleprêtre & Sato, 2014; Eneizan, Wahab & Bustaman, 2015).

Though environmental issues are considered to have a strategic implication for a firm's practices (Banerjee, 2002; Banerjee, Iyer & Kashyap, 2003; Klassen & McLaughlin, 1996), only a few of the aforementioned studies attempt to explore the role of a firm's ecological culture on the formulation of its strategy, or the consideration of environmental strategy as the determinant factor in driving the performance of a firm. Preliminary literature has focused on the influence of strategic implication on competitive advantages (Azzone & Bartele, 1994), the conditions for applying a green business strategy (Orsato, 2006), and international market entry mode (Martín-Tapia, Aragón-Correa & Rueda-Manzanares, 2009).

This study attempts to explore a firm's green orientations, namely, its green sensitivity and environmental culture, as determinants of environmental marketing strategy. Moreover, environmental marketing strategy is proposed as an antecedent of environment-based competitive advantages (i.e. product differentiation and lower price advantage) that are considered to be a means of improving the marketing and financial performance of exporting firms in Indonesia. The study is original in its exploration of the importance of environmental studies in setting firm strategy and boosting the performance of international business.

2. OVERVIEW

Indonesia is the 8th largest economy by GDP at purchasing power parity (PPP), as well as the 25th largest export economy in the world, with an export value equivalent to USD 197 billion (www.atlas.media.mit.edu). Its manufacturing sector, worth USD 156 billion in 2015, has a relatively major contribution in the formation of both the GDP and export value of Indonesia and accounts for 18.1 percent of the national GDP (www.indonesia-investments.com).

Indonesian industrialization is also highly oriented on extractive manufacture, dominated by natural resource-based factories gaining support from the overwhelming abundance of both natural resources and cheap labor of this tropical country. This policy, until now, has had a considerable effect on the composition of national export commodities. Raw materials such as coal, palm oil, petroleum gas, crude oil, and rubber are the most important components of national exports (Van Dijk, 2002; www.atlas.media.mit.edu). In addition, manufacturing products such as textiles, footwear, garments, and electronics also experience growth and make

up a significant contribution (Aswicahyono, Hill & Narjoko, 2013). The main export destinations are Japan, China, the United States, Singapore, and India. In recent years, the European Union as an export destination has also become one of the Indonesia's most important foreign trade partners. However, most manufacturers are low-tech, whereas high-tech exports only contribute 14 % of all national exports, equivalent to USD 4.580 million (Wie, 2006). At this time, exacerbated by the 1998 monetary crisis, Indonesia's manufacturing has only a 0.5 % share of the world manufacturing market (World Bank, 2012; Aswicahyono et al., 2013).

The role of environmental orientation in manufacturing in Indonesia is regarded as one of the main problems in the development of this industry. The manufacturing industry is facing obstacles in the international community, especially in the EU, as one of the largest palm-oil markets (World Growth, 2011). The obstacles are mainly related to environmental orientations such as excessive exploitation of natural resources, environmentally harmful practices, low enforcement of environmental law, and price dumping (Skoog, 2015). For instance, the palm-oil industry has long been considered a source of rain forest damage, carbon emissions, and the loss of wildlife habitat in both Indonesia and Malaysia. This reputation has a considerably negative impact on product image, consumer demand, and manufactured product competitiveness on a global level. In turn, it has major implications for world demand and the sustainability of Indonesian manufacturing products (World Growth, 2011). More importantly, it could also able lead to a decrease in the financial profits of Indonesian firms and in their market share, thereby significantly affecting sectoral growth. In this context, this study emphasizes that the relationship between financial and market performance and between green marketing strategies (in terms of the green sensitivity of managers) and environmental culture has the potential to gain momentum. Environmental strategy, which can ultimately support the generation of higher profits and a wider market share at the global level, is believed to support two key factors in the competitiveness of Indonesian manufacturing products , i.e. lower price leadership and product differentiation.

Hence, although the concept of environmental marketing was originally developed for industrialized economies, where firms were faced with an increasing level of regulation regarding environmental protection, this concept is now also applied in major developing countries (Rashid, 2009; Juwaheer, Pudaruth & Noyaux, 2012; Rao, 2002; Johri & Sahasakmontri, 1998). The concept of environmental marketing that is applied by firms in industrialized economies has become a legal aspect of compliance with environmental regulations (Hong, Kwon & Jungbae Roh, 2009). In developing economies, this concept is pursued by firms in response to the demands of global customers to comply with the standards.

3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

3.1. Relationship of a firm's green orientation with its environmental marketing strategy

Environmental friendliness has become a very important concept which has been adopted in various policies and actions of international, national, and private institutions (Lorek & Lucas, 2003). In recent years, the international regulations regarding ecological sustainability and green environment have got tougher, while the standards that have been set demand the involvement of international companies to improve the quality of their products. Hence, "environmentally-friendly", also known as "eco-friendly", is a marketing term that refers to a company's effort to create such products and services that can reduce or minimize the use of excessive natural resources that endanger environmental sustainability (Isaak, 2005). In the context of manufacturing firms which emphasize

the processing of natural resources, the concept is applied to all activities, including the processes of extraction, production, packaging, energy usage, waste management, supply chain and distribution, and social responsibility (Blackburn, 2007). The product is also hard-pressed to have the label of a green brand, which is associated with the assurance and reputation that all the processes and materials used in its manufacture are in accordance with the standards of environmental conservation (Danciu, 2013).

The increasing trends of environmentally friendly goods and services have encouraged firms to conduct strategies of green orientation (Hong et al., 2009). To organize and coordinate such a strategy, a firm can employ some initiatives of "corporate environmentalism," in which its top management is committed to green orientation in all activities and enhance the eco-consciousness of stakeholders (Banerjee et al., 2003). The management of exporting firms should improve their firms' ability to capture eco-opportunities on the international market and, accordingly, manage exporting strategies (Stone, Joseph & Blodgett, 2004; Leonidou, Katsikeas & Piercy, 1998). Banerjee and others (2003), Langerak, Peelen and van der Veen (1998), and Pujari, Peattie and Wright (2004) have all suggested that top management's sensitivity to green issues is the determinant factor in an eco-friendly business strategy. Managers are responsible for setting goals and policies in implementing green initiatives and for proactively controlling the resources and capabilities (Drumwright, 1994), including investing more in green technologies. Furthermore, they are obligated to cultivate the firm's values regarding ecological behavior and to provide comprehensive information in response to international market demand (Stone et al., 2004). Pujari and others (2004) stated that creating eco-elements in the business, market sensing, and manufacturing process is correlated to international market performance. Based on the aforementioned, it is hypothesized that:

H1. The higher the green sensitivity of a firm's managers, the greater the likelihood that this firm will perform better at utilizing an environmentally friendly marketing strategy.

Menon and Menon (1997) suggested that a firm's environmental culture, that is, its green values and norms, affects the scope and character of the international market. Green behavior among stakeholders, such as eco-stewardship, social trustworthy, and sustainability, is considerably important in the adoption of an eco-friendly strategy (Dechant & Altman, 1994; Stone, et al., 2004). Baker and Sinkula (2005) stated that the green culture of employees shows the quality of green process and marketing design. Hence, environmental culture plays a crucial role in the eco-friendly strategies of exporting firms (Leonidou, 1998). Accordingly, this study proposes the following hypothesis:

H2. The more a firm follows an environmental culture, the greater the likelihood that this firm will perform better at utilizing an environmentally-friendly marketing strategy.

3.2. Relationship between an environmental marketing strategy and product differentiation

An environmentally friendly business strategy refers to the incorporation of green issues in various functional activities of a firm, such as production, marketing, R&D, finance, and human resources. Banerjee (2001) and Aragón-Correa and Sharma (2003) pointed out the importance of the implementation of green issues supported by the firm's eco-friendly strategy in those activities to attain competitive advantages. An environmental strategy is more likely to distinguish the firm's products and services from those of its competitors on the international market. Orsato (2006) stated that environmental strategies are primarily associated with the utilization of green raw materials, and the manufacturing process. Furthermore, additional features of the green aspect, including green packaging using hazard-free, recyclable, and biodegradable materials, improve the competitive advantages of the product, while also promoting product quality

distinctiveness and superior brands (Polonsky & Rosenberger, 2001; Shrivastava, 1995). Thus, the following hypothesis is proposed:

H3. The more a firm follows an environmentally friendly marketing strategy, the greater the likelihood that this firm will have a competitive advantage in terms of environmental friendliness.

For international market firms, an environmental strategy is considered able to reduce the cost of production (Shrivastava, 1995; Menon & Menon, 1997). This can be achieved through green product development (Judge & Elenkov, 2005), as well as high-tech applications specifically designed to save energy and efficiently consume available resources, leading to cost reduction (Shrivastava, 1995). Lower costs can result from the use of inexpensive raw materials (e.g. through a recycling policy) too. Furthermore, the involvement of international partners, supplier collaboration, and green supply chain management worldwide can also lead to cost minimization (Zeithaml & Zeithaml, 1984). Based on this argumentation, the following hypothesis is proposed:

H4. The more a firm follows an environmental marketing strategy, the greater the likelihood that this firm will be able offer its products at a lower price.

3.3. Effect of environmentally based advantages on firm performance

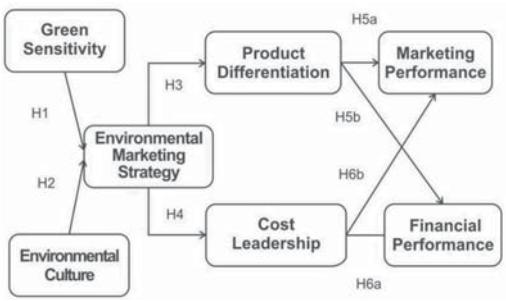
Zou, Fang and Zhao (2003) stated that eco-friendly practices resulting in product differentiation improve customer satisfaction to repurchase the product, while also encouraging international consumer attention. Advantages driven by environmental strategies are more likely to enhance profits and product innovation, promote consumer awareness in international markets, and enhance the environmental social responsibility of the firm (Christmann, 2004; Orsato, 2006). On the other hand, the maximization of product differentiation can also drive a higher market share and better financial performance (Bharawaj, Varadarajan & Fahy, 1993; Carmona-Moreno, Cespedes-Lorente & de Burgos-Jimenez, 2004). Furthermore, the more a firm implements eco-friendly behavior, the higher that firm's rate of export performance is (Martin-Tapia et al., 2009). Thus, this study proposes the following two hypotheses:

H5a. The more a firm differentiates its green product, the greater the likelihood that this firm will have a larger market share.

H5b. The more a firm differentiates its green product, the greater the likelihood that this firm will have higher profitability.

Even though the advantages emerging from cost leadership significantly affect international market and financial performance, Walley and Whitehead (1994) demonstrated that eco-friendly practices also trigger some unexpected expenditures and fruitless investments due to some restrictive regulations of green products. Hence, the lower price of the products offered resulting from cost reduction is more likely to improve customer loyalty and market sensing of new customers in an international market. Orsato (2006) suggested that cost leadership is designed as a catalyst to obtain higher values. A lower-cost policy will enable the firm to set a fair price to maintain customer loyalty and to attract new customers. Leonidou and Leonidou (2011) and Murray, Gao and Kotabe (2010) stated that lower cost positively affects sales growth and financial and profit performance. Based on this, it is hypothesized that:

FIGURE 1: Conceptual Model



H6a. The more a firm follows a cost leadership strategy, the greater the likelihood that this firm will have better financial performance.

H6b. The more a firm follows a cost leadership strategy, the greater the likelihood that this firm will have better marketing performance.

4. METHODOLOGY

4.1. Research design

This study proposed a concept of environmental marketing strategy, proxied by green sensitivity and environmental culture, as the antecedent of green products and cost leadership, both of which were determinants of market and financial performance in exporting firms.

4.2. Sampling

The study was conducted in Indonesia in 2015. The exporting firms were identified from the 2015 Indonesian Exporters' Directory of the Ministry of Industry, which had more than 10,000 entries. The study later specifically focused on the exporters and manufacturers employing at least 200 employees. A total of 500 firms were surveyed through emailed questionnaires, of which 412 questionnaires were returned (a response rate of 82.4 %), while 29 questionnaires did not meet the criteria. Subsequent analysis revealed that 383 questionnaires were valid for further analysis.

4.3. Data analysis

A test for non-response bias was conducted to compare the respondents' answers in two-step data collection. The statistical output revealed no differences between the early survey and the later one. The respondents were employed as operational, production, and marketing managers. Afterwards, six hypotheses were constructed based on the literature review. Structural equation modeling with AMOS 18 statistical software was used to analyze the hypotheses.

4.4. Variable measurement

Green sensitivity is defined as an exporting firm management's sensitivity to green issues that is actually applied in the firm's goals and policies. This variable was adopted from Banerjee and others (2003), Drumwright (1994), Stone and others (2004), Pujari and others (2004), Leonidou and others (1998), and Langerak and others (1998), and was measured in terms of implementing ecological issue policy, taking care of ecological issues, regulating instructions and procedures to achieve environmental goals, operating all equipment in an eco-friendly way, and stakeholders' understanding of green activities.

Environmental culture is operationally defined as green values, norms, and behavior among stakeholders of exporting firms. The variable was adopted from Menon and Menon (1997), Dechant and Altman (1994), Stone and others (2004), Baker and Sinkula (2005), and Leonidou (1998), and was measured in terms of the tendency to cultivate environmental consciousness, incorporate eco-issues in all departments, plan eco-issues in export strategies, encourage stakeholder knowledge of green issues, and promote favorable discussion of green issues.

The environmental marketing strategy variable adopted from several previous studies (Banerjee, 2001; Aragón-Correa & Sharma, 2003) refers to the incorporation of technology in various functional activities to attain firm competitive advantages of green issues. The variable measurement adopted from Orsato (2006), Polonsky and Rosenberger (2001), and Shrivastava (1995), which emphasizes the use of technology, green raw materials, and the manufacturing process, was measured in terms of designing and producing eco-friendly products, encouraging international customers with eco-friendly activities, investment in environmentally friendly high-technology, and utilizing high-technology to reduce hazardous effects.

Product differentiation, adopted mainly from Polonsky and Rosenberger (2001) and Shrivastava (1995), is described as some additional features

of the green aspect of exporting firms – such as green packaging with hazard-free, recyclable, and biodegradable materials – that improve the competitive advantages of the product and promote product quality distinctiveness and superior brands. This variable was measured by producing green products, delivering green products of superior quality on the international market, offering advantages of eco-products, and producing green products that differ from competitors' products on the international market.

Cost leadership, adopted primarily from Shrivastava (1995), Judge and Elenkov (2005), Menon and Menon, (1997), and Zeithaml and Zeithaml (1984), is operationally defined as cost reduction resulting from the environmentally friendly business practice of exporting firms and measured by several items, including offering low prices both in international markets and in export operations, as well as focusing on cost efficiency.

Marketing and financial performance, which was used to indicate business achievement of exporting firms, is operationally defined as the market and financial advantages achieved from the growth of customer and sales volume, as well as profitability and return on investment. Adopted from previous articles on marketing performance (Christmann, 2004; Orsato, 2006; Bharawaj et al., 1993; Carmona-Moreno et al., 2004) and financial performance (Bharawaj et al., 1993; Carmona-Moreno et al., 2004; Leonidou & Leonidou, 2011; Murray et al., 2010), these variables were operationally measured by a higher number of foreign customers in terms of customer loyalty, sales growth, and customer satisfaction (marketing performance), as well as export profits, export sales, return on export-related capital, return on export sales, and return on export-related investment (financial performance).

5. RESULTS

5.1. Descriptive statistics

Descriptive statistics were used in this study to show the basic features of the data collected. As described in Table 1, this study used range, minimum, maximum, mean, standard deviation, and variance.

TABLE 1: Descriptive statistics

Variable	N	Range	Minimum	Maximum	Mean	Std. Dev.	Variance
GS	383	17.00	26.00	43.00	32.0418	2.56503	6.579
EC	383	16.00	27.00	43.00	32.4543	2.68257	7.196
EMS	383	10.00	22.00	32.00	25.7520	1.73766	3.019
PD	383	14.00	19.00	33.00	25.9948	2.13546	4.560
CL	383	8.00	16.00	24.00	19.4883	1.70593	2.910
MP	383	16.00	17.00	33.00	26.4282	2.30170	5.298
FP	383	14.00	28.00	42.00	33.0522	2.49657	6.233

Note: GS: Green Sensitivity; EC: Environmental Culture; EMS: Environmental Marketing Strategies; PD: Product Differentiation; CL: Cost Leadership; MP: Marketing Performance; FP: Financial Performance.

5.2. Measure validation

The study used structural equation modeling to assess the validity and reliability of the conceptual model (Stump & Heide, 1996). Factor analysis was conducted on all the variables to determine their validity and reliability. This analysis was used in this study as a measure of variable indicator that has a loading factor of > 0.3 and a *p*-value of < 0.05, while indicators that have loading factors of < 0.3 and *p*-values of > 0.05 were eliminated from the model. As shown in Table 2, all indicators have loading factors of > 0.3 and *p*-values of

< 0.05. Thus, all indicators were valid and reliable and, therefore, eligible for further processing.

TABLE 2: Confirmatory factor analysis

	GS	EC	EMS	PD	CL	MP	FP
GS1	.652						
GS2	.686						
GS3	.758						
GS4	.710						
GS5	.753						
EC1		.755					
EC2		.748					
EC3		.746					
EC4		.717					
EC5		.652					
EMS1			.671				
EMS2			.766				
EMS3			.556				
EMS4			.735				
PD1				.798			
PD2				.871			
PD3				.795			
PD4				.809			
CL1					.774		
CL2					.915		
CL3					.752		
MP1						.760	
MP2						.778	
MP3						.795	
MP4						.736	
FP1							.572
FP2							.635
FP3							.776
FP4							.820
FP5							.658

Note: GS: Green Sensitivity; EC: Environmental Culture; EMS: Environmental Marketing Strategies; PD: Product Differentiation; CL: Cost Leadership; MP: Marketing Performance; FP: Financial Performance.

Furthermore, as shown in Table 3, the goodness-of-fit estimates were acceptable for a model in which x2 was 597.069; p value = .00; x2/df = 396; GFI = .908; CFI = .962; and RMSEA = .036. In addition, all factors had composite reliability values and Cronbach's alphas greater than 0.60, indicating that the structural model was reliable (Bagozzi & Yi, 1988). This is consistent with Hair, Black, Babin, Anderson and Tatham (2011), who stated that the convergent validity should meet the satisfactory level. In addition, the t-values for each item were greater than 4.0. Moreover, the standardized loadings were above 0.6, and the other standard errors of the estimated coefficients were low.

TABLE 3: Results of the feasibility model

Goodness-of-fit index	Cut-off value	Results
Chi-square	< 7.814 (p = 0.05, df = 3)	597.069
Probability	> 0.05	0.000
GFI	> 0.90	0.908
TLI	> 0.90	0.958
CFI	> 0.90	0.962
RMSEA	< 0.08	0.036

5.3. Hypothesis testing

5.3.1. Effect of green orientation on environmental marketing strategy

The statistical output, as shown in Table 4, demonstrated a positive significant impact of green sensitivity among managers on environmental marketing strategy, indicated by the value of C.R. at 4.997 and the *p*-value of 0.01. This means that Hypothesis 1 (The higher the green sensitivity of a firm's managers, the greater the likelihood that this firm will perform better at utilizing an environmentally friendly marketing strategy) is supported. Sensitivity is more likely to direct the company's goals, plans, and policies. This is in line with Banerjee and others (2003), Menon, Menon, Chowdhury and Jankovich (1999), and Stone and others (2004), emphasizing the role of top management in taking the responsibility for set goals, plans, and policies to be committed to the green orientation of their firm. In addition, Menon and others (1999) stated that managers and stakeholders have to demonstrate their activity concerning green issues as a consequence of green orientation.

The subsequent hypothesis stated that the more a firm follows an environmental culture, the greater the likelihood that this firm will perform better at utilizing an environmentally-friendly marketing strategy. Statistical results showed the C.R. value at 7.021 and the *p*-value at 0.01. Thus, Hypothesis 2 is accepted. This is consistent with Langerak and others (1998), Menon and Menon (1997), and Stone and others (2004), demonstrating a crucial role of management in the reinforcement of green-related values and norms to initiate environmental practices. Moreover, environmental culture can drive higher investment in environment-based technology to increase the company's capability to produce green products. Accordingly, H1 and H2 are supported.

The results also revealed a positive and significant effect of the variable of environmental marketing strategy on the cost leadership. Statistically, the testing found a C.R. value of 8.394 and a *p*-value of 0.01, or below the level of 0.05. This means that environmental marketing strategy importantly leads to some cost reduction, as the firm can recycle, reuse, and reduce any materials. This definitely leads to cost leadership. Therefore, H3 and H4 are also supported.

5.3.3. Effect of competitive advantages and firm performances

The product differentiation advantage obtained from environmental marketing strategy significantly affects the marketing and financial performance of exporting firms. The preference on product is higher on the international market as more consumers become aware of green products. Statistical results showed a C.R. value and a *p*-value of the relationship between product differentiation and marketing performance at 8.891 and 0.01, respectively. Moreover, the analysis revealed a C.R. value of 6.854 and a *p*-value of 0.01 of the relationship between product differentiation and financial performance. Thus, the final two hypotheses – which stated that the more a firm differentiates its green product,

TABLE 4: Hypothesis testing

No.	Hypotheses			Estimate	S.E.	C.R.	*p*
1	Environmental Marketing Strategies	←	Green Sensitivity	.280	.056	4.997	***
2	Environmental Marketing Strategies	←	Environmental Culture	.426	.061	7.021	***
3	Product Differentiation	←	Environmental Marketing Strategies	.686	.073	9.375	***
4	Cost Leadership	←	Environmental Marketing Strategies	.642	.076	8.394	***
5a	Marketing Performance	←	Product Differentiation	.642	.072	8.891	***
5b	Financial Performance	←	Product Differentiation	.347	.051	6.854	***
6a	Marketing Performance	←	Cost Leadership	.078	.058	1.334	.182
6b	Financial Performance	←	Cost Leadership	.120	.040	3.003	.003

Note: *p****=significant at 0.01.

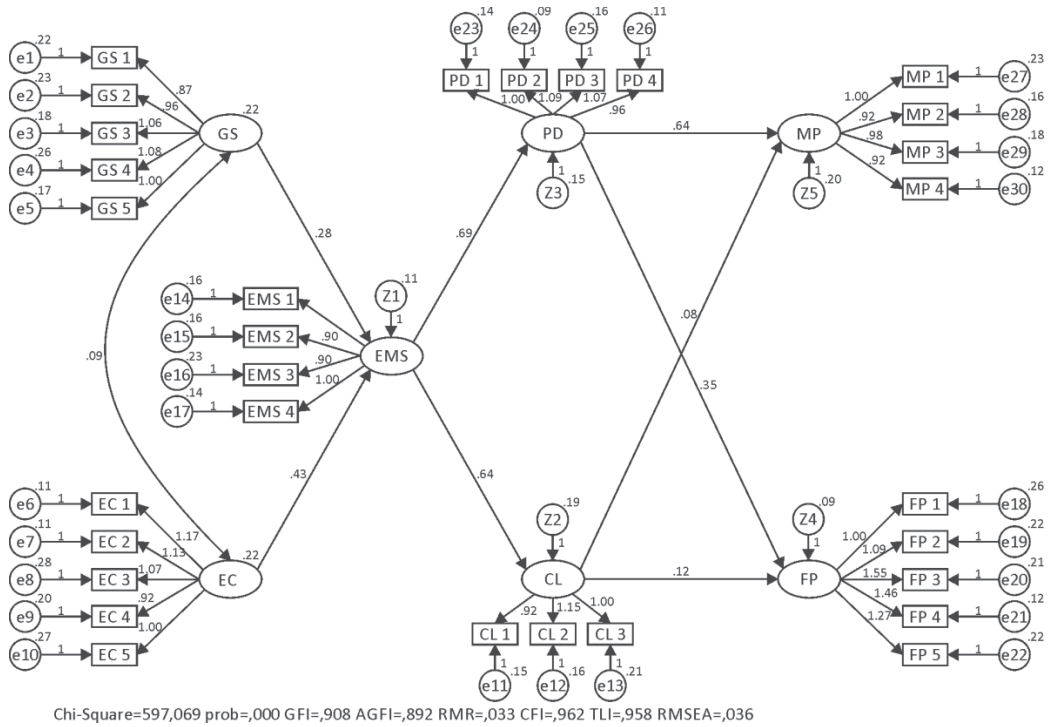
5.3.2. Effect of environmental marketing strategy on a firm's competitive advantages

The impact of a firm's environmental marketing strategy significantly improved that firm's benefits in terms of competitive advantages. As indicated by the C.R. value of 9.375 and the *p*-value of 0.01, research results showed the hypothesis stating the more a firm follows an environmentally friendly marketing strategy, the greater the likelihood that this firm will have larger differentiation of green product to be supported.

the greater the likelihood that this firm will have a larger market share (H5a) and higher profitability (H5b) – are accepted. These findings confirmed that the ecological features of a product help the firm cultivate a different positioning in the international market, maintaining the existing consumers, and attracting new customers. This is in line with the findings of Banerjee and others (2003) and Carmona-Moreno and others (2004), highlighting that product differentiation is more likely to increase firm performance. Accordingly, H5a and H5b are supported.

The cost leadership proxied by offering low prices on international markets and in export operations, as well as focusing on cost efficiency, showed a significant impact on financial performance. This was supported by the C.R. value of 3.003 and the *p*-value of 0.003. However, it revealed an insignificant impact on marketing performance, indicated by the C.R. value of 1.334, significant at 0.182 or above the level of 0.05. Thus, the hypothesis stating that the higher the cost leadership, the better the firm's financial performance (H6a) is supported, but the hypothesis stating the higher the cost leadership, the better the firm's marketing performance (H6b) is rejected. This means that Hypothesis 6 is only partially supported. This insignificant result is in line with Walley and Whitehead (1994), who posited that environmentally friendly business practices can lead to some unexpected expenditures and fruitless investment. The higher expenditures and investment will likely increase the production cost. Managers usually respond to this increase by hiking the selling price of the product. As a result, the product price is uncompetitive on the international market, thereby being less likely to improve customer loyalty and marketing performance.

FIGURE 2: Full testing model



6. CONCLUSION AND IMPLICATIONS

The study concludes that the adoption of an environmentally friendly strategy that is strongly supported by the green sensitivity of managers and the environmental culture of exporting firms is more likely to result in a firm's better performance. Such a strategy facilitates the achievement of product differentiation and cost leadership. More specifically, these competitive advantages significantly improve the financial performance of the firm. However, cost leadership advantage has no significant influence on the market performance of exporting firms. The overall findings of the study, therefore, give an insightful overview of the importance of the mediating factor of environmental marketing strategy driven by green sensitivity of managers and environmental culture as the dominant factor in determining the success of exporting firm in achieving product differentiation and cost leadership.

Additionally, the findings highlight some implications for top management in exporting firms to promote the use of green materials, green packaging, and green designs. The stakeholders should note these policies as well as regulation to improve competitiveness. It is recommended that firms adopt a strategic ecological perspective to achieve and sustain competitive advantages of product and cost by reinforcing green sensitivity, environmental culture, conservation, recyclability, and sustainability. The adoption of green management practices by employees in all departments should be encouraged, along with the green-related incentives and standards (Bellesi, Lehrer & Tal, 2005). Moreover, firms need to monitor their international markets to understand the level of consumer concern on ecological issues and provide adequate information to enrich their knowledge concerning the export management, and to increase the presence of their products and financial performance (Leonidou & Leonidou, 2011). On the other hand, the government is also obliged to issue and disseminate clear export rules related to environmentally conscious behavior, for example, by rewarding those firms that adopt green initiatives and tax incentives.

7. LIMITATIONS AND RECOMMENDATIONS

This study is limited in several ways. First, it adopts such studies conducted in developed countries, where the manufacturing sector is already well-developed and has a very high concern for environmental legislation. Hence, there is a fundamental difference in terms of economic conditions and socio-cultural and political-legal settings between developed countries and developing countries such as Indonesia in implementing aspects of a green economy. Thus, future studies should incorporate factors of environmental legislation and government intervention in the obligation for export-oriented manufacturers to implement green product policies. Since the implementation of green technology to improve the competitive advantages and international market performance is costly and time-consuming, longitudinal studies are needed to produce more relevant information. In addition, future studies are expected to test the nature of manufacturing exports.

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