The Role of Marketing Capability, Operations Capability, Management Practices and Environmental Investment on Agro-Industrial Environmental Performance

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ABSTRACT

This study aims to investigate the role of marketing capability, operations capability, management practices and environmental investment on the environmental performance of agro-industry companies. This research conducted a survey research on all employees of 120 agroindustry companies. The samples were selected with proportionate stratified random sampling based on management level of the companies. The data were compiled from questionnaires and field observations. After the validity and reliability test, a set of classical assumptions were undergone to determine the variable relations, along with the hypothesis testing with multiple linear regression, t test and F test. The results of this study indicate that marketing capability, operations capability, management practices, and environmental investments have effects on environmental performance.

Keywords: Environment Investment, Environmental Performance, Management, Marketing, Operations Capability

INTRODUCTION

Companies have currently been facing a lot of pressure to implement environmental management practices from various stakeholders including customers, suppliers, and competitors (Delmas & Toffel, 2008). Environmental management practices refer to companies’ techniques, policies, and procedures to monitor and control the impact of their activities on the environment (Montabon, Sroufe, & Narasimhan, 2007).

Excellent environmental management practices could improve company performance. This is to measure company’s success as well as its disadvantages to the environment (Ulubeyli, 2013). The ignorance to environmental performance could lead to big impacts on community life and the young generation (Alrubah et al., 2020). The management practices highly depend on relevant organizational capabilities (Bowen, Cousins, Lamming, & Farukt, 2001), as their enormous challenge is sufficient understanding about environmental performance to use their various functional abilities. Company leaders realize to avoid challenging complex environment initiatives if they have no relevant requirements to apply. However, limited capability could abandon environmental management practices and environmental performance (Bowen et al, 2001). In the end, further research empirically exploring the development of environmental management capabilities are necessary to provide useful insights (Grant, 2002) into which organizational capability can be utilized to create environmental management capability (Aragon-Corra & Sharma, 2003). To bridge substantial research gaps, this study
developed conceptual frame works addressing the role of functional ability in carrying out environmental management practice, and providing initial empiric examination to help manager develop environmental management capability for environmental performance improvement.

Recently, there have been increasing numbers of research about environmental management practices yet unable to improve company performance (Lai & Wong, 2012; Montabon et al., 2007; Yu & Ramanathan, 2015), and about the effect of functional capability on company performance (Ahmed, Kristal, & Pagel, 2014; Nath, Nacchiapan, Ramanathan, 2010; Rungi, 2014; Yu, Ramanathan, & Nath, 2014). As yet, there is no empirical study which explores potential relationship between functional capability and environmental management practice, and examining their effects on environmental performance.

Previous research paid little attention to mediative analysis when examining the relations between functional capability and performance, particularly within the context of environmental management practices. To help address the research disparities by evaluating mediative impact of environmental management practice, this study describes the nature of the relationship among functional capabilities, environmental management practices and environmental performance. More typically, it investigates whether environmental management capability is developed from functional capabilities, such as operations and marketing capabilities (Aragon-Correa & Sharma, 2003). It merely focuses on these two capabilities, since previous research contended these two are company's main functions (e.g., Ahmed et al., 2014; Tatikonda & Montoya-Weiss, 2001). Therefore, this study aims to investigate the role of operations capability, marketing capability, management practices and environmental investment on environmental performance of agroindustry companies.

**RESEARCH METHOD**

This study is a survey research conducted on 120 agroindustry companies, with their all employees as the samples collected with proportionate stratified random sampling based on the level of management of the companies. For data collection, this study used questionnaires and observations.

The data were analyzed by research instrument tested with validity test and reliability test. For classical assumptions, heteroscedasticity, autocorrelation, normality test and multicollinearity test were used. The hypothesis testing comprises multiple linear regression analysis, t test, F test, and coefficient of determination ($R^2$).

**RESULTS AND DISCUSSION**

Validity test results show that marketing capability, operations capability, environmental management practices, environmental investment and environmental performance have the value of valid statements in explaining the variables. The reliability test results show that marketing capability, operations capability, environmental management practices, environmental investment and environmental performance are reliable. The classical assumption test results show that the data did not have heteroscedasticity disorders. In addition to autocorrelation non-existence, the data were normally distributed and the independent variables did not bring out multicollinearity.
Table 1. Descriptive Statistics (N=120)

| Construct                                | Mean  | Std. Deviation | N  |
|------------------------------------------|-------|----------------|----|
| Marketing Capability (X₁)               | 25.8417 | 8.00839       | 120|
| Operations Capability (X₂)              | 16.3917 | 5.06478       | 120|
| Environmental Management Practices (X₃) | 22.8083 | 6.92007       | 120|
| Environmental Investment (X₄)           | 16.1250 | 7.06058       | 120|
| Environmental Performance (Y)           | 25.8417 | 4.97314       | 120|

Source: Primary Data (2019)

Table 1 points out the results of descriptive statistics which show mean value of marketing capability of 25.8417, operations capability of 16.3917; environmental management practice of 22.8083, environmental investment of 16.1250 and environmental performance of 25.8417.

Table 2. Multiple Linear Regression Results

| Construct                                | B   | Std. Error | β   | Sig.  |
|------------------------------------------|-----|------------|-----|-------|
| Marketing Capability (X₁)               | .292| .107       | .185| .007***|
| Operations Capability (X₂)              | .201| .082       | .174| .016** |
| Environmental Management Practice (X₃) | .320| .080       | .283| .000***|
| Environmental Investment (X₄)           | .589| .106       | .366| .000***|

Note. $R^2 = .937$; ** = $p < .05$; *** = $p < .01$

Table 2 illustrates the results of multiple linear regressions of marketing capability, operations capability, environmental management practices, and environmental investment with their β value of .185; .174; .283; .366 consecutively and their respective significance of .007; .016; .000; .000 $< \alpha = .05$. This leads to a conclusion that marketing capability, operations capability, environmental management practices, and environmental investment have significant effects on environmental performance.

The finding of marketing capability effect on environmental performance are in line with Ahmed et al. (2014), Nath et al. (2010), Rungi (2014), and Yu et al. (2014), stating that there is an effect of functional capability on company performance. Aragon-Correa & Sharma (2003), and Hart (1995) argued that natural-resource-based view (NRBV) of companies is a competitive advantage rooted in the capability to facilitate sustainable environment capability. Grant (2002) described the hierarchy of organizational capability, in which special abilities are integrated into broader functional capability such as marketing and operations.

The finding of the effect of operational capability on environmental performance is consistent with Choudhury, Salim, Al-Bashir, & Saha (2013) suggesting that industry’s operational capability have a positive effect on environmental performance so that enhance the environmental behavior. This could increase industrial activities to improve environmental performance since excellent operational capability leads to better environmental performance.
The finding of the effect of environmental management practices on environmental performance is opposition with Lai and Wong (2012), Montabon et al. (2007), Yu and Ramanathan (2015) contending that environmental management practices cannot improve company performance.

CONCLUSIONS

In conjunction with the provided data and the analysis above, this study concludes that marketing capability, operations capability, environmental management practices, and environmental investment have significant effects on environmental performance, particularly environmental investment showing its biggest effect.

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