THE IMPACT OF ADVANCED ECO LEARNING ON DECLINING FINANCIAL PERFORMANCE FOOTWEAR INDUSTRY

Sustiyatik E., Susilo K.E., Ridwan A.*

Abstract: This research has basically aimed to analyse that if advanced eco learning can work as the solution for declining financial performance of Indonesian Footwear industry. Moreover, the mediating role of environmental sustainability, strategy and performance has been evaluated too. The data for the given research has been collected from 309 residents of Indonesia with the help of questionnaires. The data analysis has been done through running AMOS and SPSS. Tests such as CFA, descriptive test and SEM were also run for the purpose of data screening, hypothesis testing and validation testing. The outcomes of the research have proposed that advanced eco learning has a significant impact over financial performance of Indonesian Footwear industry. In addition to this, it has been identified that environmental sustainability, performance and strategy have mediating roles. This research is novel, due to the reason that there is no previous research like the given one. This research holds implications for theory, Indonesian footwear industry and also for the government of Indonesia.

Keywords: financial performance, footwear industry, advanced eco learning, environmental sustainability, environmental strategy

Introduction

The Indonesian footwear industry is mostly concentrated at the Java Island. This industry is distributed between small and medium footwear manufacturing throughout Indonesia (Dowdy & Nikolchev, 1986). The figure below portrays the distribution of footwear industry in Indonesia. Indonesia has a large market share of its footwear industry. However, the Indonesian footwear industry has faced a lot of challenges in the last few years. The export of Indonesian footwear has recently been challenged by the competitors in Vietnam (Norburn & Birley, 1988). The major cause of the downfall has been a decline in financial performance of the industry. The footwear industry has not met its goals of exports due to some hindrances in its financial mismanagement (Uotila, Maula, Keil, & Zahra, 2009).

It is the duty of every country to plant forests, reduce the carbon emissions, and increases the uses of renewable energy sources. The companies need to address this issue and it is their responsibility to cater or the environmental issues by advancing

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POLISH JOURNAL OF MANAGEMENT STUDIES
Sustiyatik E., Susilo K.E., Ridwan A.

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Vol.20 No.2

their environmental performances so that these companies can attain the competitive advantage over their rivals (An, Xu, & Zhang, 2018).

While many researchers have focused on the theory of natural-resource-based-view (NRBV) as an adoption of eco-control for a firm's performance, little is known how to operationalize it. Our research contributes to the literature as it includes thee mediators to measure the impact of advanced eco learning on the financial performance of Footwear industry in Indonesia. Our research goes deep in understanding the context by utilizing the NRBV. One of the major objectives of the research is to see the association between advanced eco learning and financial performance. Therefore, this research focuses on the factors that can affect and improve the financial performance of the footwear industry in Indonesia. The research questions are:

- To what extent does advanced eco learning effects financial performance of footwear industry in Indonesia?
- To what extent does environmental performance, sustainability, and strategy contribute towards the financial performance of footwear industry in Indonesia?

This paper attempts to encourage the role of advanced eco learning on the financial performance of footwear industry in correspondence with the mediating effects of environmental sustainability, performance, and strategy.

Literature Review

The research focuses on the establishment of relationship between the eco learning and financial performance. For a considerable understanding of the relationship between environmental performance, strategy and sustainability, other contingent factors should also be included, for example, advanced eco learning should be analysed and acknowledged (Kartadjumena & Rodgers, 2019). The resource-based view postulates that companies' precise competences discern successful firms from failing firms (Chen-fu, 2001). This theory has become one of the most dominant one in the previous two decades. For understanding the competitive services that the market promotes, we need to expand the resource-based view explanations beyond the ritual descriptions and explanation of the theory to gain the competitive advantage (Sidiropoulos, Mouzakitis, Adamides, & Goutsos, 2004). These expansions are necessary as we cannot justify the corporate behaviours and performances by just analysing the resource views and institution-based view for advancing towards the social and environmental behaviours in organizations. The NRBV can help in performing well with dynamic capabilities (Möller & Schaltegger, 2005). The studies by (Chin, Tat, and Sulaiman (2015); Cochran and Wood (1984); Norburn and Birley (1988)) have shown different results, having a positive impact of eco control on the economic and financial performance, having a negative effect, or having no effect at all. Therefore, we state our following hypotheses:

H1: There is a positive association between advanced eco learning and financial performance

Firms are always pressured by the internal and external factors to gain a balanced sustainability as to achieve better financial and operational performances (Lloret, 2016). The environmental sustainability is given emphasis in the recent years as the industries which attain this get to have a better competitive advantage over other industries (Finke, Howe, & Huston, 2016). The environmental sustainability is achieved through many eco-control factors such as the optimization of the resources, elimination of wastes, recycling, etc. (Journeault, 2016). When the organizations adapt towards the advance eco learning factors and control, they fir in the criteria of having an environmental sustainability (Pidada, Yuesti, & Kepramareni, 2018). Consequently, when originations and industries achieve that, it boosts up their financial performances and they gain a competitive advantage over their rivals (Wijethilake, 2017). Therefore, we state our following hypotheses:

H2a: Advanced Eco Learning has a positive and direct effect on environmental sustainability.

H2b: Environmental Sustainability positively mediates the relationship between advanced Eco Learning and financial performance

The hypotheses proposed by Lee and Min (2015) has given the significance by suggesting the implementation of environmental management and performance to gain the competitive advantage for firms. These hypotheses have been supported by literature and they have now increased the challenge in the environmental performances of the firms. He investigated the head drivers and recipients of natural execution. The general gatherings of head drivers are: 'monetary partners' including speculators; 'non-budgetary partners' that incorporate individuals, purchasers, network requests, administrative weights, worker fulfilment, client heart; 'organization frameworks' that spread cost minimization, benefit improvement, aggressive separation; and 'institutionalization' that spreads top quality administration, program prerequisites, global and national norms. (Sigmund, Semrau, and Wegner (2015)) have suggested through their research that the industries which focus on environmental performance and eco-friendly operations intensify the probabilities of meeting the expectations of the stakeholders. Therefore, we state our following hypotheses:

H2a: Advanced Eco Learning has a positive and direct effect on environmental performance

H2b: Environmental performance positively mediates the relationship between advanced Eco Learning and financial performance

Environmental strategy refers to the rules and measurement of initiatives that motivates the effect of operations on natural resources of environment through corporate policies (Helfaya & Moussa, 2017). The writing on corporate ecological administration incorporates an extensive number of essences on different parts of ecological issues in business practice. A portion of these reflections have

POLISH JOURNAL OF MANAGEMENT STUDIES
Sustiyatik E., Susilo K.E., Ridwan A.

2019
Vol.20 No.2

concentrated on certain particular ecological devices, for example, natural sway evaluation, environmental strategy, natural administration framework, natural bookkeeping and inspecting, ecological execution announcing, life cycle appraisal, eco-marking, and so forth (Uotila et al., 2009). However, much impact of environmental strategy has been seen on the financial performance of the industry. Therefore, we state our following hypotheses:

H3a: Advanced Eco Learning has a positive and direct effect on environmental strategy

H3b: Environmental strategy positively mediates the relationship between advanced Eco Learning and financial performance
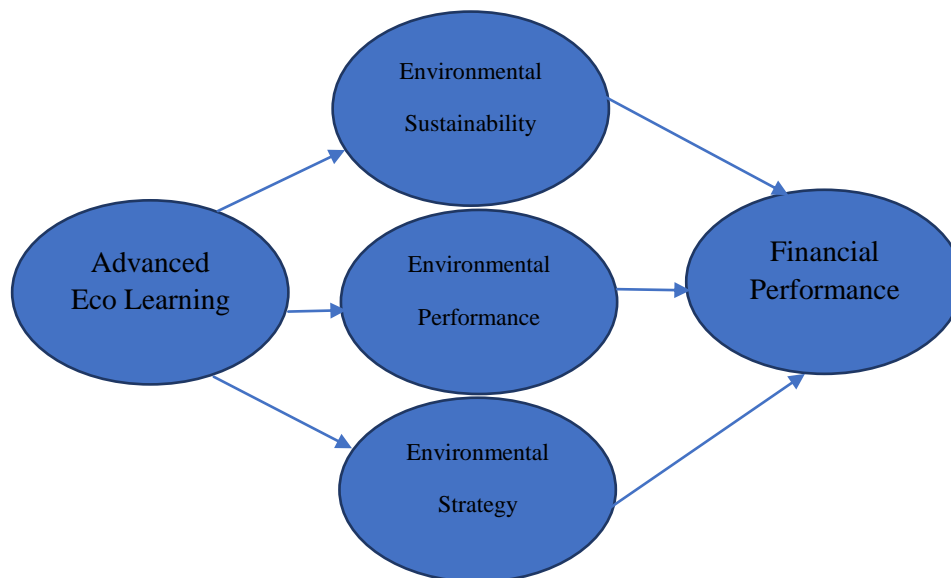

Figure 1. Theoretical Framework

Research Methodology

This study investigates the relationship between advance Eco knowledge and financial performance of footwear industry of Indonesia. The data is gathered from online survey by placing questioner on required variables. The web link of the questionnaire placed in Qualtrics is emailed to respondents. The researcher disseminated questionnaire to initially 400 respondents in order to avoid the loss of degree of freedom and get efficient results. In order to gauge the validity of content of measurement and to minimize the possible errors, the author run a pilot survey based on 20 respondents. Moreover, the researcher self-narrates the questionnaire to answer the queries of respondents. Initially questioner was sent to 450

respondent, out of those 418 completely respond the questions. After scrutiny of responses, the researcher left with 309 valid responses. Few studies has explored the impact of advance Eco leaning on the financial performance, however, the variables proposed in those study was bit different in context. The validity of proxies and measures of the variables employed in this study is already tested. The key independent variable "Advance Eco learning is measured by emulating past research (Journeault, 2016; Latan et al., 2018).

Findings

In Table 1, the outcomes of RCM have been provided. From the table it has been identified that there is no such problem of cross loading, it is because of the reason that all of the values are greater than 0.7. Moreover, no item is loading in front of any other variable item. It implies that data validity is good.

Table 1. Rotated Component Matrix

	Component				
	1	2	3	4	5
AL1					.753
AL2					.797
AL3					.836
ES1		.819			
ES2		.851			
ES3		.860			
ES4		.864			
ES5		.852			
EP1	.788				
EP2	.830				
EP3	.810				
EP4	.853				
EP5	.805				
EP6	.865				
ST1				.765	
ST2				.805	
ST3				.828	
FP1			.812		
FP2			.843		
FP3			.838		

Through Table 2, convergent and discriminants validity outcomes have been acquired. AVE and CR basically show the convergent validity. As all of the values of convergent are greater than the value that was set for threshold '0.7', and all the AVE values are greater than 0.5, so it implies that the data convergent is valid. On the other hand, there is discriminant validity in the given data, it is because of the reason that table's diagnol portion have values greater as compared to the preceded values.

POLISH JOURNAL OF MANAGEMENT STUDIES
Sustiyatik E., Susilo K.E., Ridwan A.

2019
Vol.20 No.2

Table 2. Convergent and Discriminant Validity

	CR	AVE	MSV	MaxR(H)	ST	AL	ES	EP	FP
ST	0.864	0.680	0.498	0.866	**0.825**				
AL	0.901	0.752	0.367	0.945	0.557	**0.867**			
ES	0.952	0.799	0.367	0.974	0.373	0.606	**0.894**		
EP	0.949	0.758	0.338	0.984	0.487	0.562	0.581	**0.871**	
FP	0.903	0.756	0.498	0.986	0.706	0.524	0.375	0.478	**0.869**

Table 3 shows the results of model fitness. An effective model fit should have the values of threshold for RMSEA, IFI, CFI, GFI and DF/CMIN. Through the given results, it has been analyzed that all of the current values contrast with the range of threshold, therefore, it can be stated that this is a good fit model.

Table 3. Model Fitness

Indicators	Threshold range	Current values
CMIN/DF	Less or equal 3	2.342
GFI	Equal or greater .80	.896
CFI	Equal or greater .90	.962
IFI	Equal or greater .90	.962
RMSEA	Less or equal .08	.066

For the testing of hypotheses, AMOS was used to run SEM. The outcomes of the test show that advance eco learning has insignificant impact on financial performance, as through the analysis. Because of the mediators, advance eco learning causes an indirect impact of around 43.7 percent on financial performance. Advance eco learning has a significant impact on environmental strategy, environmental sustainability and environmental performance. As through the analysis it has been identified that these variables cause increments of 49%, 59% and 51% on financial performance. Moreover, it has also been identified that environmental strategy, environmental sustainability and environmental performance has a significant impact over the financial performance. Based on the overall analysis, it can be stated that advance eco learning plays a mediating role in relationship between environmental strategy and financial performance; environmental sustainability and financial performance; and environmental performance and financial performance.

Table 4. Structural Equation Modeling

Total Effect	AdEcoLearn	EnvStr	EnvSus	EnvPer
EnvStr	.490***	.000	.000	.000
EnvSus	.597***	.000	.000	.000
EnvPer	.518***	.000	.000	.000
FinPerf	.469***	.459***	.247**	.125**
Direct Effect	AdEcoLearn	EnvStr	EnvSus	EnvPer
EnvStr	.490***	.000	.000	.000
EnvSus	.597***	.000	.000	.000
EnvPer	.518***	.000	.000	.000
FinPerf	.032	.459***	.247**	.125*
Indirect Effect	AdEcoLearn	EnvStr	EnvSus	EnvPer
EnvStr	.000	.000	.000	.000
EnvSus	.000	.000	.000	.000
EnvPer	.000	.000	.000	.000
FinPerf	.437***	.000	.000	.000

Discussion

The aim behind the conduction of this study was to know if advanced eco learning can be a solution of declining financial performance of Indonesian footwear industry. The study took on the mediating role of environmental sustainability, performance and strategy. The study thoroughly went through various past studies and proposed different hypothesis from the results of those studies, the first hypothesis proposed by the study was that, "The impact of Advanced Eco learning is significant on financial performance." The first hypothesis is rejected by the results of the analysis of this study and by the results of the study of (Zuhdi, 2015), it is stated that advanced eco learning and its practices put a strain on the financial performance and these increase the financial performance but after a certain amount of time. The second hypothesis proposed by the study was that, "The impact of environmental strategy between Advanced Eco learning and Financial performance is significant." The hypothesis is accepted as a result of the analysis and with the evidence of the study of (Mukhlis, Utomo, & Soesetio, 2015) as well, when advanced eco learning is promoted with the help of strategic environmental plans, there is a fair chance that the overall performance of the firm and the financial performance of the firm will enhance in a significant and positive way. The third hypothesis proposed by the study was that, "The impact of environmental sustainability between Advanced Eco learning and Financial performance is significant." This hypothesis is also accepted by the study and with the evidence from the past studies (Kis-Katos & Sparrow, 2015) as well, it is because the main focus of Advanced eco learning is on the enhancement of the environmental sustainability and environmental sustainability in turn enhances the goodwill, overall performance and the financial performance of the firms. The fourth

hypothesis proposed by the researcher was that, "The mediating role of environmental performance between advanced eco learning and financial performance is significant." This hypothesis is accepted with the evidences provided by this study and the relevant past studies as the study of (Kirono et al., 2016) states that the impact of environmental performance enhances the goodwill and in turn the market share of the organization which is very evident to enhance the financial performance as well.

Conclusion

The aim behind the conduction of this study was to know if advanced eco learning can be a solution of declining financial performance of Indonesian footwear industry. The study took on the mediating role of environmental sustainability, performance and strategy. The study thoroughly went through various past studies and proposed different hypothesis from the results of those studies. The research was conducted in Indonesia and the main focus was the footwear industry, the researcher took a sample of 309 individuals. The results indicated that the impact of advanced eco learning on financial performance is insignificant while the mediation of environmental sustainability, strategy and performance is seen to be significant.

The study has implications in practical, theoretical and policy making fields. The study has contributed in theoretical field to enhance the value of the factors that might enhance the impact of advanced eco learning on the financial performance of an organization. The study has set a standard for other organizations of Indonesia as well as the footwear sector worldwide as well that how they can increase their financial performance with the help of implementation of factors enhancing the environmental sustainability and performance as well and the results might help in formulating policies for the organizations for the future as well.

The study has some limitations in the form of its limited sample which is only 309 people, considered as a small representation of a relatively larger sector. The study has focused on environmental performance by studying the responses from a single sector only whereas the researcher could have undertaken vast varieties of sectors as well. The study has also taken on one variable as a dependent variable which is financial performance whereas, the impact of advanced eco learning could have been studied on Firm performance as well.

References

An, W., Xu, Y., & Zhang, J. (2018). Resource constraints, innovation capability and corporate financial fraud in entrepreneurial firms. *Chinese Management Studies, 12*(1), 2-18.

Chen-fu, C. (2001). *The instructional models and guidelines for developing a curriculum in eco-design.* Paper presented at the Proceedings Second International Symposium on Environmentally Conscious Design and Inverse Manufacturing.

Chin, T. A., Tat, H. H., & Sulaiman, Z. (2015). Green supply chain management, environmental collaboration and sustainability performance. *Procedia Cirp, 26*, 695-699.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal, 27*(1), 42-56.

Dowdy, W. L., & Nikolchev, J. (1986). Can industries de-mature?—Applying new technologies to mature industries. *Long Range Planning, 19*(2), 38-49.

Finke, M. S., Howe, J. S., & Huston, S. J. (2016). Old age and the decline in financial literacy. *Management Science, 63*(1), 213-230.

Helfaya, A., & Moussa, T. (2017). Do board's corporate social responsibility strategy and orientation influence environmental sustainability disclosure? UK evidence. *Business Strategy and the Environment, 26*(8), 1061-1077.

Journeault, M. (2016). The influence of the eco-control package on environmental and economic performance: A natural resource-based approach. *Journal of Management Accounting Research, 28*(2), 149-178.

Kartadjumena, E., & Rodgers, W. (2019). Executive compensation, sustainability, climate, environmental concerns, and company financial performance: Evidence from Indonesian commercial banks. *Sustainability, 11*(6), art. no. 1673.

Kirono, D. G., Butler, J. R., McGregor, J. L., Ripaldi, A., Katzfey, J., & Nguyen, K. (2016). Historical and future seasonal rainfall variability in Nusa Tenggara Barat Province, Indonesia: Implications for the agriculture and water sectors. *Climate Risk Management, 12*, 45-58.

Kis-Katos, K., & Sparrow, R. (2015). Poverty, labor markets and trade liberalization in Indonesia. *Journal of Development Economics, 117*, 94-106.

Latan, H., Jabbour, C. J. C., de Sousa Jabbour, A. B. L., Renwick, D. W. S., Wamba, S. F., & Shahbaz, M. (2018). 'Too-much-of-a-good-thing'? The role of advanced eco-learning and contingency factors on the relationship between corporate environmental and financial performance. *Journal of Environmental Management, 220*, 163-172.

Lee, K.-H., & Min, B. (2015). Green R&D for eco-innovation and its impact on carbon emissions and firm performance. *Journal of Cleaner Production, 108*, 534-542.

Lloret, A. (2016). Modeling corporate sustainability strategy. *Journal of Business Research, 69*(2), 418-425.

Möller, A., & Schaltegger, S. (2005). The sustainability balanced scorecard as a framework for eco-efficiency analysis. *Journal of Industrial Ecology, 9*(4), 73-83.

Mukhlis, I., Utomo, S. H., & Soesetio, Y. (2015). The role of taxation education on taxation knowledge and its effect on tax fairness as well as tax compliance on handicraft SMEs sectors in Indonesia. *International Journal of Financial Research, 6*(4), 161-169.

Norburn, D., & Birley, S. (1988). The top management team and corporate performance. *Strategic management journal, 9*(3), 225-237.

Pidada, I. B. S., Yuesti, A., & Kepramareni, P. (2018). The Influence of Internal and External Factors with Risk Factors as Mediation Variable to Financial Performance of Regional Development Bank in Indonesia. *International Journal of Contemporary Research and Review, 9*(02), 20533-20543.

Sidiropoulos, M., Mouzakitis, Y., Adamides, E., & Goutsos, S. (2004). Applying sustainable indicators to corporate strategy: the eco-balanced scorecard. *Environmental research, engineering and management, 1*(27), 28-33.

Sigmund, S., Semrau, T., & Wegner, D. (2015). Networking ability and the financial performance of new ventures: moderating effects of venture size, institutional environment, and their interaction. *Journal of Small Business Management, 53*(1), 266-283.

Uotila, J., Maula, M., Keil, T., & Zahra, S. A. (2009). Exploration, exploitation, and financial performance: analysis of S&P 500 corporations. *Strategic Management Journal, 30*(2), 221-231.

Wijethilake, C. (2017). Proactive sustainability strategy and corporate sustainability performance: The mediating effect of sustainability control systems. *Journal of Environmental Management, 196*, 569-582.

Zuhdi, U. (2015). The Dynamics of Indonesian Creative Industry Sectors: An Analysis Using Input–Output Approach. *Journal of the Knowledge Economy, 6*(4), 1177-1190.

WPŁYW STOSOWANIA ZAAWANSOWANEJ I EKOLOGII NA OBNIŻANIE WYNIKÓW FINANSOWYCH PRZEMYSŁU OBUWNICZEGO

Streszczenie: Badania te miały zasadniczo na celu przeanalizowanie, czy zaawansowana nauka ekologiczna może działać jako rozwiązanie zmniejszające wyniki finansowe indonezyjskiego przemysłu obuwniczego. Ponadto oceniono również pośredniczącą rolę zrównoważenia środowiskowego, strategii i wyników. Dane do tych badań zostały zebrane od 309 mieszkańców Indonezji za pomocą kwestionariuszy. Analiza danych została przeprowadzona za pomocą AMOS i SPSS. Przeprowadzono również testy takie jak CFA, test opisowy i SEM w celu przeszukiwania danych, testowania hipotez i testowania walidacyjnego. Wyniki badań sugerują, że zaawansowane eko-uczenie się ma znaczący wpływ na wyniki finansowe indonezyjskiego przemysłu obuwniczego. Ponadto stwierdzono, że równowaga środowiskowa, wydajność i strategia pełnią rolę mediatora. To badanie jest nowatorskie, ponieważ nie ma wcześniejszych badań takich jak te. Badania te mają wpływ na teorię, indonezyjski przemysł obuwniczy, a także na rząd Indonezji.

Słowa kluczowe: wyniki finansowe, przemysł obuwniczy, zaawansowane nauczanie ekologiczne, zrównoważenie środowiskowe, strategia środowiskowa

高级生态学习对降低财务绩效鞋业的影响

摘要：本研究的主要目的是分析高级生态学习是否可以作为降低印尼鞋类行业财务绩效的解决方案。此外，还评估了环境可持续性，战略和绩效的中介作用。在问卷调查的帮助下，该研究的数据是从 309 位印度尼西亚居民中收集的。数据分析已通过运行 AMOS 和 SPSS 进行。为了进行数据筛选，假设检验和验证检验，还进行了 CFA，描述性检验和 SEM 等检验。研究结果表明，高级生态学习对印尼制鞋业的财务绩效具有重大影响。除此之外，已经确定环境可持续性，绩效和战略具有中介作用。由于没有像给定的研究那样的先前研究，因此该研究是新颖的。这项研究对理论，印尼制鞋业以及印尼政府都具有重要意义。

关键词：财务业绩，制鞋业，高级生态学习，环境可持续性，环境战略