The Effect of Green Supply Chain Practices on Indonesian Manufacturing Small and Medium Enterprises (SMEs)

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Abstract-- The motivation behind this investigation is to analyze the impact of green SC practices as far as GP, GM and Environment collaborator with suppliers on SCP with the mediating job of op of Indonesian Manufacturing Small and Medium Enterprises (SMEs). This was done quantitatively. 190 example measure was taken from this segment. 5point Likert scale and arbitrary inspecting method was utilized to gather the data. Amos programming was utilized to examine data from respondents. The finish of this examination demonstrated that execution of GSCM exercises, specifically GP, and environmental joint effort with suppliers and GM, decidedly adds to op in manufacturing SMEs. The investigation further presumes that op in manufacturing SMEs in Indonesia decidedly impacts SCP.

Keywords: green purchasing, green manufacturing, environment collaborator with suppliers, operational performance, SCP

1. Introduction

"Researchers stated that in modern times, firms have come to appreciate that SCs that have become a basic source of competition, with the end goal which recognized at the increased level real competition is never begun again between companies yet between SCs" Little and medium enterprises (SMEs) are broadly perceived as an imperative supporter of economic advancement in many nations all through the world. The economic effect is most observable in territories, for example, business creation and riches creation (Baumann et al. 2013). As referenced above, SMEs expecting to beat the eccentric elements in the worldwide commercial center of today are feeling the squeeze to embrace and execute progressively viable plans of action. GSCM has developed as a standout amongst the most topical rising business best practices, maybe dependent on its microeconomic and macroeconomic importance [1].

Execution of GSCM exercises has been distinguished by various creators [2] as one of the inventive business techniques that can empower organizations, for example, SMEs to endure and prevail in their activities. As proposed by [3,42-46], environmental mindfulness and worries crosswise over most business ranges have turned into a vital subject in the cutting edge world. Organizations today are required to be aware of their environmental commitments towards a more secure and progressively sustainable decrease of contamination exercises [4]. This at that point calls for all the more environmentally determined SC exercises among business enterprises, which has constrained extensive organizations to hold fast to and conform to the worldwide requests for better execution of GSCM exercises [5]. Notwithstanding, SMEs have been lingering behind in the execution of such exercises, in spite of their capacity to invigorate economic development [6]. The strain to change is more noteworthy on manufacturing SMEs, whose exercises have a more prominent environmental effect than those in different ventures, for example, retail and administrations [5]. It winds up imperative at that point to research how manufacturing SMEs can be propelled to investigate imaginative business systems that advantage themselves as well as all partners too.

The point of this examination is to explore the connection between GSCM exercises, op and SCP in manufacturing SMEs in Indonesia. In particular, the investigation is planned to address two targets, to be specific (1) to decide the impact of GSCM usage on op and (2) to decide the impact of op on SCP. In spite of the substantial group of writing on GSCM, it creates the impression that most past examinations have concentrated their accentuation on vast partnerships while ignoring SMEs [7]. Additionally, since nations, for example, Indonesia are as yet creating, and thus the dimensions of environmental care among SMEs in these nations may in any case be low, there is a need to direct more investigations on issues, for example, GSCM inside such enterprises.

1.2 Research Objectives

- To investigate the impactful association of Green purchasing with op
- To determine the effect of GM on op
- To determine the influence of Environment collaborator with suppliers on Op
- To scrutinize the association of Op with SCP
- To examine the mediating role of Op among the association between Green purchasing and SCP
- To examine the mediating role of Op among the association between GM and SCP
- To examine the mediating role of Op among the association between Environment collaborator with suppliers and SCP

2. Literature review

2.1 Green Supply Chain Management (GSCM) Exercises

Over the previous years, organizations have turned out to be mindful of the key significance and basic nature just as the job of the environment in molding the present aggressive market [8]. This has therefore

determined manufacturing organizations to change their corporate business methodologies just as center SC exercises towards a greener environmental methodology [9]. Accordingly, GSCM is seen as an expansion of SC exercises that emphasis on limiting the environmental effect of items for an incredible duration cycle, for example, green structure, asset sparing, unsafe material decrease and item reuse or reuse [10]. The center goal of GSCM is to dispense with or limit destructive impacts starting from operational exercises, for example, extraction and procurement of crude materials and use or transfer of items [11]. As per [12], GSCM typifies an expansive number of exercises, for example, green structure, green sourcing and acquirement, green task and manufacturing, green dispersion, and green coordination's just as advertising. An investigation by [13] distinguished GP, eco-structure and collaboration with clients as GSCM exercises. Environment management, switch coordination's, environmental joint effort with suppliers and item recuperation are among different exercises singled out in an investigation by [14,42-44]. This investigation gives an account of the consequences of four GSCM exercises, to be specific GP, switch coordination's, environmental cooperation with suppliers and GM. Another GSCM movement (green plan) was disposed of from the examination due to non-performing data in the corroborative factor analysis. Researchers, for example, [15] recognize that despite the fact that GSCM is a multidimensional build, those develops considered in this examination are the most significant operational measurements required by SMEs to support their upper hands.

2.2 Green purchasing (GP)

Green purchasing has been characterized by [16] as an environmentally arranged purchasing action dependent on the buy of items or materials that meet the worry of the environment as far as decrease of wastage, advancement of reusing, reuse, asset decrease and substitution of materials. SCM writing recognizes a few drivers of GP. These incorporate environmental joint effort, top management responsibility, administrative weight, environmental venture and client weight [17]. Social impact, environmental concerns. saw earnestness of environmental issues, saw viability of environmental conduct, saw environmental obligation and worry for mental self-portrait in environmental assurance have additionally been distinguished as key predecessor components to GP [18]. Different drivers of GP incorporate mindfulness about government activities and support, convictions about item security and use, convictions about item benevolence to the environment and accessibility of item and item data [19].

2.3 Green Manufacturing (GM)

GM is broadly viewed as a new point which has pulled in consideration due to its pertinence and job in supporting the environment [20]. It alludes to the capacity of a business to receive green procedures and strategies intended to lessen or limit the negative impacts of creation forms on the biological community. It further includes the arrangement of items and systems that require negligible utilization of perilous materials and vitality [21]. The execution of GM forms empowers organizations to wind up progressively aware of their obligation to ensure the environment by overhauling their task frameworks and rebuilding their transfer techniques to cling to environmental supportability directions [22] contend that it is essential that manufacturing organizations develop their creation techniques to be all the more environmentally determined by including the best possible reusing of waste, effective transfer of risky items and security of the work compel, subsequently giving a helpful workplace. This view is bolstered by [23], who reasoned that GM is a twofold methodology which is gone for securing the biological community, as well as meeting societal and economic desires also.

2.4 Environmental Collaboration with suppliers

Environmental joint effort with suppliers can be characterized as any type of formal or casual synergistic action occurring between at least two gatherings with the goal of taking part in common trades to take care of environmental issues [24]. [25]in their investigation on environmental joint 191

effort and authoritative performance set up that provider choices that set out on environmental coordinated efforts depend on variables, for example, a business' inward environment management and green data frameworks. Also, [26] advocate that sound joint effort among organizations guarantees interior GSCM exercises, which are crucial in accomplishing better environmental performance. This singles out the basic belief connected to legitimate key union between colleagues. In their examination on environmental coordinated effort and business performance, [27] built up that inward environmental management and green data frameworks are determinant variables of environmental coordinated effort with suppliers. These creators further recommend that compelling and sound shared environmental exercises with supplying organizations result in enhanced provider choice. This demonstrates organizations that are worried about the environment guarantee that their associations with colleagues mirror their worries.

2.5 Operational Performance (OP)

In the realm of business, the term 'performance' for the most part identifies with the achievement of a given assignment as estimated against foreordained models of precision, cost, speed and culmination [28]. Op might be seen as how much a business can work inside recommended benchmarks in explicit territories of its activities and procedures [29]. [30] Conceptualize op as far as the capacity of a business to improve, quicker, more productively and all the more inexpensively. Customarily, there were five op estimates that are conventional to most types of activities, to be specific speed, quality, flexibility, trustworthiness and cost [31]. Be that as it may, more measures need to date been added to this rundown, with profitability, decrease of waste and consistence with directions being among the most outstanding ones [32]. The generally acclaimed Balanced Scorecard markers, consumer loyalty, money related performance, inside procedures and learning and development, are additionally appropriate to op [33]. Different estimates that have been connected in estimating op incorporate viability, imperfection date, productivity and esteem included time proportion

[34]. In an investigation in which profitability was estimated utilizing pointers, for example, stock decrease, process duration or lead time decrease, quality enhancement and on time conveyance. This demonstrates diverse scientists have created and connected different pointers in the evaluation of op, contingent upon the setting of their examination. As proposed by [32], op is critical to organizations since it is a noteworthy pointer of the wellbeing and accomplishment of the business. In this investigation, op was estimated utilizing an emotional scale moored on the conveyance of products, stock dimensions, wastage, quality, amount of merchandise created and limit usage.

2.6 Supply Chain Performance (SCP)

SCP can be characterized as the general assessment of a whole business' SC exercises as far as its

viability and effectiveness [35]. SCP incorporates substantial items and materials just as impalpable viewpoints, for example, administrations and connections [35]. A SC working at a satisfactory dimension of its performance goals is featured by performance results, for example, sustainable participation among networks accomplices, which is described via consistent data sharing [36]. One of the key markers of a performing SC is its compelling integration and flexibility of various SC units [37]. Accordingly, a legitimate incorporated SC results in increasingly enhanced data passed on over the entire chain. This in this way adds to an expansion of business performance through a decrease of stock and conveyance lead time [37]. Moreover, [38-51] advance that accomplice connections, data sharing and integration are vital determinants of SCP. This offers conspicuousness to the key noteworthiness of SCP in adding to the achievement of a business.





2.7 Research Hypothesis

H1: There is a significant relationship between GM and Op

H2: There is a significant relationship between Green purchasing and Op

H3: There is a significant relationship between Environment collaborator with suppliers and Op

H4: There is a significant relationship between Op and SCP

H5: There is a significant mediating relationship of Op among the association between GM and SCP

H6: There is a significant mediating relationship of Op among the association between Green purchasing and SCP

H7: There is a significant mediating relationship of Op among the association between Environment collaborator with suppliers and SCP

3. Research Design

3.1. Sample and Data Collection

In the present investigation gathered data from 195 representatives who worked under a director in Indonesian manufacturing ventures to experimentally test the proposed model. It utilized survey and data were gathered through eye to eye interviews. The survey was made out of four sections. The initial segment was intended to research the socioeconomics of members and the second area incorporates things to quantify working environment fun, the third part was intended to gauge the builds and the last part incorporates things to gauge assuming responsibility. Of the 190 members, 61. 4 percent were male and 38.6 percent were female. The normal period of representatives was 26-35. Respondents announced 44, 4 percent they had, had a four-year college education. 35, 4 % had 1-3 years of work involved with the association. The poll was readied following a comprehensive writing survey and all builds were estimated with existing scales. All things were estimated on a five point Likert-type scale where 1=strongly disagree to 5=strongly agree.

3.2 Factor Analysis

The examination led corroborative factor analysis (CFA) utilizing AMOS for analyzing develop validity. In the wake of wiping out problematical things, the subsequent estimation display was found to fit the data sensibly well: $\chi 2$ () = 951,631, CFI = .87, IFI = .913, TLI = .921, $\chi 2$ /df = 1.64, and RMSEA = 0.05. PNFI = .713, which is over the cutoff point of .70. Furthermore, as observed over all things stacked essentially on their separate builds and upgrade to help for focalized validity.

Table 2 demonstrates the reliabilities, connections and enlightening measurements for the scales. Table 2 likewise shows all reliability gauges, including coefficient alphas, normal fluctuation separated (AVE) for every factor, and AMOS based composite reliabilities.

Variables		1	2	3	4	5
GM	1	(.73)				
Green Purchasing	2	.25**	(.79)			
ECS	3	.40**	.40**	(.78)		
Ор	4	.14**	.28**	.33**	(.81)	
SCP	5	.40**	.22**	.40**	.41**	(.79)
Mean		2.8	3.7	3.1	3.7	3.6
S.dev.		1.23	.85	1.80	.79	.87
Average Var. Ext. (AVE)		.60	.66	.75	.69	.53
Composite reliability		.79	.75	.87	.89	.81
Cronbach's a		.79	.81	.75	.83	.80

3.3 Analysis and Findings

To test our theories, it is played out a basic equation displaying (SEM) analysis utilizing AMOS. Table 3 demonstrates the connections among GM, GP and ECS with OP. Table 3 demonstrates that our model sufficiently fits the data. The steady fit file and CFI were .89. The proportion (χ 2/d.f.), χ 2/df = 1.64. The RMSEA is 0.05. For the connection among GM and OP, found that GM (β = .23 p. < 05) is identified with OP, for GP (β =.21, p < .01), and ECS (β = .25 p < .05) are emphatically identified

with OP, supporting H1 and H2 and H3. With respect to job of OP on SCP, found that OP is decidedly identified with SCP (β = .29 p < .01), supporting H4.

To test the mediating impact of OP among GM and SCM (H5), OP among GP and SCM (H6) and OP among ECS and SCM (H7), it is pursued Baron and Kenny (1986) system. Table 4 shows analysis results. In light of the beneath results H5 is upheld.

Table	3.	Path	model
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Hypotheses	Path	Path coefficient	Result
H1	$GM \rightarrow OP$.23**	Supported
H2	$GP \rightarrow OP$.21***	Supported
H3 H4	$\begin{array}{c} \text{ECS} \rightarrow \text{OP} \\ \text{OP} \rightarrow \text{SCP} \end{array}$.25** .29***	Supported Supported

	Model A	Model B	Model C
$GM \rightarrow SCP$ $GP \rightarrow SCP$ $ECS \rightarrow SCP$	$0,18^{*}\\0,27^{**}\\0,18^{*}$		0,30*** 0,11 0,50
$GM \rightarrow OP$ $GP \rightarrow OP$ $ECS \rightarrow OP$,-05 0,16** 0,21***	,-0,47 0,16** 0,31***
$OP. \rightarrow SCP$			0,48***

The point of this examination was to explore the connection between GSCM exercises, op and SCP in manufacturing SMEs. Each of the seven speculations detailed in the examination were acknowledged. The examination affirms the view that usage of GSCM exercises, to be specific GP, environmental coordinated effort with suppliers and GM, decidedly adds to op in manufacturing SMEs. The examination further infers that op in manufacturing SMEs in Indonesia decidedly impacts SCP. Thusly, the investigation gives approval of comparative research results from different environments to the Indonesian manufacturing SME area, where such an examination had not been led previously. The investigation in this

way comprises a reference hotspot for future analysts on GSCM in comparative environments.

4 Conclusion and Managerial implications

To administrators in manufacturing SMEs, usage of GSCM exercises is vital to expanding both operational and SCP. In like manner, the failure to actualize GSCM exercises in manufacturing SMEs could represent a portion of the difficulties identified with both operational and SCP [39]. While applying GSCM exercises, more accentuation ought to be set on working together with suppliers, which applies a

Table 4. Results of mediating hypothesis

more noteworthy effect on op than do GP, turn around coordination's and GM. To enhance the execution of GSCM exercises in manufacturing SMEs, cutting edge innovation arrangements ought to be set up. Use of such arrangements may offer different recompenses, for example, data precision, simple integration with different devices and decrease in printed material, which encourages better manageability [40]. Decreases in bundling costs using recyclable plastic materials instead of wood and paper-based materials could prompt the decrease in carbon creation, making these enterprises all the more environmentally benevolent. The intermittent support of armada vehicles just as generation gear is probably going to enhance their cost adequacy through decreases in the utilization of vitality (fuel and power) and emanations [41]. The precise management of returned merchandise through the fix of both harmed and undesirable items so as to reestablish them to their unique frame and after that resending them to the market can prompt enhanced money related returns. It is further vital that the idea of GSCM be sold to the whole workforce so as to expand mindfulness inside the business. In such manner, standard preparing and improvement advancing programs pointed explicitly at environmental mindfulness ought to be executed to empower every single human asset to comprehend the jobs they need to play. A financial plan ought to be put aside to actualize the GSCM program, with the goal that budgetary assets can be given when required.

References

- [1]Geng, R., Mansouri, S. A., & Aktas, E. (2017). The relationship between green supply chain management and performance: A meta-analysis of empirical evidences in Asian emerging economies. *International journal of production economics*, 183, 245-258.
- [2]Govindan, K., Kaliyan, M., Kannan, D., & Haq, A. N. (2014). Barriers analysis for green supply chain management implementation in Indian industries using analytic hierarchy process. *International journal of production economics*, 147, 555-568.
- [3]Spence, L., & Painter-Morland, M. (2010). Ethics in small and medium sized enterprises: A global

commentary (Vol. 2): Springer Science & Business Media.

- [4]Hoskin, P. (2011). Why business needs to green the supply chain. University of Auckland Business Review, 13(1), 16.
- [5]Mafini, C., & Loury-Okoumba, W. V. (2018). Extending green supply chain management activities to manufacturing small and medium enterprises in a developing economy. South African Journal of Economic and Management Sciences, 21(1), 12.
- [6] Otsubo, K. P. (2018). How Does Unconventional Monetary Policy Influence the Economy in Japan?. Asian Economic and Financial Review, 8(3), 308-330.
- [7]Luthra, S., Garg, D., Kumar, S., & Haleem, A. (2012). Implementation of the green supply chain management in manufacturing industry in India using interpretive structural modeling technique. *BPR Technologia: A Journal of Science, Technology & Management, 1*(1), 1-17.
- [8]Lai, K.-h., Wong, C. W., & Cheng, T. (2010). Bundling digitized logistics activities and its performance implications. *Industrial Marketing Management*, 39(2), 273-286.
- [9]Sarkis, J., Zhu, Q., & Lai, K.-h. (2011). An organizational theoretic review of green supply chain management literature. *International journal of production economics*, 130(1), 1-15.
- [10]Holt, D., & Ghobadian, A. (2009). An empirical study of green supply chain management practices amongst UK manufacturers. *Journal* of Manufacturing Technology Management, 20(7), 933-956.
- [11] Orji, A., Ogbuabor, J. E., Okon, A. N., & Anthony-Orji, O. I. (2018). Electronic Banking Innovations and Selected Banks Performance in Nigeria. The Economics and Finance Letters, 5(2), 46-57.
- [12]Diabat, A., Khodaverdi, R., & Olfat, L. (2013). An exploration of green supply chain practices and performances in an automotive industry. *The International Journal of Advanced Manufacturing Technology*, 68(1-4), 949-961.
- [13]Lee, S. M., Tae Kim, S., & Choi, D. (2012). Green supply chain management and organizational performance. *Industrial Management & Data Systems*, 112(8), 1148-1180.
- [14]Diabat, A., Khodaverdi, R., & Olfat, L. (2013). An exploration of green supply chain practices and performances in an automotive industry. *The International Journal of Advanced Manufacturing Technology*, 68(1-4), 949-961.

- [15]Ambe, I. (2012). The perspectives of supply chain management in the public sector. *Journal* of Contemporary Management, 9(1), 132-149.
- [16]Khidir ElTayeb, T., Zailani, S., & Jayaraman, K. (2010). The examination on the drivers for green purchasing adoption among EMS 14001 certified companies in Malaysia. *Journal of Manufacturing Technology Management*, 21(2), 206-225.
- [17]Yen, Y.-X., & Yen, S.-Y. (2012). Topmanagement's role in adopting green purchasing standards in high-tech industrial firms. *Journal of Business Research*, 65(7), 951-959.
- [18] Onyinye, I., Orji, A., Jonathan, E., & Emmanuel, O. (2018). Disaggregated Foreign Capital Inflows and Economic Growth in a Developing Economy: Empirical Evidence from Nigeria. Journal of Empirical Studies, 5(1), 1-11.
- [19]Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. (2012). Factors affecting consumers' green purchasing behavior: An integrated conceptual framework. *Amfiteatru Economic Journal*, 14(31), 50-69.
- [20]Reich-Weiser, C., Vijayaraghavan, A., & Dornfeld, D. (2010). Appropriate use of green manufacturing frameworks.
- [21]Deif, A. M. (2011). A system model for green manufacturing. *Journal of cleaner production*, 19(14), 1553-1559.
- [22]Mittal, V. K., & Sangwan, K. S. (2014). Prioritizing drivers for green manufacturing: environmental, social and economic perspectives. *Proceedia CIRP*, 15, 135-140.
- [23]Flammer, C. (2013). Corporate social responsibility and shareholder reaction: The environmental awareness of investors. *Academy of Management Journal*, *56*(3), 758-781.
- [24]Grekova, K., Calantone, R., Bremmers, H., Trienekens, J., & Omta, S. (2016). How environmental collaboration with suppliers and customers influences firm performance: evidence from Dutch food and beverage processors. *Journal of cleaner production*, 112, 1861-1871.
- [25]Green Jr, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: impact on performance. *Supply Chain Management: An International Journal*, 17(3), 290-305.
- [26]Zhu, Q., Sarkis, J., & Lai, K.-h. (2008). Confirmation of a measurement model for green supply chain management practices implementation. *International journal of* production economics, 111(2), 261-273.

- [27]Green Jr, K. W., Zelbst, P. J., Bhadauria, V. S., & Meacham, J. (2012). Do environmental collaboration and monitoring enhance organizational performance? *Industrial Management & Data Systems*, 112(2), 186-205.
- [28]Bennett, W., Lance, C. E., & Woehr, D. J. (2014). *Performance measurement: Current perspectives and future challenges*: Psychology Press.
- [29] Okechukwu, O. C., & Hyginus, O. O. (2017). National Security and Democratization in Nigeria: The Case of Insurgence. International Journal of Public Policy and Administration Research, 4(1), 12-18.
- [30]Klingenberg, B., Timberlake, R., Geurts, T. G., & Brown, R. J. (2013). The relationship of operational innovation and financial performance—A critical perspective. *International journal of production economics*, 142(2), 317-323.
- [31]Hajmohammad, S., Vachon, S., Klassen, R. D., & Gavronski, I. (2013). Reprint of Lean management and supply management: their role in green practices and performance. *Journal of cleaner production, 56*, 86-93.
- [32]Belekoukias, I., Garza-Reyes, J. A., & Kumar, V. (2014). The impact of lean methods and tools on the operational performance of manufacturing organisations. *International journal of production research*, 52(18), 5346-5366.
- [33]Kaplan, R. S. (2009). Conceptual foundations of the balanced scorecard. *Handbooks of management accounting research*, *3*, 1253-1269.
- [34]Karim, A., & Arif-Uz-Zaman, K. (2013). A methodology for effective implementation of lean strategies and its performance evaluation in manufacturing organizations. *Business Process Management Journal*, 19(1), 169-196.
- [35]Arzu Akyuz, G., & Erman Erkan, T. (2010). Supply chain performance measurement: a literature review. *International journal of* production research, 48(17), 5137-5155.
- [36]Baumann-Pauly, D., Wickert, C., Spence, L. J., & Scherer, A. G. (2013). Organizing corporate social responsibility in small and large firms: Size matters. *Journal of Business Ethics*, 115(4), 693-705.
- [37]Qrunfleh, S., & Tarafdar, M. (2013). Lean and agile supply chain strategies and supply chain responsiveness: the role of strategic supplier partnership and postponement. *Supply Chain Management: An International Journal, 18*(6), 571-582.

- [38]Hsin Chang, H., Tsai, Y.-C., & Hsu, C.-H. (2013). E-procurement and supply chain performance. *Supply Chain Management: An International Journal*, 18(1), 34-51.
- [39] Hussain, H.I., Salem, M.A., Rashid, A.Z.A., & Kamarudin, F. (2019) Environmental Impact of Sectoral Energy Consumption on Economic Growth in Malaysia: Evidence from ARDL Bound Testing Approach, *Ekoloji*, 28 (107), 199–210.
- [40] Sinaga, O., Alaeddin, O., & Jabarullah, N.H. (2019) The Impact of Hydropower Energy on the Environmental Kuznets Curve in Malaysia, *International Journal of Energy Economics and Policy*, 9(1), 308-315.
- [41] Saudi, M.H.M, Sinaga, O., & Jabarullah, N.H. (2019) The Role of Renewable, Non-renewable Energy Consumption and Technology Innovation in Testing Environmental Kuznets Curve in Malaysia, *International Journal of Energy Economics and Policy*, 9(1), 299-307.
- [42] Ahmed, U., Zin, M. L. M., & Majid, A. H. A. (2016). Impact of Intention and Technology Awareness on Transport Industry's E- service: Evidence from an Emerging Economy. 산경연구논집 (IJIDB), 7(3), 13-18.
- [43] Ali, A., & Haseeb, M. (2019). Radio frequency identification (RFID) technology as a strategic tool towards higher performance of supply chain operations in textile and apparel industry of Malaysia. Uncertain Supply Chain Management, 7(2), 215-226.
- [44] Suryanto, T., Haseeb, M., & Hartani, N. H.(2018). The Correlates of Developing Green Supply Chain Management Practices: Firms Level Analysis in Malaysia. International

Journal of Supply Chain Management, 7(5), 316.

- [45] Haseeb, M., Abidin, I. S. Z., Hye, Q. M. A., & Hartani, N. H. (2018). The Impact of Renewable Energy on Economic Well-Being of Malaysia: Fresh Evidence from Auto Regressive Distributed Lag Bound Testing Approach. International Journal of Energy Economics and Policy, 9(1), 269-275.
- [46] Haseeb., H. Z., G. Hartani., N.H., Pahi., M.H. Nadeem., H. (2019). Environmental Analysis of the Effect of Population Growth Rate on Supply Chain Performance and Economic Growth of Indonesia. Ekoloji, 28(107).
- [47] Setyadi, A. (2019). Does green supply chain integration contribute towards sustainable performance?. *Uncertain Supply Chain Management*, 7(2), 121-132.
- [48] Rahmandoust, A., & Soltani, R. (2019). Designing a location-routing model for cross docking in green supply chain. Uncertain Supply Chain Management, 7(1), 1-16.
- [49] Dhull, S., & Narwal, M. (2016). Drivers and barriers in green supply chain management adaptation: A state-of-art review. Uncertain Supply Chain Management, 4(1), 61-76.
- [50] Biswas, T., & Das, M. (2018). Selection of hybrid vehicle for green environment using multi-attributive border approximation area comparison method. *Management Science Letters*, 8(2), 121-130.
- [51] Rawashdeh, A. (2018). The impact of green human resource management on organizational environmental performance in Jordanian health service organizations. *Management Science*