The Effect of Sustainable Practices in Supply Chain Department on Organisational Performance

Dina Hastalona[a], Acim Heri Iswanto[b], Dodik Ariyanto[c], Juli Prastyorini[d], Nur Ahmad Bi Rahmani[e], [a]Sekolah Tinggi Ilmu Ekonomi ITMI, Indonesia, [b]Faculty Of Health Science, University of Pembangunan Nasional Veteran Jakarta, [c]Universitas Udayana, [d]Sekolah Tinggi Ilmu Akuntansi dan Manajemen Kepelabuhan Barunawati Surabaya, [e]Universitas Islam Negeri Sumatera Utara, Email: [a]dinahastalona.mardani@gmail.com, [b]h.iswanto@upnvj.ac.id, [c]dodikariyanto@unud.ac.id, [d]juli.prastyorini@stiamak.ac.id, [e]nurahmani@uinsu.ac.id

The purpose of this paper is to examine the effect of sustainable practice related to supply chain department on an organisation's overall performance. This study contributed to existing literature by empirically analysing the supply chain application and proposing a performance prototype. The prototype integrates two main features of supply chain application, interior and exterior controls, and examines the effect on sustainable development from all proportions. The study establishes a prototype to examine the effect of supply chain applications on a organisation's performance, which includes economic, ecological and social parameters. Partial least square path modelling has been used to investigate the impact of supply chain applications, and findings reveal that interior controls applied through supply chain application has a very progressive effect on an organisation's ecological and social performance. Furthermore, attaining ecological and social objectives will positively reflect in an organisation's economic performance.

Key words: *Supply Chain, Sustainability, Organisational Performance*

Introduction

The World Commission on Environment and Development has defined sustainable development as "expansion that is necessary to meet the requirement of modern age but does

not jeopardize the capacity of the upcoming generations where they find difficult to sustain". The importance of sustainability has been redefined in the current age, with organisations giving strategic consideration to sustainability. With respect to the significance given to sustainable development, organisations are now using the triple bottom line theory, which allows them to give as much importance to social and environmental values as they do their revenues. Eduardo Ortas et al., (2014) stated that organisations are now well aware of their societal and environmental responsibility, which has stimulated them to set well-defined objectives with respect to social responsibilities and environmental concerns. At the same time, in order to keep their stakeholders' aware, organisations are consistently releasing related reports. This has also forced organisations to, when drafting their supply chain policy, take into account environmental concerns, which include reprocessed product and relevant certifications, and social responsibilities, which include gender equality, upgraded working conditions and contributing to the community at large (Eduardo Ortas et al., 2014).

The construct of sustainable development, which involves being environmentally and socially responsible, has been entrenched into the operations of an organisation. Management has been trying to incorporate the related attitude and values associated with being socially and environmentally responsible in the overall structure of their organisation. Supply chain is one of the fundamental operational elements of any organisation, and it is very much key to the organisation's overall growth and success [Gosling et al., 2017]. Characteristically, organisations that engage in supply chain application have clearly defined responsibility guidelines, which allows them to be accountable and take corrective measures in cases where there are any adverse consequences resulting from operational failure [Dubey et al., 2017]. There is greater need for organisations to be socially and environmentally responsible and to align these core values with supply chain management [Dubey et al., 2016]. Consequently, organisations need to establish a process flow related to supply chain that is not only beneficial for achieving sustainable development but also works as a controlling agent for the people working in the supply chain department. Neumüller et al. (2016) highlighted that organisations who are very much dependent on supply chain management should establish and implement policies that are adherent to social and environmental objectives. At the same time, it is also important for such organisations to have a portfolio of external suppliers who are aware of their social and environmental obligations.

This research paper investigates the arrangement of supply chain interior and exterior controls in Malaysian organisations and, consequently, its related impact on economic, ecological, and social performance, as well as the effect of managing social and environmental concerns on economic efficiency. This research paper is a noteworthy addition to the growing need to analyse the impact of sustainability on the overall performance of an organisation. Data is gathered from Malaysia, a developing country with a newly established

industrialized market economy. A number of methods, and their consequent inferences with respect to sustainable supply chain application, have been suggested for Malaysian firms.

Literature Review
Ratification of Sustainable Supply Chain application

The terminology of sustainability can be considered as an assimilation of social, ecological and economic obligations. Many researchers have used this very notion to exemplify the management of organisations' environmental programs and zero waste supply chain, and it is assumed that it integrates the idea of triple bottom line theory into the organisational philosophy, strategy, and processes. Sustainable supply chain application can be defined as skill sets and controls that allow an organisation to organise its business procedures to attain sustainable goals (Eduardo Ortas et al., 2014). Dubey et al. (2016), states that sustainable supply chain applications are policies and procedures that assimilate social and environmental concerns with supply chain controls, with a view to enhancing the social and ecological performance of an organisation, while also keeping in mind the needs of suppliers and consumers so that economic objectives are not compromised. This description indicates that an organisation's objective in assuming such a plan is to upgrade their internal processes in accordance with social and environmental issues and to initiate activities, which will facilitate the improvement of the overall supplier, customer, and organisation relationship (Elcio et al., 2014).

The concept of sustainable supply chain management was first introduced in the year 1980. Many previous researches with respect to sustainable supply chain application have treated the issues of preserving the environment and social as distinct, ignoring the possibility of interconnection between these constructs and other related perspectives. As the world moves toward industrialisation, the need to protect the environment rises, which emphasises the concept of sustainability. Numerous studies were conducted with respect to pro-environmental supply chain applications [Cristina & Vicenta, 2013]. Pro-environmental supply chain management can be defined as "Incorporating ecological ideology in the supply chain procedures". Sharma et al. [2017] states that, "Pro-environment supply chain application is adding the green element in the overall process". Raut et al. (2017), explains that pro-environment supply chain application incorporates all stages of product lifecycle, from blueprint, to production, to circulation. It also encompasses enabling customers' use of a particular product and their clearance of the same after the expiration of the product's lifecycle. Yu et al. [2014], highlighted that sustainable supply chain application assimilates pro-environmental supply chain application and corporate social responsibly into supply chain management in order to magnify performance from all aspects.

In this age of modernisation, the significance of preserving the environment and social responsibility has increased for organisations, who are investing to find ways to upgrade their operation with consideration to the element of sustainability. Even researchers from different countries are studying and highlighting the importance of being a green economy, including countries like China, India, and Brazil, to name a few [Sharma et al., 2017; Jabbour et al., 2016].

Sustainable Supply Chain Applications

From an organisational perspective, sustainable supply chain application can be defined as an organisation that modifies their internal operations in order to be socially and environmentally responsible, while at the same time upgrading their external processes with suppliers.

Different research papers have highlighted that ecological concerns needs to be unified with the overall organisation ideology and strategic planning at all levels, which includes blueprints, production, circulation, and clearance. Other studies have separately investigated the influence of each phase on ecological performance. Azzone & Noci (1996) established a method to gauge ecological performance when a novel product is launch. Similarly Rothenberg et al. (2009) investigated the connection between lean manufacturing initiatives and ecological performance. Neto & Ruwaard (2008) established a structure to design and assess the pro-environment logistic system, which tries to balance revenue streams and environmental influence.

Today's customer is very much aware of product specifications and related production settings, which forces organisations to assume sustainable applications. The increase in awareness related to social issues like racism, gender equality, education disparity, and health and safety concerns has compelled organisations to give special attention to sustainability [Eriksson & Svensson., 2015]. The incorporation of sustainability in supply chain application has mainly focused on health and safety measure and pre-requisites as defined by law, instead of emphasising the cultural and moral aspects [Rogers, 2008]. Usually, consideration of sustainability is primarily dependent on an organisation, whereas supply chain has a diverse range of stakeholders, including raw material manufacturers and distributors, to name a few [Ashby et al. 2012]. There is a high possibility that assuming social sustainability will yield high benefits for an organisation and that neglecting the same may result in adverse effects and, ultimately, social boycott [Eriksson & Svensson., 2015].

Organisations have to face many challenges with respect to sustainable supply chain management. Members connected with supply chains can affect overall performance, and suppliers are one of the important external influencers that have an effect on supply chain

operations (Busse et al., 2016]. Their social and ecological situation can have an intense effect on the operations and reputation of an organisation. Boundary management is an effective way for internal and external influencers to work toward a common goal. Suppliers needs to be vigilant with respect to their monitoring and evaluation structure. Organisations have progressively recognized that in order to grow, they need a balanced strategy, which not only focuses on management aspects but also on the wellbeing of their external associates. Studies concerning ecological alliances have primarily concentrated on its background and operational inferences [Mion & Zhu, 2013]. Collective planning, projection, and renewal structures help an organisation to reduce the effect of financial obstacles, while at the same time helping an organisation to move toward their sustainability targets.

Operational procedures in executing the Sustainable Supply Chain applications

The triple bottom line theory proposes that organisation not only have to focus on their financial objectives but also need to give equal importance to social and environmental concerns. Incorporating sustainability in supply chain management helps organisation to improve their social and environmental performance. Researchers have recognized three scopes of performance, ecological, functional and social, for sustainable supply chains [Wittstruck & Teuteberg. 2012]. In order to gauge the economic position of an organisation, financial performance can be considered a complete indicator [Givanni, 2012]. Consequently, this study aims to examine varied social and economic obligations and related practices, while also taking into consideration the impact of internal and external controls and the ultimate effect on the sustainable performance of an organisation in all aspects.

Recently conducted studies indicate that a small number of research has been done that takes into account all related aspects of sustainability concurrently. Nevertheless, few studies portray the effect of external factors on an organisation's financial, ecological and social functionality. Research done on sustainable supply chain application with respect to Malaysian firms is very much limited when compared to the research work on Indian and Brazilian companies [Gawankar et al., 2017; and Jabbour et al., 2016].

Research Structure & Hypotheses

In order to quantify an organisation's sustainable performance related to supply chain, the study elucidates the internal and external controls, and all aspects related with sustainable supply chain have been taken into consideration.

Internal Controls & Organisation Performance
Internal controls & organisation performance with respect to environment

A managerial structure that strategically utilises internal resources to gain a competitive edge is known as resource based view. It is one of the efficient techniques that link ecological functionality with performance. Beske & Seuring (2014) in their research highlighted that application of ecological functionality, which includes energy efficiency, conserving water and recycling papers, to name a few, is very beneficial to achieving your environmental targets. So, the following hypothesis can be assumed:

H1: Internal ecological controls have a progressive effect on ecological performance.

Similarly, installing pro-environmental programs can also have an effect on social factors. For example, taking energy efficiency measures will not only benefit the organisation, as it will reduce the emission of greenhouse gases, but will also improve the quality of air. An environmental initiative results in the improvement of the social reputation of an organisation. So, the following hypothesis can be assumed:

H2: Internal ecological controls have a progressive effect on social performance.

Researchers have highlighted that installing expensive pro-environmental programs can produce poor financial results. On the other hand, the theory with respect to strategic plans highlights that incorporating ecological obligations with economic policy can result in the efficient utilization of resources, better relations with stakeholders, enhanced company image, and, consequently, improved financial performance (Dubey et al., 2016). Dubey et al. (2017), also reinforced that ecological controls have a very progressive effect on economic viability. Specifically, from an organisational perspective, pro-environmental initiatives can result in manufacturing efficacy with fewer resources being utilized, eventually resulting in lower production costs. So, the following hypothesis can be assumed:

H3: Internal ecological controls have a progressive effect on an organisation's economic performance.

Internal controls & organisation performance with respect to Social drivers

Ahi & Searcy (2015) states that CSR initiatives and employee engagement programs are all very relatable to ecological advancements. Researchers have also debated that for organisation's involved in CSR activities, internal initiatives directed towards their employees and external initiatives focused toward external stakeholders will have a progressive effect on the environment, ultimately resulting in improved ecological performance. So, the following hypothesis can be assumed:

H4: Internal CSR initiatives have a progressive effect on an organisation's ecological performance.

Usually, CSR activities can be divided into two main categories: internal activities, which are related to safety standards and better working condition for employees; and external activities, which are related to society and consumers. These initiatives are very much beneficial in upgrading the social status and performance of an organisation. So, the following hypothesis can be assumed:

H5: Internal CSR initiatives have a progressive effect on an organisation's social performance.

Walker & Jones., (2012) debated the possibility of improving the economic performance of an organisation by engaging it in internal CSR initiatives. These initiatives may include improved safety conditions and working environments, which will ultimately enhance the satisfaction level of employees, and motivated employees will be more productive and try to condense the effect of any associated loss. So, the following hypothesis can be assumed:

H6: Internal CSR initiatives have a progressive effect on an organisation's economic performance.

External Controls and Organisation Performance

External controls cannot be implemented without engaging suppliers. Researchers have identified a significant gap between sustainability and supply chain application. With the passage of time, organisations have recognized suppliers as one of the key external influencers that will impact a supply chain's functionality (Busse et al., 2016). To fortify a supply chain's pro-environmental measures and social accountability practices, organisations have started to develop valuation structures and collaboration building programs with suppliers.

Supplier valuation and surveillance structure; and organisation performance

The impact will be gauged through resource-based theory and transaction cost theory. Cost is one of the important elements that drive an organisation and supplier relationship. Cost can be further bifurcated into two main aspects: one is direct cost, which is significant for building long-term association between supplier and organisation; the other aspect is the alternative cost, which is an important factor for executive decision making.

There is always a possibility that supplier practice may not reflect being pro-environmental and socially accountable. These unethical behaviours raise certain risk factors, which can be damaging for an organisation. To overcome these associated risks, organisations need to adopt certain surveillance and valuation programs, which can be expensive. These initiatives will force suppliers to adopt certain safety measures, standard operating procedures as defined by law, and customary labour rights, to name a few. These surveillance and valuation programs are very important for sustainable supply chain application. Researchers have also supported the explanation that these programs are beneficial to achieving environmental objectives (Gimenez et al., 2013). So, it is imperative for organisations to initiate these programs, which will minimise the impact of the risks associated with suppliers and largely facilitate organisation's in refining their social and environmental performance. In this context, the following hypotheses can be assumed:

H7: Supplier surveillance and valuation has a progressive impact on an organisation's ecological performance.

H8: Supplier surveillance and valuation has a progressive impact on an organisation's social performance.

Mutual partnership with Suppliers and organisation performance

A mutual partnership with a supplier may comprise different aspects, including functional level, knowledge-based, and tactical, to name a few. These partnerships emphasize the importance of a common goal and usually do not happen for small term assignments (Dubey et al., 2016). Referring to resources based theory, these treasured and rare resources and the ability of an organisation to provide a competitive edge cannot be replicated easily and can be considered an intangible asset of an organisation, which are critical to success. Different studies have highlighted that these intangible assets, which include shared knowledge, having a sense for nature and consumer are very important stimulators for ecological performance.

Mutual relationship with supplier is vital to sustainable supply chain application. Dubey et al. (2017) stressed that this collaboration will facilitate the establishing of trust between the parties, and the probability of working for a common cause will increase. So, following hypotheses can be assumed:

H9: Partnership with supplier has a progressive effect on an organisation's ecological performance.

H10: Partnership with supplier has a progressive effect on an organisation's social performance.

Researchers have highlighted that supplier valuation and surveillance systems and having a strong relationship can go a long way in improving the economic performance of an organisation (Gimenez et al., 2013). These systems are very much beneficial in upgrading production capacity, managing waste, and reducing the cost associated with production. So, the following hypotheses can be assumed:

H11: Supplier surveillance and valuation has a progressive impact on an organisation's economic performance.

H12: Partnership with supplier has a progressive effect on an organisation's economic performance.

Collaboration

An organisation's social and ecological initiatives can be considered distinctive assets. Organisations are trying to achieve energy efficiency, preserve the environment, and take safety measures; all these activities can help them gain an edge over their competitors. These activities also help organisations to achieve a certain status; make customers consider the organisation trust-worthy and establish their loyalty; and lastly, give stakeholders a feeling of security. So, from this perspective, the following hypotheses can be assumed:

H13: Pro-environmental initiative has a progressive effect on an organisation's economic performance.

H14: Social activities have a progressive effect on an organisation's economic performance.

Conceptual Framework

Internal Controls
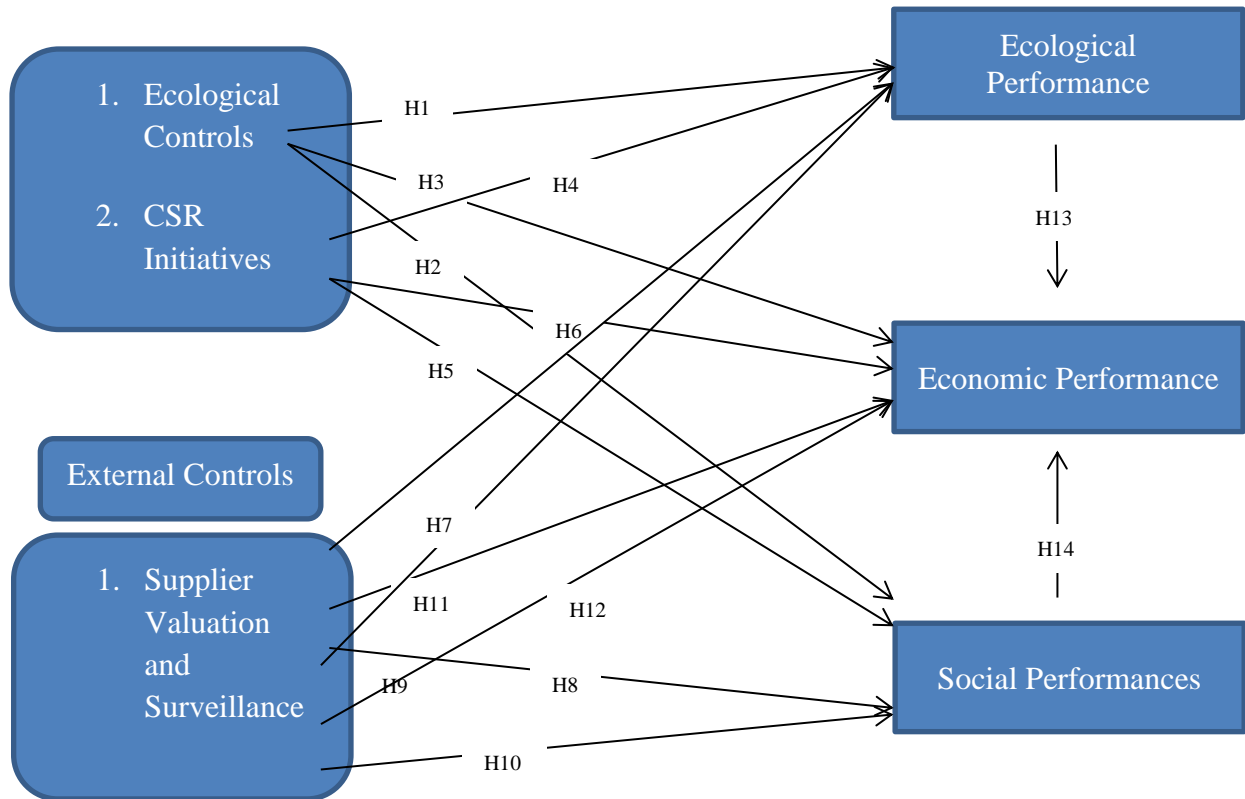
Research Methodology
Questionnaire

A questionnaire was developed, taking into consideration the literature review. Several items were included in the questionnaire in order to gauge each notion. To measure internal controls, items were selected from the studies conducted by Carter et al. (2000) and Yu et al. (2014). Similarly, to gauge the internal CSR initiatives, items were established using the studies conducted by Carter et al. (2002). The Neumüller et al. (2016) research paper was used as a reference to gauge the notions of supplier valuation and surveillance, as well as partnership. There are three main indicators of an organisation's overall performance: they are ecological, economic, and social. Lastly, items used to quantify the social performance were developed using the research studies conducted by Gimenez et al. (2013).

Data Collection

Data was collected from those Malaysian firms which are ISO 9001 & ISO 14001 certified, in order to ensure that companies had a certain level of sustainability with respect to supply chain application. Different research papers also indicate that companies who have a certain level of knowledge in executing the structures defined by these certifications have also established a certain degree of sustainability in their supply chain department (Jabbour et al., 2016). Based on the established samples, data was gathered through front line supervisors employed in different organisations operating in Malaysia. Questionnaires were also pre-tested by executives who had a certain level of exposure to the implementation of sustainable supply chain application.

Questionnaires were distributed to 400 organisations operating in Malaysia via email. The sample included manufacturing companies, construction companies, and service industries, to ensure a balanced opinion. A total of 150 questionnaires were returned with responses, 39 of which were discarded due to inconsistent replay. The response rate was close to 27%, which, according to Peng et al. (2012), can be considered acceptable. Please find below the descriptive analysis of the sample organisations.

Table 1

Features		Frequency	Percentage
Possession	Private Company	40	36%
	Joint Endeavours	19	17%
	State Owned	21	19%
	Foreign Investment	31	28%
Employees Strength	≤ 99	15	14%
	100 - 450	25	23%
	451 - 799	39	35%
	≥ 800	32	29%
Sales Volume (In Million)	≤ 4.99	7	6%
	5 to 50	15	14%
	50 to 99	28	25%
	≥ 100	61	55%
Industry	Manufacturing	43	39%
	Construction	17	15%
	Service	25	23%
	Others	26	23%
Years of Involvement in sustainable practice in supply	≤ 1	34	31%
	More than 1 less than 3	29	26%
	More than 3 less than	19	17%

chain	5		
	More than 5	5	5%
	Not involved	24	22%

Data Analysis

Data was experientially analysed in order to investigate the main constructs. SPSS software has been used to measure the partial least square, which was backed up by Structural Equation Modelling. Peng et al. [2012] and Ringle et al. [2005] have suggested that both these approaches suit each other and that using both approaches concurrently enables the construing of a casual relationship between the variables.

The idea behind using the partial least square approach is that it can examine multifaceted conceptual contexts, and structural equation modelling has been used by many researchers to successfully test the concept of green and related functionality [Pereira-Moliner & Molina-Azorin, 2012; Peng et al., 2012]. In order to examine the proposed conceptual prototype, there was need of a measurement model and, accordingly, a structural equation model. Results concerning Construct Reliability, Cronbach's Alpha, & AVE are given in Table # 2.

	Variables	**Items**	**Value**	*T-stats*	*Construct Reliability*	**Cronbach's Alpha**	**AVE**
Internal Controls	**Ecological Controls**	2	0.841	22.765	0.94	0.91	0.71
		4	0.893	49.761			
		5	0.801	25.984			
		6	0.799	27.917			
		9	0.871	18.652			
		10	0.835	27.981			
	CSR Initiatives	1	0.789	20.671	0.95	0.92	0.74
		3	0.819	25.918			
		4	0.882	35.095			
		5	0.783	19.719			
		7	0.827	27.915			
		9	0.851	30.641			
External Controls	**Supplier Valuation and Surveillance**	3	0.773	18.745	0.92	0.89	0.69
		4	0.806	26.981			
		5	0.894	41.457			
		7	0.901	45.917			
		8	0.792	21.091			
		9	0.811	27.691			

Supplier Partnership	1	0.941	60.658	0.88	0.85	0.64
	2	0.805	27.619			
	4	0.875	53.108			
	5	0.784	27.018			
	7	0.908	56.745			
	8	0.876	54.918			
	10	0.751	23.091			

	Variables	Items	Value	T-stats	Construct Reliability	Cronbach's Alpha	AVE
Organisational Performance	Ecological Performance	2	0.919	50.018	0.94	0.90	0.71
		3	0.809	39.692			
		5	0.874	47.027			
		6	0.795	36.815			
		7	0.873	45.087			
		8	0.886	49.081			
		9	0.918	52.765			
	Economic Performance	1	0.894	35.064	0.92	0.88	0.69
		2	0.907	39.638			
		3	0.861	30.018			
		5	0.795	22.918			
		6	0.761	17.961			
		7	0.932	38.018			
		8	0.863	31.792			
	Social Performance	3	0.823	29.018	0.91	0.86	0.67
		4	0.872	38.185			
		5	0.898	40.019			
		7	0.755	20.011			
		8	0.908	42.918			
		9	0.854	35.917			
		10	0.849	33.657			

To verify the reliability of a gauging parameter, Construct reliability and Cornbach's alpha reliability tests were conducted. Findings revealed that values from both tests are greater than the threshold value of 0.7, which, as suggested by Peng et al. (2012), confirms the consistency and reliability.

Loading was assessed on each construct and the average variance extracted was used to calculate the convergent validity. Hair [2014] suggested that loading of the construct to be more than 0.7 at significance level of 0.01, which confirms that the measurement model has an adequate convergent validity. From Table: 2, it is visible that factor loading is exceeding the parameter set by Hair [2014], that being 0.7 at a significance level of 0.01. Similarly, values of average variance extracted were also above the suggested value of 0.50, which also confirms that the measurement model has a very acceptable convergent validity. Findings are presented in Table # 3.

In reference to divergent validity, Table: 3 illustrates the connection between the main notions. The value of average variance extracted against correlation coefficient validates that the constructs support the divergent validity.

In order to investigate the partial least square structural prototype, path coefficient was examined, which also verified their statistical significance. Bootstrapping technique was used to investigate the statistical significance.

Table 3:

Constructs	Ecological Controls	CSR Initiatives	Supplier Valuation & Surveillance	Supplier Partnership	Economic Performance	Ecological Performance	Social Performance
Ecological Controls	**0.835**						
CSR Initiatives	0.513	**0.849**					
Supplier Valuation and Surveillance	0.583	0.551	**0.859**				
Supplier Partnership	0.517	0.526	0.771	**0.867**			
Economic Performance	0.617	0.579	0.558	0.562	**0.853**		
Ecological Performance	0.492	0.471	0.459	0.472	0.717	**0.865**	
Social Performance	0.528	0.504	0.443	0.428	0.653	0.751	**0.874**

Structural Equation Model
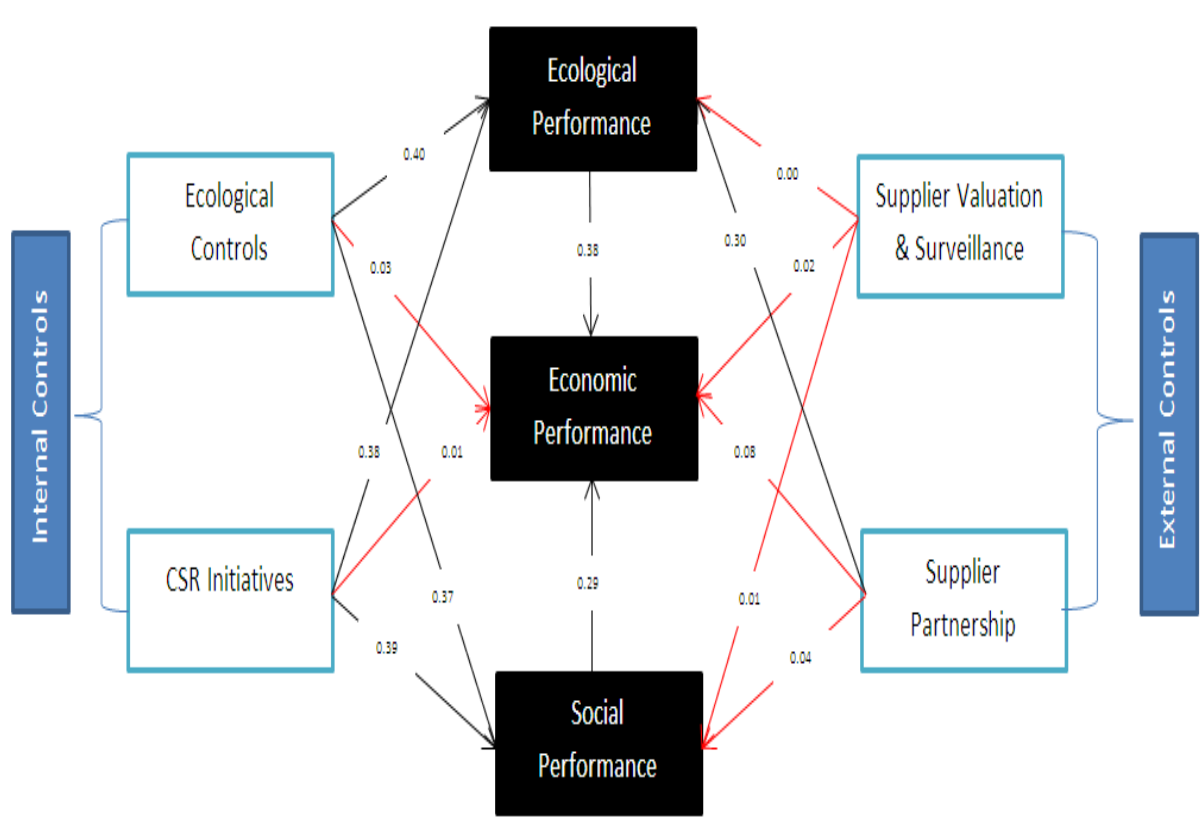
Findings reveal that internal control measures with respect to environment have a positive effect on social and environmental performance. Similarly, internal control measures with respect to CSR also have a positive effect on the environmental and social performance of an organisation. The influence of supplier partnership on environmental performance is very positive. Lastly, environmental and social performance also has a very progressive effect on economic performance. The results are non-supportive of the remaining hypotheses.

Discussion

The research paper has been able to test the impact of sustainable supply chain practices on the overall performance of an organisation. Results have revealed that internal control measures initiated by an organisation can have a very positive effect the organisation's social and ecological performance. These finding are very much relatable with studies conducted by Teixeira et al. (2016) and Gawankar et al. (2017). At the same time, environmental and CSR measures started by an organisation also have a cross-effect. For example, providing employees with better working conditions can help an organisation upgrade its image and reputation, as well as those of their product, ultimately resulting in improved social performance. On the contrary, these activities and initiatives do not have any direct impact on the economic performance of an organisation. Energy efficiency programs, training facilities for employees, and waste disposal measures all require huge amounts of investment, so in the

initial phase, there is a very low possibility that these activities transform into economic viability. These results are consistent with the findings of Jabbour et al. (2016); Gawankar et al. (2017).

Results have also shown that supplier valuation and surveillance does not have any direct effect on an organisation's overall performance. The prime focus of this valuation and surveillance was to reduce the risk associated with the supplier and improve the associated operational aspects. This will result in efficiency in performance for the supplier but will have little to no effect on the organisation's performance. The same observation was shared by Gimenez et al. (2013) in their research paper. Furthermore, having a strong partnership with a supplier has a very positive effect on the ecological performance of an organisation. This strong connection with supplier can help to reduce costs and acquire technical assistance, which can lead to improved production processes and an advantage in ecological performance. On the other hand, having partnership with suppliers does not have any effect on social performance. Usually, a strong bond with supplier is more connected to operational processes and technological advancement.

Finally, strong ecological and social performance can lead to improved economic performance. Having a high degree of social and ecological performance may define the ideology of an organisation, and it can be represented through robust operating standards and a reputation in the eyes of stakeholders. These performance indictors can be considered intangible resources of an organisation and may influence customer satisfaction. What's more, having motivated customers may lead to improved economic performance. Using resource based theory, Eduardo Ortas et al. (2014) highlighted that organisations that accumulate intangible resources have improved ecological and social performance, but organisations that focus on short-term goals will more often than not overlook these key performance measures.

Conclusion, Implications and Limitations

Findings from the research paper have revealed that strengthening internal controls with respect to environment and societal values can be beneficial to the ecological and social performance of an organisation. At the same time, it is very important for an organisation to have robust collaboration with suppliers, which will help the organisation achieve their environmental objectives. If an organisation is able to achieve its environmental and social objectives, then this will lead to improved economic performance. The study identified that sustainable practice with respect to supply chain does affect an organisation's performance. Results from sustainable practices will not be visible in the short-term, but in long run, there is a high possibility that overall organisation performance will improve, resulting in a certain competitive edge.

These results have a very high degree of importance for organisations operating in Malaysia. Organisations need to understand that sustainable practices concerning supply chain can have a progressive effect on the overall functionality of an organisation. Accordingly, they have to be upbeat in their implanting of sustainable practices. In this modern age, there is ever greater need for organisations to consider it a responsibility to adopt these practices and apply them in their operation. These pro-environment initiatives may include energy efficiency, reprocessed product and packaging, waste management, and reduced pollution. Similarly, organisations also need to give equal importance to societal values and should improve their working conditions for employees, enforce labour law, practice employee rights, promote gender equality, propagate the welfare of society, and work towards providing more employment opportunities. All these ecological and societal activities will help organisations to achieve their economic objectives in the long run.

The other important factor organisations need to realize is that in order to pursue their economic goals, they cannot overlook their societal and ecological obligations. If they ignore these aspects, they may be forgoing their brand image and industry reputation. So, it becomes imperative for organisations to work toward sustainability, which is not only favourable for their personal growth but also the environment in which they live.

In the end, it is important for organisations to recognise that these internal and external controls are very much co-related. Results from external measures may not be reflected in an organisation's performance, but they will directly influence suppliers; and if there is a positive, visible effect in supplier performance, then there is a high possibility that this will economically benefit the organisation in the long run. So, having a mutual partnership with suppliers is very much imperative for an organisation.

This research paper is very significant, but there are limitations associated with the study. We have considered three main variables in designing the research paper, which are social, ecological and economics, but have not taken into account the impact of the consistent and moderator variables. Including these variables in future studies will further enhance the scope of the research. Sustainable practices were divided into two main parts, which were internal and external controls, but connection between these two elements was not explored. The responses of companies included in the data collection were limited by their current situation. The process of implementing sustainability practice in supply chain is very dynamic and evolves with the passage of time. So, responses can be considered subjective, which highlights the need for more comprehensive research in the same field.

REFERENCES

Ahi, P., & Searcy, C. (2015). An analysis of metrics used to measure performance in green and sustainable supply chains. Journal of Cleaner Production, 86, 360-377.

Alison Ashby, Mike Leat, Melanie Hudson Smith. 2012; Making connections: a review of supply chain management and sustainability literature: Supply Chain Management

Carter, C.R., Jennings, M.M.(2002), "Logistics social responsibility: an integrative framework", Journal of Business Logistics,Vol. 23, No. 1, pp. 145–180.

Carter, C.R., Kale, R., Grimm, C.M.(2000), "Environmental purchasing and firm performance: an empirical investigation", Transportation Research Part E: Logistics and Transportation Review, Vol. 36, No. 3, pp. 219–228.

Chiappetta Jabbour, Charbel Jose; Lopes de Sousa Jabbour, Ana Beatriz; Govindan, Kannan. (2016),"Barriers to the adoption of green operational practices at Brazilian companies: effects on green and operational performance", International Journal of Production Research,Vol.54, No.10, pp. 3042-3058.

Christian Busse, Martin C. Schleper , Menglei Niu , Stephan M. Wagner.(2016), "Supplier development for sustainability: contextual barriers in global supply chains", International Journal of Physical Distribution & Logistics Management,Vol.46, No.5, pp.442 – 468.

Claudia Neumüller , Rainer Lasch , Florian Kellner (2016). "Integrating sustainability into strategic supplier portfolio selection", Management Decision, Vol. 54, No. 1, pp. 194 - 221.

David Eriksson, Göran Svensson.(2015)"Elements affecting social responsibility in supply chains", Supply Chain Management: An International Journal, Vol.20, No.5, pp.561 - 566.

David Wittstruck & Frank Teuteberg. 2012; Corporate Social Responsibility and Environmental Management. Published online in Wiley Online Library

Dubey, R., Gunasekaran, A., Childe, S. J., Wamba, S. F., & Papadopoulos, T. (2016). The impact of big data on world-class sustainable manufacturing. The International Journal of Advanced Manufacturing Technology, 84(1-4), 631-645.

Dubey, R., Gunasekaran, A., Papadopoulos, T., Childe, S. J., Shibin, K. T., & Wamba, S. F. (2017). Sustainable supply chain management: framework and further research directions. Journal of Cleaner Production, 142, 1119-1130.

Eduardo Ortas, José M. Moneva, Igor Álvarez. (2014), "Sustainable supply chain and company performance: A global examination", Supply Chain Management: An International Journal, Vol.19, No.3, pp. 332 – 350.

Elcio M. Tachizawa, Chee Yew Wong. (2014), "Towards a theory of multi-tier sustainable supply chains: a systematic literature review", Supply Chain Management: An International Journal, Vol.19, No. 5/6, pp.643 – 663.

Gimenez Cristina; Sierra, Vicenta.(2013),"Sustainable Supply Chains: Governance Mechanisms to Greening Suppliers", Journal of Business Ethics,Vol.116,No.1, pp. 189-203.

Giordano Mion & Linke Zhu. 2013, Import competition from and offshoring to China: A curse or blessing for firms? vol. 89, issue 1, 202-215

Giovanni Azzone, Giuliano Noci. 1996, Defining Environmental Performance Indicators: an integrated framework.

Gosling, Jonathan, Jia, Fu, Gong, Yu. (2017), "The role of supply chain leadership in the learning of sustainable practice: Toward an integrated framework", Journal of Cleaner Production, Vol.140, No.SI, pp.239-250.

Helen Walker, Neil Jones. (2012), "Sustainable supply chain management across the UK private sector", Supply Chain Management: An International Journal, Vol.17, No.1, and pp.15 - 28.

Jorge Pereira-Moliner, Juan José Tarí& Jose F Molina-Azorin, 2009; Environmental Practices and Firm Performance: An Empirical Analysis in the Spanish Hotel Industry: Journal of Cleaner Production 17(5) 516 – 525

Peng, D.X., Lai, F. (2012), using partial least squares in operations management research: A practical guideline and summary of past research. Journal of Operations Management, Vol. 30, No. 6, pp. 467-480.

Quariguasi Frota Neto & Jacqueline Bloemh of Ruwaard. 2008, Designing and evaluating sustainable logistics networks: International Journal of Production Economics 111(2):195-208 · February 2008.

Raut, Rakesh D.; Narkhede, Balkrishna; Gardas, Bhaskar B. (2017) "To identify the critical success factors of sustainable supply chain management practices in the context of oil and gas industries: ISM approach", Renewable & Sustainable Energy Reviews, Vol.68, No.1, pp. 33-47.

Ringle, C.M., Wende, S., Will, A.(2005), SmartPLS, release 2.0 (beta). SmartPLS, Hamburg, Germany. URL: http://www. smartpls.de.

Sandra Rothenberg, Frits K. Pil & James Maxwell. 2009, Lean, green, and the quest for superior environmental performance.

Sharma, Vijay Kumar; Chandna, Pankaj; Bhardwaj, Arvind. (2017), "Green supply chain management related performance indicators in agro industry: A review", Journal of Cleaner Production, Vol.141, No.10, pp. 1194-1208.

Shradha Ashok Gawankar, Sachin Kamble, Rakesh Raut. (2017)."An investigation of the relationship between supply chain management practices (SCMP) on supply chain performance measurement (SCPM) of Indian retail chain using SEM",Benchmarking: An International Journal, Vol.24, No.1, pp.257 – 295.

Teixeira, Adriano Alves; Chiappetta Jabbour, Charbel Jose; Lopes de Sousa Jabbour, Ana Beatriz.(2016),"Green training and green supply chain management: evidence from Brazilian firms", Journal of Cleaner Production,Vol.116, No.10, pp. 170-176 .

Wantao Yu, Roberto Chavez, Mengying Feng, Frank Wiengarten. (2014), "Integrated green supply chain management and operational performance", Supply Chain Management: An International Journal, Vol.19, No. 5/6, pp.683 – 696.