

The Influence of Sustainable Strategic Orientations towards Sustainable Services by Third Party Logistics (3PLs) in Closed-Loop Supply Chains (CLSCs)

*SITI FATIN 'AINAA, *MAHAZIR ISMAIL, *ZAINI ABDULLAH, *MOHD RIZAIMY SHAHARUDIN, **SUHAIZA ZAILANI

*Faculty of Business Management,
University of Mara Technology,
08400 Merbok, Kedah,
MALAYSIA

**Faculty of Business and Accountancy,
University of Malaya,
50603 Kuala Lumpur,
MALAYSIA

Abstract: - The purpose of this study is to identify the relationship of reputation-based strategy, efficiency-based strategy and innovation-based strategy (sustainable strategic orientations) that can give output of sustainable services by the implementation of closed-loop supply chains (CLSCs) in order to reach the customers' (manufacturers) demand. The core practical implication is to help third party logistics (3PLs) to perform better in offering absolute sustainable services in CLSCs' activities. In theoretical implications, the institutional theory (INT) has been used to explain the reasons for 3PLs to hold the sustainable strategic orientations for the output of effective sustainable services in CLSCs. Based on the literature reviews and test results, the study inputs of reputation-based strategy, efficiency-based strategy and innovation-based strategy correspond to the outcome of the sustainable services. The reputation-based strategy, efficiency-based strategy and innovation-based strategy are adopted by the 3PLs towards the offering of services in CLSCs activities such as product acquisition, refurbishing, inspection and disposition.

Key-Words: -sustainable strategic orientations, reputation-based strategy, efficiency-based strategy, innovation-based strategy, sustainable services, closed-loop supply chains, third-party logistics

1 Introduction

One of the national agenda in the Tenth Malaysia Plan (2011-2015) has put forward the emphasis towards the environmental quality of life (social), caring for the planet (environment) and harnessing economic value from the process (economic). All of these are sustainability objectives. These agenda can be reached through sustainable business models that are within the environmental protection scope and in more holistic ways to address the world's most profound social, economic and environmental challenges [1].

The past notions to separate the economic growth and environmental practices are no more applicable in view of the growing concern of global warming and depletion in natural resources. Related to this, the government has bring out policies to support the agenda through the National Policy on the Environment in the year 2002, followed by the National Green Technology Policy and National

Climate Change Policy in the year 2009. Thus, the Tenth Malaysia Plan period from 2011- 2015 will become the target for implementations of the plans and policies.

By putting sustainability into the main business, reduced environmental impact can be gained by the firms. In the supply chain management, the contribution of sustainability is huge especially when it reduces the carbon emissions, provides renewable energy and management of waste to avoid landfills and incinerations. Therefore, by looking at the current situations of resources' scarcity, exhausted land for landfills and the pressures to minimize the carbon footprint globally, the sustainability efforts are not optional and unimportant anymore [2].

The study by Olariu [15] stated that materials and parts will be a cycle in reverse logistics for various reasons for each element in the product life

cycle (PLC). Not all reusable items will be the minor parts of the major products for instance, containers that are reusable and pallets. The services' design and development from the perspectives of CLSCs will first need to be carried out. It has to be done by incorporating activities of value added services that allow enhancement of the service offerings in complete package to the customers. Reverse logistics is hard to execute. Hence, firms will demand it from 3PLs to adopt proactive approach and able to carry extra compensations for that efforts. As a result, firms can gain advantage by resources utilization, returned processing efficiency and creating good quality products for a long duration profitable relationship with the customers.

The main objective of this study is customers' demand. By looking at the current scenario in supply chains, many products tend to have lesser life cycle due to the continual effort towards innovation to fulfil the customers' demand. Therefore, with the growing legislation and laws related to the environmental protection and liberal return policies in order to defend the buyer's right, the return management is being the concern from all the parties participated in the supply chains.

Moreover, the last objective has relation to regulations. The countries across Europe and the United States stated that regulations on practices of environmental protection are dictating firms to stick on some stringent codes of conduct. However, Asia's countries including Malaysia are very slow to give feedback towards the concerns in sustainability. By realising on the pivotal of sustainability, many Asians countries are now feeling the pressure and started to obey the regulations [11].

The first issue that initiate this study is demands from customers (manufacturers). When customers have demanded from manufacturers for sustainable services due to global warming, manufacturers put necessity on 3PLs to carry out the services for them. Study by Johanson and Brooks stated that [12], as the impact of the concern on growing of global warming, the focus was then prompted on the development of sustainability in the supply chains. Previous initiatives indicated that energy and materials can be considered as reusable to avoid wastes through incinerations and landfills.

The second issue is due to focus by manufacturers. Currently, outsourcing services to the 3PLs are optional and favourable by the firms especially to the manufacturers. For example, focus by manufacturers of electronics on their pure competencies related to research and development

and market share expansion. They have no time and resources to deal with the waste reduction in reverse logistics. Therefore, it is pivotal for the manufacturers to deal with the 3PLs to establish operations in that sector. One way to get necessary skills in the reverse logistics is firms must first need to create a good working relationship with specialists of 3PLs [14].

Besides that is issue related to the contribution of 3PLs. The contribution of 3PLs is commendable especially related on how the fairly organized functions of 3PLs in reverse logistics enhance the returned capability of leading pharmaceutical company products that consisted of contaminated heparin which is very dangerous to consume. As an impact of the reverse logistics, such uninvited incident including the potential of contaminated products fall in the hand of irresponsible party for further illegal distributions has been successfully contained [10]. Thus, when the products are sent back to the suppliers, they are in a better condition with a more efficient processing. At the end, the supplier can produce more value from the returned products through resale.

2 Literature Review

In the next section, literature reviews will be discussed, followed by sustainability, sustainable strategic orientations of reputation-based strategy, efficiency-based strategy, innovation-based strategy, CLSCs and lastly sustainable services. It will then proceed with a conceptual framework, hypotheses development, methodology, data analysis and findings, discussions, conclusions, theoretical implications, practical implications and suggestions for future research.

2.1 Sustainability

Sustainability can be known as the capability of an ecosystem to permit the processes of stress in the meantime maintaining all of them in the future [25]. It can integrate the elements of economy, environment, ecology and social into diverse indicators. Besides that, sustainability can be also defined as the ability to fulfil the needs of customers for longer period of time and in the right ways [1].

2.2 Sustainable Strategic Orientations

Referring to the study Evagelista, Hüge-brodin, Isaksson and Sweeney [3], business development and continuous environmental projects caused many people to begin talking over sustainable and green environment. Based on the literature reviews, previous researchers have recommended for green

supply chains' (GSCs) practices, defining and decision framework. Currently, sustainable services have been recognized to be one of the approaches [18] to the sustainable services that focus to the environment through the awareness of natural resources and also effective utilization [20].

Currently, the development of logistics' services shows how 3PLs took some pivotal roles in the supply chains. It can be said that strategy in supply chains has become one of the methods that guide the evaluation of the cost-benefit trade-offs in operational components. Other than that, the orientation in the previous market built the concept on sustainable strategic orientations. It has been used broadly to measure the firm's performance purely in the literature of management [2].

2.2.1 Reputation-based Strategy

Based on the study by Rahim, Jalaludin and Tajuddin [17], there are studies that stated an emergent of positive relationship in activities of firms and behaviour of consumers. There is a large impact on the firms' reputation when it occurs to adapt to the green practices. Typically, corporate firms are targeting for a positive environment. The objective is to differentiate them in their environmental reputation. Improvement in the environmental performance can let the firms to increase the competitiveness in minimizing costs, gain stronger reputation and make them competitive internationally.

There are some reasons why firms want to perform the Policies of Green Supply Chains from the regulatory of reactive to the proactive. Green Supply Chains Management (GSCM) assists efficiency and collaboration to the business partners. By lessening the load and waste, it can improve the environmental performance [19]. Referring to the study by Fatma [4], firms need to develop strong capabilities in order to outsource logistics' activities and to deal close relationship with the 3PLs. This can allow the firms to obtain operational stability, keep the brand reputation of corporate image, reveal market and give competitive advantage to the firms.

2.2.2 Efficiency-based Strategy

Testa and Iraldo [23] found that the concept of saving and declining waste of the raw materials is not only to the parts of manufacturing and packaging (lessen weight and thickness). Due to the rapid growth of the innovative solutions, the concept has become more realistic and attainable. As the outcomes, this enables firm to supply great cost-competitive product to the market. Nonetheless, in the study by Zhou and Ni [26], by outsourcing non

basic reverse logistics' business to the 3PLs, firms can simply decline the costs and risks. For the time being, they can focus to expand the firms' productivity. There is potency to avoid the consumption of toxic or harmful substances after the process has completed. However, this strategy does not form any proactive plan like environmental protection's approaches or technologies' innovation [18].

According to Zhu, Tian and Sarkis [27], it is widely understood in the literatures that supply chains' and logistics' management could give essential impact towards the environment. 3PLs' providers can be seen as members of the supportive supply chains. Furthermore, it can also be recognized as firms that provide knowledge or assets to the primary supply chains' members. Based on the study by Johansson and Brooks [7], the profits that supply chains can obtain from the 3PLs are ability to enhance the performance of the firm via added-value developed by 3PLs. The core benefits are advancement in scope of economies, power negotiation and last but not least efficiency in operations.

2.2.3 Innovation-based Strategy

Innovation-based strategy is known widely as the type of strategy that can assist firms to build their products from the viewpoints of product life cycle. Then, it assists their suppliers to give necessity for stricter environmental sustainability. Other than that, it also teaches the suppliers to alter processes operationally by following the latest regulations in environmental sustainability [24]. By performing this strategy, it may hold expertise in environmental sustainability and take in specific green activities. Green activity is green design that upgrades recent supply chain procedures of product developments by green procurement. Referring to the study by Martusa [13], moving of management in GSCs' strategy efficiently to a massive stage of innovation or integration of performance in environmental may persuade firms to deploy environmental resources and innovative competencies to reverse logistics' management.

Referring to the study by Langley and Capgemini [9], 71% of new shippers agreed that 3PLs provide them with new ways for better effectiveness. They will handle with the innovation that may firstly upgrade the quality of their services, lessen cost and increase the relationship with the customers. It can be expressed as an effective strategy when the 3PLs are capable to focus on their current customers. It can be made by sustaining business with the customers since the cost is cheaper than getting new

customers. Value-added services of customer-focused have many ways to disseminate products by using 3PLs' specialists. This may include delivering it either directly to the stores or home. Besides that, it usually offers services of packing and also repacking. Actually, it assists in distributing configurations of standard unique product that are required by the customers. Fundamental services consist of outsourcing by the firm to the 3PLs' specialists for all or some of the firms' basic customer service. Wider range of services is for processing of reverse logistics and invoicing.

2.3 Closed-Loop Supply Chains (CLSCs)

CLSCs are connected to the recovery of materials for high-value (remanufacture) or low value (recycling). All of these materials can be produced through production as returned goods, post-use or at the end of life [17]. CLSCs are strategy or combined environmental performance in the entire supply chains. Other than that, from GSCM, reverse logistics that 'closes the loop' can be described as a typical supply chains and includes recycling of materials to be new products that have value in the market and in the remanufacturing. The stage is deliberately to terminate or to lessen solid wastes such as hazardous substances and wastes. In a single organization, operational and connected to external organizations are the basic elements. Environmental practices have been proven throughout the supply chains which vary from the green design, green process practices, environmental management of total quality, environmentally friendly transportation and packaging until various types of products' practices in the end life. It can be understood as "Re's" that give meaning of reduction, recycling, reuse and remanufacturing. After that, the strategies of motivation in CLSCs regularly remain low for simple reasons of poor control in dissemination over the reverse supply chains (RSCs), infrastructure less offerings and the inability of supply chains to believe such activity is economically sustainable [13].

2.4 Sustainable Services

Referring to the study by Shaharudin, Govindan, Zailani and Tan [19], sustainable services are very essential to the firms that are continuously looking for operations that can be classified under economically, socially and environmentally friendly. It can be easily classified under service offerings that encompassed with elements of economic, environmental protection and even social that is not occurring in conventional market. In reality, since before, this field is one among the

most unobserved criteria by the manufacturers and the 3PLs are grateful in providing much product competitiveness for their future. Besides that, the past are passive enough and always presuming their functions in forward logistics' services. Nevertheless, both parties must agree with the fact that the sustainability has become the attention by the stakeholders and societies to demand rational costs for products or services. Therefore, the return flow management of product has become the main focus to the manufacturers to satisfy the sustainable targets and objectives of the firms.

3 Conceptual Framework

According to the study by Rahim, Jalaludin and Tajuddin [17], there are some studies stating that there occur to be a positive relationship in the firm's activities and the consumer's behaviour. There is an enormous impact on the firms' reputation to adapt the green practices. Subsequently, Isaksson and Huge-Brodin [6] found that by expanding the environmental performance, it may ensure the firms to increase the edge of competitiveness to minimize cost, obtain stronger reputation among the customers and elevate their competitiveness internationally.

One way towards greener buildings, the United States Green Building Council's Leadership that practising System of Green Building Rating supports overall building effort to sustainability by identifying performance in the areas of energy efficiency and materials selection. These endeavours are known as enablers that can be either strategies, tools, practices or methods that trigger the supply chains to appear. For example, waste reduction or management of eco-efficiency. Procedure related to reassembly, product recovery, reusing and reverse logistics are examples of managing the eco-efficiency [10].

The first phase of innovation refers to innovation that indirectly affects the customers. It focuses to boost the efficiency and operations of the 3PLs. For the time being, the 3PLs will give lower costs or increase the profit margins [5]. In Nässjö, Schenker, they implement a huge range of services that they see as value-added services. They manage customers' modems and digital boxes. It involves repairing, assuring the quality and reconditioning including returned used equipment recycling and databases that allow the customers to make follow up.

As such, Fig.1 shows a conceptual framework that illustrates the sustainable strategic orientations and sustainable services.

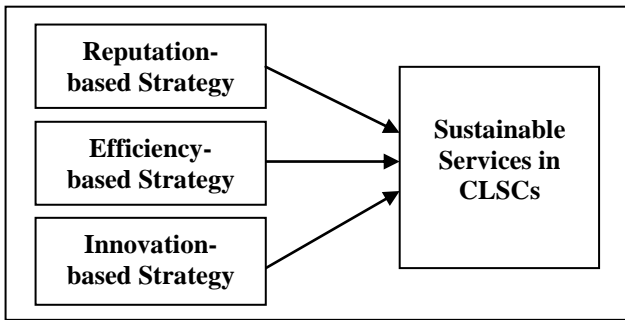


Fig.1: Conceptual Framework of Sustainable Strategic Orientations and Sustainable Services

As shown in Fig.1, the proposed conceptual framework stated that 3PLs are able to offer sustainable services in CLSCs from the adoption of the strategic sustainable orientations. It includes the reputation-based strategy, efficiency-based strategy and innovation-based strategy that involve in the firms' practices and daily routines. All of these three strategies can increase the stage level of the practices in GSCM. As the outcomes, it enables effectively the sustainable service offerings by 3PLs to their customers. It is suggested that 3PLs respond to the sustainable services' offerings based on strategic concept of institutional theory by understanding three isomorphism. The three isomorphism are normative, coercive and mimetic. It is insisted that all of these forces can bring up 3PLs' new business opportunities to maintain the existing business also current customers. Common services by 3PLs, for instance, transportation, customer order management, bar coding and warehousing can be further extended towards the sustainable services in CLSCs by recovering value and overall minimizing the undervalue of the returns. Effective management and return assimilation from diverse market channels can help customers to minimize waste and having recovery increment.

4 Hypotheses Development

Analysis in regression can be classified as statistical models to represent, estimate or forecast causal relationship among a dependent variable (sustainable services) and the independent variables (reputation-based strategy, efficiency-based strategy and innovation-based strategy). Besides that, the aim is also to identify how strong the influence of the predictors (all of the independent variables) on the sustainable services (dependent variable).

The hypotheses developments are as follows:

Strategy that concerned on the execution of CLSCs, sustainable supply chains and green supply

chains can be known as reputation-based strategy. This strategy allows the customers of 3PLs to give more attention on its importance and from its adoption, reputation in the firms can be achieved. In previous studies, researcher has found that by adapting the green practices can allow for positive relationship to the firms' activities and consumers' behaviour [17]. Positive environment is seeking by nature of corporate firms to differentiate themselves with competitors. Study by Mahmoudzadeh, Mansour and Karimi (2013) stated that strategic alternative can be achieved for simultaneously promoting environmentally and financially of the firms by being a 'green' image. Bearing Point and Supply Chain Standards related to major global firms has conducted a survey and found that the firms' brand image can be productively enhanced by practising GSCMs. Hence, Kibert (2012) stated that it has become the major factor to encourage the firms' green activities. Due to this matter, this strategy done by 3PLs is predicted to recognize the level of adoption in green practices (i.e. minimizes the waste management and provides renewable energy) that can highly give results on sustainable services in CLSCs. This is due to 3PLs' beliefs in gaining some experiences from the adoption, ultimately it can guide them to draw the proactive set of sustainable services in CLSCs. Hence, this may lead to the following hypothesis development:

Hypotheses 1: A reputation-based strategy will positively influence the sustainable services

Efficiency-based strategy is a strategy that assists firms to increase economic benefits and environmental benefits through waste minimization and efficient use of resources. Study by Olariu [15], CLSCs' management indicates an efficient business model and environmental programmes can allow the firms to reduce cost for resources, receive operational optimization and environmental damages' reduction. Referring to the study by Petterson [16], an advanced system in Information Technology (IT) facilities targets as many customers they can. Besides that, this may generate benefits in productivity through environmental technologies' execution. The efficient consumption of energy will boost the important attention. Manufacturers will join the 3PLs to generate efficient reverse logistics' operations and in planning the firms' strategy, power or energy consumption has become the priority [14]. As a result, this allows 3PLs to offer more sustainable services to their customers in CLSCs because of the ability for these sustainable

services to use the resources effectively. Therefore, this leads to the hypothesis development:

Hypotheses 2: An efficiency-based strategy will positively influence the sustainable services

According to Wang, Liu and Wei (2013), it is noted that the objective of innovation at firms' logistics is in order to exploit the benefits of economy. Hence, it assists to minimize costs and boosts service and trust. Besides that, this strategy also guides firms to develop sustainable services. At the same time, it trains them to adjust operational stages through the latest environmental regulations. The application of this strategy owns the expertise of the professional environmental and combines the specific significant of green activities such as green process, green design in improving latest processes in supply chain that is product growth. Therefore, 3PLs can offer new sustainable services as the impact for innovativeness in CLSCs. This leads to the hypothesis development:

Hypotheses 3: An innovation-based strategy will positively influence the sustainable services

5 Methodology

Two types of data were used to carry out this study that is primary data and secondary data. Primary data involves questionnaires whereas secondary data includes literature reviews.

Sample Questions

- Firms' reputation is enhanced by adapting the green practices
- Reverse logistics' business by 3PLs decrease the costs, risks and focus in increasing the productivity of the firm
- Firms need to use environmental resources and encourage innovative competencies to the management of reverse logistics to improve the environmental performance
- CLSCs include the materials' recovery for either high value (remanufacture) or low value (recycling)

Table 1: Sample Questions posed to each of the questionnaires

Most of the respondents in this study are knowledgeable on the questions that have been asked. This is because they involved the chief executive officers and managers of the companies from department of sales and operations. They come from similar profession that is Penang Freight

Forwarders' Association (PFFA) members in Malaysia. PFFA is one of the registered associations in The Federation of Malaysia Freight Forwarders (FMFF). PFFA consists of 200 companies as members. After all the data and information have been collected from the respondents, it is then being interpreted and analyzed using computer software, Statistical Package for Social Sciences (SPSS) in Windows Version 16. All the required results were gained from Standard Error, Cronbach's Alpha, Pearson Correlation, R-squared and also analysis of Multiple Regression.

This study is a cross-sectional study when it took for three months for the mass questionnaires' distribution. From 200 questionnaires distributed to 200 respondents (one respondent from each company), only 140 feedbacks were received from the respondents. Before the survey was conducted, it started by several stages that is developing questionnaire, telephone calls and pilot study of the firms. In the study by Sekaran [21], the questionnaires' method has been employed in this study because of its advantage in order to cover a wide geographical area in less time and cost.

Before mass questionnaires' distribution is carried out, the questionnaire's items have been tested for validity among academicians in the public university. The lecturers are among the experts in psychometrics and also in language skills. The respondents were being asked to evaluate the items for readability, clarity and adequacy. In the subsequent stage, researcher made telephone calls to all the top level management and had explained to them the purpose of the pilot study. Then, 20 questionnaires were distributed to the top management by online and by hand.

6 Data Analysis and Findings

6.1 Reliability Analysis for the Independent Variables and Dependent Variable

Study Variables (Reliability)	N of Items	Cronbach's Alpha
Reputation-based Strategy	4	0.69
Efficiency-based Strategy	9	0.80
Innovation-based Strategy	10	0.80
Sustainable Services	10	0.74

Table 2: Reliability Analysis for the Independent Variables and Dependent Variable

From 140 respondents, the result indicated the value of Cronbach's Alpha test of reputation-based strategy for 4 items at 0.69 with percentage of 69%. Other than that is efficiency-based strategy that expressed the result of Cronbach's Alpha test for 9 items at 0.80 with percentage of 80%. The third value is innovation-based strategy with Cronbach's Alpha test for 10 items at 0.80 with percentage of 80%. Lastly is sustainable services that showed the value of Cronbach's Alpha test for 10 items at 0.74 with percentage of 74%.

The conclusion is 0.69 for reputation-based strategy, followed by 0.80 for efficiency-based strategy and innovation-based strategy showing strong significance towards the sustainable services. Lastly is the sustainable services at 0.74.

6.2 Coefficients^a

Model	Standardized Coefficients Beta	T	Sig.	Collinearity Statistics	
				Tolerance	VIF
(Constant)		4.56	0.000		
Reputation	0.01	0.18	0.856	0.89	1.13
Efficiency	0.38	4.19	0.000	0.52	1.92
Innovation	0.34	3.90	0.000	0.55	1.83

Table 3: Coefficients^a

From Table 3, Beta weights' size indicated the relationships of independent variables' strength. There is a positive result for Beta value for efficiency-based strategy with the value of 0.38 followed by the Beta value for innovation-based strategy and reputation-based strategy with the value of 0.34 and 0.01 respectively.

The T-value from the above table indicated that the efficiency-based strategy has the highest T-value that is 4.19 if compared with the other strategies. The value is more than 1.96 that can be considered as significant [22]. Then it followed by the innovation-based strategy with the value of 3.90. Both results have shown significant results of two-tailed significance. Lastly is reputation-based strategy. The T-value is 0.18 that is less than 1.96. Therefore, reputation-based strategy is not significant in two-tailed.

Table 3 indicated that the reputation-based strategy has shown a positive relationship with the sustainable services. It can be said that it is not significant with value of 0.856 that is more than 0.05. Hence, it indicated that there is no significant relationship between the reputation-based strategy and the sustainable services. From the above result, H1 is accepted.

H1: There is a significant positive relationship between the reputation-based strategy and sustainable services

Table 3 stated that the efficiency-based strategy has shown a positive relationship with the sustainable services. It can be said that it is perfectly significant when the value is $0.000 < 0.05$. Therefore, it showed that there is significant relationship between the efficiency-based strategy and the sustainable services. The efficiency-based strategy is the strategy that connects the environmental performance to the process of operation in the supply chains. It helps the firms to maximize economic performance and benefits through the efficient resources use and processes. At the same time, it may reduce the amount of waste. In specific, this strategy seeks to utilize the resources by using the most effective energy consumption utilization. Example of the system in sustainable services that 3PLs can apply to improve environmental awareness and appropriate use of natural in recent development has been introduced by Zhou and Ni [26]. This allows for more efficient process in operating the materials rate of recycling. Other than that, information platform also has been designed for the similar purposes. As a result, this allows 3PLs to offer more sustainable services to their customers in CLSCs because of the ability for the sustainable services to use the resources effectively. From the above result, H2 is accepted.

H2: There is a significant positive relationship between the efficiency-based strategy and sustainable services

From Table 3, it revealed that the innovation has shown a positive relationship with the dependent variable, the sustainable services. It can be said that it is perfectly significant when the value is $0.000 < 0.05$. Therefore, it revealed that there is significant relationship between the innovation-based strategy and the sustainable services. The innovation-based strategy can be considered as a strategy that facilitates firms to develop some products through the life cycle's product. In the meantime, it strictly incorporates environment requirements. This strategy is vital especially to develop sustainable services. Besides, it also brings expertise in environmental sustainability and combines specific green activities for the production. Overall, the ecosystem's compatibility can be achieved easily [25]. Study by Simpson and Samson [16] stated that to a certain point, firms are urged to involve additional resources and encourage their capabilities

in innovation for GSCM. Therefore, 3PLs can offer new sustainable services as the impact for innovativeness in CLSCs. From the above result, H3 is accepted.

H3: There is a significant positive relationship between the innovation-based strategy and sustainable services

Summary of Hypothesis Findings

Hypothesis Findings between Independent Variables and Dependent Variable

Hypothesis	Result (Accept)	Result (Reject)
H1 – Reputation	Accept H1	Reject H0
H2 - Efficiency	Accept H2	Reject H0
H3 – Innovation	Accept H3	Reject H0

Table 4: Hypothesis Findings between Independent Variables and Dependent Variable

Table 4 indicated that the three independent variables, the reputation-based strategy, efficiency-based strategy and innovation-based strategy are accepting for H1, H2 and H3 respectively. This stated that the three independent variables have relationship to the sustainable services. Overall conclusion of the study, there are relationship between the three independent variables towards sustainable services.

7 Discussions

Solvable sub problems can be created from the strategies (reducing global warming) due to the activities of the CLSCs. Competitors can assist to provide usable theory in strategy-making and evaluation. Strategy has its own roots to consider the pure competitors. Under the core competitors, it can be said that the output is undetermined. No ones can predict which strategies will be used later. A determinate solution appears if the ‘advantages’ asymmetries are there. It is by executing the only strategies that can show sustainable services throughout CLSCs’ activities.

The analysis findings expressed that researcher has determined the problems that ordinarily faced by 3PLs. First problem is due to lack of information sharing between 3PLs and customers when 3PLs cannot get all the vital information from the customers. Subsequently is due to the market barriers from the customers when they prefer not to outsource the CLSCs to 3PLs (due to the lack in demand from them). Lastly is totally misplaced the return products can give consequence on the efficiency of the process in reverse logistics.

Overall, it may lead to the total loss to the customers instead of giving option to resell.

In a way to solve all of these problems, the study has provided with some potential solutions. Firstly, the 3PLs have to maximize their crucial role to reconstruct offering services of the CLSCs’ activities by presuming the role in leadership. Besides that, 3PLs have to give attention on the perspective of the service offering also in the competitive awareness. Lastly is internal focus for general ‘dissemination’ versus broad engagement for targeted customers. This includes the customer’s orientation and segmentation on how to convey and share the green knowledge and competencies with them.

Researcher has identified few weaknesses in today’s studies. There is a need for further study on manufacturers. The study must more focus on the strategies and sustainable services offering by the 3PLs to their customers not including what manufacturers do in their daily operations towards sustainable services. Subsequently is a wide distribution on the questionnaires. PFFA has become the only population involved in the distribution of questionnaires for this study. If the number of population is enormous, the possibility to get accurate answers would be higher. Hence, it is suggested to distribute the questionnaires to other states other than to PFFA only in the future.

8 Conclusions

The overall aim of this study was to comprehend more on the strategies (sustainable strategic orientations) offered by the 3PLs to the customers of 3PLs in CLSCs towards the sustainable services which can be defined as service offering that surrounded with elements of economic, environmental protection and even social that are yet to appear especially to the current traditional, competing offers and also conventional in the market. It has taken us into various strategies that bring towards sustainable services that are reputation-based strategy, efficiency-based strategy and innovation-based strategy.

The continuous concern on the research by 3PLs, is essential and contributions in the CLSCs’ perspectives by the 3PLs can produce the outcome of sustainable services. In sum, the sustainable strategic orientations that give influence towards sustainable services in CLSCs from the results obtained in this study are the efficiency-based strategy and innovation-based strategy. In the nutshell, the concept in sustainable services can satisfy the sustainability demands by the customers,

reduction in costs also practices on environmental protection regulations.

9 Theoretical Implications

In the theoretical implications, INT purpose is an act underlying philosophies on the effort of 3PLs to develop sustainable services. Referring to the meaning of INT, customers have become the external pressure towards 3PLs in order to give influence for the innovation from offering the sustainable services in CLSCs. The customers usually come from those who fail in their operations of reverse flow. In the nutshells, the INT will give further explanation on the forces behind the differentiation strategy used by 3PLs to compete and differentiate themselves from their competitors. Therefore, this study is expected to support the development of theory-building and conceptual framework in the field of reverse logistics. From the view of conceptual framework, that can be considered as the first stage of development.

10 Practical Implications

A practical point of view provides the information in the execution of reputation-based strategy, efficiency-based strategy and innovation-based strategy in CLSCs' activities also the benefits that 3PLs can obtain from the execution. As such, this study can provide ideas to 3PLs to offer sustainable services in CLSCs. In addition, 3PLs' customers will be able to concentrate on developing good quality products and meanwhile, practicing sustainability as the impacts of the services provided by 3PLs. Subsequently, 3PLs also can have further proactive actions by offering sustainable services rather than being reactive by merely offering services in a small scope of forward logistics services.

11 Suggestions for Future Research

There are few recommendations that researcher can suggest for the future research. The first recommendation is suggestions related to solutions. Future research needs to suggest solutions regarding the difficulties and all the boundaries faced by the 3PLs in adoption of environmental initiatives. Besides that, the future research needs to take contribution to general logistics. Future research needs to give more attention on the perspective that describes the success of some 3PLs to respond in the market conditions also barriers regarding the changes in business towards the sustainable services. Lastly is by increasing the study on the 3PLs and green logistics. There are a lot of past

studies on empirical studies of sustainability in the management of supply chains that focused on the manufacturing companies and few researches on the contribution related to green logistics by 3PLs.

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