Drivers and Obstacles for Creating Sustainable Supply Chain Management and Operations

May Alzawawi

Abstract—Environmental deterioration, growing concerns regarding climate change, and governmental rules and regulations introduced a relatively new concept to common industry practices: sustainable supply chain management. This study will explore how sustainability will be integrated into the supply chain processes using the triple bottom line approach. Introducing sustainability to the supply chain initiatives is a result of some key drivers. In addition to the drivers of sustainable supply chain, there are some obstacles that create challenges for proper integration of eco-friendly systems to the supply chain processes. In order to analyze the drivers and obstacles of environmentally benign supply chain practices, an industrial survey was conducted. According to the research supported by the survey responses, there are four major drivers that mainly contribute to the successful adoption of sustainability into existing supply chains. The results highlight the major drivers and barriers that medium sized businesses might face when making sustainable and ecological progress an actuality in their current supply chain operations.

1. Introduction

Climate and environmental changes around the world have lead to initiation of several environmental rules and regulations, as well as to growing consumer pressure requiring initialization and implementation of environmentally benign practices in industry. Today's more aware and concerned society embraced the concept of being green in almost every aspect of daily life. Many countries are regulating new rules and legislations to seek economically and environmentally benign solutions for environmental degradation such as lowering the carbon discharges and the greenhouse effect. The success of these attempts however, are quite reliant on the society support. Regardless, today several businesses are shifting their operations towards more sustainable and environmentally friendly products. This is mainly due to the fact that the increasing economic growth, material and energy consumption are causing environmental issues including resource and landfill depletion. Organizations are becoming strongly aware regarding the importance of creating an environmentally friendly system in order to gain competitive advantage, to reduce costs and to aid the environmental sustainability. This new direction is also observed in supply chains where sustainable supply chain management became a focus of overall operations. Nowadays, Sustainable supply chain management is considered a business challenge for organizations to implement. Creating a sustainable supply chain in today's highly competitive environments is crucial to gain corporate responsibility. This study will explore how sustainability will be integrated into the supply chain processes using the triple bottom line approach. It will also explore the factors that facilitate the implementation of supply chain; in addition to some aspects that are considered as boundaries to the implementation process.

2. Literature Review

2.1 Supply Chain

Before we can examine supply chain sustainability, we should present a clear description of the supply chain management. Research by Lambert and Cooper (2000) defines supply chain management as the active chain that seeks to maximize customer satisfaction and to create a maintainable competitive advantage [1]. Its main goal is to increase effectiveness and efficiency of the whole organization. Supply chain activities cover the whole process from the product maturity phase, sourcing, logistics and the flow of information. It also includes the transformation, movement and storage of materials. Flynn, Huo, and Zhao (2010) define supply chain as "the degree to which a manufacturer strategically collaborates with its supply chain partners and collaboratively manages intra- and inter-organization processes" [2]. They also states that the main goal for supply chain is to achieve the optimum level of effectiveness and efficiency in the delivery of products and services and to achieve customer's value by delivery products and services with the least cost possible and the shortest time period. According to Min & Galle (2001) the traditional supply chain is expressed as: "a set of three or more entities directly involved in the upstream or downstream flows of products, services, finances, and/or information from a source to a customer" [3]. In addition, Hervani, Helms & Sarkis (2005) defines it as: "the traditional supply chains are based on a linear production paradigm which relies on constant input of virgin natural resources and unlimited environmental capacity for assimilation of wastes" [4].

2.2 Integrating Sustainability

With the widespread of the issues of environmental awareness, it is necessary to integrate sustainability into supply chain management activities. Veleva & Ellenbecker (2001) clearly explain the meaning of sustainability: "the creation of goods and services using processes and systems that are non-polluting; conserving of energy and natural resources; economically viable; safe and healthful for employees, communities and consumers; and socially and creatively rewarding for all working people" [5]. Supply chain sustainability is the management of environmental, social, and economic impacts of goods and services [6]. The aim of implementing a sustainable supply chain system is to create, keep and flourish long-term environmental benefits as it is defined in the research done by Hutchins & Sutherland (2008), "Development that meets the needs of the present without compromising the ability of future generations to meet their needs" [7]. There are many reasons why organizations find it really important to integrate sustainability into their supply chain activities. Some of the reasons include the laws and regulations set by the government, to

ensure their social responsibility to the public, and also due to some economical and business paybacks. Integrating sustainability into supply chain practices is clearly defined to ensure the achievement of some social, economical, and environmental benefits. Such integration is considered a gain for the organization in achieving competitive advantages. Sustainability of supply chain is clearly emphasized as follows "the management of material, information and capital flows as well as cooperation among companies while taking goals from economic, environmental and social dimensions into account that are derived from customer and stakeholder requirements" [8]. Zhu & Sarkis (2004) explains green supply chain as follows: " a supply chain that has ranged from green purchasing to integrated supply chain starting from supplier, to manufacturer, to customer and reverse logistics, which is closing the loop" [9]. In addition, the integration of sustainability into the supply chain practices is quite necessary in order to follow up with the market trends, thus creating a competitive advantage. Srivastava (2007) briefly explains the act of integrating sustainability into the supply chain process: " integrating environmental thinking into supply chain management, including product design, material sourcing and selection, manufacturing process, delivery of the final product to the customers as well as end of life management of the product after its useful life" [10].

2.3 Triple Bottom Line

The notion of a sustainable supply chain belongs to the concept of a triple bottom line, which is denoted to the economical, social, and environmental aspects as shown in figure 1. Carter and Rogers (2008) mentions that the triple bottom approach is concerned with achieving high financial performance, extra social responsibility, and protecting the environment [11]. Supply chain activities should be linked together via a chain that ensures succeeding the three pillars of sustainability. Using the triple bottom line approach in the management of the supply chain activities is a major guarantee for the organization's long-term success, since it does not only focus on the financial side but it also revolves around attaining positive social and environmental welfares [12]. According to a recent study performed by Wang & Sarkis, (2013), there is a direct relation between green practices in the supply chain system and the progressive financial performance [13]. They states the following: "Integrated sustainable supply chain management, jointly including social and environmental supply chain management, efforts is positively associated with corporate financial performance measured by return on assets and return on equity, and the positive effects can have a time lag of at least two years" [13].

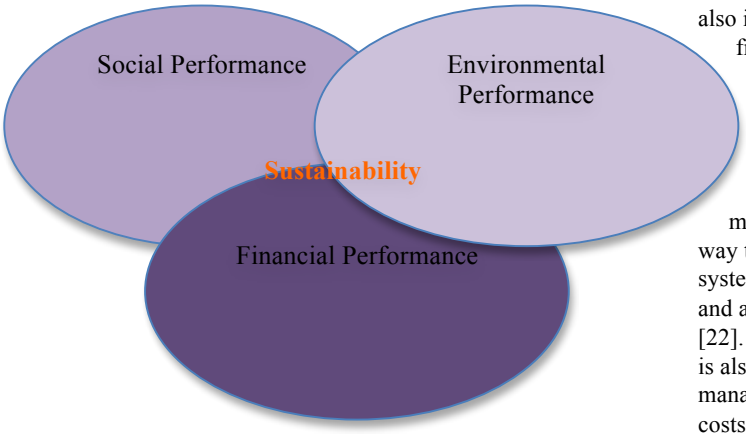

Figure 1: Sustainability as defined by the triple bottom line (Source: Elkington (1998))

Incorporating sustainability into supply chain activities has great impacts on reducing the issues related to the environment. Elkington (1998) claims this to be part of the triple bottom line [14]. Accordingly, Quak and De Koster (2007) states the following: "interaction between economic consideration with social and environmental issues, such as noise pollution, congestion, and carbon dioxide emission has been considered on exploring retailers' sensitivity to sustainability policies" [15]. Contributing supply chain practices into the sustainability trend is becoming a social pressure. Showing concern to environmental issues has become a matter for organizations to achieve competitive advantage and to increase their market share [16].

Great evidence on the importance of the three bottom line approach is provided in proof by the study done in Germany by Large and Thomsen [17]. This study explores positive correlation between adopting sustainability into supply chain management and the performed quality, efficiency, and customer satisfaction. This shows that sustainability have positive effects on the social, environmental and financial performance of the organization.

2.4 Drivers of Supply Chain Sustainability

The trend toward contributing sustainability into the supply chain initiates is a result of some key drivers. Eltayeb and Zailani (2009) searched for the key motivators and they found out that there is a connection between the trend of greening and supply chain [18]. This adoption can lead to four outcomes, which are summarized into environmental, cost reduction, economical and intangible outcomes. Drivers, which are characterized as motivators leading to the contribution of sustainability into the supply chain practices, originate from some external and internal pressures [19]. Customers, government, media, investors, and suppliers are the ones creating this pressure to organizations and indirectly enforcing them to add green supply chain processes into their systems. It is clear that creating a sustainable environment is not the only leading factor for organization to follow the new trend of sustainable supply chain. There are many hidden indicators that organizations are considering in order not to lose their social wellbeing [20].

2.4.1 Internal Drivers

Researches show that there are certain drivers that lead to the adoption of sustainable supply chain movement. Some inducements are considered internal, which include the organizational related factors. This includes the organization's ability to develop the risk management abilities to avoid any sudden threats. Internal drivers also include the cooperation with suppliers to find environmentally friendly materials and equipment in order to reduce the ecological exposures [21]. Managing risks is very important in organizations that have value attributes with customers and for firms that receive their value from brand recognition and reputation expectation. The level of the personnel commitment also triggers sustainable supply chain management. In some firms, owners are responsible enough in a way that leads them to integrate sustainability into their supply chain systems. Such owners are very concerned with their social reputation and also have some ethical beliefs that they might want to pursue [22]. A study by Lee (2008) reveals that the desire to cut down costs is also another internal motivator for eco friendly supply chain management [23]. Every firm has the aspiration of reducing their costs in order to produce business gains. Incorporating sustainability into supply chain processes is a great guarantee for an organization to shrink their budgets. This business profits can be achieved through market openings the organization will get exposed to once following

sustainability practices. Quality enhancement is an aspect that every organization wishes for. Using the sustainable supply chain approach, quality can be improved with the lessening of wastes and pollution. According to Pil and Rothenberg (2003), another driver is to improve quality. They mentioned in the research " environmental performance has been found to drive superior quality" [24]. In addition, investors sometimes act as an inducement tool to change the strategies already adopted in the organization. Trowbridge (2001) mentions in his study: "An increased pressure from investors has also been observed in the development of environmental policies" [21].

2.4.2 External Drivers

In addition to the internal pressures that lead to the integration of sustainability into the supply chain processes, there exist some external factors that played an important rule into this assimilation. External drivers include aspects outside the organization but have a great influence on the organizations' internal activities. It includes pressures that each organization should obey not to lose their reputation and social wellbeing. External drivers have obligated companies to include social and environmental consciousness into their supply chain management and other business aspects. Therefore, this forced firms to progress new management tactics. Government regulations, customers, competitors, suppliers, society and international standards define the external drivers [25]. Organizations are obliged to adopt transparency after all those pressures to respond to investors and stakeholders expectations and to satisfy the legislative and regulatory compliance. It became necessary for a firm to assure that all their products and services are done with environmental consciousness practices [26].

- **Regulations**

  With the recent trend towards achieving sustainability in US and Europe, it became necessary for organization to respond to these regulations. Firms must encompass regulatory constraints in their business in order to ensure achieving ethical, social and green risks in the supply chain activities.

  A research done by Alvarez-Gil, Berrone, Husillos, and Lado, (2007) reveals that 87% of the studies they have done states that government regulation is one of the major pressures [27]. Another research by Zhu, Sarkis &Geng (2005) defines government regulations as on of the strongest drivers for organization's environmental determinations [28]. Those environmental efforts can be employed as a significant motivator to revolutionize and lessen the ecological effects at low cost. Regulations also include export countries by giving tax reductions to encourage green practices. One example of the regulations in the US is the California Transparency in Supply Chains Act (2010), which requires companies to unveil their policies and processes in order to be able to control human trading [29].

- **Customers**

  Customers are the most important aspect in any organization. Companies tend to give much concern to achieving what their customers' demands in order to ensure the attainment of customer satisfaction. Furthermore, it is the customer who gives existence to firms. Since customers are the backbone of any organization, they can easily serve as an external pressure for their management practices. According to the study done by Carter & Jennings (2002), customers pressure are around 43 % of the external factors that are influencing the incorporation of green activities into the supply chain practices [30]. Carter and Dresener (2001) state in their study the following: "In investigating the role of purchasing in environmental management, it was found that customer demands that take a long-term supply chain perspective have a more positive influence on environmental management in contrast to customer requests which involve an unreasonable timeframe" [31]. Customers require certain standards that the supplier should be able to comply. Hall (2001), mentions in his research that small to medium sized companies are most frequently under pressured by their customers' demand [32]. On the other hand, big corporations are mainly manipulated by their stakeholders and investors' demands and needs [33]. Based on the data analysis prepared by Azevedo, Carvalho & Machado (2011), sustainability practices are positively correlated to achieving high customer satisfaction and also to attaining higher quality products [34].

- **Competitors**

  Many researches agree on the concept that competition can be a direct driver for the integration of sustainability into the supply chain processes. To become more alert to the customers needs, companies must achieve competitive advantage for themselves. The integration of sustainability in supply chain activities was formed mainly to improve competitiveness among rivals [35]. Gonzalez-Benito, J., & Gonzalez-Benito, O. claim in their research the following: "A policy of environmental purchasing may not be undertaken because of a desire to 'Save the world', but because it reflects a way to gain competitive advantage, improving the financial performance of the firm. The integration of sustainability into the supply chain management is considering as creating a value for the organization itself. This value can generate a sustainable competitive advantage for the firm by offering a collaboration of both social and environmental awareness [36].

- **Suppliers**

  Suppliers have the lowest driving force for the integration of sustainability into the supply chain processes. They scored only 9% among the other factors that increasingly drive the trend towards sustainability. A study by Carter and Dresner (2001) suggests the following: "It has been suggested that suppliers can help to provide valuable ideas used in the implementation of environmental projects, but they generally do not act as a direct driving force" [31]. Thus, suppliers are not considered as a key driver; however, they have a very important role when it comes to the integration of the environmental practices into the supply chain systems. Supplier also can help in making this integration more beneficial and efficient [37].

- **Society**

  People are becoming more conscious and aware regarding the deteriorating environmental issues that our environment is going through. The increased awareness is also comprehending the where organization buy their supplies and materials [22]. People are becoming more concerned regarding the organization's reputation when it comes to their usage of environmentally friendly products, so this is creating a major pressure for firms. Firms are strongly pressured to adopt sustainability in order to show that they

have a sense of social responsibility [38] . The adoption of the green supply chain practices reveals how much concern does this organization give to the society. Such integration is a signal that this firm is worried about the labors justice, healthcare and safety [13].

- **ISO Certification**

Many studies have been performed to evaluate the link between ISO 14001 certification and the adoption of green supply chain practices. One recent study done by, states that ISO 14001 promotes sustainable supply chain practices. A study done by claims the following: "Facilities with environmental management systems (EMS) certified to ISO 14001 are 40% more likely to assess their suppliers' environmental performance and 50% more likely to require that their suppliers undertake specific environmental practices" [39]. ISO 14001 certified companies are more likely to adopt the green practices in supply chain activities, since these firms are increasingly concerned with their environmental performance. A study done by Melnyk, Sroufe & Cantalone (2003) claims that ISO 14001 certifications have a positive correlation with firms that aim to improve their environmental impacts on the surroundings [40]. In addition, the research by Arimura, Darnall & Katayama (2011) reveals that ISO 14001 certified firms are 7% more expected to engage their suppliers in practicing with environmentally friendly activities and are 8% more likely to involve suppliers to adopt particular ecofriendly practices [39].

2.5 Obstacles for sustainable supply chain

In addition to the drivers of sustainable supply chain discussed before, there are some obstacles that are facing the integration of these eco friendly systems to the supply chain processes. However, there are few studies that considered those obstacles compared to the number of studies that explored the major drivers. Yet, some of the drivers might also serve as a major limitation for the sustainable supply chain. For example, regulations can be a key aspect in both the drivers and the obstacles parts. A recent research by Al Zaabi, Al Dhaheri & Diabat (2013) states the following: " as small to medium enterprises seek to become more environmentally sustainable, they encounter a variety of barriers that, when compared to the large corporate arena, are either insignificant or may be nonexistent. These obstacles are classified into internal and external obstacles as observed in the drivers' part" [41] .

2.5.1 Internal Obstacles

- **Costs**

Consumers are always asking for lower prices, thus this require the cost incurred to be low enough to be able to offer low prices. Many studies have revealed that integrating sustainability into the supply chain processes is expensive and require a big amount of money especially for small to medium enterprises. Conferring to Hervani, Helms, and Sarkis (2005), they discuss in their study that costs are considered high for SME's by saying: "Incurring costs are even more significant for SMEs which have generally less resources available and thus are more vulnerable" [4]. One of studies achieved by Revell, Stokes & Chen (2010) claims that two thirds of the small to medium enterprises considered high costs as the major obstacle for implementing sustainable supply chain activities [42]. However, this report also displays that around 52% of the SME's are aware of the economical benefits that would result from applying environmentally friendly activities [42]. Moreover, another research by Walker, Di sisto, & McBain (2008) delineates the same issue that is the high cost required [25]. They state the following: "An investigation of green purchasing practices in US firms revealed that cost concerns are the most serious obstacle for taking environmental factors into account in the purchasing process" [25].

- **Lack of knowledge**

Lack of knowledge obviously appears to be a common hindrance for establishing a sustainable supply chain approach. Referring to a study done by AlZaabi, AlDhaheri& Diabat (2013), lack of knowledge and information concerning the approach of sustainability is one of the biggest barriers [41]. In addition, lack of information is causing another type of barriers. Employees are not well informed concerning the importance of integrating sustainability into the supply chain management. Employees are not seriously aware about the benefits that will result from such integration. In a research done by Revell and Blackburn (2007), the stress on the issue of " eco literacy" and how it is found in low percentages across organizations [43]. This low "eco literacy" is also causing a barrier for the implementation of green supply chain approach. They even mention that lack of expertise about environmental management is causing limitation in the assimilation of the sustainability approach [43].

- **Lack of Training**

Referring to Bowen, Cousins, Lamming & Faruk (2001), employees should be motivated enough in order to take this sustainability approach more serious and to work hard to achieve it [44]. Environmental awareness should be spread first in the organization so that each employee become aware of how this concept would change the image of the firm to the better.
Mentioning a recent study by Dashore & Sohani (2013), they state the following concerning lack of training: "This reflects lack of training given to the employee of the organization, thus resisting enhancement of overall performance of supply chain and green practices in it" [45]. Lack of training of employees is a big obstacle. Employees should be trained well before introducing them to a whole new concept to adopt. Contributing green supply chain for employees with no training and little knowledge is perhaps a failure. A research completed by Sharma (2012), also agrees that lack of employees training is a definite barrier for the green supply chain approach [46].

- **Lack of Integration of IT system**

In the study done by Dashore & Sohani (2013), they consider the integration of IT system into the green supply chain approach is a major necessity for this new concept to be adopted successfully [45]. They say the following regarding the integration of IT: "It uses various computer based applications programs and various IT enabled procedures and software which may be o utility during the

various data and information exchange process" [45]. IT systems work as an enabler for a successful green supply chain. IT can facilitate the integration of sustainability into the supply chain processes by first optimizing the needed resources. Furthermore, the act of combining IT system can make things much easier by creating an effective supply chain planning, implementation, and association [47].

- **Poor Organizational Structure**

  This can be emphasized from the poor top management commitment. Some organizations management has poor commitment practices. People in such organization are considered impassioned regarding the issues of the external environment [3]. The lack of top management commitment defines one thing that is they are withstanding about the execution of sustainable green practices. This also includes that poor organizational vision with the organization. Top-level management focus on short-term goals and neglect the imperative long term ones [48].

2.5.2 External Obstacles

- **Regulations**

  Government regulations are a major driver as discussed before; however, in some cases they can also serve as one of the barriers for the sustainable supply chain implementation. Environmental regulations might restrain innovation and creativity by stipulating some required techniques that are considered more reasonable [49]. Besides, some other studies reveal that government regulations might act as a barrier in a way that it does not facilitate the environment needed to implement the green supply chain approach [50]. Dashori and Sohani (2013) also support this by stating the following: "Lack of government initiatives system for green supply chain practitioners: it means government not making industry friendly policies toward GSCM and not giving special benefits to those organizations implementing green supply chain management" [45].

- **Poor Supplier Commitment**

  As discussed in the drivers' part, suppliers have a low driving force for the sustainable supply chain management. However, when it comes to the obstacles part, supplier involvement is highly important. Poor supplies commitment tells that they are not prepared to be part of the design process and technology. Suppliers' commitment is crucial in order to have a successful performance. Suppliers should show some intellect concerning the green supply chain management [51].

- **Competition and Uncertainty**

  According to Yu Lin & Hui Ho. (2008): "market competition and uncertainty is high due to global competitiveness and varying customer's requirement" [48].

- **Customers' unawareness of sustainable green products**

  In some industries, lack of customers' awareness regarding the green supply chain approach is a major obstacle that obstructs the quick implementation. Customers' awareness concerning green products means that organizations have to transfer their technology for innovative green products. However, that is not always the case: referring to Lamming & Hampson (1996) who reveal in their study: "In U.S.A., an estimated 75% of consumers claim that their purchases are influenced by reputation and 80% would be willing to pay more for environment friendly products" [52].

- **Lack of Green Practitioners**

  Some areas have a lack in well-trained and well-experienced green specialists. This includes green architects, contractors, consultants and developers. For a sustainable supply chain to be well implemented, there should be sufficient green specialists that can do their job well [6]. With the presence of skilled green specialists, firms find it possible to cut costs, increase competences and show some social and environmental responsibility in a professional manner.

3. Sustainable Supply Chain Survey

3.1 Research Methodology

A survey was conducted to gather qualitative data in order to make hypothetical analysis for this study. Mail questionnaires were engaged for the survey to be done. A number of employees that work in an Aircraft equipment company were questioned to complete the survey. This Aircraft Company is one of the firms that are utilizing the use of sustainable development into their supply chain activities. They are located in Connecticut and it is considered a medium sized firm.
Data collection was made in response to 60-answered questionnaire. It consists of specific research questions that only involve questions related to the drivers and barriers of engaging in a sustainable supply chain practices.

3.2 Statistical Analysis and Figures

The gathered data were reliable enough to be used as factual data. The data gathered gave insights about the factors that are considered to affect the adoption of sustainability or in other words the drivers. According to the study done, there are four main drivers that actually contribute to the adoption of sustainable development into the supply chain systems.

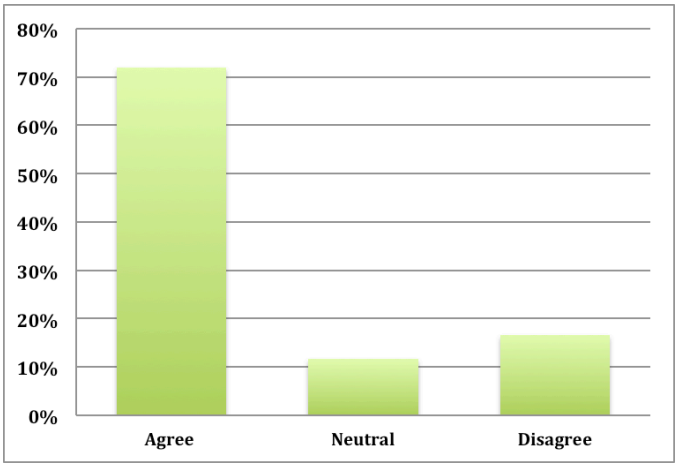

Figure 2: Government Regulations

Referring to figure 2, results reveal that about 72% of the respondent believe that government regulations is the main reason and driver for

their company to involve sustainability into their supply chain practices. However, 17 % disagree about that government regulations has to do with the choice of adding sustainability into supply chain systems.

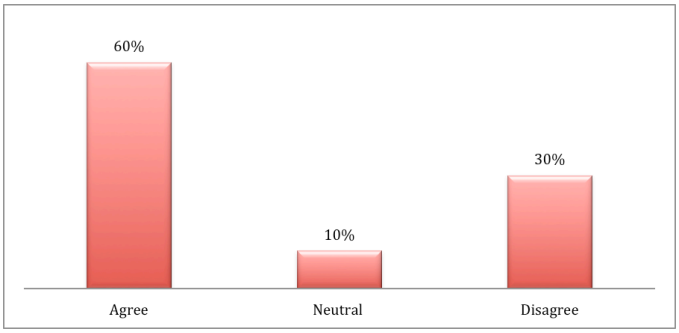

Figure 3: ISO 14001 Certification

The graph in figure 3 shows that 60% believe that there is a positive correlation between ISO certification and the engagement of sustainability into supply chain activities. 10 % of the population is neutral about the issue and 30% disagree about this correlation.

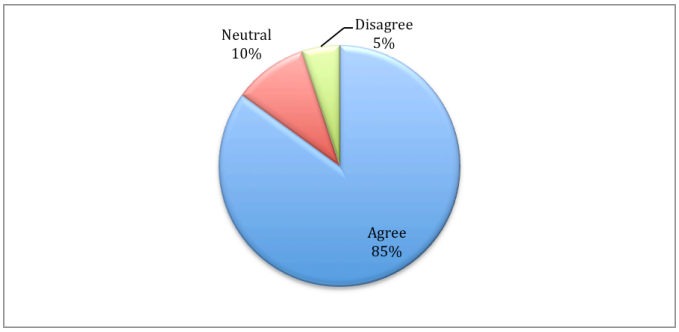

Figure 4: Financial Benefits

As seen in figure 4, 85% of the surveyed employees agree that their business is financially benefiting from the engagement in sustainable practices. Other employees disagree about financially benefiting from this adoption but they only count for 5% of the population.

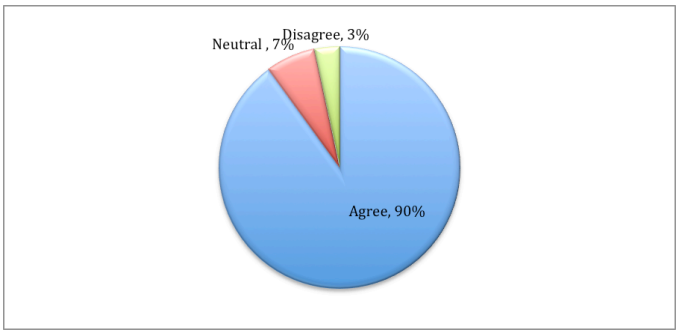

Figure 5: Suppliers Effect

On the other hand, the data collected in figure 5 reveals that 90% of the survey believes that suppliers do not have any influence into the adoption of sustainability. The remaining are spread between 3% that disagree that suppliers do not affect the decision of adding sustainable strategies into the supply chain processes and the remaining 7% are neutral about it.

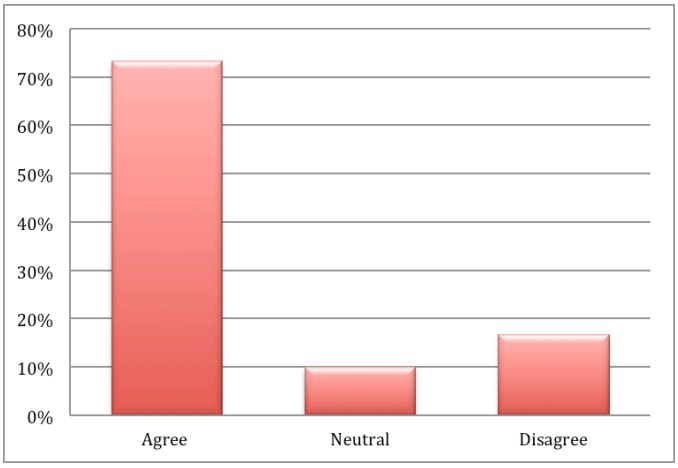

Figure 6: High Costs

When it comes to the obstacles accompanied with the adoption of sustainable supply chain, there are many. However, the study displays in figure 6 that 73% of the employees agree that high costs is a major obstacle. 10% of the employees are neutral about it, and 17% disagree that high cost is a hinder.

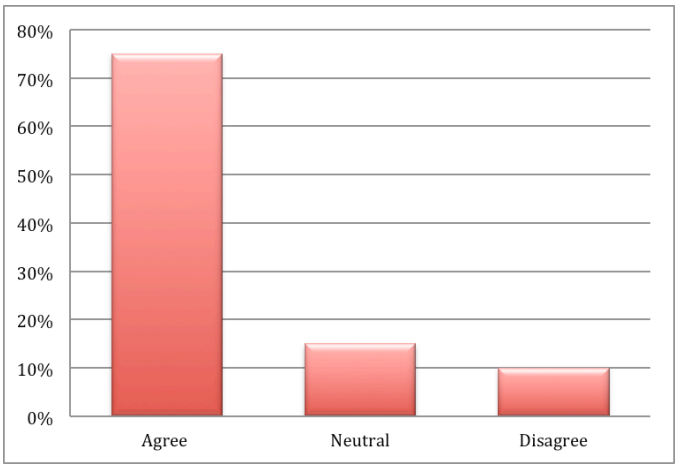

Figure 7: Lack of Training

As shown in figure 7, 75% of the employees admit that they faced major difficulties at the beginning of the implementation of sustainability into their supply chain practices.

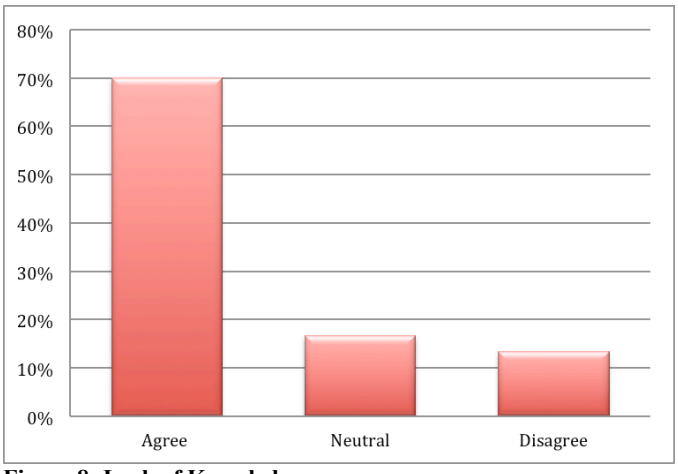

Figure 8: Lack of Knowledge

By implying to figure 8, 70% of the employees agree that lack of

knowledge and experience about sustainable development was a major barrier at the beginning. 17% are neutral and the rest disagree that knowledge was an obstacle.

3.3 Finding Results

Mail questionnaire were used to gather the needed data. 60 employees were surveyed to help in making hypothetical analysis. The results show that there are four main factors that are considered the major drivers for the implementation of sustainable supply chain. The results generally indicate that financial benefits have the greatest influence in the adoption of sustainable practices into supply chain systems followed by government regulations. This result also resembles a study done before by Zhu, Sarkis &Geng (2005) [28]. Moreover, the results indicate that suppliers have the lowest driving force for the integration of sustainability into the supply chain processes. It has a very low-key influence on the final decision.
It is indicated that integrating sustainability into the supply chain processes is expensive and require a big amount of money especially for small to medium enterprises. Also, lack of knowledge obviously appears to be a common hindrance for establishing a sustainable supply chain approach. Employees are not equipped with the needed knowledge to perfectly implement sustainable supply chain practices. Denoting to a study done by AlZaabi, AlDhaheri& Diabat (2013), lack of knowledge and information concerning the approach of sustainability is one of the biggest barriers [41].

Conclusion

Environmental issues have been a major topic that almost each study includes some environmental responsibility. It became extra important to show some concern to the environment and to the world we are living in. integrating sustainability in the business world is especially crucial because it is key for saving our lives and the lives of the people who follow us. Going green is a very hot topic nowadays and many people are getting concerned about the deteriorating environment. Environmental change is a big problem that has its own solutions within each one of us. Integrating sustainable practices into the supply chain systems is a business necessity to save the environment. Sustainable supply chain management is considered a business challenge for organizations to implement. There are many factors that are causing some obstacles to this implementation. Yet, there are more factors that are acting as drives for implementing supply chain sustainability. Proper understanding of the issue is a crucial step that is highly needed to go into world of sustainability. Accurate research and effort should be accompanied when taking the decision of implementing sustainable supply chain activities. This study is an attempt to reveal the drivers and barriers that are faced when adopting a sustainable supply chain practices. The results highlight the major drivers and barriers that might face medium sized business when making sustainable and ecological development an actuality.

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