

## **The 2013 ICAS Sustainability Essay Competition**

“Organisations are under greater scrutiny to ensure that they effectively manage risk and are required to engage with their suppliers and other external stakeholders in order to reduce the embedded environmental and social impacts across their value chains. With increasingly complex supply chains, how can businesses manage risk and report performance effectively, to help to contribute to a sustainable society and to ensure their own long term sustainability?”

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## TRACKING THE BUTTERFLY

### **Introduction: Tracking the Butterfly Effect**

It is widely perceived that some certain businesses, especially ones in the energy, chemicals or automobile sectors, are more environmentally harmful than others. It is, however, surprising that making a pair of jeans consumes the same amount of water as 54 showers, and produces an equivalent amount of greenhouse gas as 78-mile driving (StanfordGBS, 2010). This fact will not be realised until one of the jean producers investigate its whole production process, from the growing of cotton seeds to the finished garment. Here, we can say that the production of cotton seeds could be the cause of global warming, or that the production of jean could lead to global warming. Thus, what is the real cause of global warming and who can decide?

This is similar to the notion of the butterfly effect which states that “a butterfly fluttering in Rio de Janeiro could change the weather in Chicago” (OxfordUniversityPress, 2013). *Butterfly effect* refers to the phenomenon that one small point of action or activity could result in the high-impact events at some other points. This notion mentions that one butterfly in Rio de Janeiro could affect the weather in Chicago. This concept portrays the business supply chain system that is complex and embeds a number of activities and risks that could lead to unperceived social or environmental impacts. The root cause of unrelated events could be the same as fluttering butterfly at the beginning of the causal chain; however, the cause might be remote from its results so that it is difficult to be tracked. Similar to the effects of the fluttering butterfly, the cause of business activities might be originated at the beginning of the value chain that businesses are incapable of tracking and accounting for all related activities. Here, the boundary

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of what to be included in business decisions must be drawn so that business performance can be reported effectively and appropriate actions could be taken to manage risks.

### **Supply Chain Complexity and Embedded Risks**

Every supply chain is more or less complex and comprises of a large number of participants ranging from raw material suppliers, manufacturers, shippers, to retailers. Businesses, especially multinationals, have started to realise that their social and environmental impacts expand beyond their organisations' boundary and relate to entities throughout their supply chains. Since a number of companies do not produce their own goods, they rely mainly on their suppliers, to bear the risks of social and environmental impacts from their sold products. One good example of risk originating along the supply chain is the uncovering of horsemeat in beef-burgers sold by some grocery stores in the UK and Ireland (BBC, 2013). The event exposed those grocery stores not only to financial risk from withdrawing the affected product lines, but also to social risk from impairing public trust in their products. The ways to manage and to response potential risks in the supply chain are to capture potential effects or risks, to collaborate with other entities in the chain and to create an accountability culture among those entities.

It is difficult to capture all potential risks that could occur from the supply chain participants, since the chain could be complex and difficult to draw the boundary. Over a period of time, organisations, however, have started to account for things as the parts of their organisations even though those lie outside their boundary meaning that they expand their accountability beyond the physical boundary. To capture and realise wider-scope of risks in the supply chain could enhance their capability to manage potential risks. Therefore, an effective information and reporting system is needed to capture and to expand such scope.

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Complexity of supply chain also creates the need of a more collaborative approach to handle potential risks so that the confidence level among all the participants is increased (GrantThornton, 2013). From the report of United Nation Global Compact (UnitedNations, 2013), 83% of surveyed companies either consider or requires that their suppliers follow Global Compact Principles, which enhance sustainability-related activities. This shows their perceptions of the importance of sustainably-operating suppliers. Only 18% of those companies, however, participated in their suppliers' goal-setting process, where shared goals and collaboration are needed in managing and responding to supply chain risks. Successful collaboration in supply chains needs to encourage supply chain members to be a sustainability leader, and to ensure goal congruence among those members.

Culture is also an important element to manage and response to potential risks embedding in the supply chain. Entities in a supply chain sharing risks, costs and benefits should not only prolong their business contractual relationship, but also encourage one another to create cultures and mentalities that lead to sustainable operations.

### **Interest Alignments for Long-term Sustainability**

Businesses operate by utilising their own resources, as well as social and environmental resources. If they aim to maximise their profits by considering only their financial costs and ignoring social and environmental ones, they might be constrained by their stakeholders and lose a 'social contract' to operate in society (Gray et al., 1988). It is not wrong that companies are operating with business-oriented mindsets; still the convergence between corporate interests and

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society/environment interests is expected from corporate management (Adams and Frost, 2008).

Where possible, business management should be informed by data relating to social and environmental impacts so that they take them into the decision-making process.

In order to encourage companies to act sustainably, corporate and social/environmental benefits should be aligned. For example, the case of green products being desired by customers could induce companies to track their performance, as well as their suppliers', to gain competitive advantage from such factors. Also, companies could introduce independent monitoring for their suppliers, and established sustainability-related criteria to enroll only suppliers in their approved vendor list that achieve such criteria. This alignment between companies' and suppliers' interests could promote more sustainable business activities by those parties. Then, this leads to the interest alignment between the companies and their green-product-lover customers.

### **Accountants as Butterfly Trackers**

The majority of large corporate management has realised the need to develop, or has developed sustainability-related policies. However, only a few management teams have successfully driven such policies into desired actions (EnvironmentalLeader, 2013). Some companies want to participate in sustainability agenda, but they do not have sets of concrete standards to monitor their suppliers so that real problems and risks along the supply chain can be raised.

As aforementioned that business management needs relevant data to make sustainable decisions; therefore, sustainability reporting could be an effective tool not only to encourage such decisions

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and also to enforce sustainable actions. Without consideration of such data, it is difficult to see how organisations can improve their sustainability performance. The reporting system should not be only a historical performance record, but also a tool to evaluate risks, establish rewarding system, and develop future plans to achieve sustainability.

In order to report business performance effectively and to manage potential risks along the supply chain, businesses need to know their accountability boundary so that all of the information within that boundary can be captured to identify risks and to originate appropriate actions. Accountants could play a role here to help identify the boundary and deal with the information within it.

With regard to the notion of butterfly effect, the role of accountants in a complex supply chain could be framed as a ‘butterfly tracker’ who is responsible not only for reporting the information found in the accountability boundary, but also for drawing such boundary in order to identify causes that they need to focus or track within such a boundary. Then they could see the whole picture of all activities in the bounded supply chain that could have impacts on their economic, social and environmental performances.

As the example of aforementioned jean production, on the surface, one business seems more environmentally-harmful than another. If businesses, however, take a look upwards in their supply chain, they could discover their business impacts more than they have expected.

Accountants who are responsible for the construction of the accounts and interpreting accounting rules and standards could decide to track the butterfly trails so that companies could procure, manufacture, design and deliver goods more responsibly so that they could achieve long-term economic, social, and environmental sustainability.

### **Conclusion: Last Note for the Butterfly Trackers**

Supply chain management is one of the important challenges that are blocking advancement to the next stage of sustainability performance reporting. Companies' true sustainability level could be influenced by their suppliers' performance no matter how large or small contributions they make to the businesses. Accountants, who have the power to construct the accountability boundary (Hines, 1988) and have first-hand experience on information system and data collection, should hold the duty to communicate reality, or present butterfly's traits to both management and corporate stakeholders to ensure that all potential risks are reported and managed. Also, accountants should make sure that the tracking or reporting system contributes to a sustainable society and environment so that the business can ensure their long-term economic sustainability.

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