Chapter 3
The Impetus and Catalytic Role of Green ICT for Business Benefit

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ABSTRACT

The monetized catalyst and impetus for the adoption of Green ICT by business are explored in this paper. For a business to significantly reduce its environmental footprint through the use of Green ICT, a strategic transformation of business is required. Such a transformation includes changes to business models, a redefinition of business processes, a realignment of information exchange, and integration of unified communication. Without the right impetuses and catalysts, a strategic transformation of a business may take a long time or, at worst, may not occur because of incumbency, cost, and risk. Like other strategic changes, the implementation of Green ICT is likely to be achieved through a series of tactical changes aligned to an overall strategy. However, such an incremental tactical approach requires consistency and persistency in taking advantage of many small business opportunities to implement Green ICT. Such an adoption of Green ICT is only likely to occur because of the business benefits achieved. Any catalyst and impetus for the adoption of Green ICT must provide tangible (monetized) benefits to a business, as well as prevent adverse outcomes.

1. INTRODUCTION

For many businesses, ICT is a utility infrastructure and ICT is used and applied as an assembly line for knowledge worker (Sherringham, 2005). For a business to implement Green ICT and for a business to bring about a substantial change in their environmental footprints, a significant investment of time, money and resources is required because any change has to overcome incumbency and need to be accommodated within the needs of business as usual (Sherringham & Unhelkar, 2011).

A significant adoption of Green ICT by business is set to occur when tangible (monetized)
beneficial outcomes are achieved and/or when adverse tangible outcomes (brand damage, loss of revenue) are avoided. Similar to the motivations of humans to change (more normally resist change), these competing motivations of gain through results realized and or fear of adverse situations (equating to the fear and greed motivators seen in humans) need to be sufficient to overcome incumbency, i.e. the resistance to change.

Similar to humans who change in response to external events (e.g. change in attitude of people to life when having experienced a major accident) or those in need of support to help them change, (e.g. changing to a healthy lifestyle), businesses need a catalyst and/or an impetus to drive the change and to help them make the change to Green ICT. The large scale implementation of Green ICT by business comes when the “fear or greed” motivations are reinforced by an impetus for change and a catalyst for change to overcome incumbency (Rosen et al., 2011).

In a complex web of dependencies, Green ICT fulfils a circular role in being an impetus for business change as well as being a catalyst for change. The catalyst and impetus role of Green ICT, together with other catalysts and impetuses for change and the adoption of Green ICT are explored further in this paper because of the importance to business decision making. Such decision making is a priority because it is only when vested interests are met, that a business is likely to significantly reduce its environmental footprint through Green ICT because it is good for business (Velte et al., 2008).

2. BUSINESS DRIVERS

The Significant adoption of Green ICT by business is a strategic business transformation requiring a redefinition of business processes, a realignment of information exchange, and integration of unified communication (Murugesan, 2011). The strategic transformation of a business to align with evolving business trends and market opportunities requires incumbency to be overcome, requiring catalysts and impetuses for change.

Everyday business activities provide businesses with many opportunities to implement Green ICT because Green ICT is good for business and achieve environmental outcomes in the process (Esty, 2006). Although these opportunities exist, the need to both sustain business and to concurrently support change means that special circumstances are required for a business to take advantage of the opportunities. Rather than using fortuitous circumstances, business can use the incremental approach of replacement of end-of-life equipment, depreciated assets, and new equipment purchases with Green ICT. Whilst such a tactical changes are of benefit to business, this approach is unlikely to drive the enterprise wide reengineering and the large scale adoption of Green ICT.

For an enterprise wide adoption of Green ICT, a business needs to have the capacity and capability to undertake a strategic transformation (Benson, 2004). This change requires the right strategy, process change, management of risk from external factors, and an alignment of people, ICT and data (Figure 1).

Consider the role of strategy within a business for the adoption of Green ICT. For a business to adopt a Green ICT strategy, various impetuses and catalysts needs to exist, e.g. a legislative requirement. The cost of any change to Green ICT often serves to reinforce incumbency. Therefore, business benefits and the legislative requirement together have to be sufficient to overcome incumbency. For illustrative purposes, the role of strategy within a business and examples of impetus and catalyst opportunities are shown in Table 1. Similarly for the other factors shown in Figure 1, a catalyst and impetus need to exist for Green ICT to be adopted within a business.

The external influences upon a business are often a catalyst and impetus for change. Consider a slowdown in economic activity. The common response to a slowdown in the economy is