HP AUSTRALIA: SUSTAINABILITY IN SUPPLY CHAIN STRATEGIES

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ABSTRACT

This case study explores the supply chain management strategies of Hewlett Packard Australia.(HP). At the heart of HP's supply chain strategy is sustainability. HP sees itself as a socially responsible organisation and therefore pursuing sustainable supply chain practices are seen as an integral part of achieving the social responsibility. HP proactively seeks to use its sustainable supply chain practices as a competitive tool so as to improve its image among stakeholders as a good global citizen. HP runs an ambitious program of asset recovering centred on recycling as part of its supply chain and encourages both suppliers and customers to become part of its sustainability program.

Key words: Sustainability, Supply Chain, Strategy, Australia

CONTEXT

In 1999, leading strategy scholars described global sustainability as an emerging challenge that will change industry landscapes and unearth new and exciting business opportunities (Hart and Milstein, 1999). Eight years on, the global sustainability phenomenon shows no sign of abating and their forecast that Oil Age technologies will give way to Information Age technologies that will cause society to experience dramatic technological and economic change seems to be unfolding before us right now.

For the global organisation Hewlett Packard (HP), the concept of global sustainability is certainly not new. HP's commitment in upholding corporate social responsibility and sustainability practices is an organisational quality that has a long history. It dates back to HP's first founders in the 1930's when Dave Packard spoke of concepts that appear commonplace in today's corporate arena. Even then initiatives such as making charitable donations and other

contributions to the community set the company apart, providing a clear public statement that HP had a vision beyond that of solely making profits.

Today, HP Australia shows that to live by its vision of socially responsible practices, the company requires an organisation wide focus on what is important to the organisation and its customers. It sees sustainability initiatives as a key to achieving social responsibility. At HP, management argues that sustainability initiatives do not stop with the product designers or the engineers but are infused across the organisation. According to Environmental Manager, Annukka Sairanen, for instance, HP's network of environmental professionals, ranging from front-end staff like herself who deal directly with stakeholders, to packaging engineers, to HP suppliers, all play a part in ensuring that the sustainability initiatives both perpetuate and build on the financial strengths of the organisation (Sairanen, 2006). HP's strategies can be identified as follows:

STRATEGY 1: MAXIMISE ON MARKET LEADER POSITION
Be visionary and proactive
According to HP managers we interviewed, HP sets itself apart from other companies in their industry in that it is not satisfied with mere compliance with government environment protection legislation. As leaders of the industry, they recognize that actively contributing to government rule-making and taking on pro-active strategies to pre-empt policy changes enables the organisation to progress human and ecological sustainability measures, enhance their reputation and take leadership in order to increase competitiveness.

For example, in line with its corporate vision, but also in preparation for the passing of environmental legislation mandating IT companies to recycle their electronic parts, HP Australia has chosen to take on a 'beyond compliance' stance. HP Australia's 'C4PA Program' (Cartridges 4 Planet Ark) is an example of HP's commitment to becoming the 'leader in delivering environmentally sustainable solutions for the common good' by 'providing customers with inventive, high quality products and services that are environmentally sound throughout their lifecycles' (HP, 2006a). For their commercial customers, HP provides a take-back program called 'Asset Recovery Services' where customers are able to return their products back to HP for responsible recycling. Returned products that still have retained value are refurbished and resold on the client's behalf. In some instances, the recouped value can be returned to the customer allowing them to offset some of the costs when they buy a new product from HP.

STRATEGY 2: BUILDING COLLABORATIVE RELATIONSHIPS

Recognizing the benefits of collaboration with governments, HP was the first IT company in Australia and in the world to sign a 'Sustainability Compact' with the environmental regulator Department of Environment and Climate Change (DECC) in order to encourage more sustainable practices throughout the sector. Collaborating with government agencies through signing of voluntary agreements and compacts not only demonstrates HP's leadership in sustainability, but acts as a risk management measure. The closer relationship with regulators enables the company to more accurately predict likely legislative change. The program is described as a core strategic initiative and follows a natural progression from HP's Global Citizenship commitment(HP, 2006a).

The 'Sustainability Compact', essentially an agreement between HP and DECC, commits HP for three years to the advancement of sustainability practices across HP's facilities, operations and supply chain. The Compact emphasizes joint implementation of sustainability projects according to agreed upon targets and timelines. The Compact Commitments include:

- Strategic sustainability planning and reporting
- Staff and other stakeholder involvement in sustainability planning, training and project development
- Product stewardship relating to computer hardware, printer supplies (consumables) and packaging
- Environmentally preferable IT purchasing by consumers, business and government
- Enhanced environmental performance of HP sites and operations including resource efficiency, waste avoidance and recovery and other aspects of facilities management
- Environmental auditing supported by staff education and training

HP's vision and reputation as one of the world's most respected global citizens is enhanced through this Compact. It provides business opportunity through more efficient management of resources as well as a key proof point when demonstrating environmental leadership to customers whose procurement decisions take environmental sustainability of suppliers into account. It also provides leverage when seeking to influence other organisations to adopt the sustainable initiatives for their own systems. It is HP's aim that by setting themselves as an example, they can inspire and lead others in the IT industry to operate together as a sustainable network.

STRATEGY 3: TURNING ENVIRONMENTAL PRIORITIES INTO COMPETITIVE ADVANTAGE

Recycling as a way of business

HP's competitive advantage comes from making sure that recycling of electronic goods, one of HP's environmental priorities, is embedded in the way they do business. Instead of looking only at the disposal phase of a product, HP implements environmental considerations throughout the lifecycle of each product through a competitive core design strategy, 'Designed for Recyclability, Designed for Environment'. This means that design according to environmental

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principles continues through to manufacturing, packaging and finally disposal of products. A key question underpinning the organisation wide design strategy is:

> **"How can you design a better product that is easier and cheaper to recycle at the end of its life?"**

The linked understanding is that recycling as a cost in the supply chain needs to be minimized,

"…instead of having twelve screws in your printer why don't [we] just eliminate all the screws and have snap-on features? [Snap-on features as fixture that affix product materials and components together similar to screws. Using snap-on features mean reducing the time to separate plastics…thus saving] money in the recycling proportion and having a competitive advantage over someone who doesn't do that" (Sairanen, 2006).

Sustainable design and innovation
Sustainable and innovative product design ideas have led to an approach by HP which focuses on reducing materials used in the making, packaging and delivery of the product. By minimizing the amount of packaging that surrounds each product, HP effectively minimizes the space that the products take up, hence reducing transportations costs that comes with airfreight or sea freight methods. In 2005, the number of PC's which fit on one shipping pallet rose from 28 to 40 units, thus affecting a 40% reduction in the energy required for shipping (HP, 2006b).

An example of the design and packaging innovations at HP is the shift towards modular designs so as to facilitate easier disassembly and recycling. Additionally, products are now assembled using 'snap-on' features, removing glues and adhesives from the production process. It also now uses moulded pulp (which is also recyclable post use) to produce packaging or protective casing for its products.

Harnessing human resource innovation
According to Krueger and Killham (2006), creativity and innovation is derived from:
"engaged employees who work with passion and feel a profound connection with their company. They drive innovation and move the organisation forward."

HP's product designers or environmental design engineers are also known as environmental product stewards who are specifically tasked to incorporate and translate the environmental guidelines into the design of their products.
Internal environmental design awards such as the PEAC (Packaging Environmental Advisory Council) award are examples of tools that HP utilizes to ensure that environmental guidelines are always translated into practical product packaging solutions. The various packaging design ideas are then stored on the intranet serving as a valuable innovation resource.

HP Product designers are trained on the company's Design for Environment principles. HP has its own recycling centres in Europe and North America and first-hand learning from these organisations has translated into a sustainable perspective across the organisation. Management of the recycling process has helped the company to learn from its experiences in product recycling and to translate these experiences into effective, better approaches to product disassembly and recycling and to, in turn include them in the product design engineer training. During the design process, there is opportunity to assess an element and remove it from the product in order to enhance the product's ability to be recycled. Designers are also trained in the regulations around the world that require HP to remove certain hazardous components (e.g. batteries for instance) from the products before they recycled.

Full circle benefits
As a first mover in the industry, HP has had to re-educate their partners and suppliers along the way in fulfilling their environmental corporate objectives. As awareness of environmental sustainability builds in the IT industry and overall business environment, HP finds itself in an interesting position where customers are now demanding solutions for the dilemmas that they now facing as a result of global environmental regulations. Effectively, the market and regulatory forces have now provided the impetus for the industry to catch up with HP. This push from the supply chain provides HP with more support for their initiatives. It demonstrates that HP has certainly faced up to the challenge of global sustainability. Their creative strategies continue to reinforce their position as market leader and visionaries.

DISCUSSION FOCUS

Sustainable Product Service System (SPSS)
The Sustainable Product Service System (SPSS) is an example of HP's continued investment in creating innovative services and product systems, all part of harnessing their competitive advantage. The SPSS is part of a total cost of ownership (TCO) approach founded by HP and Gartner in the 1990's.The SPSS represents a "cradle-to-cradle" approach; where people are offered solutions as products. Need-focused solutions are inherently more sustainable than products as they offer the value of use rather than the product itself (Tukker and Tischner 2006).

As Michael Wagner (2006), Business Development Manager of HP points out, buying the device is only the tip of the iceberg, and HP is committed to providing their customers with the whole iceberg – a solution which manages the hardware, software and services in a Sustainable Product Service System (SPSS).

Total cost of ownership (TCO) is defined as the cost of procuring, deploying, managing and maintaining Information Technology (IT) systems (HP TCO, 2006). Figure 1 is a graphical representation of how a much lower total cost of ownership can be achieved over time by using a managed approach for all the costs involved in the lifecycle of IT systems.

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Insert Figure 1 about here
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The "unmanaged" approach results from purchasing decisions made only on initial hardware cost without considering the impact for on-going support and services costs. The reality is that initial hardware costs of the technology amounted to only 20-25% of the total cost, whilst post-deployment costs may constitute up to 80% of total IT expenses (Wagner 2006).

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Insert Figure 2 about here
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This is where the SPSS fits in – the life cycle approach of SPSS, in Figure 2, enables HP to realize measurable TCO cost savings for customers in the management, maintenance, upgrade, and support of their overall IT environment. Effectively, HP has proven the value of applying TCO reduction strategies within its own organisation, reaping a dramatic savings of over "*$200 million annually in overall IT costs*" (HP TCO, 2006). The conception of SPSS was customer driven- customer feedback signalled demand for a sustainable model of funding, for someone to run and manage their IT system in a responsible and efficient manner (Preston, 2001). However, when it comes to selling the system, HP has experienced a low level of market penetration. HP has tried to get around this hurdle by training its executives and sales team to sell the financial benefits of the SPSS, through concepts such as:
- o Net Present Value
- o Return on Investment – the total cost of ownership approach is important in measuring the correct ROI as it ensures that all costs are incorporated.

However, whilst almost all customers whom they approached recognized the innovative approach underpinning the SPSS, few would commit to buying it. This hesitance by the market can be attributed to intra-organisational issues and responsibilities as well as cultural resistance. HP's experience with the SPSS has been that the managers to whom they are selling the product to are largely from the procurement area, and do not see the benefits of the TCO approach. Procurement managers in general are not privy to the fact that savings in administration, productivity, and service costs will benefit the bottom line in the short term. Departmental budgets and responsibilities are regarded as a priority over the greater long-term benefits that SPSS can bring to their business as a whole.

The sustainable business model may be attractive to the CEO, with an umbrella vision of the firm, but the differentiation of responsibilities in most organisations means that the project decision is delegated to the CFO and CIO. Using traditional financial indicators as a measure, the probability of SPSS being adopted is further reduced. Effectively, "*the financial value of environmental drivers is lost*" (Preston, 2001) as financial managers in companies have yet to recognize what environmental values can bring to the bottom line:

"the decision level must be raised to the point where all costs to the organisation are relevant"(HP Invent, 2006)

The SPSS example highlights the fact that sustainability needs to be integrated into all decision-making in the organisation for long-term benefits to be achieved. Corporate social responsibility is not limited to restrictive practices relative to corruption or human dignity; it is also about protection of the environment. HP as a large multinational is a good example of a company that has demonstrated this aspect of social responsibility through proactive strategies. Interestingly, these strategies have the capability of yielding competitive advantage for HP. However, the sustainability of this competitive advantage is reliant on future strategic actions of its competitors and may be dependent upon future shifts in national policy making. For some constituencies, such as Australia, for instance, it seems highly likely that future legislation will address both the need for product stewardship in the electronics industry and for all industry sectors to reduce their carbon footprint.

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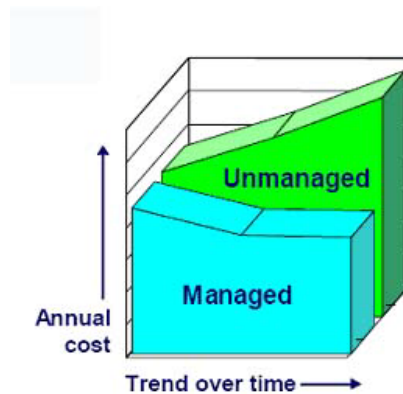
Figure 1: Total Cost of Ownership

Figure 2: Life Cycle approach to TCO reduction
(Source: HP TCO, 2006)