

THE COLOUR OF PROFIT IS GREEN

Examining how one's business can use less resources will not only leave the world a better place, it will also decrease one's costs and increase profits

BY MICHAEL SMITHING

MOST people relate sustainability to preventing global warming and ensuring that our future generations can continue to live healthy and productive lives on the planet. These may be important, but to business owners, sustainability is also about dollars and cents.

To operate a small business sustainably, it needs to make a profit. While making their businesses profitable, there are many more things that small-business owners can do to make the earth – or nearer to our hearts, Singapore – a better place to live.

MACHINES

To remain competitive, machines – such as computers, printers, cash registers, forklifts, trucks or production lines – that are commonly used need to be updated regularly. However, replacing a machine before the end of its life cycle is wasteful; and in most cases, not very green. When investing in new machinery, it is useful to look at the total cost of ownership to increase the long-term sustainability of the business. In general, the total cost of ownership is dependent upon three factors, including:

• **Investment cost:** The price you pay to purchase and install new equipment is critically important. If a machine costs more than it can produce for your business, the investment will not be sustainable, no matter how "green" the supplier tells you it is.

• **Operating cost:** In addition to the investment cost, which shows up on the profit-and-loss statement as a depreciation item, machines have ongoing maintenance and operating costs. Most machines use energy, so energy efficiency is often an important consideration. For example, laptop computers typically cost more than desktop computers, but they use 75 per cent less energy. For a typical laptop, the savings could be S\$15-20 per computer per year. Printers use not only electricity, but also paper and toner; so it is sensible to make sure that everything which is printed is actually used. Most businesses find that printers which require users to enter a code at the printer reduces waste significantly, as users forget to collect documents, which means that they do not really need them.

• **Productivity cost:** Payroll is the highest single cost for most businesses, and the impact of a new machine on worker productivity is often much greater than the impact on operating costs. For instance, computers are more expensive to purchase and cost more to operate than

typewriters, but they have revolutionised office productivity. Laptop computers may affect work-life balance, but they generally increase productivity. If an employee works one extra hour a week at home on the laptop, he/she will each have worked 50 additional hours by the end of the year (which is certainly worth much more than S\$20.) Almost every investment in technology has an impact on employee productivity, and it is important to factor this impact into your investment decision.

BUILDINGS

Changing buildings is difficult, expensive and time consuming, so this article assumes that businesses will try to avoid it. Fortunately, there is a lot that one can do within the current building to increase the sustainability of the business. The following list covers most of those areas which impact the majority of businesses:

• **Water:** For most businesses, saving water is easy. It requires little investment and has a payback of less than six months. For less than S\$5, you can purchase and install a replacement tap aerator that reduces basin flow by over 50 per cent to two litres per minute. Depending on the actual cost of the aerator and the number of people using the basin, the investment should entirely pay for itself in four to six months. Unfortunately, in spite of the fact that we live on an island with no water of its own, water is not expensive enough to have a significant impact on the cost of operating most businesses, and you are only likely to save S\$40-60 per year per tap.

• **Lighting:** The key to reducing lighting costs is to understand when and where the employees use lighting, and turn off lights that are not in use. Most offices today are designed to provide 500 lux of light on the desktop, as required by Singapore code. However, most people working in an office environment are comfortable with approximately 350 lux of light, as reading documents on a computer monitor requires less light than reading paper documents. At Colliers, we have reduced lighting power and created a better work environment by removing one of the three bulbs from each lighting fixture, reducing our electricity bill without any investment. We have also installed occupancy sensors in the toilet block to turn the lights off after 15 minutes. This is a simple, low-cost investment which can produce great savings in warehouses and storerooms with variable usage patterns. In lighting-intensive industries such as retail, it usually makes sense to

switch to LED fixtures, which not only use much less energy but also reduce the possibility of burn-out, eliminating the need to purchase and stock replacement bulbs.

• **Ventilation:** People need fresh air, and all enclosed buildings have some kind of ventilation system. For most businesses, the need for ventilation disappears every evening when the employees go home. Shutting down any mechanical ventilation systems serving your space while the staff are gone can save a significant amount of energy and reduce the energy bill in most cases. Depending on the building and the systems installed, it is usually necessary to turn on the ventilation system one to two hours before everyone arrives at work to freshen up the air for a good day's work.

PEOPLE

This is the single highest cost for most businesses. It thus makes sense to create the most productive work environment possible. Providing the right tools is part of this, but providing the right environment is often even more important. Labour in Singapore is expensive, and so, in most cases, it makes sense to increase capital and operational expenditures (capex and opex) to improve productivity. The following are a few investments which generally have an excellent payback:

• **Natural light:** Numerous scientific studies have shown that natural light makes people more productive across a wide variety of tasks. It also increases retail sales and student test scores, while reducing the length of hospital

stays. Our bodies have evolved to need natural light, and the subtle changes in light throughout the day are important to keep our body clocks running properly. For most businesses, raising the blinds will provide a fast and free productivity improvement. One may need to lower the blinds in some areas during part of the day to reduce glare, or purchase anti-glare screens for some monitors. One can expect complaints over the first two to four weeks until all staff become used to the new lighting levels, but do not give in – we rarely know what is good for us before we give it a chance.

• **Plants:** Plants breathe carbon dioxide and exhale oxygen, naturally improving the air quality in our work environment. Scientists have shown that plants make

people feel better and that a reasonable amount of plants in the workplace increases productivity. Thus, they are a fairly low-cost way to improve productivity and morale.

• **Comfortable work environment:** This will mean something different for every business. For most office workers, the quality of the chairs that they sit on all day is the most critical factor. In other businesses, ambient factors – such as noise levels, temperature and humidity – may be the most important. Many small-business owners work alongside staff; in this case, one can ask what one could improve to make time at work more comfortable, before delivering that to everyone.

IMPROVING LIVES

As one can see, "going green" is about improving the lives of people today, as well as making sure that our planet is a safe

place for future generations to live. Examining how one's business can use less resources will not only leave the world a better place, it will also decrease one's costs and increase profits – creating a win-win situation.

The largest increase in profits will come by increasing staff productivity. If one regularly thinks about how one can improve working conditions, the sustainability of one's business will increase along with profits. Providing more natural light, views to the outside and plants or investing in machinery and equipment that is easier to use, quieter or have lower emissions will provide a win-win for both small-business owners and the staff – the most important resource for the future of one's business. ■

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