THE AGEING PC EFFECT – EXPOSING
FINANCIAL IMPACT FOR SMALL BUSINESSES

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Executive Summary

Small businesses are continuing their sharp focus on cost control and cash conservation. However, “cost” is sometimes a tricky item to nail down. Too often, small business owners focus on short term costs and while in most cases this approach is absolutely valid, at times it can lead to situations that cost them more. The choice between maintaining older PCs and replacing them with newer PCs is one such area. However, these small businesses should re-evaluate this decision given the higher cost of maintaining older PCs which has a larger cumulative effect on the budget than purchasing newer PCs with latest technology. Techaisle, conducted a global survey of 736 small businesses in six countries to understand the comparative differences in costs of maintaining older PCs and newer PCs, associated quantifiable productivity lost and the impact of newer PCs. In light of the issues faced by PCs 4 years or older, replacing, rather than repairing and upgrading is a much more prudent course of action. The key to this is to consider both direct and indirect costs resulting from PC downtime.

Figure 1: SMB Wheel of Business Priorities
Figure 2: Average Cost of Maintaining an Older PC
Figure 3: Productive Hours Lost due to Older PCs
Figure 4: Top 10 Older PC related Problems
Figure 5: Impact of Newer PCs on Small Businesses
Figure 6: Number of Simultaneous Applications

Table 1: Financial Impact to Small Businesses
Introduction

Small businesses are a good indicator to measure the pulse of economy in any country as they constitute over 98 percent of businesses within that country. They are intricately linked to large businesses, government departments and educational institutions as both suppliers and customers. A large percentage of consumers also rely on small businesses for products and services that they consume within their households. Information Technology plays an important role in daily operations of small businesses across all departmental functions including sales, marketing, operations, finance and customer support. As seen in the chart below based on Techaisle’s Global SMB Surveys, 2013. Reducing operating costs and Improving employee productivity are among the top business priorities of small businesses and they are turning towards IT more than ever to achieve their priorities.

Therefore small businesses become a natural target for IT companies to unload their marketing messages for products and services that help in reducing operating costs and improving productivity. However, sometimes it is as fundamental as staring at the device, namely PCs that run these applications to find hidden costs and identify productivity drainers. These devices are older PCs, usually 4 years or older.

In fact, 36 percent of small businesses have PCs that are 4 years or older. This is as per a recent study conducted by Techaisle with 736 small businesses in six countries – US, Brazil, China, Germany, Russia and India. The study exposes the true costs of maintaining older PCs, frequency of repairs, hours lost along with an assessment of the most frequent types of application and systems performance issues encountered by PCs that unbeknownst to many small businesses are chipping away at their cash flows and productive work hours.
The Ageing PC Effect – Exposing Financial Impact for Small Businesses

Maintaining Older PCs Negatively Affects Operating Cost

The study reveals that small businesses are spending an average of US$427 per PC that is 4 years or older on repair cost, which is 1.3 times the repair cost for a PC that is less than 4 years old. Cost implications vary widely for small businesses of different sizes. For example, among small businesses with 50-99 employees, the average cost of repairing PCs 4 years old or older is US$521 per year which is 1.4 times the repair cost for a PC less than 4 years old. The repair cost therefore either equals or even exceeds the purchase price of some new PCs.

Figure 2:
Small Business: Average Cost of Maintaining an Older PC

As the system performance of older PCs begin to degrade and the number of applications running simultaneously increase to an average of eight for small businesses, it is not surprising to see that 25 percent of older PCs are upgraded each year by small businesses which is 1.7 times as many PCs upgraded that are less than 4 years old. The upgrades add another US$134 per older PC.

The average per PC cost to upgrade an older PC is highest within the 1-49 employee size small businesses and is 1.6 times the cost to upgrade a PC that is less than 4 years old. Combining the average upgrade cost across all small businesses with the average repair cost the total cost of maintenance equals US$561 per older PC. This is a “stealth” cost that drains cash flow and adds to the operating cost of a small business which they can hardly afford. In the words of a small business owner in India:

“I know we are spending a lot on repairing our PCs and I would like to replace but I want to know what my costs would be if I do not replace them”

The above sentiment is echoed by small businesses across all countries surveyed. The study shows that 60 percent of small businesses will replace older PCs when the cost to repair is almost the same as the price to replace.
Older PCs Diminish Employee Productivity

When improving employee productivity is among the top business priorities of small business it is natural to assume that the businesses explore all options to achieve their priorities. However, in the daily grind of work sometimes cost reduction solutions staring in their face get overlooked unless someone demonstrates it to them. One such important opportunity is replacing older PCs with new PCs to avoid number of hours lost due to PC repairs.

**Figure 3:**

<table>
<thead>
<tr>
<th>Small Business: Productive Work Hours Lost due to Older PCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Repairs/year</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Hours Lost</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Techaisle Small Business Study, 2013

The study reveals that an average of 42 hours is lost due to an older being repaired by either internal IT staff or reseller or even friends & family. Slightly over 36 percent of small businesses have PCs 4+ years old and these PCs create many different types of problems for the both the owner and the employees.

**Figure 4:**

In addition, small businesses reported that they frequently experience Application and System Performance, Malware attacks and Connectivity related issues with PCs that are 4 years or older. Although it is difficult to quantify the impact of lost productivity due to these issues unlike measureable and quantifiable impact due to repairs, they also contribute to significant diminishing of productivity and employee satisfaction.

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Newer PCs Positively Impact Productivity and Reduce Operating Cost

Small businesses using newer PCs have felt several positive impacts; among the top are improved application performance, improved productivity, and reduced operating cost.

![Figure 5: Impact of Newer PCs on Small Businesses](chart)

- **Newer PCs can run more applications simultaneously**: 4.77
- **Newer PCs make me or my employees more productive**: 4.67
- **Managing newer PCs is significantly easier**: 4.64
- **A newer Notebook allows us to work more efficiently when away from the office**: 4.60
- **We are able to better secure and protect data on newer PCs**: 4.54
- **We can experience improved mobile productivity with thinner, lighter and longer battery life designs of newer notebooks**: 4.53
- **New PCs reduced overall PC maintenance costs**: 4.46

Source: Techaisle Small Business Study, 2013

Small business owners mentioned that newer PCs allowed them to run 60 percent more number of applications simultaneously without any degradation in system or application performance as compared to PCs that are 4 years or older. This is a significant improvement as small businesses are increasingly using several different types of applications simultaneously including business productivity applications, Email and web, online chat and video, line of business applications, social media interactions, finance and accounting as well as music and games.

![Figure 6: Number of Simultaneous Applications](chart)

Older PCs run 5 applications simultaneously

Newer PCs can easily run 8 applications simultaneously without performance degradation

Source: Techaisle Small Business Study, 2013

Improved performance directly leads to improved productivity and efficiency. Along with better manageability and reduced overall maintenance expenses, newer PCs directly impact the bottom-line of small businesses by reducing operating costs.
Conclusion: Financial Impact to Small Businesses

More than two-thirds of small businesses have moved away from a PC replacement policy and many others are keeping their PCs in use longer than in previous years. 47 percent of small businesses cited lack of budget as a key reason for not replacing older PCs in spite of frequent issues and lost productivity. However, these small businesses should re-evaluate their decision given the higher cost of maintaining older PCs which has a larger cumulative effect on the budget. They should consider both direct and indirect costs resulting from PC downtime, that is, both the “visible” and “hidden” costs. Replacing, rather than repairing and upgrading will reduce cost of operations and free up budgets.

Let us say a small business has six PCs. Three PCs are more than four years old and three are less than 4 years old. Based on the data from the study we can calculate the direct costs and the cost of lost productivity for old and new PCs.

1. **Direct maintenance costs** – In the above example, the direct cost associated with the older PCs including cost to repair and upgrades is likely to be $1,683 versus $1,257 for the newer PCs. (see Table 1). This is the cost that is “visible”.

2. **Productivity costs** – In terms of lost productivity due to PC downtime, the three older PCs are likely to experience a total of 126 hours of downtime in a year, versus 63 hours of downtime for the three PCs that are less than 4 years old, that is loss of over three weeks’ worth of productivity in a year with older PCs. Assuming the average hourly salary of PC using worker is about $20/hour, the small business is losing $2,520 per year in productivity keeping the three older PCs in use. Lost productivity is the “invisible” cost.

Adding these two costs together yields total cost of $4,203 per year incurred by a typical small business with three older PCs. To put it in perspective – that is equivalent to buying two to four new notebooks (depending upon specific purchase price).

<table>
<thead>
<tr>
<th>Table 1: Financial Impact to Small Businesses</th>
<th>&lt; 4 years</th>
<th>4 years or more</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Maintenance Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of PCs</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Average per PC repair cost</td>
<td>$324</td>
<td>$427</td>
</tr>
<tr>
<td>Total cost to repair</td>
<td>$972</td>
<td>$1,281</td>
</tr>
<tr>
<td>Upgrade Costs</td>
<td>$95</td>
<td>$134</td>
</tr>
<tr>
<td>Total Upgrade Costs</td>
<td>$285</td>
<td>$402</td>
</tr>
<tr>
<td>Total Direct Costs</td>
<td>$1,257</td>
<td>$1,683</td>
</tr>
<tr>
<td><strong>Lost Productivity Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours Lost</td>
<td>21</td>
<td>42</td>
</tr>
<tr>
<td>Total Hours lost</td>
<td>63</td>
<td>126</td>
</tr>
<tr>
<td>Average Salary per hour</td>
<td>$20</td>
<td>$20</td>
</tr>
<tr>
<td>Productivity Cost</td>
<td>$1,260</td>
<td>$2,520</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$2,517</td>
<td>$4,203</td>
</tr>
</tbody>
</table>

Source: Techaisle Small Business Study, 2013
About Techaisle

Techaisle is a global SMB ICT Market Research and Industry Analyst organization. Techaisle was founded on the premise that Go-to-Market strategies require insightful research, flexible data, and deeper analysis. Understanding the value of data consistency across markets to inform strategic planning, Techaisle has remained holistic in its approach to Insights and provides globally consistent SMB and Channels analysis across geographies. To achieve its objectives Techaisle conducts surveys with SMBs and channels to understand market trends, opportunities, buying behavior, purchase intent, and IT priorities. Besides covering emerging technologies such as SMB cloud computing, managed services, mobility, social media usage, virtualization, business intelligence, big data, networking its channel research coverage provides in-depth understanding of resellers and channel partners globally. Techaisle’s insights are built on a strong data-driven foundation and its analysts are conversant with both primary research and industry knowledge, which is a rare combination. Techaisle offers its clients: Syndicated Research, Custom Consulting, Market Forecast, Competitive Intelligence, Segmentation and Predictive Analytics services. For more information on Techaisle or its global products/services, please visit www.techaisle.com, and our analysts’ blogs at www.techaisle.com/blog