

MANAGERS CAUGHT IN ACCELERATING RATE OF TECHNOLOGICAL CHANGE

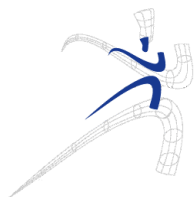
Business managers today are being pressured by many forces today. One new factor of the key changes that is occurring is that the rate of change of the available technology is accelerating. This fact is bringing a new set of pressures to the hectic world of business and managers must learn to cope with this fact and develop new strategies for the future

Case #1

The manager of the geological group of the Canadian affiliate of a large international energy firm was called in one day by his excited vice-president to discuss a revolutionary new piece of software that was being developed by the firm's head office. The manager had seen enough "vapourware" in his time to be only cautiously optimistic. However, after two demonstrations, several long distance phone calls, and a couple of meetings (not to mention all of the time spent reading material on the plane and at home), the manager had to lay down the cards. He informed his boss that essentially the product was not applicable to the Canadian marketplace.

Case #2

A large hospital launched a major project to replace their existing office equipment. The project followed the traditional steps of reviewing the requirements and issuing a request for proposal (RFP) to a number of vendors. While evaluating the results and looking at a number of demonstrations, the project team was asked by a senior member of the administration if they had investigated a vendor that had not been on the original list. The project team dutifully investigated and found a new exciting set of products. However, because of the "public" nature of the institution, they were forced to cancel the RFP and re-issue the requirements to a new list which included the new vendor. The elapsed time for this took in excess of three months and virtually doubled the amount of work for the staff and vendors.



Case #3

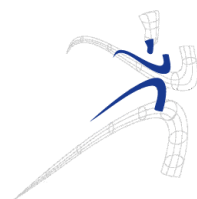
During a period of rapid growth, a service bureaux that provided specialized processing services was required to add large increments of processing power to their data centre. Due to the urgency, the firm had merely added blocks of computing power identical to their existing technology. One year later, when they had time to catch their breath, they found that the core “engines” supporting their business was sadly antiquated on price/performance and reliability when compared to their competition.

What's Happening?

The rate of change of information systems technology is accelerating. Scientists have stated that the amount of technological change in the last 50 years has exceeded the total amount accumulated in recorded history. Years ago, IBM used to have an annual program of announcing new products. The list was small and it was a “big deal” to technology consumers. Now, IBM is announcing new product and services almost weekly and the list of new items from any one division is staggering in number and complexity. Large mainframe computers which used to have a useful life of 10 years, now are being pressed by newer faster cheaper models in the fourth year after being announced. Micro computers are a good example also. A realistic life span is now less than 3 years before they are being eclipsed by newer models. Micro computer software is moving even more rapidly. Products now are being pressed by the competition in a 1 year time frame. Piracy occurring in micro computer software has also added to the frenzy by forcing suppliers to plan the launch of their products and the capture of their returns in 90 days.

Management Risks

Managers charged with delivering within their organizations are at risk if they do not investigate the latest technological offerings available. After all, one can be reasonably certain that a percentage of the competition will be trying hard to leverage the technology for some advantage. At the same time, however, managers can devote incredible amounts of energy to the pure process of investigation. That energy when applied to the business in other ways (for example, paying more attention to staff and clients) might be better spent. Also, managers who do not investigate new offerings run the risk of criticism. We also know that hindsight



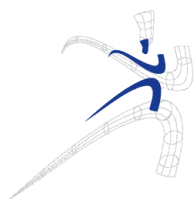
vision is 20:20 and the manager who takes no risks is often viewed as not progressive or ambitious enough for advancement.

Also, purveyors of new offerings have an unenviable track record of failure. Sometimes, the product itself is an Edsel. Sometimes, the support for the new product is never forthcoming. Sometimes the product dies. Remember IBM's System 3 and the 96 column punched card. Sometimes the vendor fails to provide a reasonable growth path. Sometimes, the vendor fails and is no longer in business. Remember the fabulous Osborne personal computer. The list of risks here is endless.

Coping Strategies

Managers can adopt strategies that will help them cope with the double pressures that are being aggravated by the increase in the rate of technological change. The following checklist will help busy managers deal with this increasingly prevalent issue:

1. *Don't be first, but beware* - if a new product is being introduced, let someone else be the first to test the vapors. Remember that the early pioneers had some tremendous difficulties. However, use your network of contacts (vendors, conferences, colleagues, consultants, etc.) to keep a pulse on new offerings and be ready to provide some high level comments on new offerings when queried.
2. *Stay mainstream* - although I have a soft spot in my heart for small entrepreneurs and developers, managers should stick with proven vendors and proven products to reduce the risk. This doesn't mean that you should order 1000 micro computers in the third year of their existence.
3. *Adopt architectural strategies* - this will allow you to fit in vendor offerings as they are announced, delivered and proven. For example, if your firm needs work-stations for professional staff, select a mainstream vendor that has a "family" of products and a track record of introducing a stream of improved products. As the new workstations are introduced, try a few, and then if they are proven, gradually shift to the new products on an as needed basis.



Conclusion

The rate of technological change is accelerating. Managers will be pressed ever harder to choose between action today and magic answers tomorrow. Adopting some simple strategies will help them cope with these difficult demands.

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