The Leading Edge...of the trailing edge

When 'old' technology is new

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ABSTRACT:

Sometimes, technology that has long since ceased being considered 'leading edge' by the majority of industry segments presents itself as almost 'bleeding edge' to businesses that have, for whatever reason, tended to lag behind on adoption of new trends. Using EDI as an example, this series of articles explores how the disruptive effect is the same for the late-comers as for the early adopters. It also positions the company and management to consider what might be a do-or-die scenario: is this late adoption a sign of awakening? Or is it a grudging acquiescence? Will it vivify? Or will it simply mollify?

Companies regularly form groups to discuss their common needs, problems, and aspirations in the use and application of technology. They sometimes sponsor annual contests, or recognition events, handing out awards to companies that exhibit the most pro-active or progressive application of technology.

The field of nominated companies might be considered the 'cream of the cream', at least for that group. They are together hailed as innovators and forward-looking enterprises.

Sprinkled across the same geography, though, is another profile. In these companies 'advances' are applied as late in the day as possible, and then only when the market finally dictates that it can absolutely no longer be avoided.

Each situation is unique, naturally. But not simply late in following a trend, these enterprises are so dilatory that the trend technology itself is almost sunsetting just as they begin to embrace (or at least 'suffer') it.

An example of such technology might be EDI, or electronic data interchange. It has its origins in the trucking and grocery industries dating back to the 1960's. In the mid-1980's it matured into a software industry segment around a core of packaged software and value added networks (VANs). This packaged approach allowed the offloading of the complexity of translating data into and out of emerging standard formats, and also simplified the network communication setup and administration.

By the late 1980's in the U.S. executives of the [then] 800 pound gorillas of retail, Kmart, WalMart and Sears trumpeted the arrival of this technology as providing a “...sustained, strategic advantage...” to those who adopted it.

In the early 1990's that advantage became a cost-effective benefit, and then, quickly, a simple, hard requirement for participating in commerce with large retail companies.

But a funny thing happened on the way to the modern electronic marketplace: the gorillas had their way, and more or less propelled an entire industry into EDI, sometimes using a very heavy-handed approach.

I/T organizations in the supplier companies had a new mandate: provide a robust 'sales' side automation engine. The funny thing was, the response from the gorilla's vendor base (including I/T) was uneven, and sometimes quite illogical.

Sometimes the response was called, 'rip and read', with the supplier presenting itself to the gorilla customer to be an EDI vendor, but in fact intercepting the EDI document in raw format, printing it, and giving it to the order entry clerks for manual entry into their MRP system.

On the other had, there were companies that recognized the value, embraced the use of EDI, and set about to make it work for their own benefit.

Anecdotally, I would point to the deployment of EDI at two companies in central Tennessee. Both of these companies were manufacturers and distributors of office supplies; both serviced (and competed for share from) the same marketplace of major retailers. They both operated their business on identical hardware platforms from IBM, and both ran the same then-state-of-the-art MRP system from IBM (MAPICS).

Responding to the demand of the marketplace for EDI, both companies studied their options and the requirements and finally both purchased the same EDI translator program for integration into their MRP environment.

But there the similarities end.

For the company Northern-most on Interstate-65 it was a bare-bones implementation with I/T being pulled, heels dug in, into making it happen so sales could continue to enjoy the good favors of the gorillas out there.

On the other hand, their competitor to the South was well prepared for the introduction of EDI. Moreover, it was the final step in a multi-year strategy to go paperless.

In Brentwood, the EDI project generated friction within the company and with the trading partners. In Lewisburg, the integration flowed quietly and seamlessly.

Interestingly, the Brentwood company, Empire-Berol, was sold a couple of years later and seems to have all but disappeared. The Lewisburg company, Faber-Castell, still operates under its brand name, even though it, too, was bought out.

So this little story provides an illustration of what might be considered variances in styles of management, along with the value of vision as factors in technological success.

This real-world example, though, comes from a time frame when adoption meant stepping onto the technology curve while the trend was rising steeply. It was still early in the EDI life cycle. In fact, these companies might be regarded as 'early adopters', at least in the sense of their attempts to truly integrate the information to the benefit of the business.

But, that was 15 years ago. In either dog-years, or technology-years, that was a long, long time ago. And trends in technology have made quantum leaps

What are we to make of companies who, in 2007, are still either just getting into technologies like EDI, or who remain 'outside the tent' altogether? By this time, there is certainly no shortage of information and evidence that the benefits should outweigh the costs.

And one may wonder how it is that any going concern could have stayed afloat during such tumultuous times and NOT embraced such a [comparatively] simple piece of technology.

Is it, perhaps, that the niche which the company services is so unique that there is no perception of a need – no pressure - to modernize?

Or could it be that the company has operated unhindered by competition in their segment(s)? Having a history sales success, and of the sense of 'deep pockets' that comes with such a legacy, perhaps management feels certain inefficiencies are allowable as long a reasonable profit is assured?

Once again, each enterprise's situation is unique. However, there are a couple of attributes that help describe and explain adoption behavior.

NEXT: **It's all about positioning: supply chain management**

The Leading Edge...of the trailing edge(2)

It's all about positioning: supply chain management

Imagine a supply chain sandwich: massive, international companies with a sprawling vendor base, and the companies in the vendor base, and in between the flow of information and data (and goods and services)

For purposes of illustration, let's segment this 'supply chain' idea:

consumer<--retailer<--retailer supplier(1st tier)<--supplier(2nd tier)

'Consumer' refers to the ultimate recipient of the goods/services being sold, and 'retailer' might include consumer goods deliverers, for example WalMart or automobile dealer networks (like Nissan and Ford).

It is pretty much a given these days that the sales-side model mentioned above applies throughout and in varying degrees. The most sophisticated is in the delivery to the consumer: volume based, highly automated, and ruthlessly cost/profit driven.

That rigorous and inexorable march to the bottom line is passed straight through to the first tier of retail suppliers – hence the requirement for a very robust sales-side engine for handling the exchange of information and movement of goods.

This first tier of suppliers has expended countless man-hours of effort and perhaps millions of dollars to capture a share of the market for their services and product from the retailers and their networks. As mentioned in the earlier part of this article, these companies have either bent over backwards, or been pushed practically to the breaking point by the same partners.

Trumping the pressures of otherwise running the enterprise, this likely contributed enormously to the proverbial 'backlog' in the I/T department. The backlog may be measured in the 'half-year' to multi-year range.

But that economic drive to the bottom line can only be stoked just so much on the sales and sales automation side. Sooner or later, economies have to be found in the 1st tier suppliers supply chain. Our 'sandwich' metaphor comes into play here, and in the cleft separating the next layer down in the 'food chain'.

consumer<--retailer<--retailer supplier(1st tier)<--supplier(2nd tier)

Many times, the 1st tiers attention and resources being focused elsewhere, the purchasing/materials management side has been relegated to grappling as best they can with the changes occurring to their pieces of the business. One result is a sprawling base of suppliers and vendors and, most commonly, little or nothing in the way of tools to provide either visibility, or automation.

And so a strangely similar tune arises as a duet from the finance side of the 1st tier companies and from the the sales side of the more progressive 2nd tier suppliers. It might be titled, “Last Night I Heard the First Calls for Automation”, or, “That Handwriting on the Wall”.

So we finally get to the titlular concept: the 'leading edge' of the trailing edge; 'trailing edge' in terms of our diagram, and also usually in terms of 'time to deployment' of automation tools.

So, stepping into this breech, what we'll call the 'progressive' companies in the 2nd tier become the potential beneficiaries of being among the 'early adopters' – 'the leading edge' - for their subset of the commerce engine ('...of the trailing edge'). Their sales management may recognize an opportunity. Their finance people also recognize (along with their customers – the 1st tier suppliers) that they're all being driven to the mat by the cost/price battle.

In that context, the benefits will be very similar to those realized by the successful companies who occupied that perch years (decades, perhaps) earlier. But realizing these potential benefits will be contingent on a couple of factors: (a) will they recognize – are they capable of recognizing - the window of opportunity not just as a chance to placate a big customer but to make real, lasting improvements to their operations, and (b)will they leverage it as fully as possible as a real 'differentiator' in their sales and marketing efforts.

NEXT: **So, it turns out it really IS all about “me”**

The Leading Edge...of the trailing edge(3)

So, it turns out it really IS all about "me"

In a guileless moment, a Director of Information Technology whose company was being propelled into using EDI commented on the stress that seemed to be building around the relationship with the customer. "When's the last time you saw a twenty thousand dollar software package cause this much trouble in a hundred million dollar trading partnership?"

At the heart of change management is the question posed by the individual, "What does it mean for me?" Team player they may be, altruistic to a fault, the question still begs.

And it's the same question whether it's being asked by a recently hired customer service rep, a first-line manager in the IT departnemt, or a vice president of sales.

In a way, the answer is the same, too: ultimately the meaning of change is defined by the person asking the question. It means exactly what the individual intends or desires it to mean.

That applies, as well, to the organization as a whole. And the answer is conveyed characteristically across and through the group.

The tone and tenor of the message should originate in the executive suite. In the absence of 'a message' or even an awareness of the existence of a need for such a message, it can originate from just about anywhere in the organization harboring a strong enough pocket of opinion and a willingness to be generous in sharing that opinion.

When an organization encounters disruptive technology the leadership team decides not only if and/or how to implement it, but also what the change will mean. Beyond just evaluating the operational aspects that are affected, the whole tone of the business itself is in play. And, by and large, the tone of the implementation will echo the prevailing culture.

In this forum we address a particular niche we call 'late adopters'. For these companies, announcing to the world in the same grandiose manner of the captains of industry when something truly 'new' is being executed is hardly an option. At least it can't be done with as much public remonstration.

But, to the company in which the change is happening in, it IS, in fact, 'new' news.

The scope of the change and the implementation method (which includes how the change affects internal branding or, the message) represent the real 'currency' of the change.

Will this be the crowing jewel of a vision for modernization? Can it at the least be cast as "...a powerful step in the emerging streamlined enterprise"?

Or will it be slipped into the overall order with little or no planning, economy, or fanfare - a grudging tribute to having strategy and direction determined from without?

These companies are, in their own right, on the 'leading edge' of adoption. Even though the thing they're adopting is 'old technology' by some measures, they still have the opportunity to use the introduction into their business as a differentiator.

Finance can do amazing things with expenditures and credits and write-offs and such. A CFO at an Atlanta manufacturer compiled a case for an ERP upgrade that actually MADE money for the company. That idea never got any traction, even though it did make sense on paper. And sales can always make use of a competitive advantage, however slight. One more example for the customer of 'added value' never hurt, either.

But all of these ameliorating factors are only available on the condition that someone in the company decides to make use of them, visibly, and optimally so.

And then there is the disruption, itself. Who within the organization will be on the implementation team? What will the effect of removing these individuals from day-to-day business duties? What will it cost? And what are the REAL costs? Some considerations towards the 'real' cost might be things like...

- Training
- Realignment of duties while the training and implementation are underway
- The associated creep in remuneration in order to keep the trained personnel
- Infrastructure changes/enhancements to accommodate the new system(s)

In some ways, it may actually be advantageous for these late-bloomers to adopt when they do. True, they have lost the benefit of the use of the technology over the span of time since when it first became stable and viable. But they didn't hit the turbulence of the implementation, either. Nor did they incur the costs.

That they are still holding a position in the supply chain at such a late hour without making use of only modestly modern tools must say something about either their management or their product set. Or it could be nothing but a measure of sheer tenacity, their position in the supply chain dangling by the slenderest of threads.

Principally, though, late entry into the arena aside, the question immediately following on to the adoption of the change is, will the introduction of this change become a model, or a kind of 'template' that, once the dust settles a bit, can be 'picked up' and overlayed on some other aspect of the business? Will the team and the company be energized and buoyed with confidence from their experience and success?

Or will the outcome be like the sad ending to the collision of a certain world-class ERP system with several not-so-well-managed concerns: a haughty start, a fitful, downward-spiraling, cantankerous cloud of dust called, 'the implementation', and then...padlocked doors, finger pointing in the courts (and in the 'court of public opinion'), and darkened distribution centers?