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Contrasting opinions about convergence

Convergence is the coming together of previously separate technologies in new products and services. Sometimes this union has massive consequences for industrial structure and market performance. If the hype is to be believed, convergence is leading to the network of the future. We will soon be placing a videophone call using a networked PC, or playing a multiuser, multi-location, Internet-linked video game on cable TV.

Considerations about convergence shape the business strategies of AT&T, IBM, Microsoft, Time-Warner, Sun, Cisco, and Lucent, to name a few. Due to the stakes involved, there is as much advice about convergence as there are consulting houses.

Have you ever listened to a consultant expound on this topic? Too many consultants look for a right answer to every convergence puzzle. This topic could use fewer opinions and more agnosticism. That is so not only because anything less than a dissertation necessarily skims the surface of this topic, but also because such strong opinions run counter to the basic economics of convergence. Here's why.

Do synergies exist?

Today's talk about convergence has its origin in an older debate about the existence of technological "synergies." Loosely speaking, synergies arise when the whole is greater than the sum of its parts.

Many executives believed (with varying degrees of fervor) that digital network technologies were full of synergies. For years synergies were a conventional part of every CEO stump speech. The standard illustration of technical synergies was the cellular telephone (put simply: phone + wireless technology = \$\$\$).

After a while, synergies got a bad name. Too many CEOs declared that synergism lay at the heart of a new product strategy. Quite apart from the usual blustering of even a competent CEO, any mention of synergies became syn-

onymous with an ill-conceived strategy.

The videophone AT&T tried to build 30 years ago is the best example of what typically goes wrong. It was hyped. Prototypes were built. Corporate marketing got behind it, and then no customer wanted to buy it. Thirty years later, it has (finally!) become affordable enough on the Internet to (almost) be a practical technology. Still, not many people want to buy it.

It is a classic mistake: An executive develops technology in front of customer demand, forgetting that new technology will not sell just because it cleverly puts two things together. Just because an engineer can build it does not mean somebody wants to use it. It still has to perform a useful function at an affordable price.

More to the point, product development is hard, uncertain, and risky. When customer demand is nebulous in an emerging market, market potential is hard to forecast. Refining new technologies into an affordable, usable product can take decades. (It takes more time if the FCC is involved, less time if Sony is.) Potential synergies do not change these facts much. If anything, they just make development that much harder.

Finally, synergies also got a bad name because they were used to justify merging two otherwise perfectly good independent companies. Anybody remember AT&T and NCR? Roim and IBM? Recent attempts to buy TCI or Turner? Technological synergies justified these mergers, but the synergies did not really matter in practice.

Somehow synergies became an excuse to forget merger fundamentals. Organizational cultures still had to blend, but these cases did not. Distribution networks still had to sell similar products, but could not. Good R&D people still have to want to work after the restructuring.

Contrasting visions

Today synergies have gone out of fashion, but the same issues loom in the background. Without a common language or recognizable

analytical framework, however, it is now common for two companies to view convergence through a unique lens. Many analysts lament such parochialism.

For example, consider the convergence strategies of two actual medium-size companies in the digital communication business (both will remain nameless).

First is the computer company that lives under the pressure of speed-based competition, short product cycles, and no safety net. The firm participates in many joint ventures in potentially converging technologies. Three quarters of the employees are young. They frequently obsess over Microsoft's behavior.

Not surprisingly, the company's convergence strategy changes monthly. It is shaped in meetings attended by its mercurial CEO and many employees who are vested heavily in stock options. All meetings begin with an update of the competitor's new products. Meetings end with a review of how the product line will be revamped next week.

Now contrast that with the phone company. This firm also participates in many joint ventures in potentially converging technologies. Since the core business is not very volatile, it balances the need for new services against the constraints of regulation. Like other telcos, the firm accepts deregulation where it is inevitable, and astutely blocks it everywhere else.

The phone company's convergence strategy emphasizes stability. It is shaped by the chief legal counsel, by design engineers who have been with the firm for 15 years, and by a bevy of executive vice-presidents who all want to become CEO. Meetings begin with news about court appeals to the 1996 Federal Communications Act. Meetings end with a report from the engineering committee that—for the last 18 months—has been designing a new service for the existing public switch network.

This can be summarized as a cliché. We can say that a PC firm and a phone company may live on the same planet, but inhabit different universes. More to the point, at some deep level these strategies cannot coexist,

yet both sets of executives are confident they can.

Something is missing

The complaints about parochialism are accurate but irrelevant. Essentially, they fail to appreciate a subtle feature about experiments in converging markets.

Recall that, almost by definition, technical convergence opens up new technical possibilities. And again, by definition, even experts cannot agree on the right approach to take advantage of a new opportunity. More subtly, technical issues cannot be settled by a committee of deliberating scientists or organized in a debate among parliamentarians. There is no right answer to questions about appropriate market strategy; there are only guesses and protracted uncertainty.

So it is that two engineers from two different firms, say a PC firm and a phone company, can sincerely believe that their contrasting proposals have superior features. There is no easy way to settle differences of opinion.

For example, have you ever tried to get an opinion about the future of standard technology in digital communications markets? What is better: ISDN (yesterday's craze)? ATM (today's craze)? or ADSL (Asymmetric Digital Subscriber Line, tomorrow's craze)? In my experience, the answer to this deceptively simple question changes monthly.

No example stays this way forever, eventually all possibilities are resolved in competitive product markets where customers tell firms whether a new product works or stinks. However, only the brave or the foolish try to predict much about that resolution! There is no limit on the number of products that stink, nor on the time it will take to come up with a product that works. Neither is there a restriction on who gets to try new solutions.

Markets are ultimately very good at experimentation in the following general sense: while trials continue, market experiences become known. All active firms learn from everyone else's mistakes. The best solution emerges eventually, if one is going to emerge at all, because it is likely that someone will make money and pursue it.

At the same time, technology markets are very bad at experimentation in the following sense: once the "right" solution is known, markets appear to waste resources on duplication or speculation. Emerging markets necessarily must be littered with failed business plans, premature initial public offerings, and badly conceived R&D efforts.

Thus, the more trials there are, the more likely someone somewhere will eventually get it just right. It is just hard to know ahead of time who this will be and when it will happen.

Convergence strategies

There is a strong temptation to be opinionated about converging markets, yet ultimately, agnosticism is wiser. Despite the temptation to rush to judgment, uncertainty is irreducible. A permanent part of the landscape is "If I had only known then what I know today."

Wouldn't it make sense for a firm's strategy to reflect this uncertainty? An excellent strategy for large firms (with loads of cash) often involves acting like a venture capitalist, taking out options on many experiments. For example, AT&T, Microsoft, Intel, IBM, and Cisco are all funding several different new products and making alliances with scores of different companies. They are betting that a few might win big, although most will go nowhere.

Similarly, an excellent strategy for a smaller developing firm is to reduce risks by seriously schooling its employees in the mistakes of others. Another strategy would be to develop products that fill an important niche in an investor's technology portfolio.

Ultimately, it does not matter that it is almost impossible to predict winning or losing technologies. There is a silver lining to inconsistent convergence strategies: Having a variety of decision-makers and approaches is good for exploration; thus, a variety of trials will find their way to customers.

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