

EVALUATING RESEARCH APPROACHES TO IT BUSINESS  
VALUE ASSESSMENT WITH THE SENIOR MANAGEMENT AUDIENCE  
IN MIND

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**EVALUATING RESEARCH APPROACHES TO IT BUSINESS VALUE ASSESSMENT**

**WITH THE SENIOR MANAGEMENT AUDIENCE IN MIND --**

**A Question and Answer Session with**

**Benn Konsynski and Charles Kriebel at**

**the 1991 International Conference on Information Systems**

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*Note: The following paper is an edited version of a transcript of a panel discussion in which Benn Konsynski and Charles Kriebel debated the relevance of the "case study approach" versus "formal models" in research that evaluates the business value of investments in information technology. The panel session was chaired by Rajiv Banker, University of Minnesota, and occurred on December 17, 1991, in the Marriott Marquis Hotel, New York City, New York. We appreciated the assistance of Juliana Van Olphen and Emily Hoffman in transcribing tapes of the session.*

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**ABSTRACT**

This chapter presents the transcript of a question and answer session that followed a debate on the case study and formal modeling approaches to IT valuation between Benn Konsynski, Harvard University and Charles Kriebel, Carnegie Mellon University. The debate was held in a panel session chaired by Rajiv Banker, University of Minnesota, and it occurred at the 1991 International Conference on Information Systems, December 17, 1991. Konsynski's and Kriebel's formal remarks were directed towards evaluating the *case study approach* and the *formal modeling approach* to IT business value assessment, and are presented in separate chapters in this volume. The discussion generated by their remarks is captured here, and will be especially interesting to senior managers who daily must face hard choices about investing in information technology.

## EVALUATING RESEARCH APPROACHES TO IT BUSINESS VALUE ASSESSMENT WITH THE SENIOR MANAGEMENT AUDIENCE IN MIND

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The *Question and Answer Session* began with comments from Benn Konsynski and Charles Kriebel.

### **Opening comment from Benn Konsynski:**

I don't think anybody would disagree with the fact that hygiene in methodology characterizes most of the problems that we have in selecting among approaches. We certainly don't want to stretch any method beyond its utility to inform. If we go back to Kuhn and think about the interpretation of scientific revolutions, the term "paradigm" arises and we take it as dealing with issues of the rules of research or of observation. The paradigm that we are using involves a pattern of explanation so far as we are involved in a paradigm.

IS research efforts form a pattern for explaining the "business value" phenomenon. Often it is very difficult to do so with the kind of rigor we would like. And, often it may be premature, and we may only have weak evidence of a phenomenon in the business arena, and we may need other means of creating a pattern of explanation in advance of the rigor that we might wish to have for full explanation.

Witness the kind of frustration Einstein had with the statistical quantum theory. Researchers were unable to fully explain the behaviors observed, and felt it was a cheat to go to the statistical patterns of explanation. It's not unlike that when we consider the measurement of the business value of investments in information technology.

### **Response from Charles Kriebel:**

The issue with physics, if you will, has been that one of the benefits or advantages that the physicist has -- versus what we have as social scientists -- is data availability. Often the physicist can just leave the equipment running over the weekend, and take the observations on Monday morning.

A couple of years ago, there was a conference of scientists from the natural and the social sciences that was held in Arizona. It included distinguished economists like Ken Arrow, and one of the things that surprised the physicists was how rigorous the economists were, and how demanding they were, in terms of formal models in their analysis. The physicists had thought the economists were doing research more casually, despite the conventional wisdom.

The weakness of just taking a look at isolated incidents -- via cases or field studies, for example -- is that it is hard to try to generalize from them. I think the point that Benn raised in our formal debate about who is to be informed, general management versus academics, is also a real problem. This gets back to the dominance of the financial analysts and the accountants who will push management, perhaps in response to management's demand, for simple procedures and measures. So, we talk about net present value, and the question is: What goes into that calculation? There's nothing wrong with the concept of the time value of money. The problem is filling in the detail for the equations, the requirements, or the procedures.

Let me make one point (and this is not necessarily a dig at the Harvard Business School), but the pioneering concept in the 1980s of those strategic IT cases has been recanted somewhat in the 90's via interviews with many faculty at the Harvard Business School in a recent issue of CIO magazine. Nevertheless, this enabled the field to gain experience in building a cumulative tradition.

A formal model may have short-circuited some of that initial reasoning. Positive theory or research is very important to try to explain and understand phenomena, and I think in many cases, it often has to lead to normative theory.

**Question from the audience:**

Both speakers referred to the role of IT in achieving a strategic advantage in changing the way you do business. But, achieving a strategic advantage of that sort means we're playing a new game. And yet, the complaint is that research hasn't shown that we're playing the old game better.

It seems to me that this is a problem in both approaches. We aren't able to show that IT is giving us an improvement in the old ways of doing things, and yet, the basic advantage of IT is that we're not playing that same game anymore. So, both research approaches seem to somehow be asking the wrong question in that sense.

**Response from Charles Kriebel:**

What would be the right question?

I think there has been some excellent work done at the national level, and this morning Paul Gray, in responding to Arnold Penzias' keynote address at ICIS, cited some of it. The governmental data there is terrible and some of the other analysis applied to it is fairly naive (in the sense of just trying to run regressions and see what happens).

In my own work and the work of others in that area, there has been a conscious effort to look deeper into the issues, as opposed to just trying to, say, see if the investments in personal computers has had an impact on the gross domestic product (or some other

aggregate measure like that) over the last ten years.

**Follow-up question from the audience:**

Well, the kind of models you're talking about will generally tell you about *before* and *after*, assuming that before and after represent the same processes, correct?

**Response from Charles Kriebel:**

Yes. And often this is *not* the case because of the structural changes that are taking place with respect to the introduction of IT, as well as services that were never available.

**Comment from Benn Konsynski:**

Part of my concern is the attribution that is made to criticize the intrinsic value delivered by the technology. Our problems don't lie in determining strategy; they also don't lie in selecting improper technologies. Instead, our problems lie in the *execution* -- in the delivery of those technologies to try to bring value, business service value, to the enterprise. And so it's very difficult, I find, to make judgements in the aggregate that often lend themselves to, or at least, are inferred as criticisms of the investment, or the nature of the investment, rather than the quality of the process of investing in the technologies that we have.

The strategic hits for information technology maybe are poorly explained, but they're nonetheless significant and real. If we hear, ad nauseam, about cases such as American Hospital Supply, still there is something that really did happen there. And there's something else that happened in the airline industry. There's something that has happened in health care. There's something that has happened in the distribution industry. There is an electronic integration taking place across buyer and seller communities in many industries. But we need to pay attention to many of these phenomenon from a business potential standpoint. Ignoring the detailed assessment of the business value technology is warranted in view of the leverage they can create. Yet, we make our judgments based on the things that we're comfortable measuring, on transaction economics and so forth.

We have to judge not only the intent for institutional change, as well as the intent of technological change. We also must clearly pay attention to what measures it benefits and, as Charlie Kriebel points out, the real costs are not usually honestly stated. We don't fully burden the measurements and costs in most of our investments.

**Question from the audience:**

This goes back to a remark that Dr. Kriebel made about accounting measures for effective information technology. Consider the following paradox. Suppose in a community there are two hospitals and we introduce new technology in these hospitals so that all the

patients are able to leave hospitals more quickly, because they are able to get better more quickly. But, because of the competition between the two hospitals, neither of them shows an increased profit on the bottom line. Still, the patients are doing better than they were before.

Are the patients being left out in the analysis? Does the analysis indicate that information technology has no benefit to society?

**Response from Charles Kriebel:**

We often talk about the "spillover benefits" of information technology in circumstances like this. The phrase "spillover benefits" was coined by Tim Bresnahan of Stanford Business School, in a paper that appeared some time ago in the *American Economic Review*. He found that with all the investment in information technology investments made by American commercial banks in the last several decades, in the end it appears that the real benefits went to bank customers. They benefitted from lower prices and increasing service levels, while it was not clear that the bankers received equal returns.

We should include benefits such as those that accrue to hospital patients or bank customers as part of the equation. Certainly we should incorporate them when we perform them at the societal level. The analysis would be incomplete without considering the so-called "consumer surplus". Indeed, there has been some excellent research on these issues in the economics literature as far as information technology goes.

But, how does the CEO explain what happened to the corporation's shareholders? Does he say:

*"Well, we lost money. But if you use this larger equation, society is much better off because now we're all providing better services in a capitalist society."*

**Follow-up question from the audience:**

Maybe it could be that if one hospital improved the technology, and the other did not, then you cannot make the usual accounting assumption of "a going concern": it may not be "going" for long.

**Response from Charles Kriebel:**

That brings me to something which I was going to say before. How do we measure the performance of management? It's *the audience* of the customer services where evaluation has to occur, but that's not all. It's basically *ex post* outcomes that get the most scrutiny. In other words, if the manager does well, we'll see it at the bottom line. If he doesn't, he still may have made all the right decisions.

One could debate this, but look at the situation facing John Akers. Would you blame all of IBM's recent profitability problems on Aker's performance as a manager, or do you say: "No, it's been the economy, it's been competition, or this and that." So, it isn't necessarily a matter limited to the audience we're trying to serve. The technology we're trying to bring to serve our customers interrelates with it. It was there all the time.

**Comment from Benn Konsynski:**

Related to the valuation issue and the specialist, say, on the consumer's side, we're looking for some consumer surplus that's defined by some assessment of the "willingness to pay", or some sense of valuing against the price they're paying for health care that may define a consumer surplus for us. I think that has to be stretched to *all stakeholders* in looking at the environment, not just saying we've got to add the consumers in there.

In fact, we have a full spectrum of stakeholders that need to be brought into the equations, into our analytics, if that's our suggestion in doing so. Whether we're doing ethnographic work, whether we're doing analytics as well, we've got to make some assessment of the broad portfolio of stakeholders and bring in those stakeholders' surplus as a benefit or return. And, then here again, the causality challenge raises its ugly head. Our ability to identify correlates is challenge enough for many of us, let alone trying to make causal arguments.

**Question from the audience:**

One of the things we do frequently in looking at the business value of information technology, as Charles Kriebel claimed, is to boil it down to the value that you get by doing better than your competitors. If one focuses on cars, and looks at information technology invested to promote cost reduction, it often turns out that all your competitors are doing the same thing. You're not increasing business value, but as the earlier question demonstrated, maybe you're increasing social welfare.

How does one go about assessing business value in terms that a manager could use in trying to decipher whether to do something regarding technology?

**Response from Benn Konsynski:**

Here again, I have to be careful I don't cross the border into Charlie's camp in support of formal modeling in some of my responses.

We have a great opportunity in talking to senior managers now. We have their attention much more so than in the past. In part, this is because of the extraordinary proportion of budgets that are going towards something that they're not certain has delivered value to them. Traditionally, they have shied away from cases that are often made via narrow-minded analytics that try to make a broader statement on the lack of delivery of



business value for the investments. But today, I think, they are much more receptive than they were in the past. You can make arguments clearly of necessity and deliver exemplars, and here's where cases do a great service, (or possibly a disservice) in delivering the messages to the community of potential investors.

The problem is that information technology changes what is possible from the business function standpoint. And, the general manager who is ill-attuned to the changes in business potential needs to be educated on the direction of change from an institutional or business standpoint that the technology can create. Cases are often a *very effective* means of getting them to conceptualize, to think, to stretch their imagination and help them challenge their own assumptions that constrain their view or vision of their business.

This is something that the analytics certainly can almost never do -- getting them to challenge their own assumptions or beliefs about the limitations of their own vision for their enterprises, and for their marketplaces. Hence, I think there are ways of persuading via measures and metrics of change, but the nature of the business cases also offer a way to get general managers to perceive, or at least stretch, their understanding of the limits of what is possible (to steal a phrase from Frederick Rodell).

#### **Comment from Charles Kriebel:**

I think that it's clear that management is *results-oriented*. If it's a success, then it's a success and it worked. And, how do you know if a marketing plan, a big advertising campaign, worked? Well, if sales went up it did. If they didn't, it was a bust. But, marketing and the need to advertise is a little more penetrable to a senior manager's mind than saying we're going to invest in fiber-optics or something. It's a question of "What can that do for us?" This is the challenge to us.

Let me also say that typically the cases or stories that are told are stories of success. So a manager can inadvertently look at what is going on and say, "OK, I don't sell beer, but I can see how that might work in panty hose or something else, in terms of a campaign." They may not see the inherent risks of adopting similar tactics.

I think the challenge to us is really to define reasonable metrics, metrics that'll be acceptable to management, and then find out how to apply those to information technology. Despite the pervasiveness of IT, how to make it work well for the firm is still mysterious to many people. I was on sabbatical a few years ago and worked in industry. My boss, who was a senior vice president, had a personal computer in a wooden cabinet right next to his desk. He never turned it on. But it was there, so if you looked in, you'd say this is obviously an organization with modern management .

The other thing I was going to say which I think is a problem in measurement is the "productivity paradox", a point that was made well by Bob Gordon of Northwestern University in his presentation earlier today. There's a lot of wasted technology in this, pure

and simple. One of Gordon's examples is the electronics that are on the top-of-the-line BMW car. There's so much electronics, in fact, that the car comes with a 45-minute videotape on how to operate them, including a 3-minute segment on how to lock & unlock the doors.

This reminds me of something Ted Withington recently told me. He now lives in the city, and Ted doesn't own a car, he rents one. Recently he rented a Chrysler Imperial and when he went to try and turn on the radio, he couldn't figure out how to work it. He took out the manual and in the manual it said that in the glove compartment is a 5-minute audio you can plug into the cassette -- it'll explain how to operate the radio!

Another example is VCRs that you can be programmed to record two years in advance. Well, think about how many shows last a season, which is 6 weeks or so long, let alone two years into the future. (Perhaps the "Cosby Show" is an exception.) Or microwave ovens ... you can program them to go on automatically. I thought the whole idea behind the microwave oven was that when you wanted to cook something, you pop it in for two minutes as opposed to setting it automatically to start, while you're driving home from work on the thruway.

**Comment from Benn Konsynski:**

This is true not only of information technology. We build highways and they result in traffic gridlock. We build airports and we wind up sitting in the airports for long times. Again, my challenge is this: let's make sure we understand our indictment of the technology, versus the designs and the institutional changes that take place (or should take place) to leverage the business value of those technologies.

**Question from the audience:**

Well, I think I've heard a plausible recommendation that people should use methodologies and metrics that are appropriate to the question. But that doesn't seem to map very well with my impression of the information technology literature, which associates personalities with a particular style of research or a particular methodological approach.

Are we looking for the *best, most appropriate methodology* to approach questions of IT value? Or, are we mostly methodological specialists who look first for the data and then later for the questions that can be answered with it?

**Response from Charles Kriebel:**

Obviously, there is a concern that if you are coming as a researcher to address a specific question, you're going to come with whatever your skills are. If I need carpentry work done, I've got to go to the carpenter, but maybe in building a house, we need the carpenter, the plumber, and the electrician. So there's a natural bias there. The question

or the caveat is that you *don't* say that's the complete answer, because you may have left out some of the dimensions of value. A consideration of the characteristics of the implementation effort, for example, are often left out. Economics assumes rationality: it doesn't address that issue even though that may be the difference between whether there's a payoff or there isn't.

**Comment from Benn Konsynski:**

I think that's true. Certainly we all have our biases and historic preferences for certain tools and techniques and it's very difficult as we all know. We can't separate the tool from the user of that tool in making our assessment of value and productivity, even in our own research side of the house. Many of us, though, don't take the time to appreciate alternative methodologies.

I challenge each of you to make sure that you have exercised the full spectrum of analytics. You might consider trying out laboratory research, if only in joint work, for example. But unfortunately, few of us find time to consider or apply multiple research paradigms. I'm most concerned because this prevents communication. It prevents communication within the research community and it prevents communication from the research community to practice. The latter is a very important element because we are an applied field.

I think we fail, in part, because we've become entirely too wedded to one approach. Whether we're skilled at it or not, at least we should broaden our own horizons and experience. I've certainly tried to do that in my career in looking at a variety of approaches, and exercising even those that I completely reject or have had occasion to criticize. I think it's very important from the viewpoint of communicating and understanding results; it also enables us to gain an appreciation of each other's experience. I don't think we're as tolerant of each others practices as we should be.

**Question from Rajiv Banker:**

Then can you explain how we can use lab experiments to study business value?

**Response from Benn Konsynski:**

With that exception in mind, I find it very difficult (except for microcosmic impacts' assessments) to find out how I can leverage lab experiments to look at the business value that is delivered, except from a narrower perspective. It's the same with some of the analytics where I think we need to challenge their appropriateness in offering the broad view that is needed in order to fully explain the phenomenon or even explain the theory of business value.

**Comment from Charles Kriebel:**

Let me just add there's a field that's developed called "human-computer interaction", which is primarily concerned with designing interfaces. Much of that research is directed towards improving communication between the system and the human. There is currently much research interest on "groupware technologies", for example, and a lot of that is experimental. It's either conducted in the lab or it's conducted in a larger experimental design.

**Question from Benn Konsynski:**

But, does it address itself to business value delivery?

**Response from Charles Kriebel:**

No, not immediately, but ultimately it might.

**Question from the audience:**

Can I take the research question in just a slightly different direction from adding value to the information systems area?

The case methodology seems to be fairly well accepted within the IS research area. However, at the university where I'm at we often review research proposals that have been made by various faculty members throughout the university community. Whenever a case study proposal gets into that hopper there, it always ends up on the bottom because the rest of the faculty doesn't seem to think much of that kind of methodology.

I wonder whether IS researchers are well served by using that methodology if we're having that kind of recognition problem within the rest of the community?

**Response from Benn Konsynski:**

Again it's back to who's being informed. The intent of the research is to inform a specific kind of audience.

Within the academic stream, the perception comes from the criticisms that are made *outside* the business school. The reason why Harvard Business School is across the river from the rest of the University (and the reason why most of you are in buildings that are separated from other schools), is in part to isolate us. We're considered to be tainted because we deal with the kind of practice and audience that does not value the rigor or training that we use for our research. It's always a big challenge. It's a big challenge for Promotion & Tenure. I certainly would not recommend that junior faculty (unless they're in particular institutions that may value that approach) to focus entirely on case study-related

fieldwork. I certainly would not recommend that they exercise that as the sole direction, or even the *dominant part* of their portfolio of research.

**Comment from Charles Kriebel:**

Let me add though, you've broadened this discussion so that it goes beyond the business school. Looking at the case method, if you will, as strictly the Harvard Business School writing of cases, I would disagree. I think there's good precedent if we say there's analogy to clinical research in medicine. A lot of that goes on (and I think it's accepted) and a lot of the advances (probably a number of them) that are made in biology have come out of that type of approach. What about archeology? You've got to get out to the field to discover things and to explain things. It may not be labeled the case method, per se, but the *clinical approach* to research or experimentation has a tradition in science, as well.

**Comment from Rajiv Banker:**

Let me second what Charlie said.

This is a method that has been used in a lot of different areas. One area that Charlie left out is astrophysics. Going back many centuries, it was Kepler's detailed and accurate measurement of the solar system that led to all the theories that Newton later developed about gravitation. If he had not had that one case study (the solar system), we very likely would not have had the theory for a while.

The key here is careful measurement, and one of the criticisms that I've come across is that in many case studies and case study proposals, there has not been an attempt to carefully measure what's going on. I think that really makes a difference.

**Comment from Benn Konsynski:**

You have to be careful though and not defeat the whole purpose of doing the case study and field research by expecting that you can *fully* understand how you're going to describe and explore the phenomenon. Ethnographically, research in general has had a big challenge in many of our communities. Even though we have additional experience with case study research in other fields, still the Promotion & Tenure process does not value that approach to research. It's got to be a personal challenge in understanding which of your portfolio methods you're going to exercise as an individual and how you will manage your career.

**Question from the Rob Kauffman:**

I have a question that I think both of the panelists might be able to respond to. It deals with how much we can really expect to get out of methods that intend to measure investments today, yet may not pay off for years in the future. I guess my particular concern

comes when we look at investments in new technologies (e.g., imaging) and I've seen trading work stations invested in very heavily here in the last five years in New York City. Case technology is another area of significant investment in new information technology.

Measurement in a sense becomes a matter of measuring the vision, the entrepreneurship, and the persistence of the people who are there managing those investments to fruition.

How do you apply capital budgeting to that and come up with black ink?

**Response from Rajiv Banker:**

I think that's a critical part of the challenge.

Part of the problem is we're focusing on the technology rather than the institutional change. That's why we need to be measuring it from a *business intent* standpoint. For example:

- \* Where does the business expect it wants to be 5 and 10 years from now?
- \* In what kind of market will it participate?
- \* With what kinds of competition? And in what ways will it compete?
- \* What are the bases of competition?

Those are the questions that we need to raise first in order to make the judgements on the nature of the investments. And we can't get those labeled in advance of those investments.

Now, if we can't do that, then we have no hope of making any intermediary judgments on the quality of any capital investment in a technology platform that involves an infrastructure change. How would we have known that the highway system would transform post-war society? How could we have guessed that the telephone system that we were putting in place would transform the social system and the business environment? What would we have used to aid in making those kinds of judgements?

All too often, we have to measure against a more general vision of a transformation of that institution -- whether it's society, whether it's a marketplace, or whether it's the enterprise itself.

We have to hazard a guess in making some of those investments that we can't fully justify from a near return standpoint.

It's a major challenge, especially when we've got an aging plant, or our bridges are in need of repair. American corporations have tens of millions of lines of COBOL, and those lines may represent an embedded an outdated approach to doing business, an ossified business policy. That's fine, but keep in mind that it's a twenty year-old business policy.

Meanwhile, we have a whole new marketplace for business.

How do we deal with those kinds of investments that we've sunk, as well as in making our judgments on investing in the replacement? We can't face that as a society in terms of our bridges.

Should we expect our corporations to have some greater insights into such questions?

**Comment from Charles Kriebel:**

It's a very good question, but it's not peculiar to IT, as Benn said. You know, the thought of stringing wires all around the country was obviously insane and very impractical at the time.

How do you measure the quality of creativity, imagination?

Obviously, there's an *ex post* test -- you know, that guy was a genius, a visionary, or he was an idiot. But, it's very difficult to do that beforehand.

I don't think the case study approach to research is truly limited by its subjectivity. One of the benefits I was going to mention earlier about case-based research is *discovery*. I believe the HIV virus came out of discovery. That was on a clinical basis and now that's considered one of the most serious medical challenges facing science today.

**Follow-up question from Rob Kauffman:**

One of the recent proposals in IT investment evaluation research has been made by Brian Dos Santos who spoke here earlier. It's related to the use of option pricing. It came out of the research and development literature, which was dealing with the problem of how to go forward with investments for research on pharmaceuticals. It may be a one-in-fifty, or a one-in-a-hundred chance that the research would deliver a drug that really would do something for society, making the firm that developed it very profitable in the process.

Should we be thinking about *pricing technology options*, where you try to build vision of the future that incorporates the possibility of learning, flexibility and abandonment into what you're trying to measure in the present? We know that net present value and straightforward cash flow analysis will never be able to do that.

But, do you see anything on the horizon that represents a methodology for making

that a better process that management can go through?

**Response from Charles Kriebel:**

Where is the market for those options? Is this within the firm?

**Comment from Rob Kauffman:**

Well, there was an interesting example recently in New York City. The firm was called CapitalLink, a joint venture involving J.P. Morgan (the large commercial bank), and David Jeffrey, an entrepreneur with a vision that the move towards automation in the financial markets would ultimately extend to *both* equity and debt trading. Jeffrey's effort was to create an *electronic bond issuance market*.

It failed very rapidly though, because the market really wasn't ready for the electronic issuance of bonds. The institutional players were there, but they just didn't want to commit to it. On the other hand, now that company has failed others have picked up the idea (Electronic Joint Venture Partners, for example) and they're creating a really transformed electronic financial marketplace. I suspect that Jeffrey was *out of the money* because he was too early. So, I think that yes, there is a market for those kinds of options; firms can go in and buy things that have failed with the vision and the managerial expertise of those that are stuck in one company. The same investment in another context can pay off.

**Comment from Charles Kriebel:**

I guess that one of the things that came up in another session at ICIS was about electronic versus the traditional markets, at least those run in the United States for example. The question was: Is risk the issue or is liquidity the issue? And, the specialist obviously provides the liquidity if there are trades that don't clear at the current prices.

**Comment from Benn Konsynski:**

I think it's a part of the whole organization transformation that is taking place, in general, in the institutions of the next century. We need to cast out our old accounting practices, we need to cast out some of our old management practices as well. And, here again, let's not apply the technology, to speed up the mess. Let's take the changes in technology and its management as an opportunity to exercise new management practice for new business processes. I think it's a quite valid option in managing a variety of resources, not just the IT function.

**Comment from Charles Kriebel:**

The only issue there, in terms of not being an accountant, is who's going to do the casting out? It won't be from within, you can believe that.



**Comment from Rajiv Banker:**

This has nothing to do with options. It's more of a comment.

I don't know how many of you saw the Wall Street Journal. Sometime in the first week of last month there was a story about these very studies that Charlie and Benn alluded to -- the ones that show that there's been a *negative impact from IT investment*.

**Comment from Benn Konsynski:**

Gary Loveman, and Roche and Bourne, I think.

**Comment from Rajiv Banker:**

Right.

In the past, what we've seen in places like the Wall Street Journal -- which I think most of you read -- were all *positive* stories. We've never seen anything quite as negative about the payoff of IT investment in the past. I think they have an effect on the perceptions of all of us. Incidentally, there is supposed to be an in-depth article in COMPUTERWORLD -- I'm not sure whether it's shown up or not yet -- that does much the same thing.

What, if anything, can we do to prevent these stories like that from showing up in these places?

**Question from Charles Kriebel:**

Do you mean, only tell good news? Or make sure the bad news is accurate?

**Response from Rajiv Banker:**

Let's make sure the bad news is qualified, as you did in your presentation -- you and I know what the problems are of the datasets they've used, and so forth.

Let's tell it like it is.

**Comment from Charles Kriebel:**

I know from CIOs I've talked to, one of their terrors is when an article like that comes out and the CEO sees it. It gets circled and sent down to some senior guy with a big question mark. The success stories -- they get passed by.

It's always a challenge for the CIO to try and thwart the propaganda, especially the

*negative propaganda.*

**Comment from Benn Konsynski:**

This field is ripe with *hydrofoil literature* -- the fast and shallow, surface articles that are either on the positive side or negative side -- and they usually wind up exactly as Charlie says. This often happens when executives are flying in the plane five miles closer to the sun and reading some insidious airline magazine that has a two page article on how somebody made a big strategic hit. They give you a superficial story that says "throw a terminal on their desk and you've got them for life" -- some aspect like that.

We've had that problem heavily on the good side. We've over-sold the market. We've also over-hung the market in terms of our service delivery and now we have to suffer some of the pangs of that same form of literature and communication, which is only succeeds because of the ignorance on both sides -- the ignorance of the technology people on the business, and the business people on the technology.

That's why I advocate educating and bringing the senior executives into the discussion. I think they benefit from it. I think we will as well.

**Comment from Charles Kriebel:**

To complete the picture, I think that to quote superficial success stories is as bad as quoting the superficial negative ones, or maybe the real disasters.

The circled story comes down and it says: "Why aren't we doing this?"

But, if you look at all those articles in the airline magazines, it's usually written by a freelance writer from Boston or New York or Pittsburgh.

**Comment from Benn Konsynski:**

I think there were three of them from Pittsburgh writers that I saw. My empirical studies have shown that Pittsburgh actually has a higher incidence of them!

**Question from the audience:**

As another "freelance" writer from Boston, I just wanted to comment that I think there are a lot of those fast and shallow studies. But in fairness, I don't think that Wall Street Journal article was necessarily inaccurate ...

**Response from Charles Kriebel:**

I'm not necessarily criticizing Gary's work -- certainly not!



**Follow-up question from the audience:**

To bring this back to some of the things we were talking about in the beginning, an obvious answer to the case study research writer, or econometric research writer, is that both of them have their appropriate areas.

I'd like to ask each of the panelists to talk about some of the areas in which case study research might be useful to identify some of the things that are being mismeasured or not measured at all by econometric studies. It seems that one approach might be to say we will measure certain things in the existing productivity statistics. But, talk to managers and they're actually interested in a different list of issues, or a list that includes some other issues.

I'd like for both of you to comment in the abstract, or ideally, specifically on what some of those other issues that are not being measured by the econometric method.

**Response from Charles Kriebel:**

I think earlier I said that there was a comment made by Peter Keen (and this may end up being a summation) regarding *reference disciplines*.

I think that it's not just economics or case studies. I think it's sociology and other areas of knowledge. I think that academic researchers in the IS area that ignore those reference disciplines do so at their peril, because a lot of the research that's there has a tradition behind it in terms of developing results.

I think the question that will continue to challenge us is: Which of those reference disciplines are relevant?

Don't redo their work badly, but say, how can I extend that analysis to make contributions for this particular domain -- *as opposed to* the economy as a whole. I think everybody here probably knew at the outset that Benn and I are not polemic at either extreme in our views about research. It's clear that there are limitations of some approaches and advantages of other approaches.

I think we want to be aware that there is a *portfolio of research methods* out there.

We should use our best judgement for which applies where, or what are the advantages that will enable us to get the most out of our analysis with a particular methodology in our study of information technology investments.

**Comment from Benn Konsynski:**

We also need to appreciate that we talk about cases at the Harvard Business School in two ways: in terms of what we call a "research case" versus a "teaching case". Most of

what we see in the public domain are what we call teaching cases. These are cases that are used as a basis to stimulate discussion of general management issues, not to make the case necessarily by themselves.

One of my frustrations is that the cases I've found most interesting to work on have been those that have been related to failure. Yet, I find in the marketplace, especially in my portfolio of cases, that you most often select the success stories for your own teaching. These are the success stories that you're either leveraging inside your educational community, or using when you go out to consult.

You're not thinking of my interesting stories which are failures. I also find that those are more poorly received in the general discussion, for some reason, in our case teaching. We might be able to explain that people will come away from even mediocre discussions of successful stories much happier than they do from great discussions of abject failures, which they probably identify with. So we have a challenge in that the cases that are the most widely circulated were not created for the purpose of explaining a business phenomenon, as much as they are to stimulate a discussion on a general management issue.

We're misusing those cases. We're misapplying them in our service as research cases when they were not necessarily intended as such.

**Comment from Charles Kriebel:**

Yes, I think that's a good quest. Failures, I think, are like history. If you ignore the history of failures, you're probably bound to repeat them.

**Closing comment from Rajiv Banker:**

Panel chairs usually have to end by reconciling the different positions. In this case, the two panel members have already reconciled their positions. This allows us to end this session before the Heisman Trophy award ceremonies begin and the football team arrives.

Let me thank the two panel members for their fine discussion!